

Initial conclusions arising from detailed analysis of disruption arising in Section 1C-03-01 during January and February 2009

Section 1 Background

1.1 Generally

- 1.1.1 During August 2009 to October 2009, CUS submitted detailed delay and disruption claims¹ totalling circa £9.449M^[2]. By a process of 'extrapolation'³, CUS contends that its overall delay and disruption claims total circa £13.554M^[4]. In support of the sums claimed, CUS has submitted a number of volumes of narratives and contemporaneous documentation which it contends substantiates its various claims.
- 1.1.2 I have previously reviewed and reported on the contents of those submissions under separate cover⁵. While CUS has submitted various revised calculations since its initial submissions, the method of assessment adopted by it has not changed. I have previously concluded the following in respect of the CUS claims:
 - a) That they are lacking in any proper analysis or substantiation of the 'effect' of the events relied upon and do not demonstrate the loss or additional cost incurred solely by those events; and
 - b) I fundamentally disagree with the hypothetical 'global' approach taken by CUS in the quantification of its alleged entitlement. I do not consider that approach to be sanctioned by the terms of the Agreement, nor do I consider the sums claimed to be a reasonable measure of its entitlement.

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¹ Those claims are entitled "Submission Re: Schedule 4 – Rates and Prices to Work Section … Resulting from matters which entitle the Contractor to additional payment". The detail of the claims however relate solely to a claim for payment of increased resources and the like as a result of reduced productivity arising from events which CUS contends tie is responsible. They are therefore disruption claims – they do not relate to claims for delay.

² The precise amount claimed is difficult to state with any certainty due to the fact that the claims submitted by CUS have been constantly revised and remain 'fluid' (due to CUS linking same to its recovery under Change Control and other areas such as re-measurement). This itself indicates that the CUS claim is not so much a disruption claim but a mechanism to recover any perceived shortfall in overall recovery across the whole contract.

³ I do not consider such an approach to be valid.

⁴ This is the amount claimed by CUS within its recent interim November 2009 application.

⁵ Please refer to my submissions of 23 September 2009, 27 September 2009, 8 October 2009 & 12 November 2009



1.1.3 As a result of the above it was agreed with **tie** that Acutus would carry out a more detailed forensic investigation into one Section of the MUDFA Works over a specific 'window' of time. The objective of that analysis was to endeavour to identify the extent of disruption incurred by CUS solely by matters for which **tie** was responsible over the relevant period. Details of that exercise are included in Section 2 below.

Section 2 Forensic exercise undertaken

2.1 Section and period selected for analysis

- 2.1.1 It was agreed with tie that the forensic analysis would focus on Section 1C-03-01 (York Place South St Andrew Street). This section was selected as it had been the subject of discussions between CUS and Acutus during September to November 2009. As a consequence, more data had been made available by CUS for that Section. This Section also represents the highest 'value' disruption claim submitted by CUS.
- 2.1.2 In terms of the period selected for analysis, time did not permit us to review the whole claim period⁶. As such, it was agreed that the period for review would be the first 8 weeks in 2009 (from **5 January to 27 February 2009**). That period is in the middle of the overall period claimed by CUS and appears, from the CUS as-built programme, to contain the most significant concentration of alleged disruption events relied upon by CUS.
- 2.1.3 I was assisted in this exercise by Anne Connolly (also of Acutus).

2.2 Method of analysis undertaken

- 2.2.1 In order to form a view on the extent of disruption (if any) caused by events / matters for which tie is responsible we reviewed the information available from both parties which was relevant to the particular period selected.
- 2.2.2 In the first instance, we collated and subsequently carried out a review of, the contemporaneous records maintained by, and/or in the possession of, **tie** for the period 5 January 2009 until 27 February 2009. Those records included (where available): Site Inspectors Daily Sheets; Daily Site Records; Weekly Flash Reports; various items of

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 $^{^{6}}$ The CUS claim for Section 1C-03-01 covered the period from 1 October 2008 to 31 May 2009.



correspondence and minutes of meetings. The site inspector's daily resource records available are sporadic and as such do not cover the entire period under review.

- 2.2.3 In conjunction with the above we reviewed the records submitted by CUS to tie during the normal course of carrying out the works and also those which were submitted as part of its current claim submission.
- 2.2.4 A number of meetings were then held with two of **tie**'s site representatives (Kevin Gray and Jackie Paton) who were responsible for managing the MUDFA works within Section 1C-03-01. During those meetings each of the eight weeks was taken in turn with a view to reviewing and assessing:
 - a) The works planned to be undertaken by CUS;
 - b) the actual diversion works undertaken by CUS;
 - c) the actual labour hours claimed by CUS to have been incurred⁷;
 - d) the specific events referred to by CUS within its Delay Schedule;
 - e) the diversions alleged to have been affected by the events relied upon by CUS; and
 - f) any other matters which may have arisen which could have prevented CUS from carrying out its works productively.
- 2.2.5 From those discussions, the analysis of the records available, and in particular the recollections of **tie**'s site representatives, it was possible to arrive at an assessment of the extent of disruption considered to have been caused to the works by the events relied upon by CUS during the period in question.
- 2.2.6 In this regard, I accept that, to a degree, this assessment will by its very nature require an element of subjective interpretation of actual events. That however is unavoidable. That said, the absence of detailed site records from CUS (which may or should have shown what the respective utility diversion teams were doing each day) exacerbated the degree to which subjective interpretations become necessary. As such, we have had to rely heavily on the recollections of **tie**'s site representatives in assessing the actual effect of the events contended. That said, it is submitted that this process of analysis is still much more likely to

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⁷ Both in respect of diversion works and remedial works



provide a more accurate assessment of the disruption arising from '**tie** events' than the current CUS submissions.

- 2.2.7 I also accept that the measure of disruption arrived at via the above may not represent the full measure of disruption actually incurred by CUS. That is to say, one of the 'risks' of looking at each of the events on an individual basis, is that the cumulative effect of those events occurring at the same time or during the same week may be lost. As such, a further meeting was held with Kevin Gray on 8 December 2009 during which we endeavoured to address this risk. This 'second pass' review of each of the weeks and events arising however failed to identify significant additional disruption hours over and above the individual review.
- 2.2.8 Section 3 below includes a summary of the key findings from those investigations.

2.3 Matters affecting disruption analysis

2.3.1 It is relevant to note that in reviewing the events relied upon by CUS, two recurring issues came to light which are worthy of brief explanation. Those matters are addressed below.

Hand digging

- 2.3.2 A significant number of the events relied upon by CUS during this period (and overall within this Section) relate to 'hand-digging'. Of the 33 No events raised during this 8 week period 8 No (or 25%) relate to hand-digging.
- 2.3.3 In this regard, I note that the parties have reached an agreement on the amount to be paid to CUS in respect of its claims for ⁸'additional' or 'exceptional' hand-digging. I understand that **tie** and CUS have agreed to an additional payment of circa £150,000.
- 2.3.4 Those additional hand-digging hours / payment for same cannot therefore also form part of this disruption assessment. They must be excluded. Not to do so renders the parties agreement on hand-digging superfluous. The method of assessment used by CUS however does not, and will not, in my opinion take proper account of this agreement or other such issues (because its disruption claims are both global and fluid in nature). Effectively,

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 $^{^{8}}$ That is, additional and exceptional hand-digging over and above that which CUS is deemed to have included in the Schedule 4 rates and prices.



whatever payment CUS does not receive in the re-measured or change control elements of the overall account, it proceeds to claim the shortfall in the disruption claim(s).

- 2.3.5 As a consequence, we have not included any assessment for additional hand-digging hours in this current exercise.
- 2.3.6 I accept that, one area which may not be addressed is the potential for disruption to diversion teams which may follow-on from the diversion team actually carrying out the hand-digging. That said, CUS does not properly develop this point or provide any information with which one can assess the extent of same. It is therefore not entirely clear to what extent this may be an issue. I do note however that it is only the additional effect of the additional or exceptional hand-digging which would be recoverable by CUS (on the premise that CUS always bore the risk for disruption arising from 'non-additional or non-exceptional' hand-digging). On the basis that the parties agreed the sum of £150,000 for the additional hand-digging, it is considered unlikely that a significant amount of additional disruption will have arisen.

<u>Embargo</u>

- 2.3.7 The costs associated with the additional works required to facilitate the 'Christmas Embargo Period' restrictions are claimed for separately by CUS through the change control process. It is my understanding that agreement on the valuation of this issue has yet to be reached between the parties.
- 2.3.8 From the CUS As-built Programme, during week 1 of the period analysed, there are 13 No diversions affected by *Embargo* works. I note that no other works are recorded by CUS as having been carried out at that time. This is not surprising as the works associated with the Embargo restrictions are intended to put CUS back to the position it was in prior to the Embargo restrictions being imposed. That is to say, the diversions in progress prior to the Embargo period that had to be backfilled and reinstated would require to be re-excavated 'post-Embargo' to allow the works to continue as before.
- 2.3.9 What is surprising however is the timing of particular Embargo works recorded by CUS in its As-built Programme. For example: CUS records "Non Productive work for embargo"



period" being carried out in respect of particular diversions in weeks 3, 4 and 5⁹; "Non Productive work for embargo period" is recorded in week 1, not recorded in week 2, and then recorded in weeks 3, 4 and 5¹⁰ on the same diversions; in other diversions "Non Productive work for embargo period" is recorded at the same time as "As-Built" works¹¹.

- 2.3.10 CUS does not provide any explanation for this. I accept that it is possible for Embargo works to have been disrupted by events occurring as the works are being undertaken in the post-Embargo period, but this is neither demonstrated nor articulated by CUS.
- 2.3.11 The additional labour and materials costs incurred by CUS in carrying out the Embargo works are recovered by it under the change control process. Those costs cannot therefore also form part of this disruption assessment. They must be excluded. Not to do so renders the parties agreement in respect of the change controls superfluous. It is not clear whether the method of assessment used by CUS takes proper account of this or other such issues (because of the fluid nature of its claims see paragraph 2.3.4 above).
- 2.3.12 As a consequence, we have not included any assessment for additional hours in respect of Embargo works in this current exercise.

Section 3 Findings from weekly analysis

The tables below summarise the key findings arising from the analysis carried out. In particular, we have endeavoured to identify from the CUS As-built Programme those diversions which:-

- (i) were claimed or shown to have been worked on during the relevant period;
- (ii) were claimed or shown to be affected by an event relied upon by CUS;
- (iii) any diversions where no events were seen or claimed to be affecting progress; and thereby
- (iv) identifying the diversions which may have been affected by events (other than hand-digging which for the reasons set out above should in my opinion be excluded).

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⁹ Diversion references LP/D/108 and TH/D/04

¹⁰ Diversion references SP/D/16 and SP/D/16A

¹¹ Diversion references SW/D/10 Part3, SP/D/10 and LP/D/101



15 hrs

3.1 Week 1 - week ending 9 January 2009

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1	No. of events claimed by CUS to have affected progress:				
2	No. of diversions being worked on by CUS (incl. EMBARGO):		13 no.		
3	No. of diversions alleged not to have been affected by events:	10 no.			
4	No. of diversions allegedly affected solely by Hand Digging :	2 no.			
5	No. of diversions being worked on allegedly disrupted by events:		1 no.		
6	Explanatory note:				
	CUS alleges (Delay Schedule 1) that 7 diversions were affected by events during this				
	week, but 4 of those diversions are not actually being worked on according to the CUS				
	As-built Programme.				
	The 1 diversion that could potentially have been affected by events during this week				
	was not actually being worked on according to the CUS As-built Progra	amme.			
	All Works carried out in this week relate to EMBARGO. This affected 13 diversions in				
	total.				
	<u>Events considered relevant:-</u>				
	No. 49 Relates to hand digging.				
	No. 50 Relates to an issue for which CUS is responsible.				
	No. 51 This is a valid claim for disruption. Assessment made according	ly (nb. Cl	JS in its		

As-built programme does not record any work being carried out on this diversion).

3.2 Week 2 - week ending 16 January 2009

7 Assessment of actual disrupted hours

	Meet Zanates		
1	No. of events claimed by CUS to have affected progress:		
2	No. of diversions being worked on by CUS (excl EMBARGO):		9 no.
3	No. of diversions alleged not to have been affected by events:	7 no	
4	No. of diversions allegedly affected solely by Hand Digging :	0 no	
5	No. of diversions being worked on allegedly disrupted by events:		2 no.
6	Explanatory note:		
	CUS alleges (Delay Schedule 1) that 18 diversions were affected by ev	ents duri	ng this
	week, but 16 of those diversions are not actually being worked on according to the		
	CUS As-built Programme.		
	The 2 diversions which were being worked on, that could potentially have been		
	affected by events, are located in the same trench and are allegedly affected by 4 out		
	of the 7 events occurring in this week.		
	Events considered relevant:-		
	No. 50 (see week 1).		
	No. 53 Relates to a section of the diversion not currently being worked	d on owir	ng to
	event no.49.		
	No. 55 & 56 Relate to the same issue. Assessment of the disruptive effect of this issue		
	is nil. Works carried out by CUS were fully productive and did not affect ongoing		
	works.		
7	Assessment of actual disrupted hours		nil hrs



nil hrs

30 hrs

3.3 Week 3 - week ending 23 January 2009

	Need Charles				
1	No. of events claimed by CUS to have affected progress:		13 no.		
2	No. of diversions being worked on by CUS (excl EMBARGO):		6 no.		
3	No. of diversions alleged not to have been affected by events:	4 No.			
4	No. of diversions allegedly affected solely by Hand Digging :	0 No.			
5	No. of diversions being worked on allegedly disrupted by events:		2 no.		
6	Explanatory note:				
	CUS alleges (Delay Schedule 1) that 22 diversions were affected by events during this				
	week, but 20 of those diversions are not actually being worked on according to the				
	CUS As-built Programme.				
	The 2 diversions which were being worked on, that could potentially have been				
	affected by events, are allegedly affected by the same event (event no.56) and 1 of				
	those diversions is also allegedly affected by hand digging.				
	EMBARGO works also carried out this week on 5 diversions.				
	<u>Events considered relevant:-</u>				

3.4 Week 4 – week ending 30 January 2009

7 Assessment of actual disrupted hours

No. 56 (see week 2).

No. 57 Relates to hand digging.

7 Assessment of actual disrupted hours

	Week 4 America				
1	No. of events claimed by CUS to have affected progress:				
2	No. of diversions being worked on by CUS (excl EMBARGO):				
3	No.of diversions alleged not to have been affected by events:	3 no.			
4	No. of diversions allegedly affected solely by Hand Digging :	2 no.			
5	No. of diversions being worked on allegedly disrupted by events:		2 no.		
6	Explanatory note:				
	CUS alleges (Delay Schedule 1) that 12 diversions were affected by events during this				
	week, but 8 of those diversions are not actually being worked on according to the CUS				
	As-built Programme.				
	Of the diversions which are being worked on, that could potentially have been				
	affected by events, 2 are located in the same trench and are allegedly affected by 3				
	events occurring during this week (one of which is hand digging).				
	EMBARGO works are also being carried out this week on 5 diversions.				
	<u>Events considered relevant:-</u>				
	No. 53 It is likely that this event would have had a disruptive impact o	n the wo	rks at		
	this time. However, the measure of that disruption requires to be rec	onciled w	vith		
	what CUS recovered through the Change Control process and also thro	ough the			
	remeasurement of its works in respect of the particular diversion(s) a				
	likely that any residual value would be nominal. A reasonable allowance has been				
	made accordingly.				
	No. 61 This event appears to be the same as item 53 above. Any disru	otion aris	ing		
	from this is covered by item 53.				
	No. 66 Relates to hand digging.				



3.5 Week 5 - week ending 6 February 2009

Week Symposis				
1	No. of events claimed by CUS to have affected progress:		5 no.	
2	No. of diversions being worked on by CUS (excl EMBARGO):		13 no.	
3	No. of diversions alleged not to have been affected by events:	6 No.		
4	No. of diversions allegedly affected solely by Hand Digging:	4 No.		
5	No. of diversions being worked on allegedly disrupted by events:		3 no.	

6 Explanatory note:

CUS alleges (Delay Schedule 1) that 18 diversions were affected by events during this week, but 10 of those diversions are not actually being worked on according to the CUS As-built Programme.

Of the diversions which are being worked on, that could potentially have been affected by events: 2 are located in the same trench, 1 is allegedly affected by 2 events and the other is allegedly affected by 3 events (one of which is hand digging); and 2 are affected by the same single event.

EMBARGO works also being carried out this week on 12 diversions.

Events considered relevant:-

No. 68 Relates to hand digging.

No. 69 This event is likely to have caused some disruption to 1 out of the 8 diversions allegedly affected by this particular event. A reasonable allowance has been made accordingly.

Nos. 70 & 71 Recovery made under change control process.

7 Assessment of actual disrupted hours

80 hrs

3.6 Week 6 - week ending 13 January 2009

Meek 6 American		
No. of events claimed by CUS to have affected progress:		
No. of diversions being worked on by CUS (excl EMBARGO):		15 no.
No. of diversions alleged not to have been affected by events:	6 No.	
No. of diversions allegedly affected solely by Hand Digging :	4 No.	
No. of diversions being worked on allegedly disrupted by events:		6 no.
	No. of diversions being worked on by CUS (excl EMBARGO): No. of diversions alleged not to have been affected by events: No. of diversions allegedly affected solely by Hand Digging:	No. of diversions being worked on by CUS (excl EMBARGO): No. of diversions alleged not to have been affected by events: No. of diversions allegedly affected solely by Hand Digging: 4 No.

6 Explanatory note:

CUS alleges (Delay Schedule 1) that 26 diversions were affected by events during this week, but 16 of those diversions are not actually being worked on according to the CUS As-built Programme.

Of the diversions which were being worked on, that could potentially have been affected by events: 1 is allegedly affected by 2 events (one of which is hand digging); 2 diversions are affected by the same single event and 1 diversion which is not recorded on the CUS As-built Programme as being worked on during this week is affected by one other event in the following week.

Events considered relevant:-

No. 73 Relates to hand digging.

No. 74 Recovery made through change control process.

No. 75 Likely to have caused some disruption. The discovery of services at a shallow level actually improves productivity as there is a reduction in the scope. Allowance made accordingly (nb. CUS in its As-built Programme does not record any work being carried out on the affected diversion in this week).

7 Assessment of actual disrupted hours

30 hrs



3.7 Week 7 - week ending 20 February 2009

Control Constraint					
1	No. of events claimed by CUS to have affected progress:		3 no.		
2	No. of diversions being worked on by CUS (excl EMBARGO):		30 no.		
3	No. of diversions alleged not to have been affected by events:	8 No.			
4	No. of diversions allegedly affected solely by Hand Digging :	20 No.			
5	No. of diversions being worked on allegedly disrupted by events:		2 no.		
	F				

6 Explanatory note:

CUS alleges (Delay Schedule 1) that 35 diversions were affected by events during this week, but 13 of those diversions are not actually being worked on according to the CUS As-built Programme.

Of the diversions which are being worked on, that could potentially have been affected by events, both are allegedly affected by hand digging and one other event.

Events considered relevant:-

No. 69 (see week 5)

No. 76 Relates to hand digging (and is alleged to affect 22 diversions in total; 20 of which are allegedly solely affected by this event).

7 Assessment of actual disrupted hours

nil hrs

3.8 Week 8 - week ending 28 January 2009

Week Stratiges				
1 No. of events claimed by CUS to have affected progress:				
No. of diversions being worked on by CUS (excl EMBARGO):				
No. of diversions alleged not to have been affected by events:	7 No.			
No. of diversions allegedly affected solely by Hand Digging:	4 No.			
No. of diversions being worked on allegedly disrupted by events:		4 no.		
	No. of diversions being worked on by CUS (excl EMBARGO): No. of diversions alleged not to have been affected by events: No. of diversions allegedly affected solely by Hand Digging:	No. of diversions being worked on by CUS (excl EMBARGO): No. of diversions alleged not to have been affected by events: 7 No. No. of diversions allegedly affected solely by Hand Digging: 4 No.		

6 Explanatory note:

CUS alleges (Delay Schedule 1) that 24 diversions were affected by events during this week, but 16 of those diversions are not actually being worked on according to the CUS As-built Programme.

Of the diversions which were being worked on: 3 diversions were allegedly affected by the same single event (1 of those is also allegedly affected by hand digging) and 1 diversion is affected by one other event.

<u>Events considered relevant:-</u>

No. 67 No disruption arising. The solution to this issue actually reduced the time required to complete the works. That is to say the solution simplified the works. Issue originally raised in week 4, but no works undertaken at that time. TQ raised as a paperwork exercise, CUS As-built Programme reflects this as works recorded as completed prior to the date of the response to the TQ.

No. 77 Relates to hand digging.

No. 79 May have caused some disruption not recovered through the rates. Allowance made accordingly.

7 Assessment of actual disrupted hours

18 hrs



3.9 Summary of weekly analysis

3.9.1 The table below summarises the measure of disruption which we were able to identify as being caused during the relevant period by matters for which **tie** is responsible.

1	7 No.	1 No.	15 hrs
2	18 No.	2 No.	nil
3	22 No.	2 No.	nil
4	12 No.	2 No.	30 hrs
5	18 No.	3 No.	80 hrs
6	26 No.	6 No.	30 hrs
7	35 No.	2 No.	nil
8	24 No.	4 No.	18 hrs
Total			173 hrs

Excl. hand-digging

- 3.9.2 It will be readily apparent from the above that our analysis of the eight week period highlighted little disruption arising from 'tie events'.
- 3.9.3 For this particular Section, CUS contends that overall it was disrupted by an additional 'factor' of 1.78 (or 178%)¹². In terms of labour hours for the period in question, and on the basis of the current CUS calculations this equates to an alleged disruption to labour resources of circa 6,171 hours. Those hours are calculated as follows:-

Hours Carmed by CUS	Jan 50	Fe9-75	Total
Actual labour hrs expended	3,136	6,503	9,639
<u>Ddt</u> Labour hrs recovered in measure (based on			3,467
2.78 productivity factor calculated by CUS)			
Total (implied) disruption hours in period			6,171

- 3.9.4 Our initial findings for this 8 week period indicate that disruption in the region of **173 hours** (or **5.00**%) is more apparent. Those hours however exclude (properly in my opinion) hours attributable to the 'additional' or 'exceptional' hand-digging issue already resolved by the parties (please see earlier notes).
- 3.9.5 A degree of caution must however be maintained in applying the interim conclusions outlined above (regarding disruption at circa 5.00%), on a wider scale (even for the

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¹² The CUS submissions do not indicate precise measures of disruption either in specific periods or for specific events. They are entirely global. As a consequence, we are only able to arrive at an 'implied' level of disruption over this 8 week period.



remainder of the periods not covered by the present exercise within this Section). This exercise does however raise further significant doubts about the accuracy and validity of the current CUS claims.

- 3.9.6 In respect of the current conclusions, I accept that it may well be that the 8 week period selected for analysis was not disrupted to any material extent and that it was therefore an earlier, or later, period during which the majority of the disruption was incurred. This point however is not a failing in the method of analysis adopted by us in our review. Rather it is a failure of CUS to properly particularise its claims and/or identify where and to what extent specific activities were disrupted. The absence of evidence from CUS as to what its operatives were doing, where these activities were and when is also a major factor in restricting a proper assessment of its claims.
- 3.9.7 I also note that CUS has not produced any records of significance demonstrating operative standing time (beyond anything paid via the change control process). As such there appears to have been little in the way of standing time caused by the events relied upon by CUS. This point was confirmed by **tie**'s site representatives. It is therefore reasonable to presume that the disruption claimed must be as a result of a reduction in output / productivity. This however remains an area where CUS has in my opinion failed to demonstrate the causes of that reduced output.

Section 4 Conclusions

4.1 Conclusions in respect of disruption

- 4.1.1 Analysis of the 8 week period from 5 January 2009 to 27 February 2009 clearly demonstrates that CUS has experienced significant delay to its works within Section 1C-03-01.
- 4.1.2 However, analysis of the documentation presently submitted or made available for this period shows little evidence of significant disruption arising from matters for which **tie** is responsible.
- 4.1.3 The current CUS' claims indicate disruption hours in the region of **6,172 hours** (or **178**% disruption). This is to be compared with our analysis which indicates disruption of circa **173 hours** (or circa **5.00**% excluding hand-digging).



- 4.1.4 While I accept that these conclusions cannot be applied over the whole Section or MUDFA Works, they do raise further significant questions as to the accuracy and validity of the CUS claims.
- 4.1.5 The absence of significant disruption caused by matters for which **tie** is responsible points to two other possibilities in terms of the cause of the alleged increased labour hours, being:
 - a) The inability of CUS to achieve alleged planned outputs as a result of pricing errors (inasmuch as the planned outputs derived from its Schedule 4 rates and prices may not have been achievable); and/or
 - b) Inefficiencies on the part of CUS arising from matters for which it is responsible (for example, poor site management and/or planning and coordination of its own works).

 This is something which **tie**'s site representatives were critical of.
- 4.1.6 Both of the potential causes detailed above however are 'masked' by the method of assessment currently adopted by CUS. The CUS analyses and claims proceed on the 'assumption' that **tie** is responsible for all increased resource hours unless CUS has expressly made a deduction from the total hours incurred. That is, in my opinion, the wrong starting point.
- 4.1.7 As noted throughout my earlier reports and notes on the CUS claims, the absence of CUS' records demonstrating what the operatives were doing, where and at which time is a crucial piece of evidence which prevents either party or a third party from establishing the true cause and extent of disruption.
- 4.1.8 For this reason, while I cannot be definitive as to the measure of disruption incurred by CUS within Section 1C-03-01 over the full period, the detailed investigations carried out on the 8 week period indicate that the current CUS claims appear to be significantly overstated. It also reinforces my view that CUS must prepare its claim in a manner which is more transparent and openly takes account of only the matters for which **tie** is responsible. That is, CUS should move away from a global 'top down' approach to a more event specific 'bottom-up' approach to its analysis.



4.1.9 In this regard, I note that at the meeting held on 6 November 2009, CUS undertook to consider and revert to tie on how or whether it would adopt this approach on Section 1C-03-01. I have yet to receive confirmation from it on whether they are proceeding with this separate analysis.

4.2 Effect of the above on views on quantum of CUS claims

- 4.2.1 As noted at paragraph 1.1.1 above, CUS contends that the overall delay and disruption claims total circa £13.554M. I understand that to date tie has certified an 'on account' payment to CUS in the region of £1M for disruption incurred from 1 October 2008 onwards. I understand that the 'on account' payment was made pending CUS properly evidencing its claims.
- 4.2.2 In my draft report dated September 2009 at paragraph 5.2.14, I noted that: "Unless and until CUS provides reliable labour and plant resource usage and cost data which is transparent, verifiable and capable of analysis, it will not be possible in my opinion to arrive at such an assessment. As noted, CUS has declined to provide this information. That position however appears to be contrary to the terms and requirements of the Agreement. In other instances CUS has stated that it is not available. This however in my opinion prevents its claims from being properly evidenced and hence assessed."
- 4.2.3 I remain of that view.
- 4.2.4 The detailed analysis which is the subject of this report shows disruption in the region of 5% for an 8 week period. While I fully accept that this is unlikely to be the consistent level of disruption throughout the 1 October 2008 to 31 May 2009 period, it differs so significantly from the disruption claimed by CUS, that it raises further doubts about the reliability of the CUS claims.
- 4.2.5 As such it remains my opinion that the current level of the CUS claims are not supported by the evidence made available or submitted by it. I remain to be convinced that all hours allegedly expended and claimed were incurred as a result of matters for which **tie** is responsible. Crucially those claims appear to ignore and/or mask matters which are likely to be CUS' responsibility. CUS has consistently been unable to demonstrate what those resources were doing, where they were working and how or in what way they were disrupted.



4.2.6 I accept that the amount due to CUS may indeed ultimately be found to be more than the £1M presently certified on account. CUS has however in my opinion failed to demonstrate the reasonable measure of additional payment to which it is entitled. It is therefore not possible at this stage to establish with any degree of accuracy the true level of disruption incurred by CUS as a result of matters for which **tie** is responsible.

4.3 Suggested way forward

4.3.1 In light of the fact that our analysis of the 8 week period shows disruption to be in the region of circa 5% and not the 178% as claimed by CUS, it is suggested that CUS be requested to demonstrate its position and detailed disruption calculations for that period. This process would assist both parties in moving towards resolving this matter inasmuch as (i) it may assist in demonstrating to CUS that the methodology adopted by it in its current claim presentation is unsound; and/or (ii) it may also identify to **tie** issues not readily apparent from the site records, which did in fact cause disruption to CUS and for which it is entitled to be reimbursed.

Robert Burt

8 December 2009