

Adjudication Application no. 227
Amended adjudicated amount due to accidental error/material miscalculation
under s28(1) & (2) of the Building and Construction Industry Payments Act 2004

Authorised Nominating Authority	Queensland Law Society
Adjudicator	Chris Lenz
Registration Number	J622914
Claimant	Walz Construction Company Pty Ltd
Respondent	QER Pty Ltd as agent for an on behalf of the Stuart Energy R & D Joint Venture
Project	Technology Demonstration Plant, 375 Landing Road, YARWUN, near Gladstone in Queensland
Payment Claim	Served 16 February 2012 for an amount of \$18,063,140.97 including GST
Payment schedule	Served 1 March 2012 for amount of (\$10,485,961.78) including GST
Adjudication Application	15 March 2012
Adjudicator's Acceptance	20 March 2012
Adjudication Response	23 March 2012
Adjudication Decision	4 May 2012, adjusted on 31 May 2012
Adjudicated Amount	\$9,559,555.94 including GST
Due Date for Payment	31 March 2012
Rate of Interest	10%
Apportionment of Adjudication Fees	Claimant 50% Respondent 50%

Table of Contents

A.	DECISION	3
B.	REASONS	3
C.	Background.....	3
D.	Application to an ANA and appointment of Adjudicator	5
E.	Material provided in the adjudication.....	5
I.	Claimant's Material	5
II.	Respondent's Material.....	6
F.	Threshold issues.....	6
III.	Missing submissions	6
IV.	Adjudication application service out of time issue.....	7
V.	Service of statutory declaration of Richard Patterson out of time and purported EOT	9
VI.	Procedural fairness.....	10
G.	The Construction Contract.....	11
H.	Payment Claim	13
I.	Payment Schedule.....	15
J.	Due date for payment	15
K.	Rate of interest	16
L.	Basic and essential requirements and substantive issues for consideration	16
M.	Findings of fact of some key events, and their surrounding circumstances	17
VII.	Signing of contract and dates identified in the contract, and some key aspects of it.....	18
VIII.	Meeting between claimant and respondent on 30 March 2010	20
IX.	The respondent's 22 June 2010 letter and the follow up attachments	21
X.	The respondent's 1 July 2010 letter and attached construction schedule.....	23
XI.	The claimant's 14 July 2010 letter and programme.....	26
XII.	The respondent's 1 September 2010 letter and attached construction schedule	28
N.	Decision on the issues.....	30
XIII.	The respondent's right to levy liquidated damages	30
a.	GC 46.7 provides for the claimant's indebtedness for LD's and separable portions	32
b.	Was there a date for practical completion, agreed or directed	33
c.	Whether the respondent took control of the construction program and directed the work	33
d.	Whether by not apportioning LD's for the separable portions, rendered the LD's uncertain.....	36
e.	Whether the LD's are a penalty	37
f.	Whether the respondent is estopped and/or waived its rights to LD's	38
g.	What, if any, is the appropriate amount of LD's.....	48
XIV.	The claimant's rights to extensions of time.....	48
XV.	The respondent's reasons for not paying delay damages associated with EOT's	59
O.	The amount of the progress payment	61
XVI.	Schedule of rates items.....	62
XVII.	Variations.....	65
XVIII.	Amount of delay damages	75
XIX.	Amount of liquidated damages and backcharges	77
XX.	Summary of the adjudicated amount.....	78
P.	Authorised Nominating Authority and Adjudicator's fees.....	78
Q.	Other submissions	78
XXI.	- Annexure CGL 1 tabulation and calculation of the adjudicated amount	79

A. DECISION

This is a decision made under the *Building and Construction Industry Payments Act 2004* ("BCIPA"), and in respect of the claimant's payment claim, I decide that:

- the amount of a progress payment be made by the respondent to the claimant is the adjudicated amount,
- the date upon which the payment claim is due,
- the rate of interest at the rate of interest, and
- the parties are liable to pay the adjudication fees (being the fees of the adjudicator and the authorised nominating authority) in the proportions,

shown on the first page of this decision.

B. REASONS

C. Background

1. Waltz Construction Company Pty Ltd (referred to in this adjudication as the "claimant") was engaged by QER Pty Ltd as agent for the Stuart energy R and D joint-venture (referred to in this adjudication as the "respondent") to carry out a constructability review, value engineering (construction planning) and early works under Stage 1, and if so ordered, to carry out fabrication and construction in Stage 2 of a shale to oil technology demonstration plant ("TDP") near Gladstone in Queensland (the "work").
2. The Claimant completed stage 1 of the contract and was ordered to carry out fabrication and construction under stage 2.
3. Delays to completion of the contract were alleged with the Claimant arguing that the:
 - (i) late delivery of design drawings;
 - (ii) ordered stand downs;
 - (iii) failure to provide permits to work in an area is exclusively controlled by the respondent;
 - (iv) delay in provision of free issue items for installation by the Claimant;
 - (v) failure by the respondent to be energised electrical circuits in the Sour Water Area;
 - (vi) general delay and disruption caused by the respondent directing the scheduling of the worksresulted in claims for extensions of time under clause 46 of the contract and consequential delay and disruption damages under clause 47 of the contract.
4. The respondent alleged that the claimant had delayed the construction of the work such that:
 - (i) the respondent was entitled to levy liquidated damages in the sum of \$6,069,000.00;
 - (ii) the claimant was not entitled to extensions of time and consequential delay damages for a number of reasons including the assertion is that the Claimant was time-barred.
5. There were also contests about variation and amounts claimed under the contract's schedule of rates regime.
6. Up until the final payment claim dated 16 of February 2012, the respondent had certified a contract sum of \$40,890,617.12 (plus GST).
7. On 16 February 2012 the claimant served a payment claim claiming a total contract sum of \$57,311,654.36 (plus GST). The payment claim amount was \$16,421,037.24 (plus GST) after having deducted the contract sum of \$40,890,617.12.
8. In response to the payment claim the respondent provided a payment schedule stating that a negative amount of \$-10,485,961.78 was payable.
9. The difference between the payment claim and payment schedule amounts resulted in the payment dispute.
10. The payment dispute was referred to adjudication on 15 March 2012 and on 16 March 2012 the claimant served the adjudication application on the respondent.

11. After the application was made, on 19 March 2012, the respondent's solicitors wrote to the QLS inviting it to decline the application on the basis that:
 - (i) the application was invalid because the claimant had served the adjudication application documents on the respondent on 16 March 2012, i.e. on the 11th day after receipt of the payment schedule, which it argued was too late; and
 - (ii) the application served on the respondent had not contained the second statutory declaration of Richard Paterson.
12. On 19 March 2012, the QLS wrote to the respondent's solicitors advising that:
 - (i) in its view the application was valid as the application had been served on the respondent on the next business day after it had lodged the application with the QLS; and
 - (ii) the second statutory declaration of Richard Paterson had been delivered to the QLS; and
 - (iii) the matter had been referred to an adjudicator and it was awaiting acceptance from the adjudicator.
13. On 19 March 2012, the claimant delivered what it said was another copy of the second statutory declaration of Richard Paterson to the Respondent. The claimant said this document was part of the adjudication application to the QLS.
14. On 23 March 2012, the respondent delivered its adjudication response to me with confirmation that a copy was being served on the claimant at that time.
15. On 26 March 2012, I reviewed some of the material and discovered that the even number pages of the respondent's submissions were missing (the "*missing submissions*").
16. I therefore wrote to both parties asking for submissions under section 25(4) of the *Building and Construction Industry Payments Act 2004* ("BCIPA") as to whether the respondent could now provide those *missing submissions*. I also asked for the *missing submissions* from the respondent, as well as the claimant's submissions in response to those *missing submissions* at times specified in the letter. These are my "first request for submissions".
17. On 26 March 2012 I received the respondent's *missing submissions* together with its submissions as to why I ought to consider them (the "respondent's additional submissions 1").
18. On 28 March 2012, I received the claimant's submissions as to whether I could consider the *missing submissions*, together with its response to them (the "claimant's additional submissions 1").
19. Thereafter, having reviewed the statements provided by both the claimant and respondent, I was of the view that insofar as the issue of liquidated damages was concerned, the factual material in the statements raised the issue of estoppel and/or waiver and neither party had provided any submissions on the point.
20. Accordingly, on 12 April 2012, I wrote to the parties in the following terms (my "second request for submissions"):

"In reviewing the statutory declarations and statements in relation to liquidated damages, the issue of waiver and/or estoppel has emerged from the facts, which does not appear to have been canvassed by either party in their submissions.

Under section 25(4) of the Building and Construction Industry Payments Act 2004 (the "Act"), I request that:

1. *both the Claimant and Respondent provide me and the other party with submissions by 12 noon on 16 April 2012:*
 - a. *Having regard to the facts provided in the statutory declarations and statements, whether the Respondent is estopped from claiming liquidated damages, and/or has waived its rights to do so;*
 - b. *If so, provide submissions supported by authority in support of those submissions;*

2. *the Claimant and Respondent thereafter provide submissions in response to the other parties' submissions by 12 noon on 18 April 2012 to me and the other party.'*

21. Before 12 noon on 16 April 2012, I received submissions from both parties about estoppel and/or waiver in relation to liquidated damages (called "additional submissions 2(a)");
 22. Before 12 noon on 18 April 2012, I received submissions from both parties in reply to the other's additional submissions 2(a) (called "additional submissions 2(b)").

D. Application to an ANA and appointment of Adjudicator

23. The claimant applied to the Queensland Law Society ("QLS") on 15 March 2012 for adjudication. By letter dated 16 March 2012 QLS referred the adjudication application no. 227 for me to determine.
 24. QLS is an Authorised Nominating Authority under BCIPA and I am a registered adjudicator under BCIPA with registration number J622914.
 25. By letter dated 20 March 2012 sent by facsimile to the claimant and to the respondent, I accepted the Adjudication Application and thereby became the appointed Adjudicator.
 26. I find therefore that an adjudication application was made to an authorised nominating authority on 15 March 2012, and that there was a reference to an appropriately registered adjudicator within the time limits prescribed under BCIPA.

E. Material provided in the adjudication

27. Each party provided me with boxes containing the lever arch folders of material for consideration. The claimant provided these folders in 9 boxes, and the respondent in 3 boxes. I have listed each document for identification so that the parties are able to identify the relevant documents referred to in these reasons, if I have felt the need to do so.
 28. I asked for submissions from the parties on two occasions, as identified in the *Heading A. Background* above and the parties' submissions are part of the adjudication material to which I have regard.

I. Claimant's Material

The adjudication application documents in 9 boxes comprising the following:

- (i) Adjudication Application served on 15 March 2012 for \$14,031,441.17 (plus GST) with the claimant's submissions (the "application") comprising 55 pages together with the final claim progress certificate in spreadsheet format, as well as a table relating to money and bond markets.
- (ii) Final payment claim volumes 1 to 25 ("FPC 1 to 25").
- (iii) Statutory declarations of:
 - (a) David Noel Fraser ("DNF");
 - (b) James Scott Belding ("JSB");
 - (c) Nathan Luke Smith (1) ("NLS1");
 - (d) Nathan Luke Smith (2) ("NLS2");
 - (e) Shane Leslie Emerson ("SLE");
 - (f) Kym Anderson ("KA");
 - (g) Mark Oswald Gregory ("MOG");
 - (h) Richard Wayne Patterson (1) ("RWP1");
 - (i) Richard Wayne Patterson (2) ("RWP2");
 - (j) Richard Wayne Patterson (3) ("RWP3");
 - (k) John Bell ("JB").
- (iv) Hinds Blunden report ("HB");
- (v) the claimant's additional submissions 1;
- (vi) the claimant's additional submissions 2(a) and 2(b).

II. Respondent's Material

3 boxes of lever arch folders constituted the adjudication response (the "response") comprising the following:

- (vii) The adjudication response submissions (odd pages only) dated 23 March 2012;
- (viii) Expert report by Mr George Tsipis, Evans and Peck ("GT");
- (ix) Witness statements of:
 - (a) Jacob Dominic ("JD");
 - (b) Nathan Mitchell ("NM");
 - (c) Roger Bourne ("RB");
 - (d) Sven Jarver ("SJ");
 - (e) David Cavanagh ("DC");
 - (f) Donald Grant (the "DG") within 2 folders of exhibits;
 - (g) Annexures to witness statements comprising 14 folders in 2 boxes;
- (x) The respondent's additional submissions 1, which included the *missing submissions*;
- (xi) the respondent's additional submissions 2(a) and 2(b).

F. Threshold issues

29. The respondent raised a number of important issues that required careful analysis because they go to the validity of the adjudication process, and I have spent some time carefully dealing with these matters to ensure that the adjudication process is validly conducted.
30. These submissions needed to be dealt with before the adjudication could commence, because they went to whether the matter could be adjudicated.
31. The respondent raised two *jurisdictional issues* which are first alluded to on page 6 of the "*missing submissions*." These issues are:
 - (i) the adjudication application was served out of time under BCIPA;
 - (ii) the service of the second statutory declaration of Richard Paterson was out of time, and there could be no extension of time given by the claimant or adjudicator.
32. The respondent asserted that the two jurisdictional issues meant that any adjudication that proceeded would be a nullity, and that the adjudicator had no right to look to the respondent for payment of their fees and expenses for any work done by the adjudicator.
33. The first of the above jurisdictional issues had been raised with the QLS before I commenced adjudication, and the second question had been raised as a matter of procedural fairness with the QLS. The QLS rejected those submissions and the reference to adjudication was affirmed.
34. In my opinion, the QLS does not have the power to make decisions in relation to jurisdiction, so that I am obliged to do so in this adjudication.
35. However, in order to deal with these issues, I need to first consider whether the "missing submissions" may be considered by me, when they were not provided at the time of service of the adjudication response on 23 March 2012.
36. Both parties raise the issue of *procedural fairness*. Initially the respondent raised procedural fairness with the QLS regarding the missing Richard Paterson's second statutory declaration. Furthermore, the respondent raised the necessity for me to consider the missing submissions on the basis of procedural fairness. The claimant raised the issue of procedural fairness in the event that I were to disallow consideration of the second statutory declaration of Richard Paterson. Accordingly, I consider the issue of *procedural fairness* under the heading of threshold issues as well.

III. Missing submissions

37. This issue falls under the heading of *procedural fairness*, which is dealt with below after the jurisdictional issues. However, discussion about the *missing submissions* is essential at this

- stage because contained within them is the foundation of the one jurisdictional issue raised by the respondent.
38. Section 25(3)(a)(i) of BCIPA provides that adjudication must be carried out quickly and within 10 business days of receipt of the adjudication response unless an extension is agreed by both parties. An extension of time has been granted by the parties until 4 May 2012.
 39. I find that the adjudication response was provided on 23 March 2012, and when I commenced adjudication on 26 March 2012, I found that it did not contain the *missing submissions*.
 40. Accordingly, I asked for submissions from the parties under section 25 (4) of BCIPA:
 - (i) whether the respondent was entitled now to provide the *missing submissions* (this was asked of both parties);
 - (ii) provision of the *missing submissions* by the respondent;
 - (iii) provision of the claimant's submissions in response to the *missing submissions*.
 41. In its submissions dated 26 March 2012, the respondent did not deal with whether it was now entitled to provide the *missing submissions*, but rather relied upon me to exercise my power to request the even numbered pages (which I had already done in my request of 26 March 2012) under section 25(4)(a) of BCIPA because the respondent said:
 - (i) the odd numbered pages were provided within the time limits and it was clearly the intention of the respondent to provide both odd and even pages at that time (the "intention");
 - (ii) the even numbered pages were omitted as a result of a clerical error which provided no advantage to the respondent (the "clerical error");
 - (iii) the adjudicator would be assisted in having the complete adjudication response submissions including both odd and even numbered pages ("assisting adjudicator");
 - (iv) to deny the respondent the opportunity to provide the even numbered pages would greatly prejudice the respondent and deny the respondent a fair hearing (the "prejudice");
 - (v) such prejudice would be disproportionate to the nature of the innocent photocopying error (the "disproportionate prejudice");
 - (vi) there is clear power under BCIPA to remedy the error (the "power");
 - (vii) there is no prejudice to the claimant in allowing the even numbered pages to be received (the "no prejudice to claimant").
 42. In its submissions dated 28 March 2012, the claimant stated that it did not believe the respondent was now entitled to provide the submissions because it was out of time.
 43. However, the claimant conceded that it would be fair and reasonable for the *missing submissions* to be accepted by the adjudicator in exercising his discretion under section 25(4) of BCIPA.
 44. The claimant also challenged the respondent's different approach to the alleged late delivery of the second statutory declaration of Richard Patterson to which I will turn later.
 45. Having regard to, and accepting the seven reasons identified by the respondent referred to above, and the concession by the claimant that it would be fair to do so, I will consider the *missing submissions* in this adjudication as a matter of procedural fairness.

IV. Adjudication application service out of time issue

46. I was only able to make sense of the Respondent's submissions about this point once the *missing submissions* were able to be considered by me as a matter of procedural fairness.
47. In essence, the respondent argued that the adjudication application was served out of time, because this occurred on the 11th day after the payment schedule had been provided to the claimant.
48. It appears as if the respondent concedes [at paragraph 5.1 (dd) on page 13 of its submissions] that the adjudication application submissions were delivered to the QLS on 15 March 2012. This concession is based on the letter from QLS dated "20 March 2012" (sic)[the actual date was 19 March 2012], in which the QLS advised that the application had been served on 15 March 2012. In any event I find the QLS's stamp on the first page of the claimant's

- submissions with a date stamp of 15 March 2012, so I am satisfied it was delivered to the QLS on this date.
49. Having regard to paragraph 1.1.1 (b) of the claimant's submissions [page 1], and page 5 of the respondent's submissions, I find the parties both stated that the payment schedule was served on 1 March 2012. I find that this is the date of service of the payment schedule.
 50. I have already found that the adjudication application was delivered to the QLS on 15 March 2012 which is 10 days after the payment schedule was delivered. I therefore find that this is within the time required under section 21(3)(c)(i) of BCIPA.
 51. The reason for having to make this finding is the respondent's submissions in:
 - (i) paragraph 5.1(i) which states that "there is no proof in the adjudication application that it was made within 10 business days allowed under BCIPA"; and
 - (ii) paragraph 5.1(o)(i) which states that "if the adjudication application was served on the Law Society at the same time as it was served on QER, it was served 11 business days after the service of the payment schedule and was therefore served out of time under BCIPA.
 52. I therefore reject the respondent's submission, if it is still being made, that the adjudication application was out of time.
 53. This brings one to the key question of whether service of the application was out of time, as submitted in the respondent's submissions paragraph 5.1(o)(ii) which followed on from the submissions in paragraphs 5.1(h), (j), (k), (l), (m) and (n).
 54. The respondent's submissions do not identify a particular time limit within which the adjudication application is to be served. Section 21(5) merely states that "A copy of the adjudication application must be served on the respondent."
 55. The respondent then referred to section 38(4) of the *Acts Interpretation Act 1954* which provides that, "the thing to be done as soon as possible". However, no authorities were provided to explain that "as soon as possible" meant that service had to be on the same day as the lodgement of the adjudication application.
 56. I am not persuaded that this legislation imports a requirement into BCIPA that service of the adjudication application must be made at the same time that the application is made.
 57. The claimant in its 28 March 2012 submissions in paragraph 1.3 stated that for there to be a jurisdictional requirement about the service of an adjudication application, BCIPA must first specify an applicable time limit, and no such time limit has been identified.
 58. The respondent referred extensively to the case of *Chase Oyster Bar Pty Ltd v Hamo Industries Pty Ltd* (2010) 78 NSWLR 393 ("*Chase*") in which the New South Wales Court of Appeal stated that time limits under the NSW Act are a jurisdictional requirement. The particular provision under consideration in that case was section 17(2)(a) of the NSW Act, and the Queensland equivalent is section 21(2) of BCIPA.
 59. This s21(2) provision prevents an adjudication application from being made unless the claimant has complied with a 20 day time limit, following the due date for payment, within which to warn the respondent of its intention to make an adjudication application. There is also a notice requirement to the respondent that it has 5 business days within which to provide a payment schedule.
 60. The respondent suggests that this provision is closely analogous to the notice of the adjudication application in this case. I cannot agree, because there is no time limit specified for service of the application in s21(5) of BCIPA, whereas in section 17(2)(a) of the NSW Act, and section 21(2) of BCIPA, there are specific references to particular time limits that are specifically identified. The Court of Appeal merely confirmed that these specified time limits needed to be strictly adhered to. Accordingly, I am not convinced that *Chase* applies in this case because no time limit is specified for the service of the adjudication application.
 61. There is a time limit prescribed in BCIPA for an adjudication response which is coupled with the date of service of the adjudication application to which I will refer later, and in my view this provision suggests that the time limits under BCIPA are activated once service of the adjudication application has occurred.

62. The respondent then relied upon the QLS website [in paragraph 5.1(l) of its submissions], which provides that "A copy of the adjudication application must be served on the respondent at the same time that the application is sent to the ANA, and that evidence of service should be provided to the ANA."
63. I cannot find any statutory basis in BCIPA allowing the QLS to prescribe times of service of adjudication application, because no such time limit is provided in BCIPA. I therefore find that the QLS website cannot prescribe when service of the adjudication application is to be made. I therefore reject the respondent's submissions in paragraph 5.1(o)(ii)(B) that the QLS's requirements are indeed requirements under BCIPA.
64. Furthermore, in my view, BCIPA implicitly acknowledges that service of the adjudication application may not occur at the time of service on the ANA, because in section 24(1) of BCIPA, the adjudication response must be provided within the later of two possible events, being either within five days after the date of service of the adjudication application, or within two days after the adjudicator has accepted the nomination.
65. In my view, it is therefore possible for an ANA to have appointed an adjudicator who has accepted the nomination before the adjudication application is served on the respondent. In this event, BCIPA constrains the adjudication from commencing until the respondent has five business days to provide its adjudication response, after it has received the adjudication application.
66. I therefore find that there are time constraints in BCIPA relate to the making of an adjudication application, which are also enlivened after the date of service of the adjudication application, but do not provide a time limit for the time of service of the adjudication application.
67. The claimant in its submission 1.3 dated 28 March 2012 relied upon the QLS's 19 March 2012 response in rejecting the respondent's assertions that the service was out of time.
68. I find that there is no time specification for the service of the adjudication application in BCIPA, nor can such a time be imported by virtue of the *Acts Interpretation Act*, and in addition I find that the QLS cannot specify time for service of the adjudication application.
69. I therefore reject the respondent's submissions on this point and find that the adjudication application was not served out of time, which means that there is jurisdiction for me to proceed to adjudicate.

V. Service of statutory declaration of Richard Patterson out of time and purported EOT

70. In paragraph 5.2 of the respondent's submissions, the respondent asserted that it did not receive the one of the statutory declarations of Mr Paterson ("RWP2") on 16 March 2012. It stated that the annexures to Mr Paterson's statutory declaration were provided, but not the statutory declaration itself.
71. On 19 March 2012 the respondent in its complaint to the QLS identified this deficiency as part of its submission and:
 - (i) asked whether the QLS had been provided with the statutory declaration;
 - (ii) stated that because the variations were a significant item in the dispute, that it was a substantial matter of procedural fairness.
72. The respondent did not raise this deficiency as a jurisdictional point with the QLS, but referred to it as a *procedural fairness* question; whereas now it is asserting it is a matter of jurisdiction. Some of these assertions relating to jurisdiction are contained in page 14 of the missing submissions that I have allowed the respondent to provide as a matter of procedural fairness.
73. On 19 March 2012 the QLS confirmed that it had RWP2 in box 8 of its material.
74. On 19 March 2012, in response, the claimant provided another copy of RWP2 to the respondent, whilst maintaining its assertion that it had been provided to the QLS. In addition, it added that it was "prepared to accept that the time under section 24(1)(a) of the Building and Construction Industry Payments Act 2004 runs from today and will not assert that the respondent was served earlier."

75. In paragraph 5.2(d) of the submissions, the respondent conceded that it received RWP2 on 19 March 2012.
76. In box 8 of the material delivered to me, I found RWP2 in question; however, it was in the folder volume 5 of 5, rather than in volume 1 of 5. Nevertheless, it had been provided in my material received from the QLS.
77. Given that the respondent says that it did not receive this document, which I find was provided to both QLS and therefore the adjudicator, I draw the inference that this deficiency is likely to have been caused by a clerical error because it was necessary to be served on the respondent.
78. The respondent asserts in paragraph 5.2(e) of its submissions, that there was no ability for a claimant to extend time for the service of an adjudication response under BCIPA, nor it is said could the adjudicator do this.
79. I do not agree that the Claimant is purporting to extend the time for the service of an adjudication response under BCIPA. In my view, the Claimant stated that the date of service of the adjudication application be taken to run from 19 March 2012 (when RWP2 was delivered), such that the time within which to provide an adjudication response would run from that date, and the claimant would not assert that the respondent was served with the adjudication application on the earlier date of 16 March 2012.
80. Given that I have already found under the heading IV "*Adjudication application service out of time issue*" that there is no time prescribed in BCIPA for the adjudication application to be served, it is not a question of extending any time for service. It is open to find that the date of service of the adjudication application to be 19 March 2012, which then required an adjudication response to be provided within five business days. Accordingly, I do not agree with the respondent that this omission of RWP2 is a matter which goes to jurisdiction.
81. However, I consider that the RWP2 issue is a matter of procedural fairness that needs to be considered by me in this adjudication, as a matter of prudence, because the respondent had raised the procedural fairness issue with the QLS, and in my view it is important that the respondent (as well as the claimant) is accorded procedural fairness by the adjudication process. I discuss this issue under the next heading below.

VI. Procedural fairness

82. I do not find that the respondent was prejudiced by the receipt of RWP2 on 19 March 2012, because it had five business days within which to lodge an adjudication response, which is one of the time limits under BCIPA. The respondent's complaint to the QLS on this issue was one of procedural fairness, rather than a question of jurisdiction which it now raises.
83. The claimant cured this issue of procedural fairness by providing RWP2 on the next business day after having served the adjudication application. It also conceded that 19 March 2012 would be the date of service of the adjudication application.
84. At paragraph 5.2(h), whilst reserving its rights, the respondent then provided its submissions in the adjudication response, which countered the assertions in RWP2 because RWP2 dealt with the variation claims and the schedule of rates claims made by the claimant. In paragraph 11 of the adjudication response commencing on page 73 through to Page 80, the Respondent dealt with the schedule of rates claims, and paragraph 12 of the adjudication response commencing on page 81 through to 97 dealt with the variation claims. Therefore, in my view, it responded in detail to the RWP2 assertions, so that I do not find it had been disadvantaged.
85. Moreover, it is also necessary for me to consider the issue of procedural fairness to the claimant if I am unable to consider RWP2.
86. In the claimant's submissions dated 28 March 2012, the claimant conceded that it was fair and reasonable for the respondent's *missing submissions*, which had been omitted due to a mistake of the respondent, to be accepted in full by me. These *missing submissions* objected to the purported late delivery of RWP2 as a matter of jurisdiction, when the respondent's own submissions to the adjudicator were deficient in not having the even numbered pages

provided to the adjudicator. The only basis upon which the *missing submissions* have been allowed is because of the discretion exercised by me in allowing them as a matter of procedural fairness.

87. In the last paragraph of the claimant's letter under heading 1, the claimant said that "In saying this we note that the respondents have adopted a very different approach to the alleged late delivery of the second statutory declaration of Richard Patterson to it, asserting that Waltz should be shut out from relying on that evidence, even though it is central to many claims requiring a determination in this adjudication, and despite it having formed part of the adjudication application lodged with the Law Society."
88. If I were to not consider RWP2 that has been provided to me from the QLS, this would cause significant prejudice to the claimant, because it would make the attachments to that statutory declaration very difficult to follow. Furthermore, such prejudice to the claimant would be disproportionate to the nature of the clerical error.
89. Given that the Respondent received the document on 19 March 2012 well before it provided its adjudication response, I do not find that the respondent has been prejudiced, particularly when it has emerged that the five volumes of attachments were provided in the application.
90. I also find, by inference, that it was the intention of the claimant to have this document served on the respondent because it was provided to the QLS.
91. I find that as a matter of procedural fairness, it is essential that I consider RWP2 for the same reasons that I allowed the *missing submissions* to be considered by me in this adjudication. The respondent had made seven submissions to me as to why I should consider the *missing submissions* in this adjudication, and in my view they apply equally to the consideration of RWP2.
92. In order to clarify this decision I find that:
 - (i) it was the *intention* of the claimant that RWP2 was to be provided with the adjudication application because it had been provided to the QLS;
 - (ii) its omission was likely to have been caused by a *clerical error*;
 - (iii) my being able to have regard to RWP2 would *assist me in understanding the material* that had been provided in box 8 dealing with variations;
 - (iv) the claimant would be *prejudiced* if I did not consider RWP2, and there would be *disproportionate prejudice* to the claimant, given that the respondent was provided with the document on 19 March 2012 and had the opportunity to, and indeed did, make submissions countering RWP2 in its adjudication response;
 - (v) I find there is *no prejudice to the respondent* by me being able to consider RWP2, because it was a document that was provided to the QLS and as a matter of procedural fairness the respondent had the document well before it provided its adjudication response.
93. Accordingly, as a matter of procedural fairness I will consider RWP2 as part of the adjudication application.
94. I've therefore answered the three threshold issues that have arisen, and I find that I have jurisdiction to adjudicate this matter, and the first matter to address is that of the construction contract to which I now turn.

G. The Construction Contract

95. The first statutory declaration of Richard Wayne Patterson ("RWP1") has Annexure 1 attached to it which the Claimant says is the construction contract. It comprises six sections, viz:
 - (i) Section 1 - Formal instrument of agreement dated 4 January 2010;
 - (ii) Section 2 - Special conditions of contract;
 - (iii) Section 3 - General conditions of contract;
 - (iv) Section 4 - Contract Price and schedules;
 - (v) Section 5 - Principal's project requirements ("PPR");
 - (vi) Section 6 - Scope of works.

96. Tab 24 in folder 2 of the adjudication response contains essentially the same documents. However, there are some minor differences which appear to be as a result of the respondent providing later versions of the documents in some instances. I find that in paragraph 3.10 of Roger Bourne's statement, he agrees that the correct contract documents are attached in Annexure 1 of RWP1, except that there were no PPR's in Section 6 of the contract. I will ignore the PPR in section 6, because it is already in Section 5 of the contract.
97. If the differences are material to the decision, I will decide which is the appropriate version of the document to which I should have regard, and will make a brief statement in my reasons as to why that document has been chosen.
98. I find that the construction contract essentially:
- (i) was dated 4 January 2010 between the claimant and the respondent;
 - (ii) involved the development, design and construction of the technology demonstration plant ("TDP") at 375 Landing Road, Yarwun, Queensland for which the claimant was obliged to carry out work on the TDP in two stages:
 - (a) stage 1 – constructability review, value engineering (construction planning) and early works; and
 - (b) stage 2 – fabrication and construction.
99. The contract price changed because of the history of the project.
- (i) I find that the original contract sum (excluding GST) was \$18,674,022.44 (which I find in Annexure 1, schedule 4 of section 4 of RWP1). This amount comprised a lump sum of \$4,230,931.48 and a schedule of rates (provisional sum) of \$14,444,090.96;
 - (ii) However, thereafter, the parties negotiated a different contract price, and from the final payment claim in Annexure 6 of RWP1, I find that the contract sum for stages 1 and 2 was \$26,744,160.31, and this amount agrees with schedule 8 in section 4 of the respondent's material in tab 24, so I find this is the baseline contract sum which the parties had agreed when stage 2 of the contract was given to the Claimant.
100. The formal instrument of agreement identified the documents comprising the contract and in clause 2 of that document it stated that if there was *"any conflict or inconsistency between the documents forming the contract the order of precedence shall be as listed above."*
101. Clause 5 of the formal instrument of agreement provided that, *"The contract may be modified, changed or amended from time to time strictly in accordance with the provisions stated in the contract. No modification, change or amendment of the contract shall apply unless there is a document evidencing such modification, change or amendment executed by each party."*
102. The TDP was to determine the potential for the processing of shale oil into liquids or gases for commercial sale, and it is necessary for me to determine whether this is a "construction contract" under BCIPA.
103. Schedule 2 of BCIPA states that a **construction contract** means a "contract, agreement or other arrangement under which one party undertakes to carry out *construction work* for, or to supply related goods and services to, another party."
104. I therefore need to be satisfied that the work that the claimant undertook was *construction work* under BCIPA and in paragraphs 49 through to 51 of the claimant's submissions (and which are not controverted by the respondent), the claimant demonstrated that its work fell within the definition of construction contract because it involved the carrying out of *construction work* and supplying *related goods and services* within the meaning of BCIPA.
105. The claimant referred to section 10(1)(a) of BCIPA to establish that the claimant undertook *construction work* because it involved *"the construction... of buildings or structures; and section 10(1)(d) which refers to "any operation that forms an integral part of, or is preparatory to... the prefabrication of components to form part of any building, structure or works, whether carried out on-site or off-site"*
106. In establishing that it supplied *related goods and services*, the claimant referred to section 11(1)(a) as regards goods being *"materials and components to form part of any building,*

structure or work arising from construction work", and section 11(1)(b) as regards services being "the provision of labour to carry out construction work".

107. I am satisfied from the claimant's analysis that the claimant carried out *construction work* and supplied *related goods and services* which means that the contract whereby it undertook to carry out this work is a *construction contract* within the meaning of BCIPA.
108. I am also satisfied from the claimant's submissions in paragraphs 50 to 52 (which are not controverted by the respondent) that the contract does not fall within any of the exceptions to BCIPA and that no notice of claim of charge has been given under the *Subcontractors' Charges Act 1974*.
109. Accordingly, the contract, which was for work near Gladstone in Queensland, is amenable to adjudication, and I must now consider the payment claim and payment schedules as part of the adjudication process to which I now turn.

H. Payment Claim

110. In paragraph 16 of RWP₁, Mr Paterson attached the final payment claim in Annexure 6 and he referred to 25 lever arch folders accompanying the claim. The payment claim was dated 16 February 2012, and addressed to the respondent, together with three other entities identified in the covering letter.
111. In paragraph 76 of the claimant's submissions, the claimant asserted that all 25 volumes of the final claim was served on the registered office of the respondent and its joint-venture principals. This is confirmed in paragraph 15 of RWP₁, where Mr Paterson swears that the documents were served.
112. In paragraph 77 of the claimant's submissions, the claimant asserted that service of it have not been challenged by the respondent, and I find nothing in the submissions of the respondent to deny that it had been properly served with the payment claim.
113. I therefore find that the payment claim was served on the respondent on 16 February 2012.
114. I note that at Annexure 7 of RWP₁, in response to a request from the respondent, the claimant provided the payment claim in electronic format to the respondent. I note in paragraph 19 of RWP₁ that Mr Paterson says that a copy of this document was provided in the attached memory stick to the adjudication application which I have been given.
115. I accept Annexure 6, and its electronic equivalent in Annexure 7 as the payment claim which I must consider. I have compared the electronic Excel spreadsheet to the paper document in Annexure 6 and am satisfied that it is the same document. I note that the respondent does not take issue with this electronic document in its submissions, so I am satisfied that it accurately reflects the final payment claim. I am also satisfied that on this spreadsheet, the amounts that the respondent was prepared to pay are also correctly identified. This enabled me to glean which items were in dispute.
116. I have used the electronic version of the payment claim to develop my spreadsheet that summarises quantum, which is attached to this decision and marked with the letters "CGL₁".
117. The payment claim was headed the "Final Claim" and comprised a covering letter together with:
- (i) a table of extensions of time together with the value of delay costs associated with the extensions of time. This table summarises a figure of 376.59 working days delay which was valued at \$7,778,988.31;
 - (ii) a spreadsheet which identified the contract sum together with the final claim amount of \$57,311,654.36 which comprised:
 - (a) contract sum of \$33,740,196.55;
 - (b) variations claimed of \$23,571,457.81;
 - (iii) a final claim certificate comprising 32 spreadsheets of which:
 - (a) 10 pages of spreadsheets comprising items relating to:
 - a. item 0 – lump sum of \$1,536,742;
 - b. item 1 – structural steel work of \$7,433,619.81;
 - c. item 2 – shop fabricated items totalling \$983,399.35;

- d. item 3 – mechanical equipment totalling \$2,333,087.69;
 - e. item 4 – piping totalling \$5,530,946.21;
 - f. item 5 – electrical totalling \$5,276,837.89;
 - g. item 6 – instrumentation, control and communications totalling \$1,674,323.59;
 - h. item 7 – miscellaneous items totalling \$1,242,769.91;
 - i. item 8 additional electrical items totalling \$4,010,035.69;
 - j. which totalled \$33,740,196.55;
 - k. to which was added the total variation price of \$23,571,457.81;
 - l. resulting in a total contract value of \$57,311,654.36.
- (b) 22 spreadsheet pages of variations totalling \$23,571,457.81;
- (c) 25 lever arch folders providing substantiation to the payment claim.
118. Section 17(2) of BCIPA provides that the payment claim:
- (a) must identify the construction work or related goods and services to which the progress payment relates; and
 - (b) must state the amount of the progress payment that the claimant claims to be payable (the *claimed amount*); and
 - (c) must state that it is made under this Act.
119. The respondent did not take issue in the payment schedule with the payment claim insofar as s17(2) of BCIPA is concerned and I am satisfied that the spreadsheets together with the 25 lever arch folders sufficiently identify the construction work and related goods and services to which the progress payment relates.
120. Furthermore, the payment claim states on page 10 of the attached spreadsheets that the total contract sum amount is \$57,311,654.36 (excluding GST) from which was deducted the previous paid amount of \$40,890,617.12 resulting in an amount payable of \$18,063,140.97 including GST, which was calculated at 10%. In addition, the covering letter to the final claim, together with page 10 of the attached spreadsheet, states that it is a payment claim under the *Building and Construction Industry Payments Act 2004*.
121. Accordingly, I find that it is a payment claim under BCIPA, and I have already found that it was served on the respondent on 16th February 2012.
122. Paragraph 18 of RWP1 shows that the claimant is satisfied that the claim for payment under the contract, the variations and the claim for delay costs based on extension of time is a claim is properly made for which the claimant is entitled be paid.
123. The claimant contends at paragraph 3.2 of its submissions that it has a right to progress payment pursuant to s12 of BCIPA, and the respondent has not controverted this assertion in the payment schedule. Given that I am satisfied that the claimant has established that it is carried out the work, I am satisfied that it falls within section 12 of BCIPA, entitling it to a progress payment.
124. The claimant also asserts at paragraph 3.3 of its submissions that a reference date exists under the contract for this claim as being the date claimed by the claimant for practical completion, which it asserted under clause GC 53.4(a) of the contract, was a reference date. This is not controverted by the respondent in the payment schedule.
125. However, I find that the reference date is the date of practical completion, not the date asserted by the claimant. I find the date of practical completion to be 24 January 2012, as certified by Nathan James Mitchell as he asserted in paragraph 29.11 of his statement to which the certificate was attached under tab 433. However, nothing turns on this because the payment claim was made from this date, and within 28 days thereafter.
126. I therefore find that there is a valid reference date under the contract for this progress claim.
127. I appreciate that the respondent takes issue throughout its payment schedule and submissions about the claimant's entitlement to be paid the progress claim, but it is nevertheless a payment claim to which the claimant asserts its entitlement which therefore makes it a payment claim which can be adjudicated under BCIPA.

I. Payment Schedule

128. In Annexure 8 of RWP1 there is a payment schedule dated 1 March 2012 comprised a covering letter together with 62 spreadsheet pages identifying the claimant's claim and on the right-hand side of each spreadsheet was a table headed "QER certification and reasons for withholding". This is confirmed in paragraph 20 of RWP1.
129. In the three boxes of the adjudication response provided to me, I am unable to find a payment schedule that the respondent says was provided, so I am satisfied that the document provided in Annexure 8 of RWP1 is the payment schedule originally provided on 1 March 2012.
130. I note in Annexure 9 and 10 of RWP1 that the claimant identified a number of illegible items in the final payment certificate (payment schedule) and requested another copy of the payment schedule in Excel format. I agree that the items identified were illegible.
131. In Annexure 11 of RWP1 I note that there was another copy of the payment schedule provided by the respondent which provided more legibility to the items complained about, and I will use this document as the payment schedule because it is a more legible document, but am satisfied that it is the document served on 1 March 2012.
132. The claimant conceded that the payment schedule was delivered within the time prescribed by BCIPA, but I need to be satisfied that BCIPA was complied with, and I find that the date of 1 March 2012 for delivery of the payment schedule is on the 10th business day after the payment claim was served, so I find that it was within time.
133. The claimant, after receiving the payment schedule had in its adjudication application reduced the amount claimed to \$14,031,441.17 (plus GST) and identified in the electronic spreadsheet which items it was accepting the valuation of the respondent. In the adjudication application itself, it also identified claims that it was no longer pursuing.

J. Due date for payment

134. I refer to s15 of BCIPA because it deals with the due date for payment.
135. In paragraphs 72 to 74 of the claimant's submissions, the claimant contended that GC clause 53.1 and Item 30 of the contract, which provides for payment 30 days after the payment certificate is served, is void because it offends s67W of the *Queensland Building Services Authority Act 1991* ("QBSA Act") on the basis that it is a *commercial building contract*.
136. The claimant asserted that the due date for payment is therefore 10 business days after the payment claim was served, that is 1 March 2012.
137. In paragraph 18 of the respondent's submissions, the respondent argued that the construction contract which is being adjudicated was not a *commercial building contract* under the QBSA Act.
138. The respondent said essentially [submissions 158 to 160] that the work done by the claimant was not *building work* under the QBSA Act, because *installation for equipment for ...conveying or transporting materials or products and construction work in mining* is excluded by regulation 5 of the *QBSA Regulation 2003*.
139. It provided support for its submissions by reference to the case of *Morton Engineering Co Pty Ltd v Stork Wescon Aust Pty Ltd* (1999) 15 BCL 192 ("Morton"); BC9802203 which it said supported a wide interpretation as to what is considered as *construction work in mining*, such that it was not confined to winning the product from the soil, so that, "the mining process would certainly include the transport of the product from the well to the central storage facility."
140. Accordingly, at page 163 the respondent said that:
- (i) the process of transporting oil through the pipework fell within Regulation 5(1)(x); and
 - (ii) the extraction for shale of oil was construction work in mining under Regulation 5(1)(x) and (y).
141. The upshot of this conclusion, the Respondent said [at subparagraphs (n) and (o) on page 163], was that the contract was not a *commercial building contract* under BCIPA.

142. Morton went on appeal in the case of *Stork Wescon Aust Pty Ltd v Morton Engineering Co Pty Ltd* [1999] QCA 61, but the Court of Appeal dismissed the appeal in which the appellant was contending that the fabrication, transport and erection of the supporting structure for a pipeline transporting natural gas was *building work*.
143. I am therefore satisfied that Morton is authority that this construction contract was not a *commercial building contract* under the QBSA Act, because the work done by the claimant, which I find from the Scope of works in Section 6, pages 9-14 in Annexure 1 of RWP 1, involved the construction of pipework, various conveyors carrying the shale, a retort gas structure, oil upgrader and hydrogen supply, sour water treatment, tanks and utilities, all come within Regulations 5(1)(x) and (y) as contended by the respondent, because they are either *installation for equipment for ...conveying or transporting materials or products* [Regulation 5(1)(x)] or *construction work in mining* [Regulation 5(1)(y)].
144. Accordingly, I find that s67W of the QBSA Act does not apply.
145. This means that contract provision for payment within 30 days of the payment certificate is enforceable, and I have found that the payment certificate (also known as the schedule) was provided on 1 March 2012, so that 30 days later is 31 March 2012, as correctly contended by the respondent at paragraph 19(e) on page 163 of its submissions.
146. **I find therefore that the due date for payment is 31 March 2012.**

K. Rate of interest

147. The claimant's submissions in paragraphs 376 to 381 asserted that penalty interest was payable under s67P of the QBSA Act because the contract was for building work under s67 AAA of the QBSA Act.
148. I have already found that the contract is not for building work under the *Heading H Due date for payment* above, so in my view s67P of the QBSA Act is not applicable, so I reject the claimant's submissions on this issue.
149. This means that s15(2) of the Act applies and requires me to determine the rate of interest payable on the unpaid amount of the progress payment under S48(1) of the *Supreme Court Act* or under the contract, whichever is the greater, as contended by the Respondent in paragraph 20(b) of its submissions.
150. I find that Item 32 of Annexure Part A to the General Conditions of Contract [Section 3 of Appendix 1 of RWP1] provides a contractual rate of interest as the rate of interest for 90 Day Bank accepted bills published by the Reserve Bank of Australia on the date that the final certificate was served. This is what the respondent contended at paragraph 20(c) of its submissions.
151. I have found this date to be 1 March 2012. The respondent has not provided me with that rate as at 1 March 2012. However, the claimant in its submissions folder, after page 55 of its submissions, has provided me an extract for the Australian Financial Review dated 15 March 2012, in which I find that the rate on 7 March 2012 was approximately 4.5%, and on March 14 2012, the rate was slightly lower.
152. In both instances this 90 day bank bill rate is significantly less than the Supreme Court rate which under S48(1) of the *Supreme Court Act 1995* is prescribed by Regulation 4 [of the Supreme Court Regulation] as 10% per annum. I therefore reject the Respondent's submissions at paragraph 20(c) and I find 10% is the applicable interest to apply to the adjudication.
153. **I find the rate of interest is 10% interest payable on the adjudication amount.**

L. Basic and essential requirements and substantive issues for consideration

154. Apart from determining the amount of the progress payment, about which there are significant contests as to entitlement and quantum, I have now canvassed and made decisions on all of the basic and essential requirements identified by *Brodyn Pty Ltd t/a Time Cost and Quality v Davenport and another* [2004] NSWCA 394 ("Brodyn"), and approved by

the Queensland Court of Appeal in *Northbuild Construction Pty Ltd v Central Interior Linings Pty Ltd* [2011] QCA 022 at paragraphs [32], [37] and [80].

155. I must turn to the amount of the progress payment, and in so doing I must consider the substantive issues raised by the parties in their submissions relating to
- (i) Whether the respondent is entitled to levy liquidated damages?
 - (ii) Whether the claimant is entitled to the extensions of time and delay damages claimed, and what amount is appropriate?
 - (iii) Which variations is the claimant is entitled to, and what is the correct quantum of those variations?
 - (iv) What is the appropriate amount for the amounts due under the contract?
156. Before I descend into the analysis of the complicated legal issues, I felt it was important to make some findings of fact regarding particular key documents referred to in the submissions and the statements so that those findings can be utilised in the complicated legal analysis that then follows.
157. I have read all the submissions and as much of the factual material as is necessary in the time available for consideration in these reasons. If I do not refer specifically to particular submissions in the analysis, it does not mean that I have failed to consider them, but it was not possible to make reference to each submission in these reasons.

M. Findings of fact of some key events, and their surrounding circumstances

158. Having reviewed the submissions in some detail, and in order to resolve this dispute, I find that there are key events about which findings of fact need to be made, in order that the complex legal issues contended for by both parties can be resolved. There is considerable evidence proffered by the parties about these key events, particularly Messrs Mitchell, Bourne and Jarver for the respondent and Mr. Paterson for the claimant. During the legal analysis, there will be a need to explore other facts about which findings will need to be made. However, it is hoped that this approach to the adjudication will assist the parties in understanding my reasons.
159. The series of events to be discussed are the significant events identified by the parties from February 2010 through to September/early October 2010, the important period of 8 months at the start of the project. Furthermore, the parties' conduct in this period needs close analysis because they have a significant bearing on the legal issues.
160. To my mind, key events (and their surrounding circumstances) include the following:
- (i) signing of contract and the dates identified in the contract;
 - (ii) meeting between claimant and respondent on 30 March 2010;
 - (iii) the respondent's 22 June 2010 letter, and the follow-up attachments;
 - (iv) the respondent's 1 July 2010 letter and the attached construction schedule;
 - (v) the claimant's 14 July 2010 letter and attached program;
 - (vi) the respondent's 1 September 2010 letter and construction schedule.
161. Before doing so, it is important to put the TDP, which is the subject of the contract into context, and Mr. Bourne and Mr. Paterson both agree that it was not a plant that would go into the production of shale oil, but was a demonstration facility [paragraph 3.8 of Mr. Bourne], or a pilot project [paragraph 27 of RWP₁]. I find Mr. Bourne summarised the components of the plant in paragraph 3.6 of his statement, and the key feature of the technology is the "Paraho II" oil shale processing retort and oil recovery plant from a plant in Colorado USA.
162. I refer to the material provided in the adjudication, and particularly Clause 2.3 in the Scope of Work, section 6 of the contract found in Annexure 1 of RWP₁, and Mr. Bourne's paragraph 3.6 of his statement. From this material, I summarise the TDP plant into the following processes in order to be conceptually clear about what the claimant and respondent were trying to achieve. I have abbreviated the processes, using my words, in order to understand the processes, which may be referred to in the reasons, but in any event has allowed me to understand the complaints and claims in the adjudication. These include:

- (i) crushing, screening and conveying the shale to transfer towers ("winning");
- (ii) where the shale is directed to presses and driers en-route to the retort ("preparing");
- (iii) where in the retort the shale oil and gas is extracted ("extracting"); leading to
- (iv) a gas cleaning plant, and an oil upgrader plant, which provides product streams ("processing");
- (v) to be stored in tanks in a tank farm ("storing"); as well as
- (vi) a sour water cleaning plant to clean particulates and oil, and steam strip compounds from the water ("cleaning");
- (vii) the provision of utilities to facilitate the operation of the TDP plant ('utilities').

VII. Signing of contract and dates identified in the contract, and some key aspects of it

163. Firstly, I consider the chronology surrounding the entry into the contract, because it appears from the submissions and the facts, that from the outset, it is not clear that the dates nominated in the contract were able to be achieved. The parties' understanding and conduct surrounding these dates has a bearing on the date for practical completion.
164. I would like to make the observation at this early analysis of the facts, that the number of incorrect dates and sometimes inconsistent assertions in the statements of the parties, whilst inevitable in the pressure cooker environment of an adjudication, made it difficult to be satisfied about the correct facts without deeper analysis, and comparisons both within and across the statements of the various parties. This is not meant to be a criticism of any one person in particular, but it is necessary for me to highlight these incorrect facts in my findings, so that the parties are clear as to what has been decided.
165. By way of simple examples of inconsistencies within statements:
- (i) in paragraph 3.14 of Mr Bourne's statement he said the contract was executed in around January 2010 and that the date for practical completion of 30 July 2011 (sic) remained the same. In paragraph 4.11 he said the date of execution was 14 February 2010, and in paragraph 4.14 and 4.50 he stated (correctly) in my view that the date for practical completion was 30 July 2010. I therefore have to reject the date referred to in paragraph 3.14;
 - (ii) in paragraph 4.75 of Mr Bourne's statement he said "...well accepted date for practical completion of 6 December 2011" and then on the third line it was then 6 December 2010 (my underlining). I reject his first date in this paragraph;
 - (iii) I refer below to the inconsistencies in Mr Paterson statement in RWP₁ about the dates of execution of the contract which I had to resolve.
166. As to an inconsistency across statements, by way of example, in Mr Nathan Mitchell's statement, at paragraph 7.1, he said that on 4 January 2010 QER and Waltz executed the Contract, which I find is incorrect. His statement on this point is clearly at odds with what Mr Bourne had said, and was therefore rejected. I infer that the only basis upon which he could have made that statement was because of the date of the execution shown on the formal instrument of agreement.
167. Mr Bourne, in paragraph 4.11 of his statement says that the issue of the final contract was made on or about 14 February 2010. However, that appears to be inconsistent with his chronology of the tender documents found in Annexure 12 of RWP₁ which stated that the revised conformed contract was issued on 24 December 2009 to the claimant, and that on 14 February 2010 the claimant sent the signed documents back the respondent. Whilst this is at odds with what Mr Paterson says in paragraph 8 of RWP₁; later in his statement, at paragraph 25, Mr Paterson agreed with Mr Bourne's chronology. I therefore find that the claimant executed the contract on 14 February 2010, and the respondent executed it soon afterwards. This is inconsistent with the respondent's submissions at paragraph 9.8(a) that the contract was issued on 4 January 2010, which are rejected.
168. I find from the GC clause 10.7 (a) and item 7 of Annexure A of the contract, that the notice to proceed with stage 2 was to be provided by 4 January 2010 (the "notice date"). The importance of the finding of the date of execution of the contract, was that when it was

executed, the notice date had expired a day short of 6 weeks previously. However, it was a date agreed in writing between the parties. In addition, I find that the date for practical completion (as per clause 46.3, item 23 of the contract) stated on the contract document was 30 July 2010. I infer that between the notice date and the date for practical completion, it was expected that the claimant was to complete stage 2, and I find the duration for stage 2 construction gleaned from the contract was nearly 30 weeks.

169. Accordingly, the notice date was impossible to be achieved, as it had passed some nearly 6 weeks previously. I note that Mr. Mitchell, at paragraph 2.2 of his statement, said that it was understood that the notice date would be issued much later. Mr. Bourne, at paragraph 3.14, said that it was well understood that the notice would be issued later. Mr. Jarver, at paragraph 5.1 said, at the time of execution of the contract, that it was understood it would be issued much later.
170. There is no explanation as to how the claimant understood, or well understood that this notice would be issued later, so I do not make any finding about the claimant's understanding. However, I can make the finding, based on these three statements, that the respondent knew that the notice would be issued later or much later, such that the respondent knew that the written notice date was incorrect.
171. The three witnesses state that the date for practical completion was 30 July 2010. Paragraph 2.3 for Mr. Mitchell, paragraph 3.14 for Mr. Bourne, and paragraph 5.2 for Mr. Jarver. In relation to Mr. Mitchell's statement about this date, I find Mr. Mitchell's evidence is likely to be merely asserting what was the written date in the contract, rather than as support for any other facts, because I have already found that he asserted the incorrect date for the signing of the contract.
172. Mr. Bourne asserts, that the date for practical completion remained the same, i.e. 30 July 2010, from which I presume I am asked to draw the inference that it was the date agreed in the contract. I need to analyse the surrounding circumstances a little more closely before making such a finding, in light of it being understood that the notice date had already been impossible to achieve, and was to be issued in the future.
173. At paragraph 41 of Mr Paterson's statement in RWP₁ [which does not appear to be controverted by either Mr Bourne or Mr Mitchell], he says that at the date of the signing of the contract, very little design had been provided, other than a very general outline as provided in the scope of work, and I make this finding.
174. Mr. Paterson also says at paragraph 41, that at the time of signing of the contract, there was an assumption of a 24 week construction period, but it was only an assumption because there was very little design on which to price and assess the construction period. He added in paragraph 42 that the respondent insisted that the construction period be 24 weeks, and that he had discussed this issue often with Mr. Bourne and Mr. Jarver, and in paragraph 43 he said that 24 weeks was only a target or presumption, and that it was on this basis that he prepared the construction program that was sent on 14 July 2010.
175. In annexure 41A, which was referred to Mr. Paterson in paragraphs 101 and 120 of RWP₁, Mr. Bourne in an email on 9 June 2010 said, "*We had agreed a 24 Contract duration from Notice to Proceed and that is what is going in stage 2 to establish the date for practical completion.*" Neither Mr. Bourne, nor Mr. Jarver controverted what Mr. Paterson said about the 24 week construction program, so I find that the respondent had the 24 week construction period in mind during this period, despite Mr. Paterson's concerns about lack of design.
176. Mr Paterson at paragraph 44 of RWP₁ [which did not appear to be controverted by either Mr Bourne or Mr Mitchell] refers to paragraph 5 of the scope of work (page 37 of 58), which I found in section 6 of Annexure 1 that provided:

"The Principal has developed a level 3 schedule for the remainder of the engineering and procurement work to be carried out on the project. The following target dates have been produced from the schedule and are included here to assist the contractor in the development of preliminary construction plan.

During stage one, the Contractor shall assist in the verification of these dates:

<i>Major item</i>	<i>Target date</i>
<i>Start of issue of drawings for fabricated items</i>	<i>5 November 09</i>
<i>Access to site by contractor</i>	<i>4 January 10</i>
<i>Date for practical completion</i>	<i>30 July 10</i>

177. It is evident that during stage 1, which contractually had only commenced on or about 14 February 2010, the claimant was required to assist in verifying whether these key dates could be achieved.
178. To my mind, when very little design had been provided by 14 February 2010, which was already a day short of 6 weeks after the notice date, then as a matter of commonsense, the stated date for practical completion was unlikely to have been achieved; because the notice to commence stage 2 was likely to be issued much later, if one accepts Mr Mitchell's paragraph 2.2 statement, and later, if one accepts Mr. Bourne's paragraph 3.14 statement. Given that Mr. Mitchell was responsible for the provision of the design drawings, which were the subject of significant delays, I am inclined to accept Mr. Mitchell's evidence that the notice date would be issued much later, as he knew what was required to complete the designs, and this is corroborated by Mr. Jarver.
179. If the respondent recognised that it would issue the notice to proceed much later, and the contract had been signed nearly 6 weeks after the notice date, it could not have realistically expected that the date for practical completion could be 30 July 2010, because even if the notice had been given on 14 February 2010 (instead of much later as I have found), the design was hardly commenced, and nearly 6 weeks of the construction period had already elapsed.
180. Furthermore, Mr. Mitchell, at paragraph 7.6 confirmed that the date for practical completion of 30 July 2010 was based on the notice date of 4 January 2010 and I accept that, because it is consistent with logic.
181. Mr. Paterson said at paragraph 70 in RWP1, that from the point that the contract was signed, the project was treated with great urgency by the respondent, despite the lack of information about design and equipment delivery dates. This was not controverted by the respondent.
182. Given that the notice date of 4 January was not applicable from the outset, I am not satisfied that 30 June 2010 was the date for practical completion when the contract was signed, because the respondent could not have realistically expected that this date could be achieved.
183. Nevertheless, 2 commercial entities at arms' length with one another made this arrangement and I need to deal with this arrangement made by them in resolving this dispute. However, I am mindful that the applicability and enforceability of these dates specified in the contract in the context of the parties conduct, needs careful consideration.

VIII. Meeting between claimant and respondent on 30 March 2010

184. At paragraph 59 of Mr Paterson's statement in RWP1, Mr Paterson referred to a letter that he sent to the respondent dated 30 March 2012 [Annexure 22] concerning the late provision of design drawings in which he sought information in relation to the approved for construction ("AFC") drawings and the delivery dates for the free issue equipment. At paragraph 60 he said that he could not provide any sensible construction program for the project without this information, and that any dates would merely be assumptions. He had said that he had advised Mr Bourne of the delay and disruption to the works meaning that the 24 week construction period was unachievable.
185. At paragraph 61, he added that he had been told by the respondent that the project could not be delayed and that the forecast date for completion in the claimant's preliminary program was too far out. This preliminary program which had been provided on 15 March 2010 [Annexure 20] had forecast the practical completion on 21 October 2010 [see paragraph 55 of

Mr Paterson's statement]. Mr Paterson said that until he was provided firm dates as to when the AFC designs would be provided, that any scheduling would be meaningless.

186. I find that what Mr Paterson had said in these paragraphs is correct given they have not been controverted by the respondents' witnesses, and it was clear to the respondent that its design and dates for free issue of equipment was holding up the project. However, the respondent at the same time was saying that the project could not be delayed, from which I infer that the respondent was in a hurry to deliver the project, notwithstanding the lack of design.
187. I accept Mr. Paterson's assertions that without the design and dates for delivery of free issue equipment, that it is not possible to schedule a meaningful program.

IX. The respondent's 22 June 2010 letter and the follow up attachments

188. Approximately 4 months after the contract was signed, approval was given by the respondent for the claimant to commence stage 2, i.e. to fabricate and construct the TDP plant.
189. I have already found that the notice to proceed with stage 2 was to have been provided by 4 January 2010.
190. This 22 June 2010 letter, provided in tab 100 of the respondent's submissions and Annexure 32 of RWP1, I find comprises the notice to proceed to stage 2. There is controversy about the attachments to the document, and I disagree with Mr. Paterson's statement 85(b) that the amended section 4 - "Contract pricing schedules", which contained the Schedule 5 - Schedule of Milestone date for practical completion as "TBA" was attached to this letter ("Schedule 5"). Mr. Bourne said at paragraph 4.41 that it was not attached, because the original email showed that it was not one of the attachments [tab 102A] and I accept what Mr. Bourne says.
191. I accept that Schedule 5 was sent on 27 June 2010, as identified in Mr. Bourne's paragraph 4.46 because the email of this date [tab 103A] demonstrates that it was attached at that time.
192. However, I am not prepared to accept that, as Mr. Bourne contends in paragraph 4.46, it was sent with the date for practical completion "TBA" because he says that he had not yet been able to assess an extension of time claim made by the claimant [my underlining].
193. The claimant had made the claim for an EOT on 26 June 2010 [tab 103], which was a Saturday, the day before Mr. Bourne's 27 June 2010 email. Mr. Bourne had already foreshadowed on 23 June 2010, in his email to Mr. Paterson [tab 101] that "section 4 with the schedule of installed quantities would be issued today or tomorrow". In his covering email, which included Schedule 5 on 27 June 2010 [tab 103A], he said, "Attached is a copy of Stage 2 section 4 with the details of the Contract Sum and..." He did not make any reference to the EOT claim of 26 June 2010, and I find that he sent Schedule 5 merely as he had promised in his 23 June 2010 email.
194. In my view, by inference, Schedule 5 is likely to have already been previously compiled with the "TBA" milestone date, as the date on the footer of the document was 22 June 2010, and it just happened to have been sent on the Sunday, as Mr. Bourne had already promised to send it on either the 23rd or 24th June 2010, and had not already done so. I find that it was unlikely to have been sent with "TBA" in response to the EOT claim sent on a Saturday.
195. I note that Mr. Bourne foreshadowed on 27 June 2010 [tab 103A] that he would issue a conformed stage 2 contract in the next week, and in tab 24 the respondent attached the contract with the Schedule 5 with the "TBA" milestone, and it had a 22 June 2010 footer.
196. I therefore find that the Schedule 5 sent on 27 June 2010 and the conformed stage 2 contract had the date for practical completion as "TBA", such that there was no date for practical completion at the time that stage 2 had been awarded to the claimant.
197. Mr. Bourne's statement at paragraph 4.39 that "during the first three weeks of June 2011 (sic) he thought the design was sufficiently complete to start stage 2, such that he issued the notice to proceed for stage 2" needs closer analysis.

198. Mr. Mitchell who was carrying out the design said at paragraph 12.3, that the notice being issued on 22 June 2010, recognised that there had been completion of the constructability review and construction had commenced, "even though the program and drawings were not finalised at this point". Given that I have found that Mr. Mitchell was the respondent's person involved in delivering the design, I find that the respondent must have recognised that the design was not finished.
199. Mr. Paterson, at paragraph 75 of RWP1 [not controverted by the respondent], said that, "By mid April 2010 every week Sven Jarver would say to me that they were going to award Stage two, and finally it got to the point in about mid June where Sven Jarver and Roger Bourne said to words to the effect *"right we've just got to award this and properly start construction"*. This was particularly because Waltz had already commenced fabrication and installation of the structural steel work on site." Mr Paterson was therefore confirming what Mr Mitchell had said in paragraph 12.3 of his statement.
200. Mr Paterson, at paragraph 74, explained the significant difficulty still being encountered regarding design and equipment which were required to be provided by the respondent by mid-2010.
201. Mr. Jarver, at paragraph 6.10 said that the claimant had not properly finished stage 1 in terms of completing all the deliverables, "and that when the project approached the time of issuing the notice to proceed with stage 2, QER had no choice but to issue the notice. The planning was never executed properly, specifically in relation to the E&I trades (as there was no specialist contractor)." [my underlining]. I cannot understand Mr. Jarver's comments in the context of the strict wording of the contract, as it is clearly identified in GC clause 10.7(a) that the respondent was not bound to issue a notice to proceed to stage 2. The question raised is why would he say that the respondent had no choice, but issue the notice.
202. When considered in light of the need to start construction, I can understand these comments. It is open to find that notwithstanding stage 1 deliverables not having been completed, that the respondent had no choice but to proceed to construction, if it needed to do so urgently, whatever the state of the design.
203. I therefore find as a matter of inference that the notice to proceed to stage 2 was not driven by Mr Bourne's thoughts that the design was sufficiently complete to do so, but is more likely to have been prompted by the respondent's urgency to commence construction.
204. Shortly after this 22 June 2010 letter, Mr. Paterson, at paragraph 91 [which is uncontroverted by the respondent] referred to the weekly construction meeting of 29 June 2010 at which he indicated delays with electrical and piping and steel design and dates for delivery of materials, which to my mind meant that it was not possible for the claimant to program completion of the works at this time.
205. At paragraph 92, Mr Paterson said that the weekly reporting format changed around June 2010 to report on the progress of Process Logic Units ("PLU"s), i.e. a component of the TDP, and not by area as had been the case when the initial planning and constructability of the project was undertaken, and this was not controverted by the respondent.
206. This change to focus on activities by PLU, rather than by area is logical, given it is likely that the respondent wanted discrete parts of the work complete, in circumstances where not all the design was available. Mr. Jarver, at paragraph 5.2 when referring to September 2010, said that "due to the strategy with the later shipments for the Hydrogen Plant, Gas2 and the oil upgrader and the need to get the retort operational as early as possible", a focus on completion of PLU's was sensible.
207. I understand that Mr. Jarver's paragraph 5.2 comments were made as an explanation for the division of work into separable portions 1 and 2 (phase 1 and 2), in which, at paragraph 5.3, he said the reasoning was that it would allow the claimant to complete phase 1 and then demobilise, and then return at a date to be agreed, to complete phase 2. The claimant has made no mention in any of its material about considering demobilising and then remobilising, and it was not shown on the claimant's last program provided with the 14 July

2010 letter, so I am unable to make a finding that the claimant had even considered demobilising and remobilising, let alone agreeing to it.

208. Mr. Jarver's reasoning demonstrates that it is likely that the respondent was evaluating the deliverability of the project, in the context of late design and equipment shipments in the context of the program, which I find that it took over controlling.

X. The respondent's 1 July 2010 letter and attached construction schedule

209. I refer to the statement of Roger Bourne, and paragraph 4.49 in particular, in which he refers to a letter to the claimant dated 1 July 2010, which is found at tab 106 of the respondent's material [and Annexure 39 of RWP₁], which also attached a construction schedule dated 28 June 2010, but with only 52 of the stated 61 pages.
210. In this letter Mr Bourne acknowledges the delay in issuing the notice to proceed with stage 2. I have already found that the notice to proceed with stage 2 was to be provided by 4 January 2010. In this letter he foreshadowed the creation of a separable portion 2 for the installation of the hydrogen system, gas two system and oil upgrader. He also refers to the claimant's EOT letter which I have already found was sent on 26 June 2010. [The EOT claimed was for 169 days, which I find is the difference between the contractual date that the stage 2 notice should have been issued, and the date of 22 June 2010, when it was issued. The date for practical completion nominated in the EOT was 8 December 2010, which is not 169 days later than 30 June 2010.]
211. I find that this EOT does not require significant assessment, as it is merely an arithmetic calculation to determine the revised date for practical completion for the respondent's delay in issuing the stage 2 notice. However, Mr. Bourne appeared to say that there was a need to consider the construction sequence and revised construction schedule. There was no construction sequence or schedule referred to in the EOT claim, which was based purely on the delayed notice issued for stage 2. Mr. Bourne had attached the respondent's construction schedule and invited the claimant to confirm whether it was achievable. I therefore draw the inference that Mr. Bourne was referring to the respondent's schedule, and that pending agreement about the schedule, then an EOT would be issued for separable portion 1.
212. Mr. Bourne, at paragraph 4.50, said that it was clear from this letter and the EOT by the claimant, that both he and Mr. Paterson fully appreciated the date for practical completion being in place and set at 30 July 2010, and that the "TBA" was in reference to the EOT claimed, and was yet to be agreed. He added that this date for practical completion was confirmed by Mr. Paterson's subsequent claims for EOT's, particularly in response to the EOT for bad weather granted on 3 June 2011.
213. I do not understand Mr. Bourne's assertions that the EOT granted for bad weather on 3 June 2011 [tab 298] meant that Mr. Paterson's claims for EOT's recognised that the date for practical completion was 30 July 2010, if that is what he is trying to establish. The claimant had claimed EOT's 2 and 3 for wet weather on 24 September and 27 September 2010 respectively, which had been granted by the respondent, and then on 3 June 2011 the respondent granted a further 33.5 working days EOT. This extra time granted did not appear to be in response to an EOT claim by the claimant. I therefore accept Mr. Paterson's comment at paragraph 267 of RWP₁, in which he says that it was a unilateral granting of an EOT by the respondent. I will further consider the amount of the EOT under the 1 September 2010 letter below.
214. If Mr. Bourne is trying to establish that Mr. Paterson appreciated that a date for practical completion was important, such that he made other claims for EOT's, then I agree. That is logical and consistent with what Mr. Paterson said at paragraph 168 of RWP₁, when he said he had to protect the claimant's position by submitting EOT 1. However, the conduct by the claimant in claiming EOT's does not go so far as to establish an agreement as to the date for practical completion about which there is considerable controversy.
215. At this stage, in the circumstances surrounding this 1 July 2010 letter, I find that the respondent was asking for the claimant's comments about the respondent's proposed

- schedule, and seeking agreement to this schedule in order to then grant EOT's (the "proposed schedule"). This linking of the respondent's schedule to a proposed EOT is to my mind significant because it demonstrates the respondent's deeper involvement in programming, which I find as a matter of logic, is likely to have been prompted by the delays caused by the respondent in relation to design.
216. This requirement of the respondent that the claimant comment on the proposed schedule raises an important issue which has been covered in the statements and the submissions, not just in relation to this event, and it is useful to make a finding about this issue at this stage. The issue is whether the respondent took control of the construction program and directed the work.
217. Requesting comments about the proposed schedule and linking it into a proposed granting of an EOT, I find is at odds with what the contract required. The respondent at paragraph 14.2(d)(iii) stated that the claimant was responsible for detailed programming obligations under GC clause 44.6, and I agree with this submission. However, at least from 1 July 2010 onwards, the respondent proposed a schedule and sought comments from the claimant about its schedule to confirm that it was achievable, in circumstances where this is to be directly linked to the granting of an EOT.
218. Mr. Jarver asserted at paragraph 6.7 that the claimant never produced a level 4 resource schedule, and that "QER never took ownership for programming the work. This was a Walz responsibility and they failed to perform." At paragraph 6.12 he said that he'd raised with Mr Paterson on numerous occasions the need for another program and requested updated schedules in accordance with the contract. However, Mr. Jarver makes no reference to any documents that he sent in support of these requests.
219. The only documentary evidence I have been referred to for requests for provision of construction programmes is found in paragraph 4.71 of Mr Bourne's statement, where he refers to a letter dated 21 June 2011 sent to the respondent directing the provision of a construction program, and I note that the letter is not provided in any of the tabs in the submissions. Nor for that matter is the letter that Mr Bourne said in paragraph 4.72, was sent in response on 21 June 2011 from the claimant.
220. However, I find the claimant's letter referenced in paragraph 329 of Mr Paterson's statement to which it was attached at Annexure 136 of RWP 1. In that letter the claimant denied that it had been requested to provide a construction program, but said that it had been given a programme by the respondent and had been asked to review it. The letter said that it remained difficult to comment on the program, because there was no detailed scope of work that had been provided nor had a design for heat tracing of the oil upgrade been provided.
221. Mr Paterson throughout his statement in RWP 1 had said that he could never produce such a schedule without the design and free issue equipment delivery dates. I accept this as a plausible reason for being unable to provide a level 4 resource schedule, because as a matter of logic, if one is not advised when the design drawings will be provided (at which time one can then review what the design entails) nor the dates when equipment is to be provided, it is not possible to make any predictions about when activities can be completed and what resources are needed to do so; bearing in mind that within construction projects, times and resources are constraints that need to be managed. More importantly, Mr Paterson added that he was never asked by anyone from the respondent to provide another program for any other part of the works until late in July 2011.
222. I need to resolve this contest of evidence, because it has a bearing on whether or not the respondent took control of the programming and directed the work. On balance, I prefer Mr Paterson's evidence because his comprehensive evidence was on oath and Mr Jarvis' evidence was provided in an undated signed statement. In my view a person who provides evidence on oath, providing it is cogent and consistent, ought be given more weight than evidence that is not provided on oath.

223. In addition, Mr. Dominic provided a statement in which he stated, at paragraph 1.2 that he had been involved on the TDP from May 2009 to date as a planner, and was still involved in a planning capacity. I find that he was involved in planning during the period that the claimant was working on the site, and he makes no reference to any concerns that he had with the claimant's program during the project, not of any requests by the respondent for updated programs from the claimant. To my mind, if the respondent's project planner's statement has no reference to concerns with the claimant's program during the construction, then I find it likely that no such concerns were raised at the time. I understand that Mr. Dominic now criticises the claimant's program, but there is no evidence of his concerns during construction. Accordingly, I find that the respondent did not ask for further programs until June 2011.
224. GC clause 44.6(c) provided that if the respondent asserted that the claimant's program did not comply with the requirements, the claimant was required to resubmit a program until it did comply. If the respondent was in disagreement with the claimant's program, and did not communicate that to the claimant, it was not allowing the claimant the contractual right to provide a program of works in accordance with its resources that was acceptable to the respondent.
225. GC clause 44.6(d) required that the claimant perform the work in accordance with program, subject to any appropriate revisions resulting from EOT's or directed acceleration, so it was the claimant's right to program the works and carry it out in accordance with that program.
226. Mr. Paterson, at paragraph 108 and 109 of RWP1, which is not directly controverted by the respondent, and which I accept, said that the respondent directed its own construction schedules on how the work was to be carried out, and "instructed Walz on how and when to go about building the plant because it controlled all the information, along with the construction scheduling."
227. In addition, at paragraph 116, also not controverted, Mr. Paterson referred to "3 week look ahead programs indicating which work faces and components of the works Walz was to carry out construction work on." He said that these programs were issued by Nick Miller of the respondent, and that the claimant had no part, nor was it asked to play any part in the preparation of these 3 week look ahead schedules. I note that Mr. Miller has not provided a statement about this important activity, and I would have expected that he would have been asked to do so, if there was disagreement with what Mr. Paterson said.
228. Given what Mr. Paterson has said on oath about the respondent taking over the programming, compared to Mr. Jarver saying at paragraph 6.7 that the respondent never took over ownership for programming the work, I prefer Mr. Paterson's evidence, having been given on oath and is consistent with the lack of evidence from Mr. Dominic and Mr. Miller in which they could have controverted what Mr. Paterson has said.
229. I therefore find that the claimant's right to carry out the work in accordance with its program was precluded by the respondent requesting that the claimant comment on the respondent's schedule, and then later requiring the claimant to comply with 3 week look ahead programs, and directing the work in accordance with those schedules.
230. Given that I find that there is no evidence that the respondent communicated the need for another program, until June 2011, it is open to find having regard to the circumstances, that the reason why the respondent did not do so, was that it accepted that the claimant could not provide a program because of the respondent's inability to deliver the information upon which the program relied. I understand that finding is at odds with what Mr. Jarver said and I need to explain why I reject his evidence.
231. Mr. Jarver, at paragraph 6.8 of his statement referred to concessions made by Mr. Paterson in paragraphs 67 to 69 of delivery of AFC and equipment delivery dates in May 2010, and he concluded that the claimant could have provided an updated baseline schedule and successive updates. I disagree with Mr. Jarver because of what Mr. Paterson said in each paragraph.

232. In paragraph 67, Mr. Paterson said that the forecast of delivery dates, if correct, meant that a huge workforce was required to undertake work all at once, and the piping and structural design had not been provided. He commented that he could not rely on the forecast dates to plan the work, with the respondent's unrealistic scheduling. In paragraph 68, Mr. Paterson reiterated that the design drawings were unavailable, and in paragraph 69 he asserted that the respondent's forecasts were unrealistic and he lost any remaining confidence in the respondent's forecasting of design delivery. I therefore cannot agree with Mr. Jarver that in those circumstances, the claimant could have provided an updated baseline schedule with successive updates.
233. I therefore find that it is more likely than not, that in recognising that it had not provided the requisite information to the claimant, coupled with what I have found is the urgency that the respondent had to continue with the project, the respondent took over the programming of the work and directed the sequencing of the work in order to deliver components of the work that were achievable in light of the design and equipment delays. This is consistent with what Mr Paterson has said throughout his statement in RWP1, commencing at paragraph 124 where he said "It is my firm belief that we were programmed around QER's delivery of their equipment and design, and Waltz could not control that."
234. In paragraph 127, Mr Paterson said that the claimant did the best it could in accordance with the respondent three week look ahead schedules, but that it could only react to the design and other information when issued by the respondent in order to procure materials and have piping fabricated, as best it could.
235. Mr Jarver in paragraph 6.11 of his statement said that the respondent had no choice but to adopt a three week look ahead program, and in paragraph 6.14, he said that the respondent had to try and focus the claimant with the three week look ahead which was not their intention but they had no choice, because the claimant's schedule could not be used. I find that the reason that the claimant's schedule could not be used, is because of the lack of information provided by the respondent, preventing the claimant from providing a fully detailed program.
236. I find that there was a recognition by the respondent of its inability to deliver design and dates for delivery of materials, with the consequence that it then elected to carry out programming of the works and directing the order of carrying out the work, not as a matter of mitigation as suggested in the respondents submissions in paragraph 14.2(d)(x) and (xi), but rather because it prevented any meaningful programs being provided by the claimant.
237. In so doing, the respondent therefore had better control over the project because it knew or ought to have known when it's design of certain components would be ready, and could therefore program the design to dovetail into the order with which it directed work to be carried out. Mr. Jarver bears this out in his statement in paragraph 5.2 when he referred to getting the oil retort completed as early as possible, due to the strategy of late shipment of Hydrogen Plant, Gas 2 and oil recovery unit. Only the respondent had control over that strategy.
238. I therefore find that by 1 July 2010, the respondent had taken over control of the project and was directing the claimant to carry out its work in accordance with 3 week look ahead programs.

XI. The claimant's 14 July 2010 letter and programme

239. Mr. Paterson, at paragraph 94 said that he responded to the respondent's 1 July 2010 letter on 14 July 2010, and in the letter he explained that the lack of pipework AFC's, and the AFC's for the electrical components of the work. He attached the letter at Annexure 42 of RWP1 with a 2 page program, and this letter is identical to that provided in tab 112 of the respondent's submissions.
240. At paragraph 106 he said that he provided a proposed contractor's program, which I find is in Annexure 43 comprising the schedule original plan and an electrical schedule. The respondent has not controverted receipt of this program, although the respondent provides a

- program in tab 98 dated 5 May 11, which Mr. Dominic referred to in his evidence as the *uncorrected baseline program*, and it is only 38 pages, whereas Annexure 43 was 66 pages for the schedule original plan and 10 pages for the electrical schedule.
241. I accept the schedule original plan of 66 pages as the program provided on 14 July 2010, and the electrical schedule, which was referred to in the EOT Claim 1 letter dated 15 February 2012 [see tab 441 - respondent's material] as being part of the claimant's original intended program, as it provided the more detailed breakdown of activities identified in Annexure 42.
242. Mr Paterson said he sent the program because he saw that the respondent was trying to impose its own construction program on the project, and he needed to ensure that the claimant was not responding to the respondent's scheduling and delivery dates. Mr Paterson explained that he provided the detailed work activities and sequences across the site as much as he could, given the lack of design and delivery dates available, and he could not provide a program for the oil upgrader, gas 2 of (sic) hydrogen plant because only very little preliminary design had been provided.
243. He said at paragraph 107 that he believed that it satisfied the requirements of section 5 of the contract, but that he could not provide any further details because he was prevented from doing so by the respondent, such that without the information regarding the design and delivery of equipment, he could not properly and sensibly schedule works and provide proper labour resources and construction equipment for the job. I accept that this is a logical explanation to explain why not all the information could have been provided on the program.
244. Mr Paterson emphasised at paragraph 110 that he was not proposing a new date of practical completion under the contract, as he had not turned his mind to that, but was responding to the respondent's construction schedule. This has not been directly controverted by the respondent.
245. I agree with him because the claimant's 14 July 2010 letter refers to the respondent's 1 July 2010 letter and the Target Schedule, in which the respondent requested confirmation that its schedule dates were achievable. I find the letter states that the claimant would try "to meet any target proposed by the Principle (sic) however it is not possible for Walz Construction to confirm in any way that this schedule is achievable for the following reasons." He then provided qualifications relating to pipework and electrical AFC's.
246. At paragraph 111, he said that he was trying to show how the works might be scheduled if the information required from the respondent was provided, and that had not taken place. In paragraph 113 Mr Paterson said that the 6 December 2010 date was noted as practical completion was only a notional date because he stressed in the letter that it was heavily qualified and was dependent upon receipt of information from the respondent.
247. At paragraph 114 he said that the program showed that the piping design was required to be provided by 22nd of June 2010 and that both parties knew that that date had already passed without the drawings being provided. The milestone on the program to which Mr. Paterson was referring states "Receipt of approved for construction docs" 22 June 2010, which I take to include all AFC drawings, not just those for piping.
248. Mr. Bourne does not controvert what Mr. Paterson says in these paragraphs, and Mr. Jarver, in paragraph 6.5, refers to paragraphs 113 and 114 of Mr. Paterson's statement merely to explain that he expressed the desire to finish the project as quickly as possible, so he only took issue with Mr. Paterson's assertions, in paragraph 113, that the respondent wanted the project built even faster than the 24 week period.
249. Mr. Paterson reiterated his assertion about there being no agreement about the date for practical completion of 6 December 2010 in paragraph 265, with which Mr. Jarver does take issue in paragraph 5.4 when he said, "I do not understand how Mr. Paterson can say he was of the understanding that there was no agreement to a Date for Practical Completion of 6 December 2010 (para 265 of his declaration). This is quite a surprise. Walz submitted a program which proposed an extension of time to the Date for Practical Completion to 6 December 2010 based on the revised start date."

250. I have reviewed the start date on the program (Annexure 43) and it still has a start date of 4 January 2010, and Mr. Dominic also refers to a start date of 4 January 2010 (which he criticises) in paragraph 2.1 of his statement, so I cannot agree with Mr. Jarver, that the provision of this program of itself demonstrates agreement to a date for practical completion of 6 December 2010. Given that I find that the 14 July 2010 letter qualifies the claimant's proffered program, I accept that the claimant had not proffered the date for practical completion of 6 December 2010 as one that could be achieved.
251. Mr. Mitchell, at paragraph 12.9 refers to an *Uncorrected Walz Baseline Program* attached at tab 98, which Mr. Dominic had reviewed, and Mr. Mitchell, at paragraph 13.6 referred to the claimant's 14 July 2010 letter and the attached program, which he said "also provided an outline program for the remained of the works showing everything on the critical path, not dissimilar to the Uncorrected Walz Baseline Program. [My underlining] This program proved to be the last full program ever submitted by Walz for the project."
252. Mr. Dominic, after having previously criticised the program for not having been resourced, at paragraph 4.6 stated that it was relatively useful for determining the start time, finish and duration of an activity, but not in determining a critical path. I will deal with the issue of critical path under the heading of EOT's later, but it appears that the respondent concedes that the program was useful, and I therefore find that this program is the best evidence of a contractor's program, as it appeared to be the last provided by the claimant.
253. I accept that this program therefore could be relied upon by Mr Geoffrey Bell of Hinds Blunden for his programming analysis in determining a critical path to which I refer later.
254. As previously stated, I find that the program was not provided to demonstrate that 6 December 2010 was an achievable date for practical completion, but was to demonstrate that the respondent's 1 July 2010 schedule, to which it specifically referred in the first paragraph, could not be achieved.

XII. The respondent's 1 September 2010 letter and attached construction schedule

255. At paragraph 14(j) of its submissions, the respondent says that, "QER is very clear in its letter of 1 September 2010 that it was extending the date for practical completion for phase 1 works to 6 December 2010. It is submitted that the only legal significance of this was to preserve the right to liquidated damages in respect of that portion of the works."
256. I do not agree with that this letter of itself supports this submission. The 1 September 2010 letter is attached at tab 133 of the respondent's material, and behind the letter was a construction schedule of 16 pages which is also found in tab 133. In this letter Mr Roger Bourne says,

"We agree to a date for practical completion for contract CCo2 of 6 December 2010, as per the Waltz schedule, excluding the following systems which shall be the subject of further discussions and separable portion to the contract:

- Oil Upgrade*
- Hydrogen Sulphide (Gas Two)*
- Hydrogen Plant*

However as discussed with Waltz over the last few weeks, the project is working to a construction schedule, copy attached, targeting completion of the works by 28 November 2010.

The project will continue to monitor and schedule works using the three week look ahead schedules derived from this target schedule.

The contract date of completion will remain as 6 December 2010.

*This now settles a notice of delay and extension of time claim for the delay in issuing the notice to proceed with Stage Two.
Yours faithfully..."*

257. I have already found that the claimant had not proffered the 6 December 2010 as the date of practical completion, so in my view it was not open for the respondent to agree with this date. Mr. Bourne, at paragraph 4.55 said that he had granted an extension of time in response to the claimant's claim in the program submitted on 14 July 2010. I have not found that the claimant had made such a claim. Mr. Mitchell, at paragraph 15.3(b) said that the date for practical completion was extended from 30 July 2010 to 6 December 2010 "consistent with Walz' request for that EOT" It is not clear what he means by that EOT.
258. The only EOT claim that had been made by the claimant was a date for practical completion of 8 December 2010.
259. I find it surprising that Mr. Bourne did not refer in his statement to the last paragraph of this letter where he wrote, "This now settles the Notice of Delay and Extension of Time claim for the delay in issuing the Notice to Proceed with Stage 2." This explains more logically what occurred, and it is of concern that Mr. Bourne would proffer a reason in paragraph 4.55 of his statement that was incorrect in the face of the words in his own letter.
260. However, the respondent's submissions at paragraph 9.10(d) referred to the claimant's EOT of 26 June 2010 to 8 December 2010, and at paragraph 9.1(e) submitted that an EOT was granted in accordance with "Walz request and in conformance with the Date for Practical Completion shown in the Baseline Programme." [my underlining]. There is some factual support from Mr. Mitchell for the submission that the EOT was granted in response to the claimant's EOT claim, and from the letter itself, I find that this is the likely reason, and not because of the baseline program.
261. It is not clear why it was not made 8 December 2010, as requested, and one possibility is that the respondent calculated that the delay from the notice date in the contract to 22 June 2010 was 1 day more than 24 weeks, that seemed to loom large in the mind of the respondent's Mr. Bourne and Mr. Jarver. However, there is no need to make a finding on this. Suffice is to say that I do not agree with Mr. Bourne's reasons for the EOT being in response to the claimant's program.
262. The important aspect of this letter is the reference to the project working to a construction schedule (from the respondent) which Mr. Bourne attached, targeting completion of the works by 28 November 2010. The letter added that the project would continue to monitor and schedule the works using the 3 week look ahead schedules derived from this target schedule. [my underlining].
263. I find therefore that Mr. Paterson's statement, at paragraph 124, which is not controverted by the respondent, that the claimant had no control over the programming of the works from that point, and was to work where and when the respondent directed the claimant to hand over individual parts of the plant 9PLU'So to the respondent's commissioning team, is the only plausible explanation for what had occurred by this time.
264. I have already found that in July 2010 the respondent had taken over programming and control of the works, and this letter on 1 September 2010, declared this quite explicitly. The use of the words in the letter that, "the Project is working... and ..The Project will continue to monitor and schedule the works..." suggests a collaboration occurring whereby the claimant would carry out the works in accordance with the project schedule provided by the respondent. This is not what the contract provided, as the claimant was responsible for programming the work, and then working to this program.
265. The consequence of this finding is that the claimant could not provide a program with a critical path, because it was not in a position to plan and resource its work, as it was working to 3 week look ahead programs entirely controlled by the respondent, and to which it was obliged to work.

266. The further important consequence was that the weekly reporting done by the claimant against the respondent's programs, whilst demonstrating timing and resourcing difficulties at times, as shown particularly by Mr. Mitchell in his chronology, could not to my mind, be construed as delays by the claimant for which it could be held responsible under the contract, because it had lost control of the programming against which such delays could otherwise be measured.
267. It is appropriate at this stage to comment on the comprehensive chronology provided by Mr Mitchell, which was the subject of paragraphs 9 and 10 of the respondents submissions from pages 23 through to 73 in which the chronology was largely repeated.
268. The complaint about the claimant's resourcing and other delays, whilst being listed, did not result in the respondent pointing to precisely how and to what extent the claimant's delays affected the program to practical completion. As I've mentioned elsewhere in my decision, it is likely to be very difficult to do so in the circumstances of the respondent being responsible for taking over the programming and directing the work sequence thereby preventing the claimant from adhering to its construction program.
269. Therefore, although I've not made specific references to these extensive 50 pages of the respondent's submissions, this is largely due to my findings that the chronology did not go that extra step to provide me with evidence on which to make findings about the claimant caused delays, I have considered them. Therefore to this extent, those submissions have not been particularly persuasive, apart from providing a factual matrix within which to adjudicate.

N. Decision on the issues

270. The issues that I will determine under this heading are the complicated legal issues involving:
- (i) the respondent's rights to levy liquidated damages;
 - (ii) the claimant's rights to extensions of time.
271. The other two issues of the variation amounts to which the claimant is entitled, and the appropriate amounts due under the contract, as well as the valuation of delay damages will be considered under the heading *L The amount of progress payment* below.

XIII. The respondent's right to levy liquidated damages

272. The claimant identifies a number of reasons why the respondent is unable to impose liquidated damages, and these are in summary;
- (i) inability of QER to impose liquidated damages because there was no milestone date for completion;
 - (ii) no agreement to the new date for practical completion;
 - (iii) QER took control of construction program and directed the work;
 - (iv) directing of separable portions;
 - (v) rate of liquidated damages is a penalty
273. The respondent controverts those submissions by asserting in pages 134 through to 147 of the respondents submissions in summary:
- (i) that the claimant was indebted to the respondent for liquidated damages under GC 46.7 for every day after the date for practical completion to and including the date of practical completion at the rate of \$17,000 per day;
 - (ii) that it made stage 2 into 2 separable portions known as a phase 1 and phase 2 of the works, and that phase 1 of the works was due to be completed by 6 December 2010. It conceded that phase 2 did not have a date for practical completion set. The respondent asserted that the liquidated damages regime for phase 1 remained;
 - (iii) based on the adjusted date for practical completion of 1 February 2011, the liquidated damages should be calculated until 24 January 2012;
 - (iv) the date for practical completion for stage two phase 1 works was adjusted by the granting of extensions of time, and to the extent that any date for practical

completion was to be advised (TBA), then the adjusted date for practical completion was so advised and did not require agreement from the claimant. In addition, the respondent said that by making EOT claims, the claimant impliedly accepted that the EOT clause was still operating and there was a date for practical completion to be extended;

- (v) if the extension of time/liquidated damages clause failed, then the parties were thrown back to their common law rights to sue for breach of contract, so that any claim by the claimant for delay damages must be claimed as damages for breach of contract, which not capable of being brought under BCIPA.
- (vi) In addition, the respondent said that if the liquidated damages regime fails for want of a date for practical completion, then it followed that the claimant was not entitled to bring claims for EOT's. The respondent asserted that the claimant was not entitled to take the benefit of the contract without the burden such that if it could not establish an entitlement to EOT is, then it had the obligation to pay liquidated damages;
- (vii) in relation to the claimant's argument regarding construction scheduling, the respondent asserted that it was because of the claimant's failure to satisfy the programming requirements under the contract that it had to find a way to progress the works when the claimant was not complying with its programming obligations. The respondent asserted that as a mitigation measure to keep the project moving forward, it provided look ahead schedules;
- (viii) in countering the claimant's argument regarding the directing of separable portions, the respondent asserted that for phase 2 work, the time was a large, but that it maintained its rights to claim liquidated damages for the phase 1 works and said that the principal's representative had the absolute discretion to adjust the liquidated damages on account of separable portions. It is said that Mr Bourne clearly considered the rate of liquidated damages should continue to apply to phase 1 works, and by continuing to make EOT claims, the claimant accepted the continuing operation of the extension of clause under the contract.
- (ix) The respondent distinguished the cases referred to by the claimant. The respondent also refuted is that it directed numerous separable portions, but had merely provided the look ahead programs because of the claimant's failure to fulfil its planning obligations;
- (x) the respondent also refuted that the liquidated damages were a penalty and said that it was for the claimant to prove this assertion and not speculate about the matter; and provided submissions as to the evidence supporting that it was a genuine pre-estimate of the loss suffered by the respondent.

274. As I mentioned under the heading *A Background* above, it appeared to me from reading the material in the statutory declarations of the claimant and the statements of the respondent that the issue of estoppel and/or waiver in relation to liquidated damages needed consideration and I invited additional submissions 2(a) and (b) from the parties to which I had regard in making this decision.

275. I will analyse liquidated damages on the basis that the respondent is required to prove its entitlement to levy them. Case authority for this approach is found in the claimant's additional submissions 2(b), where the claimant provided me with the copies of 15 cases to which it invited me to have regard. One of those cases, *Corbett Court Pty limited v Quasar Constructions (NSW) Pty Ltd* [2008] NSWSC 1163, confirmed this as the appropriate approach. At paragraph 105, Hammerschlag J said:

"Even as if they were not, the plaintiff bore the onus of its claim of liquidated damages for establishing the date for practical completion."

276. There are a significant number of submissions and counter submissions by the parties which are inextricably inter related, which has made the analysis rather complicated. I have abbreviated Liquidated damages to the letters "LD's".

277. The approach that I have taken, which I believe captures the issues raised in the parties submissions (to which I make reference), and provides a discipline to the analysis, is to consider:
- (i) firstly, the respondent's entitlement to levy LD's under the contract, and to direct separable portions, which picks up the respondent's summarised submissions in paragraph 273(i) and (ii) above. In this analysis, I also make findings of fact in relation to the contract and interpret some of the key documents;
 - (ii) secondly, whether or not there was a Date for Practical Completion, agreed or directed, which captures the claimant's summarised submission in paragraph 272 (i), and the respondent's summarised submissions in paragraph 273(iv) (v) and (vi) above;
 - (iii) thirdly, whether the respondent took control of the construction program and directed the order of work, and what effect that had on the LD's, which picks up the claimant's summarised submission in paragraph 272 (iii) and respondent's summarised submissions in paragraph 273(vii) above;
 - (iv) fourthly, whether by directing separable portions, but not apportioning the LD's, rendered the rate for LD's uncertain, which picks up the claimant's summarised submission in paragraph 272(iv) and the respondent's summarised submissions in paragraph 273(viii) above;
 - (v) fifthly, whether the LD's are a penalty, which captures the claimant's summarised submission in paragraph 272(v) above and the respondent's summarised submissions in paragraph 273(x) above;
 - (vi) sixthly, whether the respondent's conduct meant that it was estopped, and/or had waived its rights to LD's, which captures the claimant's and respondent's additional submissions 2(a) and (b); and
 - (vii) finally, what, if any, is the amount of applicable LD's, which captures the respondent's summarised submissions in paragraph 273(iii) above.
- a. *GC 46.7 provides for the claimant's indebtedness for LD's and separable portions*
278. In paragraph 14.1(a) through to (c) of the respondent's submissions on page 134, the respondent explains the effect of GC 46.7. I am satisfied that GC clause 46.7, together with the rate of \$17,000 per day identified in Annexure A is part of the contract, because it is in section 3 of appendix 1 in RWP1, which I've found contains the contract. Accordingly, the respondent has satisfied me of the LD mechanism in the contract.
279. In paragraphs 14.1(d) through to (m) of the respondents submissions on page 135, the respondent explains that there was an intention to separate stage 2, phase 2 works from the balance of the project. It explains, as identified earlier in paragraph 9.13 of the respondents submissions from pages 31 through to 35, that the liquidated damages regime for phase 1 remained.
280. Although the 1 September 2010 letter itself does not direct separable portions, because it refers to them being the subject of further discussions, it appears from a review of all of the material that separable portions were directed.
281. I find that GC clause 46.4 provides that the respondent could direct any part of the works be performed as a separable portion, so that I am satisfied that the respondent could direct separable portions, and the 1 September 2010 letter is some evidence moving towards that goal.
282. I accept the respondents submissions on this point.
283. I accept that the respondent's claim, in paragraph 14.1 (o) of its submissions, is liquidated damages for non-completion of the stage two, phase 1 works only, and that it has an entitlement, subject to what is discussed below in levying them.

b. Was there a date for practical completion, agreed or directed

284. I have already found that when the contract was signed, that the date for practical completion of 30 July 2010, could never have been achieved, which the respondent ought reasonably to have known.
285. In paragraphs 94 through to 102, the claimant's focused on the respondent inability to impose liquidated damages because no milestone date for completion of the work was provided at the time of the notice to proceed with stage 2 on 22nd of June 2000 and I agree with those submissions, because at this stage the milestone date relating to the date for practical completion was "TBA".
286. However, I do not agree with submission 103 where claimant said that the respondent had confirmed that there was no milestone date of completion of the works and it could not resile from that. The claimant correctly identifies, in paragraph 97, that the date for practical completion is a *milestone date*, and the date for practical completion is that stated in Annexure A, but allows an extension of time being granted by the respondent [paragraph 96].
287. I have found that the respondent extended the date for practical completion on 1 September 2010 in response to the claimant's EOT, which it was entitled to do, and it was not by agreement with the claimant. As at that date there was a new date for practical completion of 6 December 2010 for the stage two phase 1 works, albeit not by agreement because I found no agreement, but by direction. I therefore accepted the submissions of the respondent in paragraph 14.2(b)(vii) to (ix) that the date for practical completion was adjusted. I do not accept the respondents submission in paragraph 14.2(b)(xi) that the date for practical completion of stage two, phase 1 works was adjusted again to 1 February 2012. The submission should have read 2011.
288. To my mind this means that the claimant's submissions in paragraph 104 through to 107 cannot be accepted, because a new milestone date had been provided by direction, and in my view it is not necessary for a new date for practical completion to be agreed with the claimant. It is entirely in the power of the respondent to identify what the date for practical completion was, as this is provided in the definition of date for practical completion.
289. This means that the claimant's submissions in paragraphs 108 through to 116 also cannot be accepted because it is not necessary for there to be an agreement with the claimant regarding the date for practical completion. I agree that no agreement was reached, but the contract does not require agreement.
290. This means I cannot accept the proposition that time was *at large* such that the claimant was only required to complete the works within a reasonable time, and it is not necessary for me to consider the respondents submissions in paragraph 14.2(c) dealing with the *time at large* submissions of the claimant.
291. The respondent then unilaterally provided further EOT's for wet weather in June 2011, extending the date for practical completion to 1 February 2011, which it is entitled to do under GC clause 46.6(h).
292. It never granted any further EOT's, and failure to grant EOT's does not cause a Milestone Date to be set at large according to GC clause 44.6(i), nor does it impact on the respondent's rights to claims LD's, but the claimant's rights to claim damages are not prejudiced. Adjudication cannot consider damages, unless they are damages provided by the contract and delay damages and liquidated damages are provided for in the contract.
293. Accordingly, unless I allow further EOT's, then 1 February 2011 is the date for practical completion under the contract, but only for stage two phase 1. The respondent conceded at paragraph 14.1 (k) that a date for practical completion of the phase 2 works was never set.

c. Whether the respondent took control of the construction program and directed the work

294. I have found that by 1 July 2010, the respondent had taken over control of the construction program and directed the work in 3 week look ahead programs.

295. In paragraphs 117 through to 124, the claimant in its submissions deals with this important issue. The respondent opposes the claimant in its submissions in paragraph 14.2(d).
296. The thrust of the respondent's submissions in relation to this important issue is that the claimant failed to satisfy contractual requirements in relation to programming, such that the respondent, as a mitigation measure, then provided look ahead schedules.
297. My findings are at odds with the submissions. I have found that the respondent took over control of the programming and directed the work to be carried out in accordance with three week look ahead programs.
298. I have found that the respondent recognised its inability to provide the design AFC's and particular items of equipment, and its urgency to commence construction, together with its focus on delivering PLU's for which it had provided design and equipment, meant that the claimant was not in a position to provide meaningful programs in accordance with the contract.
299. I've also found that there was no communication from the respondent to the claimant about its alleged deficient program, such that GC clause 44.6(c) was not activated to require a resubmission of the program. As I have already stated, the fact that Mr Dominic, who was responsible for programming, made no reference in his statement to ever querying the Uncorrected Waltz Baseline Program during the project, together with me preferring Mr Paterson's sworn evidence to that of Mr Jarver (who could provide no documentary support for his assertion that he asked on many occasions for the program to be updated), is significant for such an important activity required by the claimant under the contract.
300. The inference that I draw from this lack of communication, was a recognition by the respondent that no meaningful program could be provided by the claimant because of the uncertainty in relation to the design AFC's and the availability of equipment for installation.
301. Essentially, I therefore accept paragraph 123 of the claimant submissions that the respondent prevented the claimant from undertaking the work in accordance with its own programming in order to meet the date for practical completion.
302. In relation to this submission, I am not clear how the respondent is alleged to have breached GC clause 44 regarding programming. In my view, the claimant is responsible under that clause to carry out programming, and although the respondent has powers under that clause to direct acceleration, and to challenge the content of the program and require re-submission of the program, it has not been pointed out to me how the respondent has breached clause 44. I accept that the respondent's conduct by taking over the programming and directing and controlling works, prevented the claimant from being able to comply with GC clause 44, but I do not see where a breach of this clause is established.
303. The claimant continues in paragraph 123 of its submissions that the respondent was in breach of GC clause 2.4 of the contract which requires each party to "do all things necessary on its part to enable each other party to have the benefit of the contract". The respondent does not provide any submissions to counter this assertion. I am left therefore to evaluate the facts as I have found them in light of GC clause 2.4 of the contract.
304. Given that programming and direction of the order work had been taken from the claimant, I find that the claimant did not have the benefit of clause 44 of the contract which allowed it to do so. By inference therefore, its inability to have control over this important aspect of work meant that it was unable to have the benefit to properly program its resources to carry out the necessary activities, as asserted by Mr Paterson in paragraph 107 of RWP1. This resulted in a substantial delays because of the inability to proceed with procurement and fabrication, as asserted by Mr Paterson in paragraph 118 of RWP1, and I agree with Mr Paterson about these assertions which were not controverted by the respondent's witnesses.
305. I find therefore that there has been a breach by the respondent of GC clause 2.4 of the contract.
306. The claimant in paragraph 123 of its submissions also refers to a breach of GC clause 2.5 which deals with the issue of "good faith". Whilst not directly controverting that

submission, the respondent, at paragraph 16 challenged the claimant's assertions about lack of good faith identified in section 2 of the introduction and refuted it. I therefore need to consider whether any of the respondent's submissions deal with the claimant's submission about the taking over of programming and directing the work demonstrating a breach of GC clause 2.5. I will also refer to the claimant's assertions in section 2 of the introduction (paragraph 18) for completeness.

307. GC clause 2.5 provides:

"Each party shall act under this contract in good faith.

For the purposes of the contract, acting in good faith means:

- (a) being fair, reasonable and honest;*
- (b) doing all things required by the contract; and*
- (c) not impeding or restricting the other party's performance."*

308. The claimant asserts in paragraph 123, that the respondent was in breach of clause 2.5 which it identified as (*Obligations to act in good faith, honestly, fairly and reasonably*). In paragraph 18 of its submissions it referred to the parties express obligations to *act in good faith*. I therefore need to consider what is meant by the words *good faith* and GC clause 2.5 was not only referred to being fair, reasonable and honest, but also "*not impeding or restricting the other party's performance*".

309. I note that the respondent, at paragraph 16(c)(iii) of its submissions says that allegations of breach of good faith, unconscionability and misleading conduct are serious allegations that should not be made lightly by legal practitioners, and that they are not matters about which I can make any findings.

310. I've not seen any allegations by the claimant about unconscionability and misleading conduct in either paragraph 18 or paragraph 123 of the claimant's submissions. The assertion in paragraph 123 reads, "... and 2.5 (*Obligations to act in good faith, honestly, fairly and reasonably*)" and coupled with the earlier assertion about good faith in paragraph 18, I am satisfied that the claimant was focusing on the issue of *good faith* as described by the contract, rather than some more prejudicial meaning. Accordingly, I make no finding about unconscionability and misleading conduct. However, the claimant does allege a breach of the clause relating to *good faith*, and that is a clause under the contract, and as an adjudicator I am obliged to consider the provisions of the construction contract under s26(2)(b) of BCIPA, as well as the submissions in support of the payment claim under s 26(2)(c) of BCIPA.

311. When considering the definition of *good faith*, and my finding that the respondent was involved in the taking over of programming and directing the work, I find that this was likely to have *impeded or restricted the claimant's performance* [GC clause 2.5(c)] because the claimant could not properly plan or allocated its resources in accordance with the construction program, and it was subject to delays because of the unavailability of the design AFC's and equipment. I do not see within this definition, that there is any issue of moral delinquency to which the respondent appears to be alluding. The respondent's paragraph 16(c)(iii) submissions referred to good faith, *unconscionability and misleading conduct*, as if good faith was linked to the other two terms.

312. The contractual definition of good faith about which I make a finding is *impeding or restricting the other party's performance* and to my mind that connotes no moral delinquency. The respondent referred in paragraph 16(c)(iv) to the case of *Briginshaw v Briginshaw* (1938) 60 CLR 336 and the decision of Dixon J, and the extract it provided from page 363. A few sentences earlier, His Honour had provided a number of useful sentences to explain the standard of proof required for a tribunal, and I have extracted some of them from the online version of the case to which I was referred, because a copy was not provided to me:

"The truth is that, when the law requires the proof of any fact, the tribunal must feel an actual persuasion of its occurrence or existence before it can be found.....Except upon criminal issues to be proved by the prosecution, it is enough that the affirmative of an allegation is made out to the reasonable satisfaction of the tribunal.... The seriousness

of an allegation made, the inherent unlikelihood of an occurrence of a given description, or the gravity of the consequences flowing from a particular finding are considerations which must affect the answer to the question whether the issue has been proved to the reasonable satisfaction of the tribunal.... Everyone must feel that, when, for instance, the issue is on which of two dates an admitted occurrence took place, a satisfactory conclusion may be reached on materials of a kind that would not satisfy any sound and prudent judgment if the question was whether some act had been done involving grave moral delinquency."

313. I am not considering moral delinquency on the part of the respondent in making a finding about lack of good faith as defined by the contract, which really deals with the effect of the taking over of the programming and directing work, and I am satisfied that the claimant was *impeded or restricted* for the reasons identified above. I do not find any submissions provided by the respondent in relation to the issue of good faith that counter the possibility of such a finding.
314. The respondent provided a number of assertions regarding how it had demonstrated good faith by granting wet weather EOT's, paying money on account, and paying on account of the variation claims, but those are not persuasive in dealing with the issue at hand.
315. I have therefore found that the respondent breached GC clauses 2.4 and 2.5 of the contract by taking over of the programming and directing work.
316. However, at paragraph 124 of the claimant's submissions, it said that the respondent could not obtain the benefit of avoiding a liability to grant the claimant an extension of time and pay associated delay damages and it referred to the case of *Suttor v Gundowda Pty Ltd* (1950) 91 CLR 418 at 440 – 442. This is dealing with a separate issue of the claimant's right to delay damages. Nowhere in the claimant's submissions did the claimant make reference to this breach preventing the respondent from levying liquidated damages, nor did it provide authority to suggest that such a breach disentitled the respondent to levy liquidated damages.
317. Accordingly, despite the fact that the respondent was in breach of these to clauses, to my mind that does not disentitle the respondent on the submissions before me, to levy liquidated damages.

d. Whether by not apportioning LD's for the separable portions, rendered the LD's uncertain

318. The claimant in paragraphs 125 through to 137 asserts essentially that the operation of the LD's GC clause 46.7 is uncertain because the Principal's Representatives did not make up his own mind how the rate of LD's could be adjusted on the account of the separable portions that he had directed.
319. In paragraph 14.2(e)(ix) the respondent extracted the provisions of GC clause 46.4 in which the first few words were, "the Principal's Representative may [sic] adjust the liquidated damages under clause 46.7 in its absolute discretion on account of..."
320. To my mind this clause provides that the Principal's Representative may in its absolute discretion [my underlining] adjust LD's for separable portions, but they are not obliged to do, as stated by the respondent in paragraph 14.2(e)(x) of its submissions; and if the Principal's Representative does not do so, then to my mind LD's apply to the separable portions, with the proviso that they cannot exceed the aggregate of all LD's stated in the contract.
321. At paragraph 125 of its submissions, the claimant said that the respondent did not exercise the power to adjust liquidated damages, and I agree that there is nothing in the letter of 1 September 2010 to suggest that he did. However, failure to do so to my mind is not render LD's uncertain. I therefore reject the submissions of the claimant in paragraphs 125 through to 137.

322. Accordingly, I find that the LD's can apply to separable portion 1 of stage two at \$17,000 per day.

e. Whether the LD's are a penalty

323. The claimant in paragraphs 138 through to 145 asserted that the liquidated damages were a penalty because there was no evidence that the respondent had undertaken the exercise of genuinely pre-estimating its loss. At paragraph 140, it conceded that GC clause 46.8 provides for liquidated damages at \$17,000 per calendar day as a reasonable and genuine estimate of loss; however, the claimant asserts that it was necessary for the respondent to disclose the basis upon which this genuine pre-estimate was based.

324. The claimant has not provided any authority for this proposition. Whilst I accept that Mr Paterson, in paragraph 26 of RWP1, confirms that there was no disclosure in the contract about the basis of liquidated damages, it is open to me find that it was discussed with Mr Paterson in August or September 2009 as asserted in paragraph 7.7 of Mr Jarver's statement. I have not needed to evaluate the possible contests between these two statements, because I don't see a contest. Mr Paterson is relating what the contract provided, and Mr Jarver is relating what had happened prior to the contract, so there's no need to do so.

325. Had there been some authority provided to demonstrate that it was necessary that the contract disclose the basis of the pre-estimate of the damages, then I could have accepted Mr Paterson's evidence, whereupon clause 6 of the Formal Instrument of Agreement would have precluded Mr Jarver's evidence of precontract communications from forming part of the contract, because clause 6 would prevent such communications forming part of the contract.

326. However, no such authority was provided. The claimant did refer to the High Court decision of *Ringrow Pty Ltd v BP Australia Pty Ltd* (2005) ALJR 219 which explained that LD's would be a penalty if they were out of proportion to the damage likely to be suffered as a result of the breach. I have read the case and found that the Court actually said that it must be out of all proportion [my underlining] and I extract paragraph 32 of the case as follows:

"Exceptions from that freedom of contract require good reason to attract judicial intervention to set aside the bargains upon which parties of full capacity have agreed. That is why the law on penalties is, and is expressed to be, an exception from the general rule. It is why it is expressed in exceptional language. It explains why the propounded penalty must be judged "extravagant and unconscionable in amount". It is not enough that it should be lacking in proportion. It must be "out of all proportion". It would therefore be a reversal of longstanding authority to substitute a test expressed in terms of mere disproportionality. However helpful that concept may be in considering other legal questions, it sits uncomfortably in the present context."

327. The claimant has provided no evidence to suggest that the LD is are out of all proportion to the damages that are likely to be suffered, and I agree with the respondent at paragraph 14.2(f)(ii), that it is incumbent on the claimant to demonstrate the "out of all proportionality" and I do not find that it had done so. It certainly explains that the respondent would not suffer any loss of revenue as a result of the late completion of the project because it is a pilot project and was not intended for commercial production.

328. However, both Mr Jarver at paragraph 7.7 of his statement, and Mr Cavanagh at paragraph 3.3 of his statement referred to the LD's being a genuine pre-estimate of loss. Furthermore Mr Cavanagh at paragraph 4.1 refers to actual losses of \$18,285 a day, which I find means that the genuine pre-estimate is not out of all proportion to the losses actually suffered.

329. Having not demonstrated that the LD's are a penalty, or provided any evidence to suggest that, I am not required to conduct a forensic examination, nor ascertain whether there has been a pre-estimate of the damage, nor whether to decide whether the pre-estimate

was correct at the time the contract was made as urged by the claimant in paragraph 159 of the claimant's submissions.

330. I therefore reject the claimant's submissions 138 through to 145, and conclude that the liquidated damages were not a penalty.

f. Whether the respondent is estopped and/or waived its rights to LD's

331. As mentioned above, on 12 April 2012, I sought submissions from the parties in relation to this issue, because the statements provided in the adjudication pointed to this being an issue in the context of LD's.

332. The claimant's submissions 2(a) dated 16 April 2012 comprised 16 pages of submissions asserting that the respondent was estopped from levying liquidated damages and had waived its rights to do so. The respondent's 2(a) submissions dated 16 April 2012 comprised 17 pages asserting that neither estoppel nor waiver applied to prevent the respondent from levying liquidated damages.

333. In accordance with my request for the submissions, the parties then had the opportunity to respond to each other's 2(a) submissions and both parties provided their submissions within the required time on 18 April 2012. I have called these the 2(b) submissions. Both the claimant's and respondent's submissions comprised a further 16 pages.

The parties 2(a) submissions

334. Turning firstly to the claimant's 2(a) submissions. In summary, after stating that the evidence supported the submissions that the respondent would not impose LD's due to the delays caused by the respondent, the claimant asserted that I should determine, based on the principles of estoppel that:

- (i) an unequivocal representation had been made by the respondent to the claimant that the respondent would not enforce a certain right;
- (ii) that the claimant had relied on that representation;
- (iii) that the claimant had acted to its detriment in reliance on that representation, such that if the respondent were now able to exercise that legal right;
- (iv) it would be unconscionable or unconscientious for the respondent to be permitted to do so.

335. In relation to the submission regarding waiver, the claimant explained that the respondent had 2 mutually exclusive alternatives about which it needed to make an informed choice, which were:

- (i) applying the contract according to its terms, which would have allowed the claimant to control the sequencing of works and make EOT claims, but equally entitling the respondent to levy liquidated damages; and
- (ii) not applying the contract according to its terms, and therefore allowing the respondent to control the sequence of work, but in those circumstances giving up its rights to apply LD's against the claimant.

336. Turning to the respondent's 2(a) submissions in summary, they included:

- (i) reference to the evidence of the parties, and in particular the alleged contradictory evidence within Mr Paterson's statutory declaration;
- (ii) waiver being a vague term and was precluded by clause 5 of the formal instrument of agreement and GC clause 63;
- (iii) estoppel in this instance was equitable estoppel and that:
 - (a) the representations needed to be clear and unequivocal
 - (b) there was no detrimental reliance;
 - (c) that the reliance needed to be reasonable which was not made out;
 - (d) there was no relief beyond the detrimental reliance;
- (iv) the adjudicator had no equitable jurisdiction and therefore no power to apply equitable estoppel;
- (v) that the adjudicator was bound to apply liquidated damages.

Analysis of all the 2(a) and 2(b) submissions

337. I have considered all submissions on the following basis:

- (i) firstly, I have considered the evidence upon which the parties rely in order to make a finding on the evidence;
- (ii) secondly, I have considered whether I have jurisdiction to apply equitable estoppel;
- (iii) thirdly, I have considered each of the elements of estoppel to determine whether the elements are established by the evidence;
- (iv) finally, I have considered the issue of waiver in the context of the evidence.

The evidence

338. The claimant says that Mr. Jarver admits that he'd told Mr Paterson that the respondent would not impose LD's due to the delays caused by the respondent, and that the words used were almost entirely consistent with what Mr Paterson said.

339. The respondent points to a contradiction within Mr Paterson's own evidence in that at paragraphs 139 and 140 of RWP1, Mr Paterson refers to one conversation with Mr Jarver who said that the respondent would never impose liquidated damages, and then later in paragraph 211 of RWP 1 he refers to conversations on numerous occasions or at least four or five times.

340. The respondent says that given the internal contradiction the reliability of Mr Paterson's evidence must be treated with caution, and I agreed that it needs careful analysis.

341. Mr Paterson provided three statutory declarations in support of the adjudication application, the first statutory declaration was 66 pages long, the second statutory declaration was 57 pages long and the third statutory declaration was 18 pages long with extensive attachments, all of which were sworn on 15 March 2012. It is quite reasonable to expect that there would be some inconsistency in statements, particularly when so much information was provided by Mr Paterson. I have already referred to inconsistencies both within and across the respondent's statements which were nowhere near as extensive as those of Mr Paterson.

342. As I've previously mentioned, where there is a contest between Mr Paterson's evidence and Mr Jarver's evidence, I have preferred Mr Paterson because it is evidence that is given on oath. In addition, Mr Jarver does not controvert particular paragraphs of Mr Paterson's very detailed statement, but merely asserts that only one discussion ever took place, so as a consequence I prefer the evidence of Mr Paterson.

343. I am satisfied that Mr Paterson, giving his evidence on oath, demonstrated that he had spoken to Mr Jarver on a number of occasions about liquidated damages because it was such a vitally important issue in light of the respondent having taking over control of the program and directing the work, which was contractually the responsibility of the claimant. It appeared to me, when reviewing paragraphs 139 and 140 of Mr. Paterson's statement and the later paragraphs from 211 onwards that the inconsistency related to the number of discussions held Mr Jarver, and I do not consider that this inconsistency impugns the veracity of Mr Paterson's evidence.

344. I am satisfied that Mr Paterson had a number of discussions with Mr Jarver after he issued his EOT claim in September 2011 about the schedule, completion dates and the claimant's concern that it did not have a construction schedule, as identified by Mr Paterson in paragraph 211 of RWP1. His concern about liquidated damages was in the context of the respondent requiring men to be put to particular work faces so that the PLU's could be handed over to the respondent's commissioning team, and his concern that without a construction schedule, the claimant could not demonstrate a critical path delay.

345. In paragraph 212, in reliance of what he was told by Mr Jarver, Mr Paterson said he believed that the claimant simply needed to work with the respondent's construction schedules and would not have LD's imposed, and at paragraph 213, he said that he did not think that extensions of time would be an issue.

346. I cannot accept the respondents eight submissions in paragraph 2.3 of its 2(a) submissions that:
- (i) Mr Jarver could not have made the concession about the LD's alone. He was the respondent's representative who had been dealing with the claimant throughout the project and I find that he had implied an actual authority to act on behalf of the respondent as asserted in paragraphs 2.14 to 2.17 of the claimant's 2(a) submissions because of his involvement in the project at a senior level. In his statement, at paragraph 2.2 and 2.3, Mr Jarver explains his involvement including overseeing the development and implementation of the project execution strategy as well as overseeing the construction contractors and the QER management team. In paragraph 2.4 of Mr Jarver's statement he said that Mr George Polites was the *principal's representative*, however, despite being named as the respondent representative in the contract, it did not appear as if Mr Polites had been involved in the project, and he provided no statement to explain his involvement. Given Mr Jarver's intimate involvement in the project and his meetings with Mr Gregory, who was the most senior person for the claimant [paragraphs 7.3, 14.2, 15.1 and 15.3], I find that Mr. Jarver was in a position to make such a concession alone;
 - (ii) Any concession about LD's needed to be recorded in writing. Estoppel and/or waiver in this context deal with the very fact that there is a lack of writing about the change in the parties' rights;
 - (iii) Mr Jarver would not be so casual about a concession worth potentially millions of dollars. I do not see that Mr Jarver was casual at all, as he had explained to Mr Paterson that LD's could not be levied when he knew that the respondent itself was the cause of delays, and that Mr Paterson had concerns about the lack of control over the programming and sequencing of the works, which was the claimant's responsibility. To my mind Mr Jarver as a person with over 30 years experience in the construction and engineering industries would appreciate the importance to the claimant of its responsibilities to program and carry out the works, such that if this was taken away from the claimant because of factors outside its control, then the claimant would be unlikely to accept this without assurances that LD's would not be imposed;
 - (iv) the issue of the alleged lack of writing. I do not think this is important because it is not something that needs consideration in the context of estoppel and/or waiver;
 - (v) whilst Mr Jarver's version of what was said may have been consistent with the contract, I find that what Mr Jarver had said to Mr Paterson caused the claimant in relying upon what had been said to act to its detriment;
 - (vi) there was no reason why Mr Jarver would say anything other than what was provided in the contract. The evidence is that he did say things that were inconsistent with the contract. The respondent having taken over the programming of the works, because of the delays that it has caused the claimant, and by requiring the claimant provide resources for the construction work, both of which were inconsistent with clause 44 of the contract, through Mr. Jarver said that it would not levy LD's in order to get the claimant to carry out the work at the respondent's direction;
 - (vii) it was unlikely that Mr Jarver would have said that LD's would not be applied because they acted as disincentive for the claimant to complete the project as soon as possible. To my mind it was the intervention of the respondent into the programming and controlling of the works that prevented the respondent from any able to rely upon its LD rights;
 - (viii) that Mr Jarver would have been specific about whether he was talking about one or both separable portions. The respondent in its principal submissions said that time was a large in relation to separable portion 2, so to my mind LD's could only ever have applied to separable portion 1.

347. Given that I prefer Mr. Paterson's evidence over that of Mr Jarver, the issue of waiver and estoppel remains live for consideration.

Estoppel

Jurisdiction

348. The first important submission with which I have to deal is that submission 6 of the respondent's 2(a) submissions that I have no equitable jurisdiction and therefore no power to apply equitable estoppel, because my jurisdiction is under BCIPA and BCIPA confers no equitable jurisdiction and that section 26(2) of BCIPA provides the only matters that I must take into account.
349. The respondent does not provide any authority in support of its assertion that I have no power to apply equitable estoppel. The respondent says that an adjudicator has no equitable jurisdiction, but it is not clear to me what it means in this statement. I accept that it is only the superior courts that have inherent jurisdiction to grant equitable remedies, and that if lower courts are given that power, it can only be by way of legislation.
350. To my mind it can be accepted as a judicial fact that the laws of equity and the common law are fused in Australia, such that the laws of equity and the common law are able to be considered by the same tribunal of fact
351. I do not accept that consideration of the well founded principles of estoppel and/or waiver, and making a finding that the respondent is estopped from being able to enforce its strict legal rights, and/or having waived its rights to do so, means that I am granting an equitable remedy akin to the equitable remedies of injunction, or specific performance which is the preserve of the Supreme Court, or other courts by a specific legislation. Courts and tribunals that do not have the power to grant equitable remedies are still obliged to consider issues of estoppel and/or waiver if they are raised by the parties, even if they raise issues that fall within the law of equity.
352. To my mind the principles of estoppel and/or waiver fall within the well settled principles of contract, and I am obliged to consider the provisions of contract from which the application arose and the submissions are properly made by the claimant in support of the claim and those made by the respondent in support of the schedule, as asserted by the claimant in paragraph 6 of its 2(b) submissions. I called for submissions under s25(4) of BCIPA about waiver and/or estoppel and I am obliged to consider those submissions.
353. I accept, as stated in the case of *Minister For Commerce (Formerly Public Works And Services) v Contrax Plumbing (NSW) Pty Ltd* (2005) NSWCA 142 that I am obliged to consider the validity of the terms of the contract having regard to the provisions of BCIPA. I am also obliged to make findings as to the existence and effect of express contractual provisions as identified in *Parist Holdings Pty Ltd v WT Partnership Australia Pty Ltd* [2003] NSWSC 365, in order to decide the payment dispute. I extract what Nicholas J said on this point (whilst dealing with the similarly worded NSW Act) to further amplify the point as follows:
- "43 It is impossible to accept that the proper exercise of power and discharge of function would not ordinarily require an adjudicator to interpret contractual documents and/or evidence as to the existence of an oral contract or oral terms, and/or to make findings as to the existence and effect of contractual provisions whether express, implied, written or oral. (In passing, it is to be observed that by s 7 the Act applies to any construction contract, whether written or oral, or partly written and partly oral). It seems clear enough from the Minister's statement referred to in para 32 above, and as a matter of plain common sense having regard to the terms of s 22, these are likely to be necessary steps to be taken in the course of deciding a dispute the ambit of which is evidenced by the payment claim and the payment schedule. Acceptance that the process is not judicial and that there is no power to call for witnesses or to give evidence under oath provides no support for the Plaintiff's submissions.*

44 In my opinion it was properly within the Adjudicator's powers and functions to consider, and to come to a view about, each of the matters relied upon by the Plaintiff as being conduct ultra vires, and the submission must be rejected."

354. Accordingly I will consider the issue of estoppel by reference to the elements that need to be demonstrated from the facts to decide the effect of the express contractual provisions, and the first to which I refer is a representation by the respondent.

Representation by the respondent

355. I have found that Mr Paterson spoke to Mr Jarver on a number of occasions about the issue of liquidated damages because of the claimant's concerns about the respondent controlling programming and work sequencing and having to provide resources to the respondent, whilst being liable for LD's.
356. I find, on balance, that Mr Jarver told Mr Paterson:
- (i) *"Richard, how can we impose LD's new with all the issues and delays we have had in issuing design and getting equipment to you. I will not be imposing LD's on you."* [paragraph 2.11 of RWP1];
 - (ii) *"You don't have to worry about LD's. If that's what you what you're worried if about, you don't have to worry about them. We need to stay focused on trying to get this job done and we need to work together in doing that."* [paragraph 2.11 of RWP1];
 - (iii) *"We will not apply liquidated damages due to the delays been caused by QER."* [Paragraph 7.5 of Mr Jarver's statement].
357. I find that the representations were in quite clear in circumstances where Mr Jarver knew or ought to have known that by controlling programming and work sequencing and requiring the claimant to work to the three week look ahead schedules at the respondent's direction, the claimant could not work according to its construction schedule and control its work sequencing and allocation of resources, such that the claimant was legitimately concerned about LD's. I will consider the 3 statements by Mr. Jarver, as the *representation* because, as the claimant says at paragraph 2.10 of its 2(a) submissions, it is not necessary to establish a series of discussions to found an estoppel.
358. I find that by making the representation, Mr Jarver was inducing the claimant to work together with the respondent to get the project completed, with the claimant working at the direction of the respondent, and that Mr Jarver intended the claimant to act by no longer itself controlling the programming and sequencing of works (which it was obliged to do under the contract) and working at the respondent's direction, in reliance on the assumption that LD's would not be levied.
359. The respondent in its submissions does not deny that a representation was made, although it concedes that only one, *"We will not apply liquidated damages due to the delays been caused by QER"* representation was made. I have found that more than one were made.

Reliance by the respondent on that representation

360. The claimant says at paragraph 2.11 of its 2(a) submissions that in reliance on the representation, it:
- (i) caused the claimant to work in accordance with the respondent's construction schedules;
 - (ii) did not make any further claims for EOT's;
 - (iii) believed that any phase 2 claims for extra costs would be worked out at the end of the project.
361. The respondent in asserting that there was no reliance found in Mr Paterson's statement for evidence of reliance, and in particular showed that Mr Paterson's statement about not providing further claims for extensions of time was untrue.

362. I do not agree that reliance by the claimant is strictly confined to what Mr Paterson said or did not say specifically about reliance in his evidence. In my view one needs to look at the conduct of the parties as a whole. Nevertheless I must deal with the submissions.
363. At paragraph 2.3 (g) of its 2(a) submissions the respondent says that Mr Paterson attributes no reliance at paragraphs 139 and 140 of RWP1, and in his later paragraphs the respondent says:
- (i) that Mr Paterson's statement that he made no EOT claims was untrue as he had done so in 2010 and 2011;
 - (ii) that he pressed EOT claims in 2011;
 - (iii) that Mr Paterson's purported reliance only related to claims for extra costs and not to the deduction of liquidated damages.
364. I have found that there were a series of representations made by Mr Jarver, and they occurred from about November 2010 to February 2011 as stated in Mr Paterson's paragraph 212 of RWP1. I'm not prepared to accept Mr Jarver's statement in paragraph 7.2 that the discussion about LD's was around September 2010, as I prefer Mr Paterson's detailed sworn statement.
365. I find that the last EOT claim made by the respondent was 7 October 2010, and that thereafter the claimant was only pressing EOT claims that had already been submitted. I find that by pressing claims for EOT's that had already been made by the claimant, the likely reason for doing so was to recover the associated delay costs caused by the respondent's actions and delays [paragraph 336 of RWP1].
366. Accordingly I do not find that Mr Paterson statement about EOT's was untrue, and I do not find that pressing EOT claims is the same as making an EOT claim.
367. I accept the respondent's assertions that the claimant made further the EOT claims in the final payment claim, but I find that the claimant was responding to the respondent clawing back delay damages that it had already paid earlier. I do not attribute such conduct by the claimant at the end of the project as demonstrating a lack of reliance upon the representation.
368. However, the respondent at paragraph 4(s) of the 2(a) submissions stated that the reliance on the representation must be reasonable in the claimant's alleged reliance was not reasonable because:
- (i) it was unreasonable to do so involving several million dollars in the context of a contractual right for LD is and that amendments to waiver needed to be in writing;
 - (ii) the claimant had considerable time to have the alleged concession recorded in writing;
 - (iii) the claimant continue to make claims for EOT under the contract;
 - (iv) the respondent continued to operate the EOT regime and grant EOT's, so that it was not reasonable for the claimant to consider the EOT/liquidated damages regime not operative;
 - (v) the fact that the concession was not reduced to writing;
 - (vi) the claimant had made no primary submissions on waiver and estoppel regarding LD's.
369. I need to deal with each of these submissions and I will follow the same numbering, and I reject the submissions for following reasons:
- (i) the claimant at paragraph 2.19 of its 2(b) submissions referred to the two High Court cases of *Walton's Stores* and *Verwayen* and submitted that they both involved substantial amounts of money and that the financial consequences are not relevant to whether and estoppel is raised in equity. I agree with those submissions that the amount of money at stake is not relevant to a question of reasonableness of reliance;
 - (ii) I've already found that the fact that the claimant had not recorded the alleged concession in writing does not have a bearing on estoppel and/or waiver, and I do not think that it can impact upon the reasonableness of reliance;

- (iii) I have found that the claimant did not continue to make claims for EOT's under the contract;
 - (iv) insofar that the respondent granting an EOT to the claimant based on the late notice to proceed with stage two, thereby allegedly precluding the claimant's assumption that the EOT/LD's regime was not operative, falls away if this EOT was granted before the representation. This EOT was granted on 1 September 2010, and I've found that the representations were made from November 2010 onwards, so this submission cannot stand. Insofar as the EOT's for wet weather is concerned, these were unilaterally granted by the respondent, so there is nothing to suggest that the LD regime was operative;
 - (v) the submission that the concession needed to be reduced into writing has already been rejected;
 - (vi) the fact that the claimant had made no primary submissions on estoppel or waiver in relation to LD's in its primary case, does not mean that the circumstances of estoppel and/or waiver cannot be raised later. Both parties had the opportunity to provide submissions in relation to this issue which I felt needed to be taken into consideration because it has arisen out of the facts and circumstances in the adjudication.
370. The respondent's further submissions about estoppel in its 2(a) submissions need analysis:
- (i) the respondent said that the exercise of the GC clause 46 EOT regime should have put the claimant on notice of its intended departure from a representation that LD's would not be levied. I agree with the claimant's submissions in paragraph 2.21 of its 2(b) submissions that granting of EOT's does not signify an intention to thereafter impose LD's. The claimant then added that the reason why the respondent had done so was so that the claimant was not entitled to be paid delay damages. I find at paragraph 324 of RWP₁ and accept what Mr Paterson said had been told to him by Mr Bourne about this EOT where Mr Bourne said, "we are going to extend time based on wet weather because then you can't claim any costs for that extra time". There was therefore nothing to suggest to the claimant that the LD's regime had been re-activated, and I accept the authority of *Standard Chartered Bank Australia Limited v Bank Of China* (1991) 23NSWLR 164, at 180 – 181 that there is no doctrine of a constructive notice defeating an estoppel. I agree with the claimant that the estoppel in this case has not arisen as a consequence of an assumed "state of affairs," but was dealing with an express representation. Accordingly, the respondent's submission on this point is rejected;
 - (ii) the respondent could not be estopped on an ambiguity in that:
 - (a) there were two separable portions so it is unclear which separable portion was intended by the representation. I do not see any distinction made by Mr. Jarver in his statements about separable portions. Although I've already found that the LD's being claimed by the respondent only deal with phase 1 of stage 2, at the time of the final claim, the representation related to delays by the respondent, and by inference, could relate to both phases (separable portions) 1 and 2, because both were delayed, so I do not see any ambiguity;
 - (b) Mr Jarver, at the time of the representation, was likely to have only have been referring to phase 2 works because this dealt with the late delivery of free issue items. I do not see the distinction because Mr Jarver was referring to the respondent's delays, and as I've said these delays related to delays to AFC drawings as well as delivery of free issue items affecting both phases 1 and 2;
 - (c) I do not agree that the statements attributed to Mr Jarver are ambiguous as I've found that they all, when put in context, quite clearly demonstrated an intention that the claimant continue to assist the respondent's directions and carrying out of work in accordance with its schedules.

Detriment

371. The claimant submitted at paragraph 2.19 of the 2(a) submissions that if the respondent was entitled to resile from its representation then the claimant would suffer the detriment of \$6,069,000 liquidated damages. It adds that if the respondent can now resile from the representation, the claimant would have lost:
- (i) the ability to protect itself through effective construction programming and controlling the works to achieve practical completion in a timely way; and
 - (ii) the ability to protect itself by making EOT claims, and giving it flexibility to rearrange work to overcome other delays for which it was responsible.
372. The respondent countered those submissions by asserting that:
- (i) the claimant had not lost its ability to program the works and had a contractual obligation to do so, and it was relying upon on its own breach of contract to establish an estoppel. I have already found earlier that it was impossible for the claimant to provide meaningful programs because of the respondent's delays in providing design AFC's and dates for delivery of free issue items, and this was then compounded by the respondent then issuing 3 week look ahead programs, which it required the claimant to adhere to. As Mr. Paterson said, at paragraph 152, "...it was impossible in my view for Walz to work towards any scheduled date for completion other than what QER was directing." I therefore find that the claimant had lost its ability to program the works, so I reject this submission;
 - (ii) the claimant continued to make EOT claims, and I have found that this was not the case, so I reject this submission;
 - (iii) the claimant's detriment had to be measured against the position that the claimant would have been in, if it had not acted in reliance on the representation, and would have had to pay LD's for its own delay. Mr. Mitchell provided an extensive chronology of events in his statement, where from page 34 onwards he refers to delays by the claimant including:
 - (a) resourcing [paragraph 18.13];
 - (b) punchlists arising from FIC's [paragraph 19.15];
 - (c) electrical trade retention [paragraph 20.8];
 - (d) insufficient personnel for FIC's and punchlists [paragraph 21.6];
 - (e) lack of electrical trade resources [paragraph 22.5];
 - (f) E&I work resourcing deficiency [paragraph 23.6&7];
 - (g) FCI and punchlist resourcing deficiency [paragraph 24.6];
 - (h) resourcing [paragraph 25.6];
 - (i) E&I trades [paragraph 26.15];
 - (j) heat tracing, which had also been referred to earlier [paragraph 27.23];
 - (k) heat tracing [paragraph 28.5],
 and he outlined in some detail what the delays entailed and provided documents supporting what he had said.
 - (iv) The difficulty I have is that the respondent has not pointed to precisely how those delays affected the scheduled completion date of the project. In paragraph 23.7 there was reference to the hot commissioning of the retort moving from 9 July to 9 August 2011 due to resourcing issues, but the assertion is not sufficient in my view to demonstrate by reference to the program of the effect and amount of delay. In my view the respondent has the onus in relation to liquidated damages to demonstrate the amount of delays for which the claimant is responsible.
 - (v) Mr Tsipis of Evans and Peck in paragraph 3.3 of his report at paragraphs 30 and 31 referred to delays caused by the claimant, and he referred to Mr. Mitchell's statement, but made no calculations and programming analysis. He is a very experienced engineer, and if it had been possible, Mr. Tsipis' analysis could have quantified those delays.

- (vi) I understand that in adjudication, there are significant time constraints, and his report was directed at commenting on the Hinds Blunden report [see subparagraph 14 of paragraph 2.1 of Evans and Peck report] which was dealing with EOT's and not LD's. However, in commenting on the Hinds Blunden report and program, particularly on the grounds of claimant-caused delays, if it was possible to have demonstrated the extent and effect of those delays, it would have been useful to do so. The fact that the Evans and Peck report did not do so, points some way towards establishing that it was not an easy task, and the respondent needed in my view to carry out that task to establish its entitlement to LD's.
 - (vii) In my view it would be very difficult to demonstrate claimant-caused delays in circumstances where the claimant was carrying out work in accordance with the respondent's directions, and in circumstances where design AFC's were not available and it was uncertain as to when they would be available, and the whereabouts of free issue equipment was up in the air. However, as I have said, the onus lay with the respondent to demonstrate these delays in the context of levying LD's.
373. Accordingly, I am not satisfied on the evidence that the claimant did cause delays for which it was responsible, and I therefore reject the respondent's submission that the claimant had to pay for LD's for its own delay, because there is no evidence of the claimant's delay.

Unconscionable for the respondent to resile from its representation:

374. The claimant's submissions 2.22 through to 2.25 of its 2(a) submissions explained that
- (i) an experienced project manager's admission of making a representation should be prevented from being resiled from;
 - (ii) by leading the claimant to act to its detriment by its direct and unequivocal representation that LD's would not be applied, it would be unconscionable to allow the respondent to levy LD's where the claimant cannot revert to its original position;
 - (iii) it was improper for the respondent to withhold \$6,069,000 LD's and the only remedy is to have the respondent estopped;
 - (iv) an estoppel preventing the respondent from levying LD's did not derogate from the claimant's entitlement to claim delay damages.
375. In response, the respondent in paragraph 6 of its 2(b) submissions asserted that:
- (i) essentially the claimant was obliged to program the works in accordance with the contract; and
 - (ii) that the respondent had only taken over this function because of the claimant's failure to do so; and
 - (iii) that the detriment suffered by the claimant did not support the remedy of estoppel of levying LD's.
376. Turning to the respondent's submissions, which I reject for the followings reasons:
- (i) I have found that the claimant could not program the works because of the respondent's delays;
 - (ii) I have found that the respondent took over the programming function because of its acknowledged inability to provide design AFC's and dates for delivery of equipment and its desire to commence construction and complete the works through a sequence of completing PLU's;
 - (iii) I have already found under the previous heading that the respondent has not demonstrated delays for which the claimant was responsible, such that the detriment suffered by the claimant, could only be overcome by the respondent being estopped from levying LD's
377. I have found that the respondent made the representation that the respondent would not levy LD's because it had delayed the claimant in the provision of design AFC and free issue equipment, and had taken over the programming of the works and directed the claimant to carry out work in accordance with its schedule.

378. I have found that the respondent intended that the claimant rely on the representation because it was aware that the claimant had the right to program and control its own works under GC clause 44 of the contract.
379. I have found that in reliance upon the representations, the claimant had provided resources and carried out work in accordance with the respondent's directions in the three week look ahead schedules in order to complete PLU's. In addition, it had forgone the right to program and control its works and to claim LD's.
380. I have found that it was reasonable for the claimant to have relied upon the representation
381. By doing so the claimant had given up its right to program and control the work in accordance with the program and the resources at its disposal and to claim EOT's, and that the detriment it now suffers is exposure to LD's, which it otherwise could have prevented by programming and controlling the work and claiming EOT's.
382. I find that the respondent has not demonstrated that the claimant is responsible for any delays for which it would be exposed to LD's.
383. I find therefore that it would be unconscionable for the respondent to now levy LD's, and I reject the respondent's payment schedule amount for \$6,069,000 for LD's.

Waiver

384. The submissions by both parties on waiver are much shorter. I refer to the claimant's submissions at paragraph 6 of the 2(a) submissions and 3 of the 2(b) submissions and paragraph 3 of the respondent's 2(a) submissions and paragraph 8 of the 2(b) submissions.
385. Both parties refer to the case of *Commonwealth v Verwayen* (1990) 170 CLR 394 to demonstrate that waiver is an imprecise term to describe a variety of circumstances. Both parties agree that waiver involves a deliberate renunciation of a right or benefit or a conscious choice between two mutually exclusive alternatives.
386. The claimant demonstrated that Mr. Jarver, as an experienced project director was aware that the respondent could either:
- (i) apply the contract according to its terms, which meant that the claimant was entitled to control and sequence the works, and make EOT claims, whilst the respondent could levy LD's; or
 - (ii) not apply the contract according to its terms thereby enabling it to program and control the sequence of works, rather than the claimant, but in turn give up its rights to LD's.
387. The claimant submitted that Mr. Jarver, whilst recognising that the claimant's rights to EOT's and delay damages would negate the respondent's rights to LD's and would entitle the claimant to delay damages as a result of those EOT's, thereby chose the latter option in order to gain the benefit of the claimant focussing on the construction work, rather than performing the work in accordance with its contractual rights and responsibilities.
388. The respondent submissions relied entirely upon the clauses in the contract: clause 5 of the Formal Instrument of Agreement and GC clause 63 to demonstrate that there was no written record of any waiver of the LD's clause. It added that there was no evidence of waiver of the waiver clauses themselves.
389. The claimant in paragraph 3 of the 2(b) submissions refuted this contention with support from authorities that were provided as follows:
- (i) *Commonwealth v Verwayen* (1990) 170 CLR 394, at pages 406-407, stating that a party may expressly or impliedly give up the right to insist upon a contractual condition or right;
 - (ii) *Corbett Court Pty Ltd v Quasar Constructions (NSW) Pty Ltd* (2009) 25 BCL 29 at 47, [110] and [112] that waiver or estoppel outflanks the formal provisions of a contract if they have been waived or a party is estopped from enforcing these formal provisions;

- (iii) Keating on Building Contracts at page 230, providing that there can be an express or implied waiver, and if express to not enforce a clause, may be binding even without consideration.
390. The respondent did not take issue with these authorities in its 2(b) submissions. I find it likely that Mr Jarver selected the latter option to not apply the contract according to its terms because he knew or ought to have known about the delays the respondent was causing to the claimant.
391. I am satisfied that the respondent waived its rights to LD's without there being evidence of it doing so in writing, by impliedly giving up its right to levy LD's. There is support for this finding because there is no evidence of the respondent levying LD's or even warning the claimant that it was going to do so, until the final payment schedule.
392. Accordingly, I find that the respondent waived its rights to levy LD's.
- g. *What, if any, is the appropriate amount of LD's*
393. I have found that the respondent is not entitled to levy LD's because it took over the work and is estopped and waived its rights to levy them.
394. Accordingly I find that there is no appropriate amount for LD's, so I reject the respondent's claim for \$6,069,000 in the payment claim and adjudication response.

XIV. The claimant's rights to extensions of time

395. This issue requires careful analysis because I have found that the respondent took over programming and directed work to be completed by PLU's from July 2010. However, I have found that the program delivered on 14 July 2010 is the best evidence of the contractor's program and the status of the work at that time.
396. EOT's are granted if the claimant is delayed in achieving Milestone dates
397. By having difficulty in demonstrating a critical path raises the issue as to whether the claimant therefore lost its rights to claim EOT's in order to seek delay damages. In my view, by taking over the programming, the respondent could not thereby prevent the claimant's entitlement under the contract to be compensated for delays, for which it was not responsible, and for which it was incurring costs. That analysis is discussed below.
398. I thought it appropriate to firstly consider the experts reports so that their findings can be applied to the particular EOT's which are discussed later.

Experts reports

399. I have referred to the expert reports of Mr. Geoffrey Bell of Hinds Blunden called ("HB") and that of Mr. George Tsipis of Evans & Peck called ("GT") because of the complexity associated with programming and delays involved in this dispute.
400. I make some observations about the reports at the outset, because they have influenced my reasoning. Both gentlemen are very experienced qualified engineers. Mr Bell is a mechanical engineer and Mr. Tsipis a civil engineer and both have substantial experience with which to provide opinion evidence. Consequently, I have considered both reports as part of the evidence in this dispute and I have relied upon them in reaching a decision on the EOT's and associated delay damages..
401. The HB report dealt with the EOT's claimed and provided an analysis of the delays claimed and commented on the claimant's entitlement and provided an assessment of what Mr. Bell opined was the appropriate delay for each EOT. He also commented on the methodology of the delay costs. In addition he commented, where he felt appropriate, on some of the respondent's reasons for rejecting the EOT's claimed. In my view his report was professional and dispassionate and was confined to the area of his expertise, which was refreshing. For example, at paragraph 137 he said, "*Many of these reasons relate to matters of fact or contractual issues for which I offer no comment. there are however several issues raised where my expertise or experience qualifies me to comment.*"

402. The GT report comments on the HB report contained a number of comments which I summarise, because it is important for the parties to appreciate that I have concerns about some of these comments, which I have made next to each comment. The GT comments have had a bearing as to which report I have preferred in relation to certain issues. These concerns are not meant to be a criticism or endorsement of either gentleman, but are solely directed at demonstrating the amount of weight given to each report and the reason for so doing.

403. The executive summary of GT report commented, using my summary in italics, as follows:

- (i) *Mr. Bell had not addressed the fundamental issue as to whether the claimant was time-barred under the contract.*

In my view, the effect of contractual time bars is a legal question, which the adjudicator must decide based on all of the evidence. If Mr. Bell had made any comment about this legal issue, based on what the claimant had told him, I would have not given it any weight. By not addressing the time bar question, which is dependent on findings of fact, and then the application of legal reasoning, in my view enhances the HB report, as it has confined itself to matters about which it could give opinion evidence. Mr. Bell was asked to report on any delays that were claimed to have occurred throughout the project [paragraph 2 of the HB report], and in my view that is precisely what he has done. At paragraph 14 he specifically said, "I note that I have not assessed whether or not Walz have complied with the notice provisions of clause 46.6.

Unfortunately, the GT report appears to have accepted facts as to the dates of EOT notices, and then applied those facts to GC Clause 46.6, to reach a concluded view that the claimant was time-barred in bringing its EOT claims.

In my view this analysis detracts from the GT report, because it has introduced a dimension which Mr. Bell specifically had not addressed. Furthermore, the analysis is based on facts that may not be finally determinative of whether the claimant is time barred. Opinion evidence is received as fact by tribunals when:

- the expert is properly qualified; and
- the facts upon which the expert has proffered an opinion are accepted by the tribunal.

I make no finding as to whether Mr. Tsipis is an expert on contractual issues, however, the facts surrounding the EOT claims need to be established and then the contract needs to be construed in light of those facts, so I am not prepared to accept the opinion in paragraph 3.2 of the GT report about the effect of the time bars.

- (ii) *Mr. Bell had only addressed the EOT claims in isolation of the actual performance of the work and that the respondent had identified numerous acts and omissions for which the claimant was responsible. This meant that the delays caused by the claimant drove the actual completion to 24 January 2012;*

The GT report refers to Mr. Mitchell's statements from paragraphs 18.5 through to 29.11 as illustrative of delays by the claimant. I have already referred to the chronology provided by Mr. Mitchell under the heading of Waiver and the subheading of Detriment above.

The chronology listed delays and difficulties allegedly attributed to the claimant, but there were no specific delays identified and quantified to demonstrate how and by how much they caused a delay to the date for practical completion. Mr. Mitchell quite properly concedes the respondent's delays associated with the isometric drawings throughout the chronology, and concedes that by 23 February 2011 the isometric

drawing delay was over, which is what the claimant had stated in its letter to the respondent dated 16 February 2012 [tab 441].

He did periodically mention that the late reception of the drawings could have been managed efficiently by progressing fabrication on the isometric drawings to date, but it is not specified precisely by how much this lack of mitigation by the claimant was causative of delays.

The complaints about the FIC's not being completed, should to my mind have to take into account that the claimant was working at the respondent's direction, and it may well be that the lack of resourcing was unavoidable, such that if the claimant had had control over the program and the work, such delays may not have occurred. I have no way of being able to establish such facts, as this is an adjudication and not an arbitration, where witnesses can be examined.

I have already found that it would be very difficult to demonstrate these claimant-caused delays, particularly having regard to the delays caused by the respondent in not delivering the design AFC's (isometric, structural etc) in time and the uncertainty associated with the free issue equipment. All of these delays are admitted by the respondent. In addition, the respondent had taken over the programming function and directing the claimant to follow the respondent's programs, and this has also been admitted by the respondent.

The respondent's 3 week look ahead programs to which I have found the claimant was working are unable to be used for analysis according to paragraph 42 of the HB report and I accept that is correct.

As I have mentioned earlier, it would have been useful if the GT report could have provided an analysis of the claimant-caused delays in order to assist in the decision about this issue. This is not meant as a criticism, as I appreciate that time may have precluded such an analysis and it was not in the brief, and in my view it would have been very difficult to do so. However, this did not occur, which leaves the allegations about claimant-caused delays, merely allegations by the respondent about which I can make no findings.

I am therefore not persuaded by the GT report that the HB report is deficient in that regard, because the claimant-caused delays in the circumstances have not been sufficiently established by the respondent.

- (iii) *Mr. Bell had used a program prepared by the claimant, which:*
- (a) did not contain statused information;*
 - (b) did not take into account the actual performance of the work;*
 - (c) did not take into account other delays;*

Mr Bell referred in paragraph 49 stated that it was a reasonable program and represents the best evidence of the claimant's intended execution of work at the commencement of stage 2. I have already made that finding under the heading, *The claimant's 14 July 2010 letter and programme* above, and it is the claimant's program under GC clause 44.6 that work progress was to be measured. I therefore agree with Mr. Bell that it was the best evidence.

Mr. Tsipis' concerns that it was not a statused program. At paragraph 47 Mr. Bell said that there was no percentage complete information, and that it was his

understanding that it was prepared at the commencement of stage 2. In that event, apart from activities that may have already started for stage 2, about which I have not been directed, and about which I make no finding, it is logical that there was no percentage complete at the start of this part of the project because activities would not have started yet. After 14 July 2010 activities may well have been able to have been statused on the program, but this was not the program the parties were using for construction, and as I understand from Mr. Paterson would have been very difficult to do. This factor was something that I assume Mr. Bell as an expert took into consideration when he carried out his analysis.

The concern about the HB report not taking account the actual performance of the work may well be an issue that experts in programming may debate. However, to my mind, if the program at the start of a project, for example in relation to EOT 1, shows activities on a critical path (the 2200 Shale Processing and 2250 Spent Shale), and others where there is very little float (2300 - Oil Recovery and 2500- Sour Water Plant), and that float is demonstrably exceeded by the respondent's delays in not providing isometric drawings, such that the latter activities become the critical path, I do not see that any other evidence of the actual performance of the work is likely to detract from the effect of that delay. I agree that if there were activities on the program that were delayed by the claimant that created another critical path for which the claimant was responsible, then this criticism of the HB report would be valid. However, there has been no cogent evidence provided to demonstrate claimant-caused delays affected this critical path. If the respondent had such concerns about this issue, it could have provided its own statused program to demonstrate claimant- caused delays, thereby demonstrating the faulty analysis carried out in the HB report, but it chose not to do so.

I have read the criticisms of the Impacted As- Planned method by the Society of Construction Law in paragraph 86 of the GT report, in which it is said that whilst there was a recognition that the strength of the method is that it uses the baseline program and a schedule of delay events, the criticisms were that:

- the original baseline program may not be realistic on which to base the whole analysis; and
- the method did not consider what actually delayed the works.

As to the first criticism, I have found that the baseline program is the best evidence available, and I have found that after this program was provided, the programming was taken over by the respondent and the respondent directed the order of the works, so the claimant did not depart from its baseline program of its own volition.

As to the second criticism, there is no cogent evidence pointing to the claimant delaying the works. In fact, if an analysis of the events could be done, which I accept would be difficult, as a matter of logic, it would point to delays by the respondent because of it taking over programming and control of the works because of its own delays and its desire to complete PLU's that it had chosen.

Accordingly, I do not find that these concerns detract from the HB report.

- (iv) *Mr. Bell assessed the date for practical completion to be extended to 20 June 2011, which was seven months earlier than the date of practical completion and offered no explanation;*

I do not understand this assertion, as Mr. Bell has calculated the delays for the claimant's EOT's, so I do not see the HB report is deficient in not commenting about other later delays that may have had an impact on the date for practical completion. I have found that EOT's were not claimed after 7 October 2010, because of a representation by the respondent, and if these EOT's had been claimed then they would have needed analysis. However, this did not occur, so I do not see a need for an explanation from Mr. Bell.

Accordingly, I do not find that these concerns detract from the HB report.

- (v) *Mr. Bell's failure to take into account of other delays on the project meant that he had not identified the critical activities that caused the completion to be seven months after Mr. Bell's date for practical completion*
I have already found that there is no cogent evidence that other delays (and I presume Mr. Tsipis is referring to concurrent delays) are attributable to the claimant. As I have said I think that it would be very difficult to demonstrate such delays in the circumstances.

Accordingly, I do not find that these concerns detract from the HB report.

- (vi) *The delays for which the claimant had claimed EOT's 1, 4 and 7 did not affect completion of the project as they were spent long before 24 January 2012;*
I do not understand this comment. If activities on a critical path are delayed, the fact that they are delayed some time before the date for practical completion, does not to my mind mean that they were spent long before such that they were no longer critical in having an influence on the date for practical completion. I may well have misunderstood Mr. Tsipis' concerns in this regard, but in adjudication, as I have said, one is not in a position to have witnesses questioned.

Accordingly, I do not find that these concerns detract from the HB report.

- (vii) *the EOT claim 7 in respect of the Gas 2 Plant was part of Stage 2 and was irrelevant in assessing the delay to Stage 2 -Phase 1;*
It does not appear to me that the HB report was confined to Stage 2 - phase 1 delays, as Mr. Bell was briefed to consider the EOT's claimed and the Gas 2 Plant formed part of the EOT 7 claim.

Accordingly, I do not find that these concerns detract from the HB report.

- (viii) *the delays of which the claimant complained did not justify an extension beyond 7 February 2011;*
I am concerned by this comment, because it appears as if Mr. Tsipis has formed a view about the date for practical completion which does not accord with the evidence. For example, Mr. Mitchell, as I mentioned above, conceded that the delays for the isometric drawings ceased on 23 February 2011, which to my mind must have impacted on the oil recovery and the sour water plant.

Despite this evidence, Mr. Tsipis suggests that the work should have already been practically complete, that is before the drawings for these items were finalised. I understand that he is of the view that one does not measure a delay by the date that the last drawing is issued [paragraph 97 of his report] as fabrication and installation can occur before all drawings are provided, but I cannot accept that an activity can be complete before all the drawings have been provided, because even if it the last

drawing, there will be a need to implement whatever that drawing requires, after it has issued. I therefore cannot accept this is a valid criticism and I reject this comment.

Accordingly, I do not find that these concerns detract from the HB report.

- (ix) *the delay cost rates were unsubstantiated and unreliable and were not appropriate, and the reasonable delay cost rate was \$8, 886.30.*

I will deal with this issue under valuation below.

404. For these reasons, I therefore prefer the HB report to the GT report, and I have adopted the HB report when necessary.

405. I need to consider whether the claimant has established its rights to extensions of time, because the claimant has the onus which needs to be discharged.

EOT claims by the claimant

406. In paragraph 26 of the claimant's submissions, the claimant refers to the EOT for the delay in the respondent issuing the notice to proceed to stage 2 together with EOT numbers 1, 4, 5, 6, 7, 8 and 10. I do not understand why Mr. Tsipis in paragraph 3.13 said that he understood that the claimant was not continuing to press this claim, and it will be necessary for me to consider it.

EOT for delay in issuing notice to proceed to stage two

407. In paragraph 146 through to 154, the claimant provides its submissions in support of this EOT. I agree with the claimant that there is nothing in the payment schedule contesting this EOT, and I've already found that the notice to proceed to stage two was only issued on 23 June 2010 with a notice dated 22 June 2010.

408. I have found that the respondent granted an EOT until 6 December 2010, which on balance I found was to be in response to the claimant's claim, although not with the correct number of days allocated. I note that the HB report provides an EOT until 15 January 2011 whereas the GT report maintains the date for practical completion to 6 December 2010.

409. The GT report criticises the HB report in not considering the factual relationship and the contemplation of the parties at the time the notices issued and no contemporaneous documentation was referenced in the HB analysis. I do not understand this criticism because it appears to me to be a very simple calculation and there appeared to be nothing in the facts to suggest that there was anything special in the contemplation of the parties regarding the notice to proceed. To my mind the 169 days had been referred to in the claim by the claimant and despite the fact that it had only claimed until 8 December 2010, the correct date should have been 15 January 2011 as identified in the HB report.

410. Accordingly, I am satisfied that this EOT is valid.

411. The claimant has not pressed for any delay damages in relation to this claim.

EOT 1 – delay in issue of isometric drawings

412. The genesis of this claim occurred on 5 August 2010 by notice of delay, and this was then followed up with a formal notification dated 24 September 2010 in which the claimant stated that it was unable to quantify the final extension of time apart from stating that the delay up until that date had been 48 days and that an interim claim an extension of time would be made..

413. I'm also satisfied from Mr Paterson's statements in RWP1, that were not controverted by the respondent, that during the weekly construction meetings and the weekly progress reports that the respondent was aware that it was delaying the issue of the isometric drawings. Accordingly, I am satisfied that it was on notice about this claim of which it ought to be the work because it was in breach of contract in not providing these drawings.

414. The EOT claim complaints of the delay in relation to the issue of isometric drawings which according to the claim dated 15 February 2012 were provided:
- (i) in a fragmented and disorganised fashion;
 - (ii) were inaccurate and could not be relied upon by the contractor;
 - (iii) in an order that did not reflect a construction program provided by the claimant.
415. The claim identified that the key construction areas of delay were the PLU 2300 oil recovery and PLU 2500 sour water, and there was reference to the claimant's construction program together with the identification of how the delay in impact upon the critical path.
416. The claim identified a period of 246 days for the delay to the provision of accurate isometric drawings from 22 June 2010 to 23 February 2011. I have already found that 23 February 2011 was the accepted date for the last delay in relation to these isometric drawings and am satisfied with this calculation.
417. In addition to the claim identified a delay in completion piping fabrication from 20 October 2010 to 18 March 2011 amounting to 23 days and I am satisfied with this period. Accordingly, the total delay for the EOT was 269 days and I am satisfied with this calculation.
418. I am satisfied that there was sufficient information provided to the respondent to identify what the details of the claim were and its cause.
419. However, the claimant must demonstrate that the activities that were delayed were on the critical path and this is where there is a difficulty, because I have already found that the respondent took over the programming and directing the order of work from 1 July 2010 such that the contractors program was not followed.
420. I have found that the respondent's activities in so doing, prevented the claimant from adhering to its program which the claimant was required to do under GC clause 44 of the contract. In directing the order of work I have found that the respondent provided 3 week look ahead schedules which it directed the claimant adhere to, and I am satisfied that it was not possible from these schedules to determine a critical path. Therefore, I find it was not possible to determine whether there was a critical delay on these schedules.
421. The only practical way to determine the effect of these delays was to measure it against the claimant's original construction program which Mr Geoffrey Bell did in the HB report.
422. The respondent has time-barred both this EOT claim and all other EOT claims under the strict provisions of GC clause 46.6(a) through to (c) on the basis that it was a condition precedent to entitlement to make an EOT claim. Given that it was the respondent's breach of the contract that raised the possibility of an EOT, I agree with paragraphs 169 and 170 of the claimant's submissions that the respondent cannot take advantage of its own wrong in preventing the claimant from satisfying a condition precedent for the EOT claims.
423. As a matter of evidence, I am satisfied that in relation to EOT claims numbers 1 and 4, that the respondent did not take issue with the time bar in until its payment schedule. In fact in Mr Jarver's statement at paragraph 8.1, he mentioned in the context of the EOT claims that he said on several occasions, "We need to review the reasons for the delay and apportion responsibility so that we can make a determination on the EOT claims."
424. He added at paragraph 8.2 that there was a necessity to resolve a number of issues in relation to these claims, and provided a whole list of possible drivers of these claims including:
- (i) the respondent's responsibilities in respect of late design deliverables and free issue equipment;
 - (ii) the claimant's responsibility with respect to performance including overall resourcing, poor productivity et cetera
 - (iii) impact of the variations;
 - (iv) changes in quantities;
 - (v) wet weather;
 - (vi) lost time due to less hours of work being work;
 - (vii) determination of actual numbers of personnel on site;
 - (viii) impact of limited over time.

425. I agree with Mr Jarver that these factors need to be taken into account in order for an appropriate EOT to be determined, and to my mind the respondent was fully aware of what those issues entailed and was on notice about the delay in relation to the isometric drawings.
426. Furthermore, I find that the respondent had rejected this claim on 5 March 2011 but on the basis of the claim did not:
- (i) have a level 4 construction schedule showing logic, critical path and available float;
 - (ii) a demonstration of the activities were on the critical path;
 - (iii) take into account any delays caused by inclement weather;
 - (iv) take into account any delays caused by the claimant;
 - (v) take into account any delays caused by the claimant in working days;
 - (vi) take into account the limited staff and workers over the Christmas period.

There was no reference in this letter, which was some six months after notification of the claim about time bars, and to my mind that is logical because the respondent must have recognised that it was the cause of the delay and was prepared to analyse the claims because they did not come as any surprise.

427. I therefore reject the respondent's submissions in paragraph 13.6 that the time bar can be imposed in circumstances where it is the respondent's breach that prevented the condition precedent from being satisfied, particularly in circumstances where the respondent was on notice about the delays it was causing.
428. Given the difficulty associated with determining the critical path because of the respondent conduct in taking over programming and directing work, I reject the respondent's submissions 13.7 that the claimant has not properly identified the delay being on the critical path for this EOT. I am satisfied that the claimant's original program was delayed by the lack of provision of isometric drawings but that the factual matrix is complicated.
429. The impact of all the factors on the claimant's construction program, in the complicated circumstances of the claimant being directed to follow the respondent's schedule, makes an analysis of the EOT claim particularly complicated, and it is not possible in the constrained timeframe provided to adjudicators for me to carry out a forensic analysis. That is why the experts reports are so useful, because expert engineering evidence can be received to ascertain the proper EOT claim that should be allowed.
430. I am satisfied that the HB report, after having been satisfied that the baseline program was appropriate, and then making some adjustments to it, as identified in attachments 6 and 7 to the report, provides sufficiently detailed analysis to determine which activities were delayed. Accordingly to my mind this report overcomes the criticisms in paragraph 13.8 of the respondents submissions. In so far as the criticism that the HB report did not take into account the claimant's delays [paragraph 13.9(d)], I have already said that the respondent has failed to demonstrate in any meaningful way what those delays entailed, such that the HB report is not deficient in this regard.
431. I have already dealt with the criticisms by Mr Tsipis, again identified in paragraph 13.9(e) to (i) of the respondents submissions that the HB report failed to take into account of the delays from 20 June 2011 to January 2012 because it was limited to EOT is already claimed, and no further EOT claims were made in response to the representation made by the respondent that no LD's would be levied for delays.
432. Because I have found that the respondent has not demonstrated meaningfully the extent of the precise delays for which the claimant was responsible (and any concurrency), in the context of the respondent causing the work to be directed in accordance with its three week look ahead schedules, I therefore reject paragraphs 13.10 and 13.11 of the respondent's submissions.
433. As to paragraph 13.12 of the respondents submissions, I have already found that it was the respondent's conduct that prevented the claimant from carrying out its works in accordance with its own program, such that the complaint that the claimant could have done

more work on all fronts had it had adequate resources, cannot be accepted if the claimant was carrying out work at the respondent's direction. The contract required the claimant carry out work in accordance with its own program, not at the respondent's direction, such that any complaint about lack of resources and in that regard is not supported by the contract. I therefore reject those submissions.

434. The claimant's submissions in paragraph 13.14 deal with issues that I believe I have already largely covered, and the complaints about the lack of correspondence from fabricators, painters or suppliers to support the effect of drawing delays does not to my mind means that the delays claimed were not justified. I accept that the matter is complicated and that is why it moves into the arena of the need for expert evidence, and it is such expert evidence that has reduced the 269 days claimed to a lower figure which I am prepared to accept.
435. The further complaints in paragraph 13.14 dealing with the claimant's difficulties with substandard quality control, delays in ordering manual valves and claimant workforce turnover and resourcing difficulties have not been demonstrated by cogent evidence which therefore leads me to reject these submissions.
436. As to the submissions in 13.14 in response to those of the EOT, particular as regards the time bars, I have taken them into account in deciding that the time bars are not applicable because it was the very conduct of the respondent that precluded the ability to satisfy the condition precedent. To my mind there was sufficient notice in the meetings as I have referred to earlier, and I've already found that it was the respondent's conduct that prevented the claimant from ever being able to produce a meaningful program. Furthermore, the allegations that Mr Jarver had rejected the claimant's program and had made considerable efforts to try and get an acceptable program did not accord with the facts that I have found. I do not agree that the authority of the case of *Turner Corporation Pty Ltd v Austotel Pty Ltd* (1994) 13 BCL 378 applies in this case because it is not been established that the claimant is in the wrong.
437. I prefer the HB report which calculates the EOT, after carrying out a review of the original baseline program and the delay caused by the delay to the isometric drawings of 120 days. I cannot accept the GT report that there was no EOT allowable for this significantly disruptive delay.
438. I accept that the 120 days is significantly less than what the claimant has claimed in EOT₁, but to my mind the evidence of an expert in this area having taken appropriate factors into account is the more appropriate to accept.
439. Accordingly, the EOT for this delay is 120 working days.

EOT 4 - delay in issuing structural steel design for sour water plant

440. On 5 October 2010, the claimant made this claim for the delay in provision of the AFC designs for structural steel on the sour water plant
441. I make the same findings in relation to this EOT claim that the respondent was notified in weekly meetings and reports about the delay which was obviously caused by the respondent. Accordingly, I am satisfied that the time bars do not apply, particular have regard to the fact that it was the respondent conduct that prevented the claimant from satisfying the condition precedent in relation to this EOT.
442. I'm also satisfied that there was sufficient detail provided within the claim, that by reference to the original construction program, there was a basis for making the claim which was for 104 days.
443. In paragraph 13.15 of the respondents submissions, the respondent deals with its objections to this claim, and suggests that it is over stated, and given that I have accepted the HB report in relation to this claim providing no EOT, the thrust of the respondents objections have been dealt by the HB report's conclusion which I have accepted on this EOT.
444. Again given the complexity of the interrelationship of the delays, I am reliant on the experts reports, and I accept the HB report that, after having analysed the issue of the delay,

it has found that the delays to the sour water steelwork were not critical and would not have caused any further delay to the date of practical completion. I note that the HB report provides no EOT for this claim and I accept that as correct.

EOT5- H₂S stand down

445. I am satisfied Mr Mitchell had directed suspension of all works on 28 September 2011, and it is in response to that direction that a claim for 10 days was made.
446. Mr Mitchell at paragraph 26.12 accepts that an actual delay of 1.5 days for this delay, and at paragraph 27.14 then allowed an additional day for this claim which amounts to 2.5 days. He then adds at paragraph 27.20 when discussing EOT6, that he would allow a total of 3 days in relation to EOT claims 5 I am therefore satisfied that it least this delay was accepted by the respondent.
447. I have referred to the HB report that accepted a 9 working days delay, but the report concedes that Mr Bell had not been provided with accurate details of the site works in progress at the time. Given that Mr Mitchell had provided a detailed chronology of activities on site at that time, I prefer his evidence.
448. I find that the respondent was put on notice about the claim and that, as I've previously found, the claim is not time-barred, particularly when it was a deliberate direction by the respondent to stand down the operation, such that it must have been aware of the consequences..
449. Accordingly I allow 3 days for this delay.

EOT 6 – permits to work

450. I am satisfied that the time bars do not apply for the same reasons that I have already identified and that the claim relates to the delay by the respondent in failing to issue new permits to work for the claimant's personnel which delayed the installation and testing of installed heat tracing for work not yet formally handed over to the respondent.
451. The claim totalled 6.5 days and I note Mr Mitchell in his statement at paragraph 27.21 was prepared to allow 2 additional days for this EOT, over and above the 3 days for EOT5. I note that in the HB report Mr Bell accepts a delay of 10 hours, but I prefer the evidence of Mr Mitchell in this case because he was more aware of the actual activities on site.
452. Accordingly, I allow 2 days for this delay.

EOT 7 – delay in free issue

453. I am satisfied that the time bars do not apply for the same reasons that I have already identified and that the claim relates to the late delivery by the respondent of the free issue items. This delivery was entirely within the control of the respondent, and it must have been aware that this failure was a delaying event, and the respondent concedes as much in paragraph 13.18 (d) of its submissions.
454. The claim was for 273 days of delay and am satisfied there was sufficient detail for the respondent be aware of the basis of the claim.
455. Once again, the complexity associated with determining the precise extent of the delay meant that I have referred to the expert reports for assistance.
456. The HB report provides no EOT for the NH₃ and H₂S delays and I accept that.
457. I note that the HB report deals with the Gas 2 Skid aspect of the claim somewhat differently in that Mr Bell said that he did not have a contractor's program incorporating this work, because at the time of that program, it had not been possible to consider this issue because insufficient detail was available from the respondent. Mr. Paterson had said that these activities could not be put on the program, as there was insufficient information to program these activities.
458. Nevertheless, based on his engineering judgement, and his review of the facts that, despite being unable to determine the actual delay completion, he was satisfied that the

claimant would have had to have been on site until at least 19 September 2011, notwithstanding any other reasons and that this translated to a 78 working day delay.

459. Given that I have found that it was the respondent's conduct that prevented the programming of this activity and by delivering this item of equipment on 8 August 2011, this delayed the completion of the project according to an expert whom I prefer. The criticism in the GT report of the HB report was the fact that this aspect of the claim related to the phase 2 work, but I've already found that this EOT was not confined to phase 1 work only, but included phase 2.

460. Accordingly, I am satisfied that this EOT should be for 78 working days.

EOT 8 – electrical isolation

461. For the reasons that I have already outlined, I do not find that the claim was time-barred, particularly given that it was due to the failure of the respondent to be energised areas of the plant before the claimant could carry out work.

462. I note that Mr Mitchell accepts the delay of one day, and that in paragraph 13.19(e) of the respondents submissions, that whilst the respondent denied there was an entitlement, that the EOT would be for not more than one day.

463. The HB report finds an entitlement to an EOT for one-day and I accept that.

464. Accordingly, I am satisfied that the EOT should be for 1 day.

EOT 10 – general and disruption claim

465. in paragraph 156 of the claimant submissions the claimant said I'm obliged to make my own assessment of claims for extension of time and associated sense for delay costs or damages, and I accept this is my duty.

466. I note that there are no further submissions in support of this claim so that apart from its being in the payment claim and being referred to in paragraph 155 of the claimant's submissions, I have no further material from the claimant upon which to make an assessment.

467. In paragraph 13.20 of the respondents submissions, the respondent takes issue with these claims, and I find that the HB report, whilst recognising that there is evidence of delays caused by the respondent, that it was not possible within the time frame to determine the extent of disruption.

468. Equally, in adjudication such a task is simply not possible, and to my mind the claimant bears the onus of proof in relation to this claim and it has not discharged it.

469. Accordingly, I assess no EOT for this delay.

The respondents submissions about the global claim

470. in paragraph 13.2 to the respondent claims that the EOT claims were global claim unsupported by any meaningful analysis or backup information. Insofar as EOT₁, 4, 5, 8 are concerned I do not agree that such a criticism can be levelled against those EOT.

471. I have found that any difficulty in determining a critical path for the activities has resulted from the respondent's conduct, such that this should not in this entitle the claimant to EOT claims, if it can be demonstrated that the claimant was delayed.

472. I found that the HB report satisfactorily calculates delays in the circumstances, and I therefore reject the general observations of objection about the global claim, particularly in relation to the failure by the claimant to provide an updated program to reflect the replay in sequence of work, which I attributed to the conduct of the respondent in making that impossible to provide any meaningful program.

473. Accordingly, I am satisfied that the claimant is entitled to an EOT overall of 204 days.

474. The respondent identified 24 reasons for withholding payment for delay damages associated with extensions of time and I now deal with them under a separate heading.

XV. The respondent's reasons for not paying delay damages associated with EOT's

475. I now deal with each reason. It is important to list them because they need to be analysed. These reasons in summary, together with my analysis and reasons are as follows:
- (ii) *delay claims are time-barred under GC clause 46.6(a)-(c).* I have already provided my reasons as to why the delay claims are not time-barred and this reason is rejected;
 - (iii) *the delay claims do not contain adequate details in breach of GC clause 46.6(a)-(c).* I've already found that there are sufficient detail provided in the claims, so this reason is rejected;
 - (iv) *the claimant delayed critical activities for which it was the sole cause of delay.* Although the respondent lists a series of factors that may point towards the claimant having been responsible for delays, there is no cogent evidence provided to me upon which I could rely. In particular, the GT report makes no assessment of these delays, so I am unable to be satisfied that the claimant has caused delays on the evidence. Therefore this reason is rejected;
 - (v) *the delays claimed were non-critical delays which did not affect the completion date.* I'm not satisfied that this reason applies because for the EOT's that had been assessed, they have been based on critical delays, so this reason is rejected;
 - (vi) *the claimant was responsible for the delays due to lack of resources, inefficient working and failing to proceed with due diligence.* I have found no cogent evidence provided by the respondent to make any finding in relation to this issue, so this reason is rejected;
 - (vii) *the delays caused by the claimant were concurrent with the respondent's delays which are precluded under GC clause 46.6(j).* I've already said that there is no cogent evidence of the claimant caused delays, apart from assertions which are not quantified, such that any issue of concurrency is not available for consideration by me, so this reason is rejected;
 - (viii) *the claimant was responsible for delays by reason of:*
 - (a) *failure to manufacture and fabricate goods in accordance of the warranties in GC clause 32;*
 - (b) *failure to ensure the excavation of work carried out with due diligence and efficiency in accordance with GC clause 39 and generally;*
 - (c) *failure in the quality of the materials and workmanship in breach of GC clause 39.*

The respondent has provided me with no specific evidence upon which I can rely to make a finding in this regard, so this reason was rejected;
 - (ix) *the delay claims are not solely as a result of breaches of contract or act or omissions by the respondent, such that the only remedy is an EOT.* I've not been provided with any cogent evidence by the respondent upon which to rely, so this reason is rejected;
 - (x) *the claimant failed to comply with GC clause 60 and is prohibited from claiming compensation by virtue of that clause.* The respondent did not provide further submissions in the adjudication response in relation to this point. I refer to paragraph 227 of the claimant's submissions in which it demonstrates that clause 60.1 does not apply to claims for an extension of time. I agree that GC clause 60.1(a) specifically excludes an extension of time under clause 46.6, so I cannot understand why this reason was provided in the payment schedule as a reason for non-payment and I reject it;
 - (xi) *the claimant claims are global claims and do not contain any meaningful delay analysis.* I've already dealt with this objection and do not find that the EOT claims are global claims, so this reason is rejected;
 - (xii) *the claimant failed to comply with the programming and scheduling requirements of the contract.* I've already found that any alleged failure to comply with programming and scheduling requirements was due to the claimant's inability to do so due to the respondent taking over the programming and directing work making it impossible for the claimant to provide any meaningful program, so this reason is rejected;

- (xiii) *to the extent the claimant claims rely on ambiguities discrepancies or inconsistency is not entitled to claim under GC clause 8.1.* There are no submissions provided in the respondent's adjudication submissions about which I can receive assistance in relation to this objection which I find difficult to understand, and I reject this reason;
- (xiv) *to the extent the claimant claims rely on the provision of documentary material, be claim is not entitled to make any claim under GC clause 8.1.* There are no submissions provided in the respondent's adjudication submissions about which I can receive assistance in relation to this objection which I find difficult to understand, and I reject this reason;
- (xv) *reasons for delay advanced by the claimant not attributable to the respondent and do not demonstrate an entitlement.* I made a finding that the delays for which EOT had been granted have been because of the respondents delays, so I reject this reason;
- (xvi) *there are errors in the claimant's calculations of the periods of alleged delay.* Whatever objection the respondent has to the calculations in relation to delay, have the my mind have been cured by my consideration of all the material, and in particular accepting the HB report, so I reject this reason;
- (xvii) *the claimant has failed to mitigate delay in accordance with the contract and in particular GC clause 44.1.* There have been assertions about this issue but there has been no cogent evidence provided by the respondent upon which I could rely to demonstrate the claimant's failure to mitigate, so I reject this reason;
- (xviii) *the claimant must prove actual damage caused by the delays.* I have analysed the delay costs in light of all of the material provided to me and am satisfied that the figure that I have calculated is the actual damage suffered by the claimant, so I reject this reason;
- (xix) *the rates used as the basis for the calculation of delay damages unreasonable and have no contractual basis. Under GC clause 52.5(b):*
 - (a) *the claimant should use day rates were appropriate;*
 - (b) *the amounts claimed do not exclude resultant direct and indirect costs in connection with delay and disruption.*

I have applied the rates that I consider reasonable as required by sections 13 and 14 of BCIPA, so I reject this reason;
- (xx) *payments have already been made in respect of varied work which must be taken into account in relation to delay entitlement under GC clause 47.1(a).* I'm unable to find any evidence upon which I can rely on this point in the respondents submissions to demonstrate that the claims for delay damages, so I reject this reason;
- (xxi) *all the reasons previously notified to the claimant regarding rejection of delay based claims.* There are no further submissions in the adjudication response submissions in relation to this difficult to understand assertions and I reject this reason;
- (xxii) *EOT is granted to 1 February 2001 are at a time but no cost because:*
 - (a) *the claimant did not mobilise to site until the commencement of stage two and therefore did not suffer delay damages;*
 - (b) *the claimant is not entitled to delay damages for wet weather EOT's*

The respondent has not provided further submissions in the adjudication response submissions in relation to this issue and it is difficult to comprehend what the thrust of the objection is, apart from the fact that the claimant is not entitled to damages for wet weather EOT's and I've not allowed for any damages for wet weather EOT in this calculation, so I reject this reason;
- (xxiii) *the claimant has no entitlement to the claimed delay and disruption damages for the reasons explained.* The respondent has not expanded in the adjudication submissions on this point, which appears to try and catch all previous reasons, and I reject this reason;
- (xxiv) *the claimant was liable to pay liquidated damages in the sum of \$6,069,000.* I have already found that the claimant is not liable to pay any liquidated damages, so I reject this reason.

476. Having now established that the claimant is entitled to 204 days EOT's, I am now obliged to determine the amount of the progress payment and I do so in the reasons that follow.

O. The amount of the progress payment

477. Adjudication requires me to value the payment claim for work done under a construction contract. Valuation is made, either by means of a specific provision dealing with valuation of the particular work under the contract: s14(1)(a) and s14(2)(a) of the Act; or by having regard to other contractual rates or prices or agreed variations and estimated costs of rectifying defects: s14(1)(b) and s14(2)(b) of the Act. These provisions of BCIPA on valuation provide:

"13 Amount of progress payment

The amount of a progress payment to which a person is entitled in relation to a construction contract is--

- (a) the amount calculated under the contract; or*
- (b) if the contract does not provide for the matter, the amount calculated on the basis of the value of construction work carried out or undertaken to be carried out, or related goods and services supplied or undertaken to be supplied, by the person, under the contract.*

14 Valuation of construction work and related goods and services

(1) Construction work carried out or undertaken to be carried out under a construction contract is to be valued--

- (a) under the contract; or*
- (b) if the contract does not provide for the matter, having regard to--*
 - (i) the contract price for the work; and*
 - (ii) any other rates or prices stated in the contract; and*
 - (iii) any variation agreed to by the parties to the contract by which the contract price, or any other rate or price stated in the contract, is to be adjusted by a specific amount; and*
 - (iv) if any of the work is defective, the estimated cost of rectifying the defect.*

(2) Related goods and services supplied or undertaken to be supplied under a construction contract are to be valued--

- (a) under the terms of the contract; or*
- (b) if the contract does not provide for the matter, having regard to--*
 - (i) the contract price for the goods and services; and*
 - (ii) any other rates or prices stated in the contract; and*
 - (iii) any variation agreed to by the parties to the contract by which the contract price, or any other rate or price stated in the contract, is to be adjusted by a specific amount; and*
 - (iv) if any of the goods are defective, the estimated cost of rectifying the defect.*

478. At all times, I must be satisfied that the Claimant is entitled to payment for this work, and the burden of proof lies with the Claimant.

479. The payment claim dispute may be summarised in a table as follows:

DESCRIPTION		PAYMENT CLAIM	PAYMENT SCHEDULE
Schedule of Rates		\$33,740,196.55	\$30,608,913.49
Variations	J025666 series	\$15,792,469.50	\$6,845,180.11
Delay damages	EOT dependent	\$7,778,988.31	
TOTAL VARIATIONS		\$23,571,457.81	
Liquidated damages			(\$6,069,000)
Backcharges			(\$27,169.00)
TOTAL CONT. VALUE		\$57,311,654.36	\$31,357,924.6
Less Amount Paid		(\$40,890,617.12)	
AMOUNT OWING		\$16,421,037.24	(\$9532692.52)
Plus GST 10%		\$1,642,103.72	(\$953269.25)
PAYMENT AMOUNT		\$18,063,140.97	(\$10,845,961.78)

480. The spreadsheets used by the parties demonstrate how the figures are derived, and sometimes it has not been clear from the submissions how particular figures are arrived at, which is why I thought it important to tabulate the amounts. It is apparent that, prior to adjudication, the parties are \$28,549,102.74 apart in their respective views of the value of the construction work.

481. The claimant, at paragraph 70 of its submissions said that it treated the payment schedule amount as nil for the purposes of the adjudication. However, in paragraph 6.1 of the respondent's submissions, the respondent asserted that it was incorrect to treat the scheduled amount as nil, because this gives a credit to the claimant of \$10,485,961.78 for work for which it is not entitled to be paid.

482. Clearly, as contended by the respondent in paragraph 6.1(g), it is not possible in adjudication for the respondent to enforce payment, however, I accept the respondent's submissions that for the purposes of calculation, the schedule amount of (\$10,485,961.78) must be used in the calculations, otherwise I would not be properly valuing the work under the contract.

483. In the adjudication application, the claimant accepted some payment schedule amounts, and that is why I have used the electronic spreadsheet provided by the claimant, which was not controverted by the respondent, to carry out the tabulation and calculations to derive the adjudicated amount. However, the reasoning is found for the items is found in the decision.

484. I value the amounts to which the claimant is entitled regarding the:

- (a) Schedule of rates items under the contract
- (b) variations claimed
- (c) amount of delay damages; and
- (d) the amount of liquidated damages payable by the claimant, together with any back charges.

485. I will consider each valuation under a separate heading.

XVI. Schedule of rates items

486. In approaching the valuation of the schedule of rates items, I have looked at the payment claim and payment schedule, the claimant's statements of Mr. Paterson in RWP₂ and RWP₃ (for Schedule of Rates 4.3.22 and 4.3.2 (sic) for hydrostatic testing) and the respondent's statement of Mr. Bourne, together with the contending submissions to assist in assessing the value of the payment claim.

487. Mr Paterson is the primary witness for the claimant in relation to these items, and RWP2 and five volumes of documents in box 8 provides the supporting material for the claimant's claim and Mr Bourne provides the response to these items for the respondent with support found in tab 15 in folder one of the respondents submissions.
488. Mr Paterson's attachment 3A in RWP2 is a colour coded spreadsheet which showed items of agreement between the parties with colours blue, orange and maroon, with red items requiring reference to the claimant's notes. This means that the items that are not highlighted in colour and the red items other ones that need consideration in this adjudication. This spreadsheet appears identical to the electronic spreadsheet provided to me and which I have attached as "CGL1", so I am satisfied that CGL1 will allow for accurate calculations of the schedule of rates items, together with the variations.
489. I have used the spreadsheet CGL1, which contains 2 sheets, one for variations and one for Schedule of Rates claims, and which lists each SOR, including those in dispute and I have determined the value of that item in the spreadsheet.
490. In so doing I have considered the claimant's extensive material and that of the respondent about each item, and where I have allowed a claim, it is for the reason that on balance I have found that the claimant has satisfied its evidentiary onus and has overcome any objections and controverting material from the respondent, thereby demonstrating entitlement and substantiation of the amount claimed. If, the respondent's amount is accepted by me, it is because either the claimant has not satisfied that onus, or because the respondent's submissions and supporting evidence was more compelling.
491. Mr Bourne of the respondent, is the respondent's witness and I have reviewed his objections for each disputed item here and compared with Mr Paterson's RWP2 statement..
492. CGL1 has then been used for calculation purposes to determine the correct amount for the payment claim in relation to that aspect.
493. Those amounts for the SOR's have then been transferred to the table in this decision, so that the parties are aware of the adjudicated amount.
494. However, in relation to SOR items 4.3.22 and 4.3.23, and SOR item 8.12, the parties provided a significant number of submissions and material about this claim, so I provide more detailed reasons in this decision in relation to those items.

Hydrostatic testing - items 4.3.22 and 4.3.23

495. In paragraphs 290 through to 325 of the claimant submissions, the claimant submitted that the hydrostatic testing amounts claimed by the claimant should be allowed in full. In contrast in paragraph 11.2 of the respondent's submissions the respondent takes issue and maintains that the respondent's valuation for the hydrostatic testing is correct.
496. Mr Bourne in paragraph 6.139 through to 6.149 suggests that the measurement regime for hydrostatic testing with the unit of measure of spool meant that a length or section multiple pipes assembled on site would be subjected to a single hydrostatic test, and that was the basis for payment. The reason why he said this is that there is no definition for what is meant by the word *spool* in the contract and he has imported his view from industry experience that one should be paid per test for piping that is tested together which may be a collection of spools comprising multiple pipes. The upshot of Mr Bourne's approach is that on his assessment the claimant was entitled \$553,306.36 based on tended rates for 269 spools.
497. In contrast, the claimant is claiming \$1,987,905.68 because it asserts that the units of measurement, is per spools hydrostatically tested as stated in items 4.3 .22 and 4.3 .23 of the contract. It says that the respondent' s approach requires the reception of extrinsic evidence from which to discern the objective intention of the parties at the time the contract was signed, and the claimant contends this is only applicable if there was ambiguity in the interpretation of the meaning of the word spool. The claimant contends that there is no such ambiguity.

498. At paragraph 6.144 Mr Bourne states that he took the view that a length or section of multiple parts assembled on site and subjected to a single hydrostatic test would be the basis for payment and that this was the test carried out per spool as he understood it.
499. However, I am not convinced that there is sufficient uncertainty as to the meaning of the word spool because as Mr Paterson says at paragraph 13 of his statement he refers to a test being carried on "up to 150 metre long spool" and he contends that it is merely a length of pipe that is used to tie in the pipeline.
500. Accordingly, I am not satisfied that the respondent can apply an interpretation of an industry norm as to hydrostatic testing to be paid per test, when the word spool is referred to as connoting a length of pipe up to 150 m long. I appreciate that it is not abundantly clear what is meant by the term, but as have mentioned earlier is 2 commercial parties at arm's length who have entered into this contract, and to my mind the unit of measurement, whilst not abundantly clear, is sufficiently clear to for there to be no need to seek extrinsic evidence in order to determine the meaning of the unit of measurement.
501. Accordingly, I allow the claimant its claim in full and this has been included in CGL1.

Heat tracing - item 8.12

502. In paragraph 98 of Mr Paterson's RWP2 he explains that the contract provided for no heat tracing for pipes greater than 50 mm DN, and yet he was ordered to carry out heat tracing for these types under WAF dated 11 May 2011.
503. Mr Paterson stated that originally the contract required under a material assignment matrix section 6 scope of work that all heat tracing was to be supplied by the respondent. In addition, he said that the contract only contemplated heat tracing for pipes less than 50 mm DN.
504. Mr Paterson then asserted that this material assignment matrix was revised by the respondent and that the respondent required heat tracing not only for piping less than 50 mm DN but also for piping greater than 50 mm DN. At this stage the claimant was not aware which pipe heat tracing was to be applied until around February 2011 when the design was finalised.
505. Thereafter the design was finalised and on 11 May 2011 the respondent issued a WAF requiring heat tracing to pipework and other items as issued from time to time by Tyco. In response the claimant sent a letter on 11 July 2011 (RP 096) setting out the installation rates for heat tracing cable and components for pipework..
506. Mr Paterson stated that he never received a response from the respondent regarding the letter and that heat tracing work was carried out and that it was always understood that heat tracing was simply a provisional sum and at paragraph 98(x) he referred to e-mails which he attached between the claimant and respondent confirming this approach.
507. Mr Paterson has claimed the amount of \$914,821.04 for this work at the schedule of rates that he supplied and said he couldn't understand why the respondent determined the amount as nil.
508. In paragraph 11.3 of the respondent's submissions it merely says that the respondent had valued the claim at nil on the basis that the claimant had no entitlement to heat tracing for pipes greater than 50 mm DN, and referred to Mr Bourne's statement in support.
509. Mr Bourne states at paragraph 6.243 that Mr Paterson well understood that heat tracing would apply to piping greater than 50 mm ND, however, he doesn't further elaborate. This is contrary to what Mr Paterson says because he says there was only a schedule of rates items for pipe heat tracing less than 50 mm as a provisional sum.
510. At paragraph 6.246 Mr Bourne said that the letter dated 11 July sent by Mr Paterson which included the installation rates for heat tracing cable was submitted after he left the project. At paragraph 6.247 he conceded that there was an entitlement to heat tracing but the method by which it was claimed by simply submitting RP90 cost was not agreed. He then

referred to a basis of calculation in item 4.3.1 earlier in his statement which essentially said that there was no entitlement to heat tracing for pipes greater than 50 mm.

511. I cannot agree with Mr Bourne in this regard. If there was only a schedule of rates items for pipes less than 50 mm diameter, it does not mean that for pipes greater than that it is automatically assumed that heat tracing for those pipes would be included in the rates. It is not clear to what rates such an activity would apply. I find that there was no specific understanding that heat tracing would be required for pipes greater than 50 mm, and at the time that the contract was signed there was insufficient design to determine whether or not such heat tracing was required.
512. Accordingly, I find that the WAF together with the claimant's letter of 11 July 2011, was sufficient notice for the respondent to appreciate that the costs associated heat tracing for pipes greater than 50 mm was applicable. The fact that Mr Bourne had left the project by this time, does not mean that the respondent was not in a position to negotiate that rate if it is felt that it is not applicable.
513. Accordingly, I am satisfied that the claimant is entitled to this claim.
514. I now refer to the attached spreadsheet CGL₁ for the calculation of the SOR items, which has been brought across into these reasons and tabulated to determine the adjudicated amount.

XVII. Variations

515. I have considered these variation and the submissions in support of or against the submissions as follows:
- (i) I have first considered the overarching reasons for non payment raised by the respondent that permeate a number of the reasons for non payment, that being that the claims are time-barred;
 - (ii) I then considered whether the claimant had generally fulfilled the contractual requirements for variations;
 - (iii) I have then reviewed the quantum of those claims that the respondent has accepted in part or rejected to determine the residual dispute about those variations.
516. I have used the spreadsheet CGL₁, which contains 2 sheets, one for variations and one for Schedule of Rates claims, and which lists each variation, including those in dispute and I have determined the value of that item in CGL₁.
517. In so doing I have considered the claimant's extensive material and that of the respondent about each item, and where I have allowed a claim, it is for the reason that on balance I have found that the claimant has satisfied its evidentiary onus and has overcome any objections and controverting material from the respondent, thereby demonstrating entitlement and substantiation of the amount claimed. If, the respondent's amount is accepted by me, it is because either the claimant has not satisfied that onus, or because the respondent's submissions and supporting evidence was more compelling.
518. CGL₁ has then been used for calculation purposes to determine the correct amount for the payment claim in relation to that aspect.
519. Those amounts for the variations have then been transferred to the table in this decision, so that the parties are aware of the adjudicated amount.
520. Mr Paterson is the primary witness for the claimant in relation to the variations, and RWP₂ and five volumes of documents in box 8 provides the supporting material for the claimant's claim. In addition Mr Paterson in RWP₃ in box 1 provides submissions in relation to the variation claim described as T 36 (type complexity). Mr Grant provides the response to these items for the respondent with support found in two folders in the respondents submissions, which were in a separate box. Mr. Bourne and Mr. Mitchell also valued some variation items identified below.
521. In approaching the valuation of variations, I have looked at the payment claim and payment schedule, the claimant's statements of Mr. Paterson in RWP₂ and RWP₃ (for T36) and the

respondent's statements, together with the contending submissions to assist in assessing the value of the payment claim.

522. Those respondent's statements are of:
- (i) Mr. Grant for all variations, except for those done by;
 - (ii) Mr. Bourne for variation T36;
 - (iii) Mr. Mitchell for variations R92 & 93 and 6 October 2011 claim for R94.
523. I have looked closely at Mr. Grant's statement and his calculations because he has taken the trouble to review each variation, and I reviewed his methodology of valuation. I note that he provided the amounts that the respondent was prepared to accept in tab 13 to his statement, as he said in paragraph 9.7. I found that the amount for each line item did not always agree with the calculations that he provided on each individual variation which was a problem (the "anomalies").
524. I resolved that problem by preferring the value that he had put into his spreadsheet, because he had said that this was the correct amount. I infer that this spreadsheet was the last document that he used in his valuation exercise, and that some of his calculations on each variation may have been carried out earlier, and that during his final review, he may have carried out further valuations. He had to consider well over 1,500 variations, which was a significant task, so the anomalies to my mind are to be expected in carrying out a task of this magnitude, and they were not extensive.
525. As I recall, each valuation on the spreadsheet of the anomalies was higher than his working calculations, which reinforced in my mind that he preferred the Annexure 13 for his valuation and that is what was entered into the CGL₁ spreadsheet.
526. I refer further to his workings below.

Time barred variations

527. As I have said this reason permeates the payment schedule, but the respondent did not deal with time bars in its submissions on variations. It did, however, at paragraph 17 challenge the claimant's waiver assertions. It is not clear to me that there have been waiver assertions by the claimant. The claimant's submissions on the disputed variations in relation to the time bars consist of:
- (i) Time bar - reason not properly stated [claimant's submissions paragraphs 249 to 256]; and
 - (ii) Estoppel by representation [claimant's submissions 257 to 267].
528. I presume that the respondent considers the estoppel submissions as waiver assertions.
529. Turning firstly to the first of the claimant's submissions that the reason was not properly stated in relation to the time bar. I do not agree with the claimant. I appreciate that not every time bar reason explains when the claim was made compared to the Works Authorisation date, but to my mind in cases of a legal reason for non payment, the claimant was put on sufficient notice as to what it needed to submit in the adjudication to overcome the time bars, as it has done.
530. Accordingly, I reject the claimant's submissions on this point.
531. Turning to the estoppel by representation submissions, the claimant identified the law in relation to this principle of law as requiring:
- (i) a promise or representation;
 - (ii) reliance on the promise or representation;
 - (iii) inequity or unconscionable conduct
532. The claimant provided authority by way of the judgement of Dixon J in the case of *Grundt v Great Boulder Pty Ltd Gold Mines Ltd* which although it was not cited, is a well known case and found at (1937) 59 CLR 641.
533. The claimant submitted that the evidence of Messrs Smith, Fraser and Emerson demonstrated that the respondent consistently made the representation to proceed with variation work without a WAF, and they were in fact discouraged to insist on the WAF's. The

evidence then points to the fact that they clearly relied on the representation, to the claimant's detriment, because the respondent now refuses to pay the claimant on the basis of non compliance of the time bar provisions. Finally the claimant says that it would be unconscionable for the respondent to now assert that the claims were time barred.

534. The respondent does not engage with these submissions, but merely relies on GC clause 5 of the Formal Instrument of Agreement and GC clause 63 which dealt with waiver and asserted that there was no documentation provided to demonstrate a waiver, such that the submissions must fail.
535. I do not agree with the respondent, as I have already found that waiver clauses can be waived as demonstrated in the cases of:
- (a) *Commonwealth v Verwayen* (1990) 170 CLR 394, at pages 406-407, stating that a party may expressly or impliedly give up the right to insist upon a contractual condition or right;
 - (ii) *Corbett Court Pty Ltd v Quasar Constructions (NSW) Pty Ltd* (2009) 25 BCL 29 at 47, [110] and [112] that waiver or estoppel outflanks the formal provisions of the contract of a contract if they have been waived or a party is estopped from enforcing these formal provisions;
536. Accordingly, I reject the respondent's submissions about the time bars, and I am therefore entitled to value the variations on their merits.

Contractual requirements

537. The claimant submitted that GC clause 51.1 requires variations to be directed by the respondent in writing and that writing was widely defined under GC clause 1.4(b)(x) of the contract.
538. The claimant submitted that Mr. Paterson's evidence was that the variation form in Annexure H was never used on the contract and that the writing was evidenced by:
- (i) issuing Work approval Forms ("WAF's");
 - (ii) issuing changes to drawings'
 - (iii) marking up handwritten changes in response to the claimant's RFI's;
 - (iv) subsequent approval of variations by payment
 - (v) certifying variations
539. The claimant submitted that its variations were directed in writing under clause 51.1 such that the time bar provision did not apply, and where that was not the case, then the respondent was estopped from denying that the WAF or other means was not a proper direction under the contract.
540. I note that the respondent did not take issue with these submissions, and I could find no evidence in the statements controverting these assertions, so I am satisfied that the variations fell within GC clause 51.1 of the contract, such that the variations can be considered in the adjudication.

Quantum of the claims

541. In the payment claim and payment schedule there were 817 variations in dispute according to my spreadsheet analysis prior to consideration of Mr Grant's statement.
542. Mr. Grant in his statement at annexure C identified 382 variations with which he said he now agreed with the claimant's claim. I have added those amounts to the amount payable in this payment claim in CGL1.
543. Mr. Grant then listed variations in Annexure B, in which he said he disagreed with the claimant, and also provided a list in Annexure D of variations that had been claimed using only Job Cost Reports ("JCR's") as substantiation, about which he had concerns. there was a significant overlap between the Annexure B and Annexure D items.
544. In relation to the Annexure D items in his statement where he provided some examples of variations claimed by the claimant that relied on the JCR's where he showed that

the JCR detail was incorrect because of other facts that he was able to glean from the project records and I am satisfied with his concerns.

545. In annexure E he identified claims that were within the scope of work, and in annexure F to variations where there had been a duplication.
546. Mr. Grant identified that he had significant difficulties with the variations that had been claimed by the claimant and that he had been involved since September 2011 in processing variations. He outlined in paragraph 3 his difficulties that he had with the variations claimed and his meeting with Mr. Jim Smith, the project manager and Mr. Bell the CPA for the claimant in September 2011 about the errors in the claimant's calculations, and his general concerns discussed with Mr. Smith about the quality of the material provided to support variations claims.
547. At paragraph 3.10 he explains that he had a good working relationship with Mr. Smith whom he said told him that he also had problems in obtaining the necessary information together about the variations, and that he was surprised that Mr. Smith had not given a statement for the claimant. I have looked at Mr. Bell's statutory declaration in which he referred to the meeting with Mr. Grant in September at which time he was asked to provide variation documents in hard copy, but there is no reference to the errors in the claimant's calculations. That is not to say that it was not discussed, it is just something not addressed by Mr. Bell.
548. I accept that adjudication does not allow for questioning of witnesses, and the adjudicator is required to make a decision on the material before him or her, so I am obliged to make a finding about whether to accept what Mr. Grant has said about the difficulties with the variations, particularly in the context of the JCR's. Clearly his reference to what Mr. Smith told him about alleged difficulties to obtain information for the variations is hearsay and I do not accept it as evidence of the claimant's difficulties in providing substantiation. Nevertheless, I need to evaluate what the parties say about these JCR's to resolve the thorny question of the reliability of JCR's as the only means of substantiating a variation claim.
549. Mr. Bell, as a qualified accountant, said at paragraph 20, that the JCR's accurately reflect the position of the work undertaken by the claimant for the respondent and I do not doubt that at all. However, at paragraph 19 he said it was a tool to measure profitability of the claimant and formed part of a report used for auditing purposes, and to my mind this demonstrates that, whilst being a useful tool for internal costing purposes to demonstrate a companies' overall profitability to be measured against budget, I cannot accept that it is the best evidence in demonstrating substantiation to a particular detailed variation.
550. The input into the JCR's are described by Ms Anderson in her statutory declaration paragraph 11(f), that it involved inputting daily time sheets and materials purchased (where sometimes the materials may be only part of a purchase order), and variation numbers (either with a WAF number or by separate cost code, and daywork sheets. She explained that sometimes daywork sheets were not signed by the respondent for weeks. Nowhere is there evidence that the supporting documents which were inputted into this JCR were rendered superfluous, and it is unlikely that someone as experienced as the cost and document controller would say so. To my mind the JCR accurately captures and manipulates that data for payroll and reporting purposes, but it does not replace the source documents.
551. Mr. Paterson, at paragraphs 20 to 22 of RWP2, defers in paragraph to Ms Anderson's evidence that they are a reliable and accurate reflection of the quantum of the variation and schedule of rates claims. I accept that Ms. Anderson is of the view that the JCR's procedures were to ensure that they were a reliable and accurate record of the quantum of individual variation claims, but in my view she is swearing to the process ensuring the accuracy of the data, rather than swearing that this data is the best evidence to support variations. The source documents to my mind are equally, if not more important, and there is no evidence from the claimant that JCR's of themselves are sufficient to demonstrate substantiation for a variation. Mr. Paterson did not say this, and Mr. Bell said that it was used for reporting purposes.

552. This was a significant project, where I have found the respondent took over the programming and directing of work and there were significant delays caused by a variety of reasons, about which there is insufficient cogent evidence to sheet home to the claimant.
553. However, the claimant has the onus of proof in relation to variations, and I find it difficult to accept that a JCR, an internal costing document, was the best evidence to substantiate variations, however much of a pressure cooker environment that the claimant was working under. Given that Mr. Grant has demonstrated some examples of errors in the variations through the JCR process, and having regard to the time that he was involved in deciding the variations, it is appropriate that the source documents should be available by now to properly evaluate the claims
554. Accordingly, I am not prepared to find that JCR's of themselves provide substantiation for a variation claim, so that if Mr. Grant required more information (e.g. the source documents), and furthermore demonstrated the unreliability with the JCR's as he has done in paragraph 17 of his statement that I accept, then I am not satisfied that the claimant has discharged its onus.
555. I find, albeit in an unsworn statement, but nevertheless compelling and without any controverting evidence, that Mr. Grant has demonstrated that he has been involved in reviewing the variations for some months, and has a good knowledge of the project and the variations, and has been reviewing them progressively. the fact that he has reviewed them again in this adjudication, and has increased the amount that the respondent is prepared to pay, but has refused others on the basis of no entitlement, or insufficiently substantiated claims has satisfied me that they are not currently claimable.
556. This means for those variations in Annexure D, I have accepted that the claimant has not discharged its onus, and I would value those variation claims at \$0. However, if Mr. Grant has been satisfied with his valuation, having regard to his knowledge of the matters to overcome his complaint about the JCR's providing insufficient information, then I am satisfied with that valuation.
557. I counted 248 variations where he had concerns about the JCR's substantiation, and I have reviewed them on CGL1, and surprisingly, it was only in 9 variations that he did not provide any valuation at all, which is less than 4%. If he has granted the variation in whole or in part, he is in a better position than me to do so, because of his knowledge of the project, and his ability to assess time taken for a variation, and his ability to access people with the respondent to verify quantum. I as an adjudicator cannot make such an assessment and I am satisfied with his assessment, because otherwise the claimant would have not discharged its onus.
558. In relation to the other variations I refer to the CGL1 spreadsheet, and the values attributed have depended on whether I have been satisfied that the claimant has demonstrated its onus.
559. I must add that Mr. Grant, at paragraph 18 of his statement, allowed the claimant's claims (on the basis of further information - presumably provided in this adjudication) for the:
- (i) QER lighting materials buyback \$193,110.80;
 - (ii) QER unused Cable buyback \$303,877.43, and these have been added to the amount payable in this claim in the CGL1 spreadsheet.
560. Mr. Grant, at paragraph 19 withdrew the backcharges for the gate damaged by the claimant's trucks, so the amount of \$2,550.00 has been subtracted from the backcharges.
561. This leaves the largest dispute which is variation number T 36 to which I refer in more detail below.

Variation T36

562. This variation claim is for \$3,759,547.84 and relates to the complexity associated with pipe welding. In paragraphs 46 through to 105 of RWP3, Mr Paterson explains the basis of the claimant's claim.

The evidence

563. Mr Paterson explains that the work was in response to a written instruction to carry out additional site welds and fittings on piping is throughout the TDP in accordance with isometric design drawings. He claimed that there was an increased complexity in the piping design issued by the respondent after the notice to proceed with stage 2 which resulted in additional welding work.
564. He explained that on 5 November 2009 the respondent requested individual welds and other related rates related to the per linear meter piping rates in order that they could *assist to agree variations during the proposed contract*, and in response the claimant provided tender clarification 01 – 08 on 10 November 2009 [Annexure T 36 – 3].
565. Given that the minutes of the 20 May 2010 meeting appeared to be crucial, I have read them in some detail [tab 83 of the respondents submissions and Annexure T 36 – 7], and paragraph 5.5.1 specifically the minutes identify that, *"The purpose of this meeting is to agree the lump-sum prices and schedule of rates for stage 2 so that a notice to proceed with stage 2 may be issued."*
566. Paragraph 5.5.1 of the minutes which dealt with piping, provided as follows:
"Agreed that rates for piping do not change and remain as per contract. There will be swings and roundabouts on the complexity of pipework and the overall situation will be looked at on completion of the pipework design based on Waltz clarification item 4 and five submitted was tendered T145/09 on 18 Sept 09."
567. The claimant asserts, through Mr Paterson, at paragraph 52 and 53 of RWP3, that the tender clarification four and five referred to above was premised on the assumption that there would be three welds per 12 m of pipe.
568. Mr Paterson explains that prior to the meeting which was held on 20 May, Mr Bourne had earlier sent him an e-mail on 17 May 2010 attaching the tender clarification T145/09 in order that that needed to be reviewed before the stage two of the contract could be let. At paragraph 64 Mr Paterson said that Mr Bourne had not queried the clarification in the attachment and that it was the basis for the piping rates in the schedule of rates.
569. Mr Paterson, at paragraph 65 and 66 of RWP3, said that at the meeting of 20 May 2010 it was not possible to make any assessment as to the complexity of the isometric piping because those drawings had not been issued, and that the swings and roundabouts referred to by Mr Bourne would be assessed as a variation when the design information was known after all the piping isometric drawings had been provided.
570. At paragraph 67 Mr Paterson said that the number of welds and fittings required by the isometric piping drawing required nine times as many welds to be performed per 12 m section of piping and in Annexure T 36 – 6 he provided an example of such a drawing demonstrating the additional welds together with some weld traceability registers and as built drawings associated with those registers in Annexure T 36 – 6. He asserted that these records were provided to the respondent in order to obtain practical completion under the project and that each as built drawing was accompanied by:
- (i) a weld report for each individual weld;
 - (ii) a non destructive testing report on each weld;
 - (iii) a weld traceability report
571. At paragraph 70 of RWP3, Mr Paterson referred to the minutes of the meeting and extracted the reference to tender clarifications and qualifications as follows:
- "7.0 tender clarifications and qualifications
7.1 referenced the list of clarification submitted was tendered T145/09 on 18 Sept 09...
7.1.4 agreed that rates for piping do not change and remain as per contract. There will be swings and roundabouts on the complexity of pipework and the overall situation will be looked at on completion of the pipework design based on waltz clarification item 4 and five submitted was tendered T145/09 on 18 Sept 09."*

572. Mr Paterson said that the minutes accurately reflected the matters had been discussed and that the rates for piping would be adjusted by reference to the tender clarifications at a later adjustment date because it was not possible to know the complexity of the pipework design at that time.
573. At paragraph 75 Mr Paterson referred to a letter from Mr Bourne of 9 July 2010 [Annexure T 36 – 9] in which Mr Bourne acknowledged the effect of the agreement that, and contract variations would be dealt with under the contract taking into consideration the minutes of the meeting of 20 May 2010.
574. Accordingly, Mr Paterson was of the view that the variation would be assessed on the complexity of the piping and the applicability of the piping rates after the piping work was carried out.
575. Mr Bourne in paragraphs 5.7 through to 5.11 of his statement said that the respondent did not agree to amounts greater than set out in the clarification and that the contract was to be fixed with no clarifications to be accepted. This meant that the contract rates for linear metre for the supply and install of pipelines was applicable irrespective of the number of welds.
576. Mr Bourne also made reference to issues regarding piping variations to which I make reference below, and added that there was no explanation as to why the welds were required.
577. I'm not satisfied with what Mr Bourne has said because it appears to me that it was quite clear that the clarifications form part of the agreement as to how piping rates would be assessed. The effect of that finding is that the qualification that three welds per 12 m of pipe applies to the piping rates, such that if more welds were required, this would be subject to a variation claim. I therefore prefer Mr Paterson's version because his evidence has been provided on oath.
578. I cannot agree that the minutes of the meeting confined the claimant to rates per metre for work that had not even been designed and about which no details were available at the time the contract was entered into for stage two. To my mind as a matter of logic, there must have been a mechanism to take into account the applicability of tendered rates when the isometric design drawings was made available. It seems to me that that was precisely what the parties agreed on 20 May 2010 and was confirmed by 7 July 2010.
579. Accordingly, I am satisfied that there was a direction for a variation in writing about welds for piping.
580. I am satisfied that the respondent was provided with weld traceability registers, as built drawings together with a weld report for each individual weld such that it had the information about each weld for practical completion to have been certified.
581. I am satisfied that the payment claim provided the summary sheet identifying the total number of additional welds for each type of piping, together with a detailed schedule by reference to each line of piping identified in each piping isometric drawing, so that the respondent could have made an assessment about the claim.
582. I am satisfied that the claimant has claimed its weld rates which it had disclosed on an open book basis together with a margin of 15% overhead and profit as per section 4, S1 – 5.8 of the contract which it had earlier provided the respondent in tender clarification 01 – 08 and that these rates are acceptable.
583. I note that in paragraph 5.13 through to 5.19, Mr Bourne refers to some isometric drawings to show that the examples provided by Mr Paterson were not correct, and that as far as he was concerned the issue of "swings and roundabouts" meant that in his review of the total piping complexity the matters balanced out the end.
584. At paragraph 5.18 and 5.19 Mr Bourne states that he was unable in the time available to make an assessment of the number of welds installed on site, the lengths of pipe intended at time of tender and the lengths actually installed. I appreciate that this may have been difficult in the short time of having to provide an adjudication response, however, the as built information had been provided before practical completion and contains details of all the welds which was granted in January 2012, some two months before the final claim.

585. At paragraph 5.21 and 5.22 of Mr Bourne's statement, he says that the schedule of rates provided in Annexure T36 – 3 were well before the tender negotiations and had not been included in the contract, and that the rates were not agreed by the respondent and have nothing to do with the rates in the contract at all and were superseded by the contract.
586. Mr Bourne's minutes and the follow-up letter of 7 July 2010 to my mind demonstrate that the T145/09 rates and its qualification about three welds per 12 m of pipe were adopted so that if the isometric drawings showed more welds than this assumption, then there needed to be valuation of this work as a variation.
587. I find that Annexure T 36 – 3 schedule of rates applicable, so that even if they were not incorporated into the contract, it is a mechanism agreed for the valuation of variations, allowing me under section 14 of BCIPA to use applicable agreed rates in valuing the payment claim because subsection (iii) provides:
- (iii) any variation agreed to by the parties to the contract by which the contract price, or any other rate or price stated in the contract, is to be adjusted by a specific amount;*
588. I find that the schedule of rates provided in Annexure T 36 – 3 are the applicable rates for welds in circumstances where the welds exceeded three welds per 12 m of pipe length.
589. I am obliged to comment on Mr Bourne's evidence from paragraph 5.23 *Failure to take into consideration the variations* through to 5.28, in which Mr Bourne looks at a total number of additional welds in pipelines contained within claimed variations which totalled \$1,095,000 and said that the claimant was not entitled to be paid twice for these works.
590. I do not see this as a reason identified in the payment schedule, which means that the claimant has not addressed this reason in its submissions. Section 24(4) of BCIPA prevents me from considering submissions that were not provided in the payment schedule and I extract the relevant provision as follows:
- "(4) The respondent cannot include in the adjudication response any reasons for withholding payment unless those reasons have already been included in the payment schedule served on the claimant."*
591. I understand that Mr Bourne may have a legitimate concern about the possibility of there being a doubling up in payment for this work, but I'm unable to consider this reason in the adjudication, so I cannot make any finding in relation to this aspect and I therefore ignore paragraph 5.23 through to 5.28 of his statement.

The submissions

592. I have considered the claimants and respondents submissions together to some degree in these reasons.
593. The claimant in paragraph 3 to 6 through to 374 provide submissions in support of the variation and in countering the respondent's reasons for non-payment. Essentially paragraph 3263 through to 337 merely dealt with the evidence of Mr Paterson to which I've already referred.
594. At paragraph 338 the claimant said that the work was a variation under GC clause 51.1 as:
- (i) it was a direction in writing given for each isometric drawing, and
 - (ii) the issue of the isometric drawings changed the character and quality of the piping work, or
595. was a direction to undertake additional welding work.
596. It then asserted that agreement was reached on 20 May 2011 that there was an exception to the piping rates agreed in the contract if there was more than an average of three welds per 12 m of pipe.
597. The respondent denied an agreement in writing and said the claimant had not produced such an agreement. It then reviewed the 20 May 2010 minutes and said that that the tender clarifications demonstrated that:
- (i) it was expressly agreed that the rates would not change;

- (ii) there was no agreement to pay the claimant a number of welds carried out;
- (iii) there was no agreement over a rate per weld;
- (iv) the acknowledgement of the swings and roundabouts was that the complex piping design was not likely to become more complex;
I will deal with these objections at this stage on the basis that I have found that there had been an agreement that the qualification contained within T1 45/09 pointed to there being a review at a later stage about the complexity of the pipework design. I do not see that this agreement therefore contemplated that the rates would not change, but I do agree that there was no agreement within it to pay the number of welds carried out or to pay a rate per weld because this was not able to be determined at this stage, because the complexity of the pipework had not yet been established;
- (v) *Mr Bourne said that the respondent did not have the opportunity to consider the variation claim prior to works being performed and that there had been no discussion by the claimant about a change to the rates in the contract.* Although Mr Bourne refers to not being in a position to audit and verify quantities, I do not find that he said anything about being unable to consider the variation claim prior to the works being performed, or that there had been no discussion about the variation claim. According I reject this submission now;
- (vi) *payment was to be made through the schedule of rates mechanism and not through any change in the rates.* I do not see that Mr Bourne said this anywhere so I reject this submission now;
- (vii) *that the pipework design was no more complex than what had been envisaged during the planning and preparation.* I do not find Mr Bourne says this in his statement so I reject this submission now;
- (viii) *that the quantity of piping had actually decreased from the original quantity.* I do not find Mr Bourne says this in his statement so I reject this submission now;
- (ix) *a provisional sum was allowed for in the installed rate schedule rates for any addition to the piping to the design for which allowed not been made.* I do not find Mr Bourne says this in his statement so I reject this submission now;

598. As to the calculation of additional welds, the claimant referred to the evidence of Mr Paterson to which I have already referred.

599. As to the submissions in relation to valuation from paragraph 346 through to 359 I accept that section 14 of BCIPA requires me to value the works, and I've already made reference to s14(iii) of BCIPA in so far as it is relevant,

600. I understand that the weld rates provided by the claimant to the respondent were those in Annexure T 36 – 3 which had been provided to the respondent on 10 November 2009 in response to a request from the respondent on 5 November 2009 prior to the contract being entered into, and I find that they are applicable for use in adjusting the contract for variations when the piping increased over an average of three welds per 12 m section of pipe. At paragraph 96 of Mr Paterson statement he said that the reason why the respondent requested those rates on that date was as follows:

"Please provide rates for the items of work categories as described in the attached schedule TS2 – 7, which may be used to verify install quantity rates and assist to agree variations during the proposed contract, as required". [My underlining]

601. I am therefore satisfied that these rates are applicable for valuation purposes under BCIPA if, as the respondent asserts, they do not form part of the contract. To my mind that is precisely where section 14 of BCIPA is enlivened.

602. The respondent, at page 89 of its submissions, stated that it was impermissible to refer to discussions at tender stage in interpreting the contract, but I do not agree if the conduct of the parties is such that they provided a mechanism for valuation of variations, and by the respondent requesting a schedule of rates prior to the contract, to my mind it is therefore permissible to have regard to the schedule of rates in valuing the variations.

603. The respondent takes issue with calculations in support of the welding claim and challenges its accuracy, but this is not specifically done in the payment schedule, which would have allowed the parties to deal with issues of errors in calculations prior to adjudication. The fact that there is a challenge now makes it very difficult for an adjudicator to make an assessment about a whole series of calculations, when the precise errors should have been raised in the payment schedule. Given the significant number of issues and the enormous amount of material with which I've had to intellectually engage, it is not possible to review the calculations at this stage. I am satisfied that Mr Paterson on oath has said that he checked these calculations and is satisfied as to their accuracy after carrying out random checks. Furthermore, I agree with the claimant's submissions that a mere assertion that the calculations are incorrect and inapplicable in the payment schedule is not a sufficient reason for non payment, such that it is not now possible to raise specific alleged inaccuracies.
604. In response to the challenge to the accuracy of the claim, Mr Paterson has carried out reviews and is satisfied himself as to the accuracy. Furthermore, here and elsewhere in the respondent's submissions where there has been a challenge to accuracy of the claim, or that the rates and calculations are inapplicable without any further explanation or calculation is to my mind an insufficient reason for non payment, which should preclude raising specific errors or inaccuracies in the submissions in the submissions. I accept the claimant's submissions in relation to these reasons for non payment found in paragraphs 368 to 372 that by not giving reasons to the assertions, entitles me to value the claim using Mr. Paterson's evidence. Accordingly, I reject this submission.
605. The respondent in its payment schedule provided a number of reasons why the claimant was not entitled to this variation as follows:
- (i) QER denies that any agreement in the terms alleged by Waltz;
 - (ii) on 20 May 2010 the parties "agreed that rates for piping do not change and remain as per contract";
 - (iii) there was no agreement to pay Waltz by the number of welds carried out;
 - (iv) there is no agreement over a rate per weld;
- I have already dealt with these objections above and they are rejected for the reasons identified above.*
- (v) the quantity of piping was to be re-measured at completion according to the existing contractual provision. *There does not appear to be a submission in support of this issue that is supported by any evidence from Mr Bourne so it is rejected;*
 - (vi) no additional sums to the amounts certified under the contract are due;
 - (vii) the rate calculations used by Waltz as the basis of its claim are incorrect and inapplicable;
- I have already found that it is appropriate for a variation to be paid and that the rates used by the claimant are acceptable given that they have a schedule of rates provided to the respondent in order that they could be used for valuation of variations. Accordingly these submissions are rejected.*
- (viii) Waltz has not provided proof that has performed the number of welds claimed nor has it provided any entitlement.
- I've already found that the claimant has demonstrated that it is performed the number of welds claimed by providing the weld traceability register, together with the as built programs and the details of each weld. Accordingly this submission is rejected.*
606. In my view, having established that it was a variation under the contract, and having regard to the evidence of Mr Paterson on oath explaining the circumstances surrounding this variation and providing the documents in support of this variation claim, together with there being no alternative basis for valuation provided by Mr Bourne or any other witness of the respondent, I find that the claimant is entitled to its variation.
607. Accordingly, I value variation T 36 at \$3,759,547.84 and I've entered that into the spreadsheet CGL1.

XVIII. Amount of delay damages

608. I have found that the claimant is entitled to an EOT of 204 days which means that I am now required to value the delay damages as required by GC clause 47.1 of the contract providing it falls within the contract.
609. The respondent, at paragraph 15.1 of its submissions submitted that from these EOT's must be subtracted wet weather or any period where delay costs would not be incurred.
610. I note that the HB report, at paragraph 135 and 136, discussed wet weather delays and stated that until 13 April 2011, wet weather caused no delay to the date for practical completion. However, thereafter for the wet weather on 19 April and 20 May 2011 he said that there may have been 1.5 days wet weather to delay practical completion, so I subtract 1.5 days from the EOT's for the purposes of calculating delay damages.
611. At paragraph 15.2 the respondent submitted that the claimant's own delays must be subtracted, and it pointed to the unexplained delay from June 2011 to January 2012, which it said was to the claimant's account. I have already said that there is no cogent evidence on which I can rely to demonstrate such delays caused by the claimant.
612. It then adds that the claimant has provided no explanation as to why Activities 2800 tank farm and 2900 GAS 1 were not complete until January 2012 and the claimant did not claim an EOT, which was a critical delay, such that it was a claimant caused delay.
613. I have already found that no EOT's were claimed by the claimant after the representation by the respondent that no LD's would be levied, which means the fact that no EOT was claimed, does not demonstrate that the claimant had caused the delay.
614. Accordingly, I reject those submissions of the respondent and the EOT's thus far for calculation purposes are 202.5 days.
615. The respondent then asserts that the respondent was not the sole cause of the delay, and that by looking at:
- (i) the HB report and the gap for which no EOT's are claimed;
 - (ii) contemporaneous documents demonstrating that the claimant:
 - (a) over reported its resources;
 - (b) had insufficient resources;
 - (c) failed to progress the FIC and punchlist items;
 - (d) the 2800 and 2900 activities were finished in January 2012 and no EOT claim was made for these activities
- demonstrated that the respondent was not the sole cause of delay.
616. The respondent submitted that it was not for me to consider what is a fair thing, and that I must value the progress payment without fear or favour.
617. I agree, and the difficulty that I have, which has been outlined previously, is that whatever Mr. Mitchell has listed as complaints about the claimant's conduct did not translate into specific quantifiable instances of delay for which the claimant was demonstrably responsible.
618. When considering the factual matrix of the delays caused by the respondent, its taking over of the programming of its own volition and not because the claimant failed to do so, together with it directing the claimant to work to 3-week look ahead programs, rendered it very difficult to be able to demonstrate where and to what extent the claimant had delayed the project. The very contractor's program against which progress was to be measured, was rendered redundant by the respondent's programming and direction of the work.
619. Had the respondent provided its own analysis of the baseline program demonstrating these delays, the calculations may well have been different.
620. However, it is unsafe, based on assertions alone to find any delays for which the claimant was responsible, however long the list of complaints.
621. I therefore consider that the EOT's of 202.5 days are applicable for consideration under delay damages.
622. I must now consider the rate that is applicable for the damages claim.

Rate of delay damages

623. The claimant has provided two statutory declarations about the suitability of the delay damages rates, one being from Mr. Paterson, paragraphs 337 to 356 and the other from Mr. Bell, paragraphs 5 to 17 together with Annexure A.
624. Mr. Paterson refers to Mr. Bell's statutory declaration and swears that he is satisfied that the job costs do not include overheads and profit and accurately reflect the costs of the people who make up the personnel for the properly claimable delay damages claim [paragraph 347] and at paragraph 349 that the plant and equipment costs accurately reflect the actual costs for the delay damages claim.
625. Mr. Bell, who is Chief Financial Officer and a qualified accountant has sworn that he carried out calculations attached in Annexure A for each extension of time claim and said, at paragraph 8 of his statement, that the calculation was based on either
- (i) the rates for management and supervision and personnel and construction plant and equipment as set out in the pricing schedules in section 4 of the contract;
 - (ii) extracts of actual job costs from the claimant's financial records showing the actual cost incurred in relation to management and supervision and personnel.
626. He said, at paragraph 9, that the above methods of calculation were compared to show that the record of the costs incurred and claimed by the claimant for each of the member of staff was similar to the rates set out in the contract.
627. At paragraph 10, he explained that the claimant owned most of the plant and equipment and he compared them against hire rates and demonstrated that the agreed rates in the contract were significantly lower than the market rate of hire of equipment.
628. At paragraph 11 insofar as the rate of delay damages was concerned he said that:
- (i) the rates used were outlined in section 4 of the contract for weekly rates of equipment as well as personnel [sub at paragraph (v)], and
 - (ii) added that the names of the personnel that were on site at the time identified by the timesheet records recorded and kept on site and cross-referenced against the JCR, were matched against the management and supervision positions recorded in the fixed price management fee in the schedule of rates [sub at paragraph (vi)].
629. At paragraph 14 he said that he believed the records of personnel costs recorded in the JCR and found in Annexure were true and correct, and at paragraph 16 he said that he believed the calculations set out in the spreadsheets are true and correct and accurately represent the amounts payable to the claimant in respect of each EOT claim.
630. Mr Paterson at paragraph 352 identified the management and supervisory personnel and said that he believed those positions were payable is extra costs for the periods of delay.
631. In paragraph 15.4 of the respondents submissions, the respondent refers to the GT report which said that the rates for delay damages was too high and that I should accept Mr Tsipis' evidence as he was the only expert to have considered the issue.
632. This was then contrasted to the HB report where the respondents said that Mr Geoffrey Bell said he had not sighted supporting documentation and had not been asked to make his own assessment of delay costs. I agree that if there was a contest between the GT and HB reports, that the GT report should be preferred.
633. However, it is not just a case of expertise about which there is evidence. The claimant has identified and sworn on oath that the costs provided in its delay damages rate calculation accurately reflect the costs of personnel, plant and equipment for the periods of delay. Mr Bell is a qualified and certified practising accountant and has expertise to substantiate the correctness of the records upon which the claimant relies.
634. I therefore have two witnesses on oath stating that the rates are applicable against Mr Tsipis' comments in an expert report identifying that in his belief the rate was too high. However, he does say in paragraph 166 that, "assuming the cost records are accurate, then the second method appears to be a reasonable way of calculating personnel costs." He did, however, question the inclusion of many of the personnel in the cost calculations and

suggested that it was highly unlikely that 4 supervisors were employed in the oil recovery area and were affected by the delay. I understand his professional concern that only the appropriate personnel are to be included in the delay cost calculation, however, 2 parties who have intimate knowledge of the project, have sworn that these personnel costs accurately reflect the delay damages rate.

635. I note that Mr Tsipis quite properly had spoken to members of the respondent's project staff in order to provide a factual foundations for his report, however, that foundation is to my mind counterbalanced by the sworn evidence of two of the claimant's personnel who were involved in the project. There is no sworn evidence from the respondent to controvert what these two gentlemen have said, and it was open to the respondent to be able to provide such evidence. Mr Tsipis may well be right with his assessment, however, the foundation facts upon which his opinion is based have not been established.

636. Accordingly, I am satisfied that the calculations provided in Annexure A of Mr John Bell's statement are accurate.

637. I note in paragraph 15.4(g) of the respondents submissions it is said that it was necessary that only those costs that were actually incurred and flow naturally from the delay and disruption are recoverable. That is a salutary reminder that no profit and overheads and only actual costs should be allowed. To that extent therefore, I have decided that the preferred rate is that generated from the JCR which deals with the actual daily costs for the personnel, plant and equipment. This is the best evidence of the actual costs suffered by the claimant, and given that there are no other cogent costs from the respondent which I can then consider.

638. In paragraph 15.4 (h) of the respondents submissions the respondents said that payments in relation to varied work must be taken into account in the calculation of any delay damages. However, I have no basis upon which I can make such an assessment and the respondent has provided me with no material in order to make any deductions. Accordingly, I'm unable to do so.

639. Accordingly, in relation to EOT₁ I am satisfied that the appropriate daily working day of \$18,395.84 for personnel, plant and equipment.

640. In relation to EOT₅, the appropriate daily rate is \$17,655.41 for personnel, plant and equipment;

641. in relation to EOT 6, the appropriate rate is \$17,066.46 for personnel, plant and equipment

642. In relation to EOT₇ (which includes the Gas 2 plant), I am satisfied that the appropriate daily rate is \$20,947.25 for personnel, plant and equipment.

643. In relation to EOT eight, the appropriate daily rate is \$17,827.64 for personnel plant and equipment.

644. My calculation for the delay damages is about as follows:

EOT Number	Number of days	delay rate	extended total
1	120	\$18,395.84	\$2,207,500.80
5	3	\$17,655.41	\$52,966.23
6	2	\$17,066.46	\$34,132.92
7	78 - 1.5 days wet weather	\$20,947.25	\$1,602,464.63
8	1	\$17,827.64	\$17,827.64
TOTAL			\$3,914,892.22

645. I've therefore add this under \$3,914,892.22 to the CGL₁ spreadsheet and a summary of the adjudicated amount below.

XIX. Amount of liquidated damages and backcharges

646. I have already found that liquidated damages are not payable.

647. However, the respondent identified backcharges of \$24,619.00 for overhead and profit claimed in variations for material and services provided by "Walz related companies." I have seen Mr. Grant's calculations about this item and his tab 13 calculations and accept them.

XX. Summary of the adjudicated amount

648. I provide a summary table of the **adjudicated amount of \$ 9,559,555.94** which I have calculated in order to assist the parties and it is made up as follows, with the more detailed calculations provided in Annexure "CGLI" from which I have brought totals across.

Description	Amount	Reason
Liquidated damages	\$Nil	Respondent did not discharge onus that it was entitled to LD's
Schedule of rates under the contract	\$32,459,540.48	Claimant discharged onus, where accepted, otherwise probative material from Respondent to rebut on disputed SOR
Variations under the contract	\$13,231,308.82	Claimant discharged onus where accepted, otherwise probative material from Respondent to rebut
Amount of delay damages	\$3,914,892.22	Claimant discharged onus and no probative material from Respondent to rebut
Less previously paid	\$40,890,617.12	Claimant and respondent agree to this amount
Less back charges	\$24,619.00	
SUBTOTAL	\$8,690,505.40	
GST	\$ 869,050.54	
TOTAL ADJUDICATED AMOUNT	\$9,559,555.94	

P. Authorised Nominating Authority and Adjudicator's fees

649. The default provision contained in s34(3)(b) of BCIPA makes the parties liability for the ANA's fees is in equal proportions, unless I decide otherwise. The same approach applies to the adjudicator's fees in s35(3) of BCIPA, with equal contributions, unless I decide otherwise.

650. The claimant has obtained the bulk of what it claimed.

651. However, the claimant was only successful in overcoming the liquidated damages provision because of the estoppel and waiver argument that it had not raised initially, but about which I asked for further submissions. I am not satisfied that I should disturb the default provision because of the additional costs that estoppel and waiver submissions caused the parties.

652. Accordingly, the claimant and respondent are equally liable to pay the ANA's fees under s34(3)(b) and my fees under 35(3) of the Act.

Q. Other submissions

653. I have not considered the issue of joint and several liability as it is outside what I am to consider as an adjudicator in response to paragraph 6.2 of the respondent's submissions.

654. I have rejected additional reasons where I have found them in the adjudication submissions or in the factual material provided by the witnesses, as identified in these

reasons, thereby dealing with the claimant's submissions in paragraph 6.3 of its submissions and paragraph 6.3 of the respondent's submissions.

Chris Lenz
Adjudicator

31 May 2012

XXI. – Annexure CGL 1 tabulation and calculation of the adjudicated amount