



**Royal Commission on the Pike River Coal Mine Tragedy**  
**Te Komihana a te Karauna mōte Parekura Ana Waro o te Awa o Pike**

**UNDER**

**THE COMMISSIONS OF INQUIRY ACT 1908**

**IN THE MATTER OF**

**THE ROYAL COMMISSION ON THE PIKE RIVER COAL  
MINE TRAGEDY**

Before:

The Honourable Justice G K Panckhurst  
Judge of the High Court of New Zealand

Commissioner D R Henry

Commissioner S L Bell

Commissioner for Mine Safety and Health, Queensland

Appearances:

K Beaton, S Mount and J Wilding as Counsel Assisting

S Moore SC, K Anderson and K Lummis for the New Zealand Police

N Davidson QC, R Raymond and J Mills for the Families of the Deceased

S Shortall, D MacKenzie, R Schmidt-McCleave and P Radich for certain  
managers, directors and officers of Pike River Coal Limited (in  
receivership)

C Stevens and A Holloway for Solid Energy New Zealand

K McDonald QC, C Mander, A Williams and A Boadita-Cormican for the  
Department of Labour, Department of Conservation, Ministry of Economic  
Development and Ministry for the Environment

G Nicholson and S Stead for McConnell Dowell Constructors

G Gallaway, J Forsey and E Whiteside for NZ Mines Rescue Service

N Hampton QC and R Anderson for Amalgamated Engineering, Printing  
and Manufacturing Union Inc

J Haigh QC and B Smith for Douglas White

J Rapley for Neville Rockhouse

T Stephens and N Blomfield for New Zealand Oil and Gas

P Mabey QC for Pieter van Rooyen

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**TRANSCRIPT OF PHASE THREE HEARING  
HELD ON 14 FEBRUARY 2012 AT GREYMOUTH**

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**COMMISSION RESUMES ON TUESDAY 14 FEBRUARY 2012 AT 10.01 AM****MR HAIGH CALLS:****DOUGLAS HUTTON KIRKWOOD WHITE (AFFIRMED)**

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**MR HAIGH ADDRESSES THE COMMISSION****EXAMINATION: MR HAIGH**

10 Q. Mr White, I only wish to deal with a number of select issues in evidence-in-chief given that the Commission's counsel and others will be pursuing you on various issues that have arisen since you last gave evidence. I firstly, however, want to deal with the evidence of Mr Nishioka and you'll recall his evidence and his allegations as to his departing the mine because of what he foresaw as dangers?

A. Yes I do.

15 Q. And you alluded to that in your brief of evidence which I think you have with you?

A. Yes I have.

Q. And that's commences at page 12 and this is, I don't think there's any need to call it up, but the reference is WH1002/12

**20 WITNESS REFERRED TO DOCUMENT WH1002/12**

Q. Which is where you begin to comment on Mr Nishioka's statements. I just want to clarify that, his particular allegations. The first one I want to address is the fact that, or the claim and you address this at paragraph 45, Mr Nishioka made the allegation to this, or the statement to this inquiry and this is at paragraph 45 of Mr Nishioka's brief which was  
25 NISH0001/11

**WITNESS REFERRED TO DOCUMENT NISH0001/11**

Q. And I quote at paragraph 45, "When I arrived at Pike River in July 2010, I told Doug White I would not send anybody into an underground," sorry,  
30 "Would not send anybody into underground," that is what it says, "Before a robust ventilation system was in place and a second means of egress was ready." Did he say that to you or anything similar?

1007

A. No he did not.

Q. And that's what you've recorded in your brief of evidence?

A. Absolutely.

5 Q. He also went on to say under cross-examination, and this was at page 3584 of the transcript, that he said this to you, about not sending anybody underground until the ventilation system was remedied, or made, I can't remember the exact words again, that he said this to you on the very first day that he arrived at the mine. Did that occur?

10 A. No it did not.

Q. He also said that Mr Whittall was present, presumably your answer is the same that he wasn't because it didn't occur?

A. Absolutely correct.

15 Q. He then went on to accept that he made this statement, and I'm quoting from page 3585 at line 6, that he hadn't been underground when he made the statement allegedly to you, that no one should go underground because of the deficiencies in the ventilation system. So that in effect, and he accepts this, although he hadn't been underground, on the very first day he arrived he said that the ventilation  
20 system was flawed. Do you have any comment on that?

A. Other than the fact that that's incorrect, no.

25 Q. And you've already produced I think as exhibit 37 emails that you exchanged with Mr Nishioka after he had left relating to the hydro-monitor and there was an indication, never any indication from him that there were deficiencies in the mine such it was dangerous?

A. None whatsoever in the written correspondence that we had, no.

Q. Anything underground, did he ever say anything to you when he was at the mine along those lines?

A. No not to me personally, no.

30 Q. Well we've heard evidence that he said, made some comments about his concerns to "other" managers, can you comment on that?

A. He may well have done. I can't comment on that. None of the other managers raised that as an issue with me.

Q. And did he ever raise an issue with you?

A. No he did not.

Q. Did he ever raise an issue with you in relation to the ventilation system?

A. No he did not.

5 Q. Did he make some comment to you about the position of the hydro-panel?

A. Yes he did.

Q. What did he say?

10 A. He talked about the position of the hydro-panel being too close to pit bottom, I can't remember his exact words. We discussed the fact that most mines work from the pit bottom outwards. It was very unusual for a mine to start at its extremities and work backwards and I couldn't quite understand what his issue was with the panel where it was, but we definitely did discuss the position of the hydro-panel.

15 1010

Q. And did you agree with his assessment on that?

A. No I did not.

Q. He also said, and you denied this, that you should have known the risk of a methane explosion. Can you comment on that?

20 A. I knew the hazards of methane, but I have known the risks of a methane explosion ever since I've worked underground for the last 30 years and how it's controlled.

Q. But did he emphasise that in relation to any concerns that he'd expressed?

25 A. No he did not, no.

Q. Let me move on to an email that has been referred to already in evidence in your absence headed, "I won't be a scapegoat". You are aware of what I'm referring to?

A. Yes I am sir.

30 Q. And the document, Ms Basher if you could call this up please, is WHI002.1. I think we'll go to the bottom of that page first.

**WITNESS REFERRED TO DOCUMENT WHI002.1**

Q. Mr White, this is an email from you to a, for want of a better term, "head hunter" called Gary McClure?

A. That's correct.

Q. Is he a person who specialises in employment and coal mines?

5 A. He's a recruitment consultant predominantly in the mining industry, yes.

Q. In Australia?

A. In Australia.

Q. Then if we start at the bottom of page 1, and it's an email from you sent on the 14<sup>th</sup> of November. If we go over the page to 2 please Ms Basher.

10 The subject heading at the top is "To Gary McClure. Subject: They won't be making me the scapegoat." Do you see that at the top?

A. Yeah I do sir, yeah.

Q. And you then started off, "Gary I need you to be on the lookout for another position for me. The decision to stay at Pike may well have backfired." Now just pause there for a moment. What were you alluding to there?

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A. I was alluding to a position that I'd been interviewed for back in Australia which I decided to not pursue.

Q. And when was that in relation to the sending of this email which was the

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A. It was some time in October.

Q. The lookout for another job had commenced before November or was it in November?

A. No, I'd been contacted some time prior to that and asked if I'd been interested or was interested in a position in Australia and there was a few emails went back and forward and I was actually taken to Australia and interviewed in Australia for the position and the recruitment process was well underway to the extent that I was going to be offered a position and I decided to withdraw my application.

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30 Q. And that's in an email which you sent off to Mr McClure?

A. Yeah.

Q. And I'll refer to that in a moment. So, sticking with the email which we have before us in a moment. You say, "The decision to stay at Pike

may well have backfired.” That's in reference to the job that you declined, is that correct?

A. That's correct.

5 Q. And I'll read it through. “I decided to stay because I firmly believe the place can be successful and I was given more autonomy and control of the whole site (with no increase in remuneration though). My decision was all about Pike and my family and less about me. In the last two days I have seen the true colours of senior leadership here and I don't like what I have seen. The other day I was told that comments that I had made had caused a seven cent drop in share price and had put the market in a spin. Absolute crock of s\*\*\*t. All of my hard work and effort here have been rewarded with a 2½% annual bonus. Others who have done a lot less were given up to 10%.

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15 A. Would appear that hard work and effort, increased standards, increased productivity, increased safety performance, (all of these things driven by and implemented by me) are no measure of success. I would appreciate a call so we can sort out a way forward out of here. My preference would be to stay in New Zealand and commute.” And was that the position as you saw it as at the 14<sup>th</sup> of November 2010, some five days before the explosion?

A. Correct.

20 Q. I'll ask you a bit about that. What was the trigger for this decision to leave, if that's what it was to leave Pike?

25 A. I'd taken a group of stockbrokers underground at the behest of the company and as interested stockbrokers all around the way around the mine to the areas that I took them they were asking questions, rightly so, on their investments. I took them into the development panel and I took them into the hydro-monitoring panel. Whilst in the hydro-monitoring panel they asked me a number of questions with respect to  
30 how hydro-monitoring was performing. I indicated to them that it could be performing better, that we were having issues of the hardness of the coal but we were working through that. I also indicated to them at the

time that we were trying a number of remedies to try and get the performance to where it had been predicted and I also indicated that as far as I was personally concerned, it was the first time in about 30 years where I actually didn't just have the answer for them just like that.

5 Q. What followed your meeting underground with the analysts?

A. There was a, from memory we had a presentation day for the trainees that we had just put on and that was at the end of the three month traineeship. Mr Whittall arrived to present the trainees with their certificate of completion.

10 Q. Can we just pause there. What date have we got here? Are we in November?

A. This was in November, this was, I can't remember the exact date. It was in the week prior to the email going out to Mr McClure.

Q. All right so seven days before the 14<sup>th</sup>?

15 A. Around about then.

Q. Carry on please.

A. So we had the presentation for the trainees. Mr Whittall was talking to some of the other managers and then he come and asked me to join him in his office which I did. And I suppose the best way to put it, was I was accused of causing a seven cent drop in the share price which, completely astounded me. I couldn't argue because at the time I didn't have any evidence to hand. He asked me what I'd said to the stockbrokers. I indicated that I'd said nothing that would've been commercially sensitive, that when they asked a question they were given the honest answer as far as what was happening at the mine, the state of development in the mine, the state of production in hydro and so on, they asked a whole number of questions which they were given honest answers to. He asked what I'd said to them that might've caused this and I said to Peter at the time I said, "The only thing that I have said was that given the question, 'What were we doing about things and how we were going to remedy this,' I'd gone through the fact that we were trying different remedies but also that it was the first time in 30-odd years that I'd been stumped for an answer." That was then put

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back to me as being enough for a bunch of stockbrokers to then set the market into a spin, as such. I then went home and checked the share tables. The shares had dropped 3 cents the day before the stockbrokers came. It dropped 1 cent the day they were there and 3 cents the day after. So the shares were well and truly on the slide long before I even said anything. So I really resented ...

5 Q. Mr Whittall's allegations.

1020

A. Mmm. Yes so I did that. I resented the implication of his allegations after the efforts I'd put in.

10 Q. And did you have a performance appraisal at all?

A. No. I, if I could just expand on that. The performance appraisal process was to be completed by, I think, June/July, I can't remember the exact date. I did 26 performance appraisals. All the staff that reported directly to me and the ones that reported indirectly to me I gave them, I believe, honest appraisals as to where they were at the time of the appraisal. I said where they could improve. Some of the staff were criticised for their poor attendance and that was reflected in the bonuses they were given as an incentive to improve their attendance. So I did all of the managers that reported to me. I did all of the undermanagers. I did the deputies and I did the, the leading hands over a period of about three or four weeks. I can't remember exactly how long it took me to get through them all, but I did and there was never an appraisal done for me.

15 Q. Had you asked, presumably Mr Whittall was the one who was to give you a performance appraisal?

25 A. Yes.

Q. Did you ask him?

A. Yes I did.

Q. What was his response?

30 A. We, his response was that we'll get round to that.

Q. And why, at the time of writing this email to Mr McClure was this an issue?



A. It was just one of the issues that was brewing, for want of a better word, it was causing my dissatisfaction at the time.

Q. Was it a money reason you were leaving?

A. No.

5 Q. Now has Mr Whittall, to your knowledge, raised this complaint against you with anybody else before he told you?

A. He had spoken to the HR manager and the environmental manager prior to talking to me because after the conversation I'd had with Mr Whittall I was approached by both of these gentlemen who knew the  
10 content of the conversation before I did. And I thought, personally, that was pretty bad form that if you had an issue you should've come address it with me directly as a senior person on site that you had the issue with.

Q. So at the time you wrote this email what was your attitude to  
15 leadership?

A. Let's just say I wasn't looking at them in a very good light.

Q. Now we've heard from Mr Dow, the chairman of the board, and I asked him in cross-examination about this issue and whilst we won't dwell on this, this is at page 4145 at lines 25 on, he was asked about the seven  
20 cent drop and how you were confronted by Mr Whittall about this and he said as follows that, "We were about to announce a \$70 m capital raise and an important component of that financing is the price at which the funds were raised. Mr White took a group of analysts underground for a visit because I suspect they were contemplating investing in that capital  
25 raise and made a number of what I consider to be unguarded and relatively commercially unsophisticated comments especially to people without coalmining background or experience. He was honest in his comments, the comments were I think a reflection off the top of his head but a problem that he was having with the hardness of the coal, I believe he made a comment to the effect that and he didn't know what to do  
30 about it." And he went on to say it wasn't very commercially smart to do but then accepted that it's true what you'd said and it was honest. Do you have any comment on what Mr Dow's reflected concerns were?

A. In what respect?

Q. Well he has effectively gone along with the Whittall comments that it was due to you and that you were commercially naive in effect. Any comment on that?

5 A. I think as a person who's managed a number of coal mines over the last 10 years and operated and managed my own business, I think those comments about commercially, sorry what was the word?

Q. Unsophisticated.

A. Unsophisticated may well be a bit unfair.

10 Q. Just for the sake of completeness, can I ask Ms Basher to call up, INV0400230/1. This is an email that Mr Mount made available to us this morning. If you could blow that up please, those two paragraphs Ms Basher.

**WITNESS REFERRED TO DOCUMENT INV0400230/1**

15 1025

Q. This is dated the 22<sup>nd</sup> of October and is from you to Mr McClure and I take it that this follows on from the enquiries about you getting a job with a mine called Ensham?

20 A. Yeah, this was, after I'd returned to New Zealand and discussed the position with my family I decided to –

Q. Now it says in paragraph –

A. – I decided to stay where I was and make a go of things.

25 Q. And as it says at paragraph 2, "Thank you for your efforts. On my behalf, can you please thank Ensham for showing an interest. I'm going to direct all of my energy to making Pike River a success."

A. Correct.

Q. Is that what you did?

A. Yes.

30 Q. Now, the next topic I want to raise is questions put by Commissioner Bell to Mr Reece. You won't hear from Mr Reece's evidence. You may have heard some of it?

A. I have read some of the transcripts.

- Q. Now what I want to ask you about is this, and this is at page 4696 of the transcript, line 20, and it's a question from Commissioner Bell to Mr Reece. "I've got a few questions on a range of topics. Just on the first one, if we look at one of your premises for this matter was the goaf fall releasing large volumes of methane through cross-cut three one west stopping. If the stopping had been built to a 5 psi standard here, couldn't the explosion have been avoided altogether?" The answer, "I don't know if we could. It depends on the nature of the explosion and if indeed that's been the only source, but it starts to limit the options. Would be a case or the expectation would be a case it would be contained within the return. If it was the fan that provided the ignition source or indeed a diesel that was in the return, then potentially not but it reduces the likelihood of other situations." Now the answer isn't specific because obviously the witness couldn't be. But what I want to refer you to is, initially do you have a response to that question if you were, as I am now doing it, asking you in the same that Commissioner Bell asked Mr Reece. If three cross-cut one west had been a permanent stopping rather than a less than permanent stopping, do you have any views as to whether that would have stopped an explosion assuming for the moment that it commenced as a result of the fall of the goaf in part or in whole?
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- 10
- 15
- 20
- A. It would depend where the ignition source was. It may well have stood up to a large goaf fall. Whether or not it would have stood up to an explosion I can't answer that question because it's not known where the actual point of the explosion was.
- 25
- Q. Well, let me ask you a general question about the fact that many of the stoppings weren't permanent because that's a matter of concern for the Commission. What was the state of the play as such in terms of stoppings when you arrived at the mine and commenced work as operations manager in January?
- 30
- A. There were no permanent structures for ventilation in place.
- Q. And what, if anything, did you do about that?

A. I set about organising a standard for building temporary stoppings and set about starting to talk to contractors in Australia with respect to the supply of equipment for building permanent stoppings.

5 Q. And as the mine developed and as time moved on, what was the plan as such for removing the brattice stoppings and replacing them with permanent stoppings?

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10 A. I think it's fair to say, if I can go back to your last question John. The mine changed, the actual mine plan changed on a number of occasions due to geological issues, finding faults and stuff like that. So it was difficult to nominate positions for permanent stoppings, but as the mine developed further inbye and especially when we got away from the pit bottom area, once it had been established what the pit bottom was going to look like it was more prudent to replace the temporary stoppings that were in place then with permanent stoppings and that was done.

15 Q. Now, Ms Basher, can you put up please DOL3000150008/1 which is an attachment to Mr Reece's evidence.

Q. **WITNESS REFERRED TO DOCUMENT DOL3000150008/1**

20 Q. I think you've seen that since you've returned from Australia?

A. I've seen that in the last couple of days, yes.

25 Q. Now, if we look first of all, and it's hard to read, but if you could focus please on three cross-cut, Ms Basher, and the notation below that we can see by auxiliary fan AF005? Do you have that, coming down from A heading on the hydro-panel. Right. You've got that before you?

A. Yes.

Q. Now, first of all, I want you to comment on the statement that both of these stoppings were made from brattice and pogo sticks. Let's just deal with the pogo sticks. Is that correct?

30 A. No, my recollection was that these stoppings were actually made from timber and brattice.

Q. Then it goes on to say, "It's being worked on, (being made permanent at the time of the explosion)." Is that correct?

A. That is correct yes.

Q. Can you give the Commission a bit of a background please to what stage the permanence of stoppings was reaching as at the 19<sup>th</sup> of November 2010?

5 A. Yes the week prior to the explosion there had been a fairly significant panel move done in as much as there were fans moved, cables re-routed, panels and electrical equipment re-routed, it was a fairly significant panel move to get the mine into the position it was done then. Prior to moving everything up, the stoppings were of a temporary  
10 nature. After things had been moved up they were to be made permanent. So prior to that the temporary nature of the stoppings was not unusual but in that weekend prior to the blast we, as I say, did a fairly substantial panel move which involved a whole lot of work. It started on, from recollection, it started on the Friday afternoon.

15 Q. Just pause there, is that the Friday before?

A. Prior, the week prior. It started on the Friday afternoon the week prior, it went through and onto the Monday the 15<sup>th</sup> when we had the shareholders at the mine for the AGM and from recollection it was either late on that night or early the next day that the move was actually  
20 completed.

Q. So when was three cross-cut to be made permanent, one west?

A. We'd made contact through the mining engineer, Terry Moynihan with O'Hara's to check their availability for coming to build these stoppings which was, from memory, that was the 17<sup>th</sup>, so that was within a day and a half of the panel move being complete. We were onto O'Hara's.  
25 We checked how much grout that we had available to build the stoppings. We actually had the pump onsite and as you can see from that email, we'd been in touch with O'Hara's to get the labour onsite to make these stoppings permanent.

30 Q. You're only able to extract this email last night so it's not up on the screen or on the system but I can make copies available.

**COPY OF EMAIL DISTRIBUTED**

1035

Q. Now this is from – I'm not sure how much it tells us – but it's from Terry Moynihan, and what was his role at the mine at the time?

A. Terry, we had engaged as a project engineer.

5 Q. And this is from him dated the 17<sup>th</sup> of November to Steve Ellis who was at that time the?

A. Steve was the production manager about ready to take over the reigns as the stat manager and basically take on the position I'd been doing whilst he was doing his certificates of competency.

Q. Okay, and it's copied to you and Greg Borichevsky?

10 A. Yeah.

Q. And just remind us who he, Mr Borichevsky was the?

A. Senior mining engineer.

Q. Right, so I'm not going to read it all out, but just tell us what it does indicate, it's...?

15 A. Well, it indicates first of all that we had the equipment onsite to start the process. It also indicates that in the Huntly, North Island, they talk about the strength of the material being 27 megapascals. I had a conversation with O'Hara which I'm a bit disappointed from some of the evidence that I've read he can't remember about the ratings of stoppings and I asked  
20 what stoppings he was putting in at Huntly Mine, and he was telling me about how strong they were and he was talking megapascals, which is a fairly strong unit of strength whereas the requirements for kilopascals. I'm not saying that I doubted his word on the strength of the stoppings, but we were definitely talking about a rating for the stoppings that we  
25 were putting in place.

Q. All right, so had the explosion not occurred you would've expected this to have been a permanent within a week?

A. Absolutely.

30 Q. Now, you, or Pike might be criticised for not making this stopping and others permanent at an earlier date?

A. They couldn't be made permanent at an earlier date prior to the panel extension and within the panel extension finishing, as I say, it was either late on Monday evening or Tuesday to get back in touch with

contractors to get them onsite, I think is not unusual even for mines in Australia for the delay to get contractors onsite to get stoppings built.

Q. Right, now going back to the plan which we have before us, can you go back to the larger view of it please Ms Basher? Oh, I'm sorry, produce that email as exhibit 38, is it? Sorry? 53, Close.

**EXHIBIT 53 PRODUCED – EMAIL FROM MR TERRY MOYNIHAN**

Q. Now, can you blow up please Ms Basher the screen around auxiliary fan 3, AF003, top left-hand working heading towards the continuous – it's the return. Can you see that Ms Basher? Right, sorry. Now, you can see, Mr White, you see that the box describing what appears to be a stopping around auxiliary fan AF003. And I'm having trouble reading it, but it says "brattice stopping, something, support", you may be able to

**THE COMMISSION:**

15 No support.

**MR HAIGH:**

Sorry?

**THE COMMISSION:**

20 Bracket, no support.

**MR HAIGH:**

No support. And I can't read the rest.

**THE COMMISSION:**

25 Well, it's "clip to rib and roof here".

**EXAMINATION CONTINUES: MR HAIGH**

Q. Now, one of the issues that emerged was whether or not that, and I think it was by Mr Wilding's questions to Mr Reece, was the appropriateness or otherwise of the stopping in that position, I'm not

sure if that's precisely what he said, but in any event, do you have any comment on that description of a stopping being there?

5 A. It certainly doesn't describe how you would build a stopping. Now, I read, while I was reading the transcript from Mr Reece and his examination by Mr Wilding, he mentioned that and Mr Reece made the comment that that would be unusual to put a stopping across behind an auxiliary fan like that and I'd have to agree with him.

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10 A. That that was more likely to be, and I say "more likely" to be used as a regulator which wouldn't have been a full stopping which would still allow air to pass over the fan in that position and allow the fan to do the job it's made to do.

Q. Would you normally position a permanent stopping there?

A. No, absolutely not.

15 Q. Now to the right where we have a distribution box DB003, to the right of that is what appears to be another stopping, and again I'm having trouble reading that but are you able to read that?

A. Yeah, "A roof mesh and brattice regulator here, one to 1½ metre opening."

20 Q. Now this is all done in modelling, of course, but was there to your knowledge a stopping in that position?

A. To my knowledge, that was as it says, a regulator.

Q. And can you explain the difference?

25 A. Well a regulator allows air a set a predetermined amount of air to pass through it and that air that was passing through the regulator. The air that was passing through the regulator, as you can see the blue arrow, was being used to ventilate the electrical distribution boxes in that area and keep that area free from the build up of flammable gas.

Q. Would you have a permanent stopping in that position?

30 A. It's unlikely that that would have been a permanent stopping at that time. I would have to go back to the actual plan for what we had planned for the whole mining looking past that as to whether to say that was going to be a permanent structure or not.



Q. You've described that as a regulator regulating the airflow. Is that what, in effect, these other stopping I've referred to was adjacent to auxiliary fan 3?

A. Yeah.

5 Q. Now in the DOL report, Mr White, at paragraph 3.11.6. If that can be pulled up Ms Basher I'd be grateful, paragraph 3.11.6 page 110, and if you can highlight 3.11.6. Now, I only want to deal with the first part, but it reads there, "Further to this, one of the issues with Pike ventilation circuit and model was a small amount of pressure 14 Pa and quantity  
10 49 cubic metres available to ventilate the three working places and two standing faces inbye of panel 1." Do you have any comment on that, the 49 cubic metres?

A. That gave me some concern when I read that. The fan, the main fan from memory was drawing somewhere in excess of 120 cubic metres  
15 into the mine. At that point in the mine I would have expected a lot more than 49 cubic metres per second.

Q. Why?

A. The only faces being ventilated from that point, from outbye that point was a hydro-panel and it was, from memory, being ventilated by 30  
20 cubic metres of air and just further outbye that was a face being operated by McConnell Dowell which had a fan that was set at five or six cubic metres. Given the fact that there was about 15 cubic metres going around the site, when you add it all up and take it away from 120 you have a lot more than 49.

25 1045

Q. Well, were your views reinforced by your examining a deputy's statutory report dated the 18<sup>th</sup> of the 11<sup>th</sup> 2010, the day before the explosion?

A. Yes, they were.

Q. And I'll get that put up please, Ms Basher, if you could please.  
30 DAO.001.02936/1.

**WITNESS REFERRED TO DOCUMENT DAO.001.02936/1**

Q. And if you could emphasise please the panel at the top, second paragraph down reading, "Statutory checks," sorry the

third panel reading, "Ventilation measurement." Now if we see at the end of that line, and if we can just clarify it, identify the document, it's a Pike River Deputy's Statutory Report and it's dated the 18<sup>th</sup> of the 11<sup>th</sup> and the deputy's name is Craig Bishphan.

5 A. Craig Bishphan.

Q. And he was on the dayshift?

A. He was on dayshift correct.

Q. The day before the explosion and as I understand it every deputy after every shift is required to record the ventilation measurement and other requirements?

10

A. They're required to do it not after the shift they're required to do it during the shift prior to commencing mining. They're required to check how much air is available to the area that they're working in and how much air is available to the auxiliary fan.

15 Q. Now, if we look at the ventilation measurement at the end of the first line, that has the quantity of air available and that reads, "78.6 cubic metres," correct?

A. That's correct.

20 Q. How does that compare with the model, I suppose the answer's obvious, but nevertheless, which Mr Reece described, he also attributes to the mine of around 49 cubic metres?

A. It's somewhere in the region of 30 cubic metres difference measured as opposed to model. Now given that, there is error in hand-held instruments. It's still wouldn't account for 30 cubic metres.

25 Q. You're referring to the hand-held measurement which would've been done by the deputy?

A. Which would've been done by the deputy.

Q. By the deputy. So that leads me up to the next question put by Commissioner Bell to Mr Reece and this is on page 4697, it's line 12. Mr Bell put this to Mr Reece. Question, "Just a bit more on ventilation. In Mr White's evidence which he will give next week (on paragraph 50(d)) he says that there is more than adequate ventilation." And response to us, "Mmm." And question, "Whereas in 69 and 70

30

paragraphs of your statement you're basically saying that's not the case, that at least one working phase should've been stopped?" "Yes." "What's the Commission to take of these two opposing views?" And he goes onto explain, "I guess my understanding from an earlier statement from Mr White was also acknowledgment they were actually having to reduce the ventilation quality, indeed throttle back auxiliary fans in that inbye area. So to us," that's his expert panel, "there was an acknowledgement, from a mine perspective ventilation was sufficient to run a certain amount of mining areas, our concern was they were trying to do too much. The other thing that we found out was, and I've touched on it in the report, was auxiliary fans in three and four in the furthest extent of the mine and that six cut through area of one west was actually providing a boost." And then he went on to say how they were actually assisting the ventilation and that's not intended to be their design and refer to deputy's report saying they were often modifying the flow through the auxiliary fans to get the sufficient control and I think you've read that part of the transcript?

A. Yes.

Q. Where Mr Bell says, "What's the Commission to take of these two opposing views," what's your response?

A. The response is that the quantity put up by Mr Reece is modelled. I can't comment on it because I've got no idea what information he used to come around about the 49 cubic metres, but the day before the explosion on the dayshift before, at the point, if we could put the plan back up it would help?

1050

Q. Yeah. DOL3000150008/1

**WITNESS REFERRED TO DOCUMENT DOL3000150008/1**

A. The point where Craig Bisphan would've taken his air reading to check what was coming into his district was in between two and three cut-through before the auxiliary fan which indicates that there was 78 cubic metres at that point there, whereas Mr Reece is indicating there was only 49. Now that was a measured quantity by the deputy. Also, if you

look at the deputy's report, it goes on to say that there was no flammable gas in any great concentrations in his district that the ventilation was adequately controlling the vent – the gas build up in his panel.

5 Q. Right, well, what does that tell you, that differentiation about the modelling process in this instance at least?

A. Well, modelling depends on information in to get information out and I can't comment as I said on where the 49 cubic metres came from, but I would suggest that it was possible incorrect information going into the model and bringing incorrect information out of the model, based on the  
10 deputy's report of the day before.

Q. Well that's that one aspect and it's impossible for you to generalise about it, but in answer, are you able to answer the broad question put by Commissioner Bell, whose evidence is to be accepted – well, no, put it  
15 clearly. What's the Commission to take of these two opposing views?

A. I could only put up the fact that the information provided by myself as far as the deputy's report is actual measured and recorded. I can't guide the Commission on which evidence to take, but the evidence that's been prepared by the deputy is as recorded on the 18<sup>th</sup> on day shift.

20 Q. Well, let's move away from that –

**THE COMMISSION:**

Just before you do, Mr Haigh, have we got into the record just where Mr White has pointed out this measurement that's taken by Mr Bisphan. Like he's pointed it out with that, but on the record, I'm –

25

**MR HAIGH:**

No, and I'll just get you to clarify that, Your Honour's reminded me.

**EXAMINATION CONTINUES: MR HAIGH**

30 Q. Where do you get the assessment from, where do you get that evidence from that you've given as to where Mr Bisphan took his reading from?

A. Well, you have to take your reading to measure the air that's coming into your district. Mr Bisphan's district was in the roadheader, the roadheader was being ventilated by the auxiliary fan –

Q. Hang on, that's auxiliary fan 5?

5 A. That one there, yeah.

Q. Yeah.

A. And he, to identify how much air was going into his district the only place that he could've taken it was there, because otherwise if he'd taken it here, he would've been getting all the air that was going into the hydro-panel as well. So he would've taken his reading right there.

10

**THE COMMISSION:**

Q. Okay, well "right there" is, please put it into words?

A. Two and three cut-through, sir.

**EXAMINATION CONTINUES: MR HAIGH**

15 Q. Well, when you say, "here", you'd better explain it for the purpose of the record.

A. When I say, "here", I'm talking about B heading between two and three cut-through, one west.

20 **MR HAIGH ADDRESSES THE COMMISSION: OF ASSISTANCE**

**EXAMINATION CONTINUES: MR HAIGH**

Q. Moving away from the differentiation between 49 cubic metres and 78, the general question put was about the two variations on the adequacy of the ventilation system and I refer you to the page that Mr Bell referred to, paragraph 50(d) and this is on page 16 of your brief, and you were actually responding to – and of course the DOL report wasn't available then, or hadn't been completed – to Mr Nishioka's statement that in his view the ventilation was inadequate? Do you have your brief there?

25

A. Yes, I do.

30 Q. Page 16, paragraph 50(d), you're responding to Mr Nishioka's claim, as I said, that the ventilation was inadequate, and your response was,

“There had been ventilation issues prior to the installation of the underground fan, but these were carefully monitored. Once the underground fan was installed and commissioned the ventilation was more than adequate.” Now, that is not what Mr Reece said.

5 1055

Q. He said, in effect, that the expert panel was concerned that the ventilation around the phases and the, or the panels I think excluding the hydro-panel or he may have included that, was inadequate or they were concerned about the levels of ventilation, the adequacy. So putting to one side what I've just been alluding to, the statutory deputy's report, what do you have to say about that in a general sense given you are going to be asked about this no doubt for some days on end?

10

A. In a general sense, given that there was over 120 cubic metres of air entering the mine and in a general sense that the auxiliary fans that were operating were never run at a compliance in as much as when they were positioned they were positioned as to reduce the chances of recirculation and have 30% of air going over them. In a general sense, due to the fact that we could restrict the flow going through an auxiliary fan which is a perfectly legitimate practice in coal mines, that was more than adequate air to run the phases that we had running, and it has to be pointed out there were never four phases or five phases running either at the time of the explosion or prior to it.

15

20

Q. Were there any phases working at the time of the explosion?

25

A. To my knowledge no there wasn't. The water had been off for some considerable amount of time, so without water in the mine there was no production taking place at all.

Q. Now, on a different topic now. George Mason's employment. There's been some criticism of Mr Mason as having been employed in a position of authority with a hydro-monitor. Were you responsible for employing him or at least in part?

30

A. Yes I was.

Q. Had you worked with him before?

5 A. He had worked, when I say "worked with him," he had worked at North Goonyella coal mine in, no I can't remember exactly, when prior to me joining the inspectorate in 2008 I was in the position as relief general manager for Peabody, in which case I went around a number of the mines. I had to relieve the then general manager at North Goonyella who's Jim Randall, he became sick and I had to relieve him for a while, and in that time I met George Mason. Prior to that I had never met George Mason before.

Q. Well, why did you employ him?

10 A. George was a man with over, well 30 years' mining experience and very good at handling people.

Q. Well we've heard that he had no hydro-monitor experience?

15 A. That's correct, but we had people employed by the company who had more than adequate hydro experience to assist George into the role and help him with any issues that he may have had.

Q. Who were those persons?

20 A. We had Matt Coll who was contracted to us. We had Lance McKenzie who's an undermanager. Some of the deputies were hydro trained from other mines. So there were people around that could assist George get up to speed with the hydro process.

Q. After he'd been employed did you become aware of any issues that caused you concern about his ability to run the hydro-monitor?

A. No.

25 Q. Now I want to refer you please to your brief of evidence page 40? Do you have that there?

**WITNESS REFERRED TO DOCUMENT WHI002/12**

A. Yes I do.

1100

30 Q. In paragraph, this is headed, "external oversight of health and safety at the mine," and I want to refer to paragraph B, 3.202, this relates to regulatory agencies facilitating and enforcing compliance and it reads as follows, and it relates to regulation during production?

A. Yes.

Q. “The mine was subject to a number 4 I think of proactive inspections from the local mines inspector Mr Kevin Poynter. During the time that I was employed up until the explosion and I cannot recall any other DOL personnel attending the mine. There was also a regular monthly meeting with representative from DOC. At those meetings I would update the DOC representatives on activities below ground relating to mine development.” Are you suggesting that DOC were involved in any way in health and safety in the mine?

A. No, no not at all. DOC's representation was on a monthly basis organised by Ivan Liddell who was the environmental manager and every month I would update them on what was happening underground. They had an interest in where the panels were, what was the likelihood for subsidence, because of the environmental nature of where the mine was DOC had a very strong interest that we were doing things correctly, so I was asked to attend those meetings whenever they were held, as I say, they were held every month and I would give the DOC representative of mine development. It was effectively nothing to do with health and safety.

**THE COMMISSION ADDRESSES MR MOUNT – QUESTIONS ON BEHALF OF COMMISSION**

**THE COMMISSION ADDRESSES COUNSEL – APPLICATIONS FOR CROSS-EXAMINATION OF WITNESS – ALL GRANTED**

1105

**CROSS-EXAMINATION: MR MOUNT**

Q. Mr White, if we can begin by moving back to a topic we discussed at Phase Two. You'll appreciate that the Commission is trying to establish as accurately as possible the sequence of events on the 19th of November, and perhaps if we can have on screen page 6 of your Phase Two statement, WHI001.1.

**WITNESS REFERRED TO DOCUMENT WHI001.1**



Q. The current best estimate of the time of the explosion we have from electrical records is 3.45 and 26 seconds, and you explained to use at Phase Two that at the time of the explosion you were in a meeting with Steve Ellis and George Mason. In paragraph 34 of your statement which you can see on screen, you said that you were contacted by Mr Duggan at around 3.50 and that he told you that communications had been lost to the mine. Do you recall that?

A. Yes I do.

Q. In cross-examination I think you accepted that it was probably correct that Mr Duggan said that he also told you that the power was out in the mine? That's correct?

A. Yes, that can be correct, yeah.

Q. In paragraph 35 you say that you finished your meeting and then went outside and in the area outside the main administration building with Mr Ridl you could smell an unusual smell?

A. That is correct.

Q. If we can look please at a document Pike Mail.PST.05891.

**WITNESS REFERRED TO PIKE MAIL.PST.05891**

Q. This is a set of minutes for a meeting held on the 25<sup>th</sup> of November to discuss the issue of survivability. Do you recall being present at that meeting?

A. I may well have been there. It was in my office and yes I was there, yeah.

Q. And if we move on to page 3. You'll see three lines from the bottom of the first big paragraph, "DW walked outside and noticed a gunpowder smell outside the administration building door. Had not heard any bang and so on." Do you see that reference at the bottom of the first big paragraph?

A. Yeah.

Q. I just wanted to ask you about the description of it, of the gunpowder smell?

A. Mmm.

Q. Is that an accurate description of the smell that you did detect?

A. Firstly I can't recall describing it as gunpowder. It could be an accurate description. I've smelt diesel engines underground that come back with a gunpowder cordite type smells which is why when we stood outside and we smelt the unusual smell, we were searching for reasons, and at that time not knowing there'd been an incident, we were trying to find out what the actual smell was or assuming what the smell might be.

5

Q. So the phrase, "gunpowder smell" might well be one way of describing the unusual smell that you detected?

A. Oh it can be, yeah.

10

Q. If we go back to your Phase Two brief at paragraph 36, you explained that having been outside with Mr Ridl you went to the control room and asked Mr Duggan to keep trying the underground staff?

A. Correct.

15

Q. Just in trying to tie the sequence down, are you able to tell us whether you went straight from that outside area into the control room?

A. Yes I did. After I talked to Rob and there was another couple of people there at the time. I went up to the control room and spoke to Dan.

20

Q. We had evidence from Mr Duggan at page 1585 of the transcript, line 32, that when Mr Ridl and Mr Heads arrived in the control room, Mr Duggan made a comment to them, "I've got a real bad feeling about this." Did Mr Duggan express that sentiment to you at all?

1110

A. I can't remember him expressing that at all.

25

Q. Did you share that view that you had a real bad feeling about things at that early stage in the control room?

A. There was something unusual, whether I'd say I had a real bad feeling, there was certainly something unusual which is why I went up to the portal to establish whether or not we had communications in ventilation.

30

Q. If we just check through the information available at that very early stage about 4.00 pm within 15 minutes of the explosion, it was known, obviously, that communications were out meaning that there was no information electronically coming back from the mine about any of the mine's systems?

A. With the respect to the monitoring, yes.

Q. So no information about the fans or?

A. No, that's what I'm saying, the mine monitoring system.

Q. Secondly, power was out throughout the mine it appears?

5 A. Correct.

Q. Thirdly there was no communication from any of the men underground so Mr Duggan had been trying to raise people on the DAC and the phones, no response?

A. Correct.

10 Q. And fourthly there was the unusual smell, whether it was a gunpowder smell, burnt diesel whatever you describe it as?

A. Correct.

Q. And then perhaps I suppose as a fifth factor, there was Mr Duggan's instinct that he had a real bad feeling about things?

15 A. Yes.

Q. Just putting all of those five things together, would you accept that there was cause for concern that there was something seriously wrong in the mine even from that very early stage around 4.00 pm?

20 A. I would accept that there was cause for concern, in hindsight, but that concern also has to be verified.

Q. At paragraph 41 of your brief on screen, describes going directly to the portal shortly after 4.00 pm. Just in the last short period some emails have been filed which may be able to help us narrow down the timing slightly more accurately. We have an email, INV0400237 which appears to have been sent by you at 4.02 pm to Mr McIlwraith subject, "Solid Energy. Robbie can you call me back now if possible?"

25

**WITNESS REFERRED TO DOCUMENT INV0400237**

Q. What was that email about?

30 A. Mr McIlwraith had actually contacted me earlier on in the day with information that suggested that Solid Energy were very keen to speak to me about a position within their company.

Q. In saying to Mr McIlwraith, "Can you call me back now if possible," did he call you back?

A. I don't think so, I can't remember.

Q. Did you wait in your office for a period of time to see if that call did come?

5 A. Not from memory I left and went outside with Rob and there were people that were assembled inside.

Q. If we have a look at INV0400312.

**WITNESS REFERRED TO DOCUMENT INV0400312**

10 Q. Perhaps if we zoom in just on the top half of that page? This appears to be an email sent by you at 4.03 to a Mr McClure, who I understand was a recruitment agency, is that right?

A. Correct.

1115

Q. And in emailing him – or perhaps I should just ask you first to confirm to the best of your recollection, you did send that email?

15 A. Well, it's recorded as being sent by me, yeah.

Q. In emailing him and saying "Free now," I take it you were expecting him to call you back?

A. Yeah, in fact I think later on that he'd made a number of efforts to contact me but I was otherwise engaged.

20 Q. And the subject of discussion with Mr McClure?

A. Oh, he'd been contacting me also that there are positions available elsewhere.

Q. Are you able to recall whether and if so, how long you did wait in your office for any response to this email?

25 A. I don't recall waiting in my office too long at all. As I say, there was an issue that we went outside and Rob and I and others, then smelt the unusual smell and it's after that I went up to the control room.

30 Q. Just in terms of pinning down the sequences as accurately as possible, the portal video camera appears to show Mr Ridl arriving at the portal area at 4.03 pm, so just at the time that you sent this email, indicating that the situation at the amenities area where you and Mr Ridl smelt the unusual smell must've been sometime before these emails to give Mr Ridl time to get up to the portal area?

A. It may well have been. I can't be exact about the times, as I've said before.

Q. Right. On the basis of that sequence, is it possible that having been outside and smelled the unusual smell and gone into the control room you then returned to your office and sent these emails?

5

A. No, I went from the control room directly up to the portal area.

Q. Well, just in terms of the timing of your arriving at the portal, the portal camera has that at 4.16, so 13 minutes after Mr Ridl went up to the portal, so just in thinking of that 13 minute period between Mr Ridl going up to the portal and you going up, is it possible that much of that time was spent dealing with these emails and perhaps waiting for return calls?

10

A. No, once I left my office, I went up to the control room, spoke with Dan Duggan, and then went directly up to the portal and didn't return to my office then until – I couldn't tell you when I returned to my office after that.

15

Q. Just in terms of trying to understand that sequence, the potential conflict is that we have Mr Ridl on the portal camera at 4.03, at the same time as you're clearly in your office sending emails, suggesting that it seems entirely possible that you must've returned to your office to send those emails while Mr Ridl went up to the portal?

20

A. I wasn't aware that Mr Ridl was actually at the portal at that time.

Q. You'd obviously been with Mr Ridl outside in the amenities area when you smelled that smell, did you go with him to the control room?

25

A. No, I went independently to the control room.

Q. Did Mr Ridl join you in the control room before he went up to the portal?

A. I can't recall that, no. I met Mr Ridl and Mr Hayes actually at the portal. They'd been up there investigating why the power was off.

Q. Did you have any discussion with Mr Ridl about what he was intending to do in response to the situation?

30

A. The discussions I had with Rob were up at the portal and he was trying to work out how the power was on to that point, but was off underground and it was then that he told me that the electrician –

Q. Mr Strydom?

A. – Mr Strydom had gone into the mine with the intent to reset the power.

1120

5 Q. Had you discussed that proposal to send Mr Strydom into the mine with Mr Ridl before –

A. No, no.

Q. – the decision was made?

A. No.

10 Q. We know, of course, that Mr Strydom was sent into the mine by himself and also it appears without a gas detector capable of detecting carbon monoxide?

A. I can't comment on that.

Q. And also without any breathing apparatus that would have been more assistance than a standard rebreather?

15 A. Self-rescuer.

Q. Self-rescuer sorry. If you had spoken to Mr Ridl and given some thought to the proposal to send Mr Strydom in, on reflection would you have taken additional precautions before sending him into the mine?

20 A. Mr Ridl had asked Mr Strydom to go into the mine effectively to reset the power, not knowing there had been any event. So it was not unusual for him to go in with his cap lamp and his rescuer to effectively set the power or reset the power. So not knowing that anything had actually happened at that time it would be unusual to have said anything other than that.

25 Q. If we go back to those five factors though, there certainly were grounds for some concern that there may have been a serious incident within the mine?

A. Oh, in hindsight.

30 Q. Well perhaps with the benefit of that same hindsight does it now appear that it would have been helpful if there had been greater thought given to precautions to be taken by Mr Strydom?

A. Well based on the fact that we didn't know anything had actually gone wrong, I would have to say no. He was going to reset the power.

- Q. If we move a little later in the sequence, but just to orient you, we know from the portal camera that you were at the portal between 4.16 and 4.23 approximately. Did you go straight back to the control room from the portal or what did you do?
- 5 A. I went straight back to the control room. I can't remember exactly where I parked my car. Whether I would have parked it in the carpark area, which involves walking back up to the control room or whether in fact I parked it in front of the control room, but I went back into the control room.
- 10 Q. And then I think the call from Mr Strydom came into the control room. Were you present for that?
- A. I was present when that call was made, yes.
- Q. And it was after that that the call went out to Mines Rescue and then to 111?
- 15 A. Correct.
- Q. We know that the 111 call was made at 4.35 and lasted for just under four minutes, so 4.35 to 4.39. At the time of the 111 call had any communication been received from Daniel Rockhouse?
- A. Not that I can recall, no. The only communication that I was present for
- 20 in the control room at that time was the electrician.
- Q. At Phase Two exhibit 21 was produced, which is a series of notes that you made on the 19<sup>th</sup>?
- A. Yep.
- Q. And I think you told us at Phase Two that you'd made those notes, if you
- 25 like, as you went. Is that correct?
- A. Yes I did.
- Q. The first entry on that exhibit says, "4.45 Peter Whittall." Did you call Mr Whittall at 4.45?
- A. I may well have done yeah, if that's what I've recorded on the sheet.
- 30 1125
- Q. How certain or uncertain are you about the timing of that call?
- A. I'm not entirely sure of the timing but I did try and record the times that I was doing things as in line with the process that we have in place.

Q. Mr Whittall's evidence at Phase Two referred to a phone call from Mr Ridl at about 4.45, but doesn't refer to a phone call from you. Now we don't have Mr Whittall here but were you aware of Mr Ridl calling Mr Whittall?

5 A. No, not until afterwards, no.

Q. Now, there's one other thing that we may be able to clarify just in terms of the sequence. At Phase Two, you told us, if we look at page 10 of your brief, that you went up in the helicopter between 5.15 and 5.29 I think it was if we look at paragraph 77 and 82?

10 A. Yes.

Q. And in exhibit 21 you had the times recorded at 5.15 to 5.24. We've actually been able to track down some GPS records from the helicopter company itself which are broadly consistent with your evidence namely in the references GOR0001/2, that you left in the helicopter at 5.13 and got back at 5.26. I take it you're unlikely to have any difference of those times?

15

A. No, no.

Q. The matter that you might be able to help us with, though, is that in paragraph 86 of your brief, which you can see on the screen, you said that when you returned from the helicopter, Mr Duggan was speaking with Mr Rockhouse on the phone. That evidence is difficult to reconcile with the evidence we have from the portal video camera of Mr Rockhouse emerging from the portal at exactly that time, 5.26. So on the basis of that portal video camera, I take it you'd accept that that must be wrong?

20

25

A. Yes, yes, I could've made a mistake in that timing.

Q. So it can't be the case that when you got back from the helicopter, Mr Daniel Rockhouse is speaking to Mr Duggan from inside the mine?

A. Yes.

30 1128

Q. We do know that having come out of the portal Mr Daniel Rockhouse contacted the control room to indicate that he needed help at the portal, and I suppose one possible explanation that would fit with the timings



we have is that when you got back from the helicopter it was that communication from Daniel Rockhouse that you encountered at the control room?

A. It may well have been.

5 Q. If that is the case, it does leave as a final question mark for the Commission to identify the time that Mr Daniel Rockhouse did make the telephone call from inside the mine. Are you able to help us in light of the information that's now available, when that phone call from within the mine happened?

10 A. It's more than possible that that could've been before I went into the helicopter, can't recall exactly when, but I think I said at Phase Two the – when I was asked that question in Phase Two that I may not be entirely accurate with my timings.

Q. And indeed it seems with the sequence, because we know that the call  
15 from inside the mine can't have been after the helicopter trip?

A. Yep.

Q. You were, I think, present for Mr Duggan's call to the ambulance service?

A. Yes. Oh, to the emergency services –

20 Q. To 111, yes.

A. Yep.

Q. We have the transcript of that 111 call, SOE01900001, and if we look quickly at page 2 –

**WITNESS REFERRED TO DOCUMENT SOE01900001**

25 Q. We can see Mr Duggan saying, first of all in the second big block, "No one's accounted for at this stage." And then in the bottom two paragraphs, "We haven't heard from no one for about almost an hour now." And the very last line, "We've heard from nobody, so it's possibly a very major incident." Does that help your recollection at all in terms of  
30 whether the phone call from Mr Rockhouse was before or after that 111 call?

A. No, not particularly not.

Q. Well, does it not suggest to you that at the time of this call, Mr Rockhouse can't have called from within the mine?

1131

A. Oh yes.

5 Q. Otherwise emergency services would've advised that there had been communication from underground?

A. Yes.

Q. But I take it you can't help us with how long after the 111 call you think that the call from Mr Rockhouse happened?

10 A. Oh, not now no, no.

Q. Well, I'll move on to a new topic now which is the topic of ventilation. We've seen that Pike River had a ventilation management plan, DAO.003.07114. I take it obviously you're familiar with that document?

**WITNESS REFERRED TO DOCUMENT DAO.003.07114**

15 A. Yes, I have seen it on a number of occasions.

Q. If we could look at page 2 of the document? We can see that it is described as a final document signed off by the mine manager and Mr Rockhouse, Mr Neville Rockhouse on the 18<sup>th</sup> of November 2008?

A. Correct.

20 Q. Can you help us with the meaning of final document?

A. The final document is suggested as a document that's gone through many draft phases and is then put on the system as a final document once it's signed by the manager and whoever else may have to sign it whether it be the safety manager or the engineering manager, if in fact the manager has to sign at all, depending on what part of the plan it is.  
25 So, it suggests that it is the final document.

**COMMISSION ADJOURNS: 11.33 AM**

**COMMISSION RESUMES: 11.50 AM****CROSS-EXAMINATION CONTINUES: MR MOUNT**

5 Q. Mr White, just before we press on with ventilation management plan I do want to go back to the topic of the sequence of events just to make sure that the matter is left as fairly as possible. We know, because Mr Ridl is on the portal camera at 4.03, that the time that you were outside with him and smelt the smell must have been before 4.03, and I think rather than nod you just need to say yes or no?

A. Yes, sorry, Mr Mount.

10 Q. Then we know from the emails sent at 4.02 and 4.03 that presumably you must have been back in your office for that?

A. Correct.

Q. Is it likely that you then some time after sending the emails went to the control room before going up to the portal?

15 A. I did go to the control room before going to the portal.

Q. Just in terms of the sequence, it's outside with Mr Ridl, back to the office, control room, portal?

A. Correct.

20 Q. Now, what I want to make sure is on the record in full fairness to you I take it, well I'll just ask you. At the time you sent those emails to what extent were you concerned that there was a major incident at the mine?

A. At the time I sent those emails I'd absolutely no idea at all there was a major incident at the mine.

25 Q. Now we'll come back to the ventilation management plan now. We were looking at page –

1153

**MR HAIGH ADDRESSES THE COMMISSION:**

30 The reason that my learned friend has very properly put that last question was that I'm aware that since that issue came up before, the media are rushing around now overly excited about the suggestion he's looking for a job whilst there's a catastrophe going on which clearly was not the reality and that's why I have asked Mr Mount to clarify that issue and I think it should be done

publically and I'd, and trying to emphasise that again that this is the man who has been primarily concerned about safety in the mine, to leave it on the basis that somehow or other he's ignoring a potential catastrophe and making email, firing off emails to get a job is not the reality.

5 **THE COMMISSION:**

I'm not sure what you're asking me to –

**MR HAIGH:**

10 I'm not asking, sir. I'm just wanting to clarify it as well, because I'm aware of what's going on outside the courtroom.

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. We were, I think, looking at page 2 of the ventilation management plan. I take it there was no more recent or up to date ventilation management plan?

15 A. The management plan as such, was actually under review.

Q. I'll ask you about the review process in a moment, but what was its status while that review was going on?

A. Oh, the previous plan was still current.

20 Q. When you describe as being "under review" what was the process to review it?

A. When I arrived at the mine or started at the mine, I was instructed that both Mr Lerch and Mr Gribble had been given the task of reviewing a number of management plans including the ventilation management plan and they'd been given a timeframe from memory as being the, either end of March or start of April to get that done and given that I started in mid-January, that would've mean around about eight weeks to review all the management plans that they were given to review, that is.

25 Q. How many management plans were they given to review, do you know?

A. The exact number I couldn't honestly tell you now.

30 Q. Roughly?

A. Oh, I wouldn't even hazard a guess. I mean it's on record somewhere how many they would've had to review. I wouldn't even hazard a guess at that.

5 Q. Just focussing on the ventilation plan, what did you understand was the brief, what were the instructions for the review?

A. My understanding was that, as I've said, they had to review a number of plans. What actual, within the plans they had to review, I was never briefed on that. I was only told when I started that these gentlemen had been given that job to do.

10 Q. When you started, presumably you at some point saw the ventilation management plan?

1156

A. When I started I read a number of plans, yes.

Q. Did you take an interest in the review process?

15 A. Not primarily at it had been cast to Mick and to Nick Gribble.

Q. Did you talk to them about the review of the ventilation management plan?

A. I talked to them about the review of the plans in general, not specifically.

20 Q. Did you make any suggestions as to the way in which this plan might be reviewed or the things to look at?

A. Not directly about that particular plan no, that I can recall anyway.

Q. What process was contemplated to finalise that review?

25 A. The process was a case of identifying if there was any deficiencies in the plan. Rectifying the deficiencies and then resubmit the plan for final approval which is a process for review with a number of management plans in a number of different agencies. It would've involved members of the workforce or relevant members of the workforce as well which is the case for review plans.

Q. How did you expect that should have happened?

30 A. Just as I've said, they take the plans in an order, I won't say in which order, but in an order and go through them for the relevancy. It had been about two years since that plan had been signed off on and a number of things had changed in that time so it was prudent to look and

see what the changes had been and then either suggest changes to bring it up to date or if it was up to date leave it as is and put it down as a plan review.

Q. In your role as, I think, operation's manager when you started?

5 A. Correct.

Q. Did you take an interest in the review of the ventilation management plan?

A. I took an interest in parts of the review yes.

Q. Did you specify a timeframe?

10 A. Originally the timeframe that had been given to the two managers was raised to me by them as being unrealistic with the other jobs that they had to do around the mine, they felt that the time given to them was unrealistic so the advice I gave both of them was to prioritise the plans and deal with them in order the priority that they set. I didn't actually put  
15 a timeline on it then I let them set the process, if you like, and then report back to me when they'd done each plan, rather than trying to rush and get a number of plans, as I say I can't remember exactly, how many done in effectively six or eight weeks, which is a bit unrealistic, I gave them the time to review the plans and set the priorities for which plans  
20 they would review.

Q. What stage had the ventilation management plan reached?

A. I can't tell you that, I've got no idea. I know the parts I reviewed the plan with respect to spontaneous combustion and the use of auxiliary fans but that was after Mr Lerch had actually left from recollection or maybe  
25 just before he left, I can't remember exactly when.

Q. Approximately when did he leave?

A. Sometime in June?

Q. June. That's when you took over as mine manager, is that right?

A. That's when I accepted the statutory responsibility yes.

30 Q. At that point in June when you took over as the statutory mine manager did you put in place any formal process to make sure that the review of the ventilation management plan happened?

A. That time I did not no.

Q. By the time of the explosion in November do you know where the review had got to?

A. No.

1201

5 Q. If we look at page 53 of the plan itself, just above the heading 12.2. The plan says that "it shall be reviewed within one month of monitor extraction starting. From then on a review should be held every two months. This will occur as part of ventilation management team meetings." Monitor extraction started on the 19<sup>th</sup> of September, is that  
10 right?

A. Yes, I can't argue with that, yeah.

Q. So clearly, by the time of the explosion two months had gone by?

A. Yep.

15 Q. And you told us there was no review of the ventilation management plan. In hindsight would it have been desirable to have had a review of the ventilation management plan as stated within a month of monitor extraction?

**OBJECTION: MR HAIGH (12:02:02)**

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

20 Q. If we could have DAO.003.05885?

**WITNESS REFERRED TO DOCUMENT DAO.003.05885**

25 Q. You'll see this is an email dated 31 March to a number of people not including you but including Mr Lerch who was the mine manager at the time, from Mr Sanders of Comlec. If we turn to page 3. You will see on the screen this is headed, "Report on ventilation system history and current status, dated 31 March 2010?"

A. Yep.

30 Q. And if we move to page 5, the scope and purpose of the document is described, perhaps if we zoom in, as being (1) to summarise the history and current status of the ventilation systems, to summarise the proposed development of those systems for the commencement of hydro extraction," and further down it said the document was "prepared

to ensure that all parties involved in the design and the implementation of the ventilation systems have a common understanding and agreement on the current and proposed mine ventilation systems,” and then finally at the very bottom it says, “Once reviewed and approved by  
5 Pike River the document will be issued to the mine ventilation consultant as the basis for a review of the proposed systems.” Were you aware of this document?

A. I can't recall it.

Q. It appears to have been contemplated by this document that there would  
10 be an in-house process with Pike River and then the issue of ventilation management would be referred to a ventilation consultant for review. Can you tell us whether any process along those lines occurred?

A. We did employ John Rowland who is a ventilation consultant, to look at  
15 a number of things, to do pressure quantity surveys and the like, and at one stage I recall John being asked to participate in the review of the plan.

1206

Q. Do you recall his response on that topic?

A. I recall him saying that they would do – and these are my words, off the  
20 top of my head – “a certain amount of work towards that, but ultimately the plan was the responsibility of the mine.” I think that was the words he used from memory.

Q. If we could have INV0400238, which is an email from Mr Rowland to a  
25 number of people including you on the 23<sup>rd</sup> of September, subject, report and issues.

**WITNESS REFERRED TO DOCUMENT INV0400238**

Q. If we zoom in on the middle part of the email, I'll give you a moment to  
read it, but do you recall receiving this email?

A. I did receive it. I mean I don't actually recall receiving it, but I did receive  
30 it.

Q. Is it fair to say Mr Rowland was critical of the plan in its then state?

A. It's fair to say from that he was critical about the size of the plan, in as  
being one document.



Q. You'll see in the middle of the screen, the sentence, "It is difficult, as you know Doug, for me to adjust the plan in isolation or in the absence of an RA" which I assume is risk assessment?

A. Yep.

5 Q. And he then goes on to say, "considerable thought needs to be put into how it is trimmed and how things do not get lost and also how you simply get rid of some of the things in it without a group consensus or review." And he goes on to say, "It will require far more discerning thought from you guys than you possibly realise." Having received that  
10 email in September, did you give any further attention to the topic of a risk assessment for ventilation or a formal review of the plan?

A. There was a risk assessment on ventilation done prior to hydro-mining.

Q. Did you give any thought to a risk assessment as part of a process of an overall review of the plan itself?

15 **OBJECTION: MR HAIGH (12:08:46) – NOT TO ANSWER**

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. If we go back to the Comlec report dated March 2010, DAO.003.05885.

**WITNESS REFERRED TO DOCUMENT DAO.003.05885**

Q. One of the issues that it dealt with on page 8 was the question of the  
20 underground fan. Perhaps if we begin by zooming in on the top half of page 8, you'll see at the end of the second paragraph, "The original intent was that all ventilation equipment would be located at the top of the vent shaft, in a remote location normally accessible only by helicopter."

25 1210

Q. And then a little bit further down, second to last paragraph, "It should be noted the final equipment selection differs significantly from the original proposal." Now are both of those things accurate as far as you're aware?

30 A. As far as I'm aware this is the first time I've seen this document so I can't comment on it's accuracy or otherwise.

Q. The last paragraph on the screen at the moment, in February 2007, Pike River convened a risk assessment facilitated by independent risk consultants and attended by a number of others dealing with this issue of the underground fan, perhaps if we can just move down the document a little bit and there's a shaded box in the report that asks three questions. If you could zoom in on that shaded box. The three questions being, "Ref 08," which is the risk assessment from 2007, "Is in draft form only, was this report ever finalised? Have resulting actions been followed up and signed off?" and, "Would it be appropriate to conduct another risk assessment on the latest proposed design and installation?" Do I understand Mr White you say you haven't seen this document at all?

A. I can't recall seeing this document at all, that's correct.

Q. The three questions largely relate to that 2007 risk assessment. Do you accept that they are all reasonable questions to ask?

A. Yes.

Q. Perhaps if we just look at that 2007 risk assessment for a moment, DAO.003.05935.

**WITNESS REFERRED TO DOCUMENT DAO.003.05935.**

Q. Do you recognise that as the risk assessment 27 February 2007 for the underground ventilation fan installation?

A. I've never seen that document before. As far as being the risk assessment conducted in 2007, I didn't start at the mine until 2009.

Q. Appreciating that of course, we've heard from more than one witness in this Commission that it's unusual, perhaps unique in the world, to have a main fan located underground. Was that a matter that you were particularly interested in when you started at Pike?

A. It's certainly fair to say that it's unusual. Was I interested in it? Yes I was. I'd worked at mines in the past with booster fans underground, both in the United Kingdom and in Australia but never actually worked with the main fan underground.

Q. The evidence we've had from more than one witness is that, I think I'm correct in saying that, no one is yet aware of another mine with the main fan underground. Would you agree with that?

A. I couldn't disagree.

5 Q. Yes. Were you not interested to ask about the risk assessment process that had in effect agreed to or suggested that it would be appropriate to have a main fan underground?

A. I didn't ask about the risk assessment process no, due to the fact, as I said earlier, that I had worked with the booster fans and totally unusual  
10 to have a main fan underground, it certainly wasn't unusual to have a booster fan underground, set up effectively in the configuration that that main fan was.

Q. From your experience of mining, did it appear to you when you arrived at Pike, that there would be particular risks that might flow from having  
15 the main fan underground?

**OBJECTION: MR HAIG (12:14:15)**

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. You'll see that the document on screen is stamped "draft," are you aware of any risk assessment for the placement of the main fan  
20 underground that was finalised at Pike River?

A. I'm not aware of that no.

1215

Q. At any time when you were at Pike River did it appear to you that it would be desirable to have a robust risk assessment dealing with the  
25 location of the main fan underground?

A. I can't say I honestly gave that much thought and like the fact there had been that the position of the fan had been determined long before I got to Pike River Coal Mine.

Q. Accepting, of course, that the decision had been made before you arrived, did it not appear to you that it would be desirable to have a  
30 robust risk assessment to identify risks and controls for the situation as it actually was at Pike while you were there?

**OBJECTION: MR HAIGH (12:15:55)****CROSS-EXAMINATION CONTINUES: MR MOUNT**

- 5 Q. If we go back to the Comlec document at page 13 and if we zoom in on the second half of the page, the bottom half of the page. You'll see the document says, "The following is a list of suggested issues that will require follow-up prior to main vent fan commissioning and monitor start-up," and there follow 54 items that the report says require follow-up prior to monitor extraction starting. Were you aware of this list of 54 things that should be addressed before monitor extraction began?
- 10 A. Not in this form I wasn't, no.
- Q. Were you aware that aware that issues had been raised that in the opinion of consultants to the mine required before the beginning of monitor extraction?
- 15 A. We had engaged someone from Palaris prior to the hydro-monitor start-up to do a gap analysis and there was a number of recommendations that was put forward then that were in order of priority or had to be done prior to start-up, what would be nice to be done and what wasn't so important. And it fits along with some of these. As I say, I haven't seen this document before so. I knew that we had put a process in place to
- 20 analyse what the gaps were and to make sure we had things covered.
- Q. Given that this document went to the mine manager on 31 March 2010, were you aware of any formal process at the mine or informal process to go through those 54 items to check whether they had in fact been done before monitor extraction began?
- 25 A. Sorry, can you repeat that question Mr Mount.
- Q. Given that this document went to the mine manager on 31 March, were you aware of any process at Pike to address whether the items that had been identified as needing to be done had been done?
- A. Not for this document, no.
- 30 Q. If we go back to the ventilation management plan on page 54 and if we zoom in on the top half of the page. This is section 13 of the plan dealing with responsibilities under the plan. And you'll see number 59,

“The mine manager shall appoint a ventilation engineer and other competent persons to carry out the requirements of the plan.” Were you aware of that requirement in the ventilation management plan?

A. Yes I was.

5 Q. Was it done?

A. An actual ventilation engineer wasn't done as such. We had the consulting engineer, John Rowland, on board and we'd also at the time some time prior to the blast, to the explosion, had set in train had set in training a process for one of our more technical underwriters to be going through the New South Wales ventilation course, and to be brought from the industrial side of the workforce into the technical services part, because the mine was starting to get bigger.

1220

A. At the time I started the mine, in all honesty, didn't really credit having an engineer for the size it was. It wasn't a very complex operation. It was a number of headings in the fan and I would say that it didn't really merit having a ventilation engineer, but as the mine got bigger, we were addressing that issue, yes.

20 Q. I just want to try and cover this in a little bit more detail if possible. The requirement in the plan is expressed as being something that must be done, shall appoint a ventilation engineer. I take it you accept that it was not done?

A. That is correct.

25 Q. If we look at the Minex guidelines on ventilation, MINEX0007, at page 8 –

**WITNESS REFERRED TO DOCUMENT MINEX0007**

Q. Or perhaps if we just begin at page 1 to ask whether you were familiar with these guidelines. This is the guidelines of ventilation of underground mines and tunnels, you familiar with those?

30 A. Not that particular document, no.

Q. If we look at page 8 of the document, under the heading “Ventilation management” you'll see the document states, “The site manager shall

appoint a competent person to carry out the following duties,” (a) to (e).  
Was such a person appointed at Pike.

A. I accepted those responsibilities when I took on the statutory role. That doesn't actually say that it should appoint a ventilation engineer.

5 Q. No, no. Was the situation that in the absence of a ventilation engineer, as mine manager you accepted the responsibilities identified here?

A. Yes, I did.

Q. I just want to ask you about some evidence from Mr Nishioka at page 3489 of the transcript.

10 **WITNESS REFERRED TO TRANSCRIPT PAGE 3489**

Q. He said that when he arrived at the mine within the first week or so, he really wanted to know what sort of ventilation system they are using and who was responsible for this ventilation system and who was supervising daily ventilation system, or ventilation – and the word wasn't  
15 picked up. He said he asked a number of people and the last person said, “Why not talk to Doug White?” But what Mr Nishioka said was, “What I found was nobody really taking care of ventilation survey, ventilation system construction or, you know, ventilation system commissioning.” Would you accept what Mr Nishioka said there, that  
20 there was nobody really taking responsibility for those issues?

A. Absolutely not.

Q. Who was taking responsibility?

A. Fundamentally I was.

Q. On the same page, 3489, Mr Nishioka was asked, whether in his view  
25 it's important to have someone who has that responsibility at the mine and he said, “Sure, you know, ventilation is the most important part for underground mining, particularly for the mine which is emission and a lot of methane gas.” I take it you would agree with that?

A. Oh, ventilation is the most important part of the mine, yes, absolutely.

30 Q. And Mr Reece was asked about this last week at page 4562.

**WITNESS REFERRED TO TRANSCRIPT PAGE 4562**

Q. He was asked at line 11, or 12, “Would it be prudent for a mine the size and state of development of Pike River to have had a ventilation

engineer?" And Mr Reece's response was, "From our perspective it's not the case so much of the size and state, it really becomes necessary from our perspective." And he was asked, "Necessary from when?"

1225

5 Q. And he answered, "From the start of the mine even beforehand. Potentially high gas mines will have a ventilation engineer as part of their initial design." And he went on to say a little further down the page, "It rolls on from the design and engineering stage into the operational aspects of it." So that he said, "If the ventilation hiccups the ventilation  
10 engineer would be the first phone call and the mine manager would be the second phone call or the other way depending which one answered the phone first."

A. Correct, yes.

15 Q. Do you agree with his evidence about the importance of having a ventilation engineer right from the very beginning of a mine, particularly if it's likely to be a gassy mine?

A. Is the norm in Australian mines but in, as I said, when I accepted the position at Pike River I knew that part of my responsibility once I accepted the statutory position would be accepting responsibility for  
20 ventilation and as I've said at that time personally I didn't think the mine was big enough that it required a ventilation engineer right at the time I started that it certainly would be prudent to have a ventilation engineer from the start in, I won't say it's a requirement in Australia that most mines set the companies up that way. Some mines, just to qualify that,  
25 do actually use contract ventilation engineers, they don't actually have a ventilation engineer at the mine which is a process we were using at Pike River Coal.

30 Q. In your view, perhaps with the benefit of hindsight, would it have been desirable for Pike to have had a full-time ventilation engineer from an early stage, perhaps during the design phase?

A. I think Mr Mount that's very hard to answer in hindsight given the circumstances.

Q. Why is that?

A. The obvious answer Mr Mount would be yes.

Q. Mr Rowland, of course, provided some consultancy to the mine on ventilation issues and he dealt with the topic of the ventilation engineer at Pike at paragraph 52 of his statement. I just want to ask you about  
5 that. So it's ROW001, page 13.

**WITNESS REFERRED TO DOCUMENT ROW001**

Q. I'm not sure if you've read Mr Rowland's statement previously Mr White?

A. I may have done, I've read quite a number of statements I must admit.

10 Q. If we can focus on paragraphs 52 onwards. Mr Rowland was responding to a statement by Mr Whittall at Phase One and he begins by quoting Mr Whittall from Phase One where Mr Whittall says, "There was no specific role at Pike River entitled ventilation engineer. We did that by having a full-time, on call ventilation, or a designated on call  
15 ventilation consultant available to us and they act in that capacity." Do you agree with the way the situation was described by Mr Whittall at Phase One?

A. I agree that we had a, I wouldn't call John a full-time consultant, I certainly wouldn't say that. John was available for consultation and did  
20 in the time I was there come over a couple of times so I wouldn't agree entirely with that statement no.

Q. And in paragraph 54, Mr Rowland's response was to say that although he provided specific ventilation consultancy he was never a full-time on call ventilation consultant and nor was that commitment ever discussed  
25 with him. I take it you'd agree with Mr Rowland's statement that indeed that's correct?

A. Yes I would agree with that, yes.

Q. And he goes on at paragraph 55 to say that, if there's an inference from the transcript that the responsibilities of the ventilation engineer would  
30 be managed by him, "At no time was this ever mentioned discussed or contemplated by anyone in any possible way." If we move onto page 14? He goes on to say that having read the requirements of the ventilation engineer's role he would not have accepted those



responsibilities under any circumstances while remote from the site. And he goes on to say effectively without a good deal of information coming from the mine, he does not consider that that would have been reasonable. Do you agree with what Mr Rowland says there?

5 1230

A. Absolutely. It was never the intention to use John as a ventilation engineer as such. It was always the intention to seek his advice and have certain jobs done by him.

10 Q. Another comment made by Mr Rowland, it doesn't necessarily need to go on screen, in paragraph 41 was that he could only assume that in the absence of a ventilation engineer that the responsibilities for ventilation rested on your shoulders. I take it from what you've said, you accept that that's right?

A. Yes I would accept that.

15 Q. Now you may have already addressed this in writing somewhere, but could I just ask specifically about your ventilation qualifications to be a ventilation engineer?

**OBJECTION: MR HAIGH (12:31:09)**

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

20 A. The requirement in Queensland would be to have completed the University of New South Wales engineering course or a course available in Queensland along the similar lines.

Q. And have you completed those requirements?

25 A. Not those courses specifically, no, but I did complete an associate diploma in mining engineering, a large part of which was ventilation.

Q. The topic of the ventilation officer or ventilation engineer was also dealt with by Mr van Rooyen in his written statement, PVR001 at page 36 from paragraph 207. Perhaps if we look at that.

**WITNESS REFERRED TO DOCUMENT PVR001**

30 Q. He notes, as we know, that no ventilation officer was ever appointed at Pike, which is correct. And he said that when he started he assumed

there would be a ventilation officer at the mine, which I suppose is a reasonable assumption?

A. Oh, if that's what he says, yes.

5 Q. He says in paragraph 208 that he approached Mr Whittall and suggested that Mr Hamm might be sent to New South Wales to complete a ventilation officer qualification. Were you aware of that suggestion?

A. No, not until I actually read Mr van Rooyen's statement, no.

10 Q. Was there any discussion with you about sending someone from Pike to complete ventilation officer training?

A. As I said earlier, we had looked at selecting Dene Jamieson for that particular task.

Q. I take it Mr Jamieson was not sent for that training though?

A. It didn't happen prior to the explosion, no.

15 Q. Why not?

A. Mr Jamieson at the time was in a statutory role and we'd selected him as I said because of his technical ability and we were looking at moving him but then we would replace Dene and we were in the process of trying to find someone to replace him so we could move him out of this role.

20 Q. Paragraph 209, it is said that Mr Whittall's view was that at that stage, and the timing is actually not entirely clear, but the mine was small and did not require a ventilation officer, and also he pointed out that New Zealand legislation did not require such an appointment. First of all, just  
25 dealing with the size of the mine, we've already talked about Mr Reece's view that in fact it's not so much a question of the size of the mine as the fact that in his view it's just necessary to have a ventilation officer. But in your view, certainly by the time that the mine was gearing up for hydro-monitor extraction, so say from June when you took over as mine  
30 manager, was it desirable from that point the mine to have a ventilation engineer or officer?

1235

A. That's around about that time that we started looking at getting Dene into that role.

5 Q. In terms of New Zealand legislation not requiring such an appointment, was it your view that you should be guided by any legislative requirements or was it your view that you should be guided by, in your view, best practise?

A. In the first instance as a manager, I'm guided by the legislative requirements, and also combined with that what is current best practise. But, ultimately it's the legislation in place and the jurisdiction.

10 Q. Elsewhere in the evidence there are statements attributed to you that in certain areas you were striving to attain the Queensland standards, regardless of what the New Zealand position was. I take it in Queensland there would've been a requirement to have a ventilation officer for the mine?

15 A. Yes, there is.

Q. Did you not take the view that this would be another area where the mine should strive to emulate the Queensland position?

A. As I said Mr Mount, as the mine got bigger that was certainly my view, which is why we were looking at Mr Jamieson for that position.

20 Q. And at paragraph 211, there's reference to discussion with you, and it is said, "I approached him because I sensed he would understand the need for a ventilation officer." And then there's reference to agreement that Mr Jamieson would be an appropriate person to train. What was your expected – well, first of all I should ask, is that a fair reflection of the discussions?

25 A. That is a fair reflection of the discussion, yes.

Q. What was the expected timeframe for Mr Jamieson to train as a ventilation engineer?

30 A. My understanding is it can take up to two years, depending on how much study is done, so, potentially two years, possibly 12 months, it all depends on the individual and how fast he can move through the material.

Q. By the time of the explosion he hadn't started to train in that role?

A. No.

Q. On that basis might it have been another two years or more before Pike had a ventilation officer?

**OBJECTION: MR HAIGH (12:38:02) – NOT TO ANSWER**

**5 CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. Just for completeness I want to refer to some notes prepared by Mr Borichevsky which we have as INV0400001.

**WITNESS REFERRED TO DOCUMENT INV0400001**

10 Q. If we look at page 9 of this document which is a set of notes prepared by Mr Borichevsky, and zooming in on the top paragraph at the top of the page, he notes the “need for a ventilation officer role within technical services team was identified by management and a preliminary assignment was made to the role using Mr Jamieson. During the period another interviewer resigned and the assignment to the role of  
15 ventilation officer was postponed by ?management?” Is that an accurate summary of what happened?

A. I think as I said earlier on Mr Mount, we had to selected Dene, and we had to re-fill his position with a statutory person. So, in effect that is a, it’s not an inaccurate account. I would have said delayed rather than  
20 postponed.

1240

25 Q. I’ll move on now to the topic of gas monitoring systems. If we go back to the ventilation management plan at page 11. That deals with the principle hazards to be dealt with by ventilation and if we zoom in on the writing on the page, the first hazard to be controlled is the ignition of methane or explosion potential of methane?

A. Correct.

30 Q. And then in the next paragraph it is said, “The hazards relating to failure of the ventilation and monitoring system to deliver the desired results relate to first failure of ventilation appliances but then we have a series of hazards that relate to the monitoring system, so it’s inadequate gas or ventilation monitoring, inadequate monitor location, calibration

maintenance, inadequate data/display storage trending and analysis and so on.” Do you agree that each of those factors is properly identified as a hazard relating to the gas monitoring system?

A. Yes.

5 Q. So I take it the converse of that is that the monitoring system ought to strive to do the opposite of each of those things identified from numbers 30 to 36?

A. Correct.

10 Q. Now, if we can focus for a moment on what’s numbered on the page 31, inadequate gas or ventilation monitoring and the next, 32, inadequate monitor location, for a moment. If we can just start with the issue as a matter of principle. Mr Rowland described in his statement, ROW001, page 3, what the purpose of a mine monitoring system should be. I just want to ask whether you agree? So he said at paragraph 10, ROW001,  
15 paragraph 3. Paragraph 10, “The reactive line of defence that assists to monitor the effectiveness of the ventilation system is the mine monitoring system. It is the result of the mine monitoring system that determines the effectiveness of the ventilation system at any particular time. Importantly the mine monitoring system should be designed to  
20 activate triggers in a timely manner so that any out of control situation is both detected in a timely manner and any ensuring hazard is appropriately managed or mitigated. Further to this the mine monitoring system forms the basis of a mine record database that can assess the performance of the ventilation system over time.” And he finishes by  
25 saying that if you look at that data overtime it can give you a level of confidence in the monitoring system to detect hazards?

A. Correct.

Q. Is that a fair summary of what the mine monitoring systems purpose and features should be?

30 A. It’s a fair summary, yes.

Q. Just dealing with the topic of the location of the sensors, if we go back to the management plan, pages 78 to 79? At the very bottom of page 78 of the ventilation management plan, the very last paragraph, “The

position of all remote atmosphere monitoring systems sampling points must be identified by the ventilation engineer as part of the ATM or authorities mine process for each panel to be developed and extracted,” and then across the page, third paragraph just after the bulleted list,

5 1245

Q. “The position and threshold response levels at the measuring points must be defined on a plan as part of the ATM or authority to mine process by the ventilation engineer to allow a review at the operation risk assessment,” and it goes on to say that “the VE or ventilation  
10 engineer is responsible for the setting of all alarm levels on the sensors as part of the ATM process for each panel.” So was it contemplated that it would be the ventilation engineer who would define the location of each monitoring point and then ensure that was marked on a plan for a risk assessment process?

15 A. That's a fair comment, yes.

Q. What was the process in fact at Pike to determine where those fixed monitoring points would be?

A. There were from memory, one or two fixed monitors when I arrived at the mine. The process that was gone through after my arrival at the  
20 mine, especially the advent of the non-restricted zone at pit bottom was that I had discussions with the electrical engineer at the time, Nick Gribble, and Michael, I can't remember his second name, from Comlec to determine what set points would be on the monitors and where they would be set with respect to the non-restricted zones in the mine.

25 Q. Just dealing first with the actual location of the fixed sensors. What was the process to decide where the fixed sensors would be?

A. Well the first one was already fixed, as I said, before I got there. That was at the top of the portal. The other was in the areas of where there was non-flameproof equipment in the non-restricted zones as a means  
30 that should there be any methane in that area above a quarter or 1% that they would automatically discontinue power to all the equipment in that area. So they were located at strategic, you might say, areas in

that pit bottom area, ie near the fan motor, near the VSDs and near the dirty water sump or clean water sump.

Q. Who determined those locations?

5 A. I determined those with the assistance, as I said, of I think Michael Donaldson is his name, I can't remember his second name, and at the time Nick Gribble.

Q. Mr Gribble was asked about the process of locating the sensors in his interview, INV0317627.

**WITNESS REFERRED TO DOCUMENT INV0317627**

10 Q. If we can look on page 48. At the bottom half of page 48 of that interview, you'll see towards the top of the page, second paragraph half-way into the paragraph, "We are just trying to understand given the engineering's role in fitting them and placing them," this is talking about the gas sensors, "... how they know. You know what the professional  
15 ventilation people are saying about it." Mr Gribble said, "None of that feedback came to me. I only basically worked on experience where sensors should go, but the normal approach is the ventilation officer would tell you where the gas monitoring should go and what we should monitor and what levels to alarm at," and he was asked, "Did that  
20 happen at Pike," and the answer was "No." I take it that you do not agree with Mr Gribble's assessment of the situation there?

A. Not that part, no. I specifically had conversations with both him and the representative from Comlec about the placement of sensors and what they should be set at.

25 Q. Mr Jamieson, just for completeness, was asked about this in his interview, INV0309193, page 49.

**WITNESS REFERRED TO DOCUMENT INV0309193**

1250

30 Q. Third paragraph down, if we zoom in on the top half of the page, "With the real time sampling point at the time of the incident, there was only one operating on the return side. Who decides where those real time sample points go?" And the answer from Mr Jamieson was, "I could give you a guess but it should go through the management team, Doug

White and an engineer.” Now I take it from what you’ve said that the position was that it was ultimately for you to decide where the sample points would go?

A. Ah, yes.

5 Q. In terms of process, it certainly doesn’t appear that that was particularly well understood at the mine. Was it a process that was recorded anywhere or where there any documents setting out instructions from you as to gas monitors and where they would be located?

10 A. I can't remember any written instructions as to where they were to go. They were marked on a mine plan as to the locations of the monitors.

Q. Was there any process to review the location of the sensors, the fixed sensors?

15 A. Oh, not the fixed ones, not in the, what do you call it, the non-restricted zone. The intention was as the mine moved on, to use the, to move the non-restricted zone into the mine in line with similar processes in Queensland where you go from a non-restricted zone into a restricted zone and you have a boundary monitor and once the A heading had been joined up, monitors would – the ones around about the electrical equipment, would’ve been left there and new monitors moved further  
20 inbye.

Q. How did the process of deciding where the sensors would go work, did you just give instructions to individual engineers or electricians as it appeared appropriate to you or was there a more formal process?

25 A. Wasn’t a formal process as such, as I’ve said, it was discussed with the electrical engineering department as to where the non-restricted zone monitor should go, and we didn’t get as far as installing the other monitors because the mine development at that stage didn’t allow for it, as what we’d planned.

30 Q. I just want to go through with you now the location of the fixed sensors within the mine and perhaps if we just begin with a list of them, CAC147.

**WITNESS REFERRED TO DOCUMENT CAC147**



Q. What you're about to see is a list of the fixed sensors and if we can zoom in, this is drawn from the Energy New Zealand audit dated January 2012, which you may or may not have seen?

A. No, I haven't seen it.

5 1253

Q. And what I've done is add the numbers 1 to 7 onto that list just so we've got a reference point for the sensors inside the mine. Take a moment, if you will, just to look through the list and confirm that it does accurately record the seven fixed sensors that were located inside the mine?

10 A. Yes it does Mr Mount.

Q. So if we look at where they were, the CAC148, this is one of the mine maps that has had the locations circled. Again, if you like, take a moment just to look at it but does it appear to accurately record the location of those sensors?

15 A. Relatively accurately, yes.

Q. The ovals in blue are coloured that way to indicate that those sensors were all located in the intake or fresh air circle of the ventilation is that correct?

A. Yes.

20 Q. And then the two that are in red are coloured that way to indicate that they are in the return?

A. Correct.

Q. If we just focus first of all on the sensor marked number 1. It is identified on the map as being near the surface of the ventilation shaft. The investigation report for the Department of Labour describes that as a sensor that was hanging down on a two metre piece of rope at the top of the ventilation shaft. Is that correct?

25

A. If that's what it says, I can't argue with that, yes.

Q. Were you aware of how that sensor was located at the top of the shaft?

30 A. I wasn't aware of exactly how it was located but I was aware of where it was located.

Q. It's also noted in the Department of Labour report page 145, that this sensor was calibrated on the 4<sup>th</sup> of November 2010, but the sensor itself

was noted as being wet and muddy. Were you aware of that calibration or the state of the sensor at that time?

A. No.

1256

5 Q. If we can just pull up the DOL report, page 146?

**WITNESS REFERRED TO DOCUMENT DOL3000130010**

10 Q. I probably won't keep using this number every time, but the DOL report is DOL3000130010. If we zoom in on the graph on that page it shows the sensor at the top of the shaft in red and another sensor at the bottom of the shaft in blue, and appears to indicate that the sensor at the top of the shaft was reading around about half the level of the sensor at the bottom of the shaft. Now, were you aware of that discrepancy in the readings?

15 A. No, I wasn't aware of that. But I should qualify that Mr Mount. I was only made aware of that discrepancy at my second interview in Bathurst when I was interviewed by the DOL and the police.

20 Q. Mr Reece was asked about this in his evidence last week and said at page 4573 of the transcript that this indicated to him or would have indicated to him that there was a question to answer, when you have two sensors in the same air stream reading so markedly differently. Would you agree with that?

A. Yes, I would be inclined to agree with that, yes.

Q. And I take it from what you've said that you're not aware of any process at Pike to investigate that discrepancy?

25 A. I'm not aware of any process that would've investigated that discrepancy, but I'm aware of a process that was in place for the regular monitoring and upkeep of the monitors.

Q. I take it, that process whatever it was, did not identify this particular issue to your knowledge?

30 A. Not to my knowledge.

Q. There is another feature of that sensor at the top of the shaft that I want to ask you about. If we could look at CAC0112, page 9?

**WITNESS REFERRED TO DOCUMENT CAC0112**

Q. This is a graph taken from the Pike SCADA system recording the results of that sensor on Friday the 8<sup>th</sup> of October 2010, and you'll see the flat line on the left-hand side of the graph at approximately 2.8% or 2.9%. Do you see that?

5 A. Yes, I do.

Q. Were you aware of that flat line phenomenon at all when you were at Pike?

A. It was never brought to my attention, no.

1259

10 Q. Do you know whether anybody at Pike took steps to investigate why the sensor had flat-lined at that level?

A. I can't answer that.

Q. I'm not sure if you will have seen this document but part of the investigation by Energy NZ has looked into this issue and concludes that the only plausible explanation is that the sensor has latched at that level, having been exposed to a level of methane greater than 5%. Now does that sound a plausible explanation to you?

15

A. It's certainly a plausible explanation, yep.

Q. I should have asked, if you had been aware of that flat line while you were at Pike, would it have rung alarm bells for you?

20

A. It would have been certainly cause for that being investigated.

Q. If we just look briefly before the lunch break at page 3 of the Energy NZ report?

**WITNESS REFERRED TO ENERGY NZ REPORT**

25 Q. We see their conclusion on page 3 that the only plausible explanation is that it latched and this can only occur if it's been exposed to more than 5%." The particular date on which it flat-lined was, of course, a day when the mine had gassed out?

A. Correct.

30 Q. So it certainly is possible that it may have been exposed to more than 5% methane on that day?

A. It may well have been yes.

Q. Page 6 of the Energy NZ report says in the second to last paragraph that given the way that this sensor was connected, it had a maximum possible reading of 2.96%. The second, bottom paragraph there.

A. Yeah.

5 Q. Now I think what that means is the way that this sensor was connected, it was only capable of showing a level of 2.96% no matter how high the methane level was in reality. I take it you were not aware of that –

A. Certainly not.

Q. Feature?

10 A. No.

Q. If you had been aware of that, what would you have done?

A. I would have taken steps to make sure that monitor was set up properly that could identify a range up to 5%.

15 Q. Because I take it that this particular sensor was of quite significant importance to the monitoring system at Pike?

A. It was.

Q. So from your perspective it would surely be essential for it to be working correctly?

A. Absolutely.

20

**COMMISSION ADJOURNS: 1.02 PM**

**COMMISSION RESUMES: 2.02 PM**

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. If we could please just go back to DAO.003.05885 at page 3 for one  
5 minute. This is the 31 March report on the ventilation system. Did I  
understand you to say earlier that you hadn't ever seen this document?

A. That's my recollection Mr Mount, yeah.

Q. I just wonder if we can have CAC0151.

**WITNESS REFERRED TO DOCUMENT CAC0151**

Q. You'll see this is an email forwarded to you by Mr Gribble on the 31<sup>st</sup> of  
10 March 2010, forwarding on that same report just with a message, "FYI".  
Do you accept it does appear to have been sent to you?

A. I can't dispute that, no.

Q. Given that the document deals with the ventilation system and a number  
of specific recommendations of things to happen before hydro start-up,  
15 does it surprise you that it was something that you were not aware of at  
the time?

A. It would surprise me. I can't recall seeing it. As I said earlier on, there  
was a gap analysis document that was done in line, general terms, in  
line with this and I can't recall seeing that.

Q. Given a number of specific recommendations to be addressed prior to  
20 hydro start-up, would it have been your expectation that those would  
have been specifically discussed at Pike?

A. There were a number of specific things discussed at Pike prior to hydro  
start-up that were covered in the gap analysis that was conducted by  
25 Mr Dixon – not Dixon, from Palaris, I can't remember his name. I think it  
actually is Bob Dixon, yeah.

1405

Q. If we can go back to the DOL report, page 146 for a moment?

**WITNESS REFERRED TO DOCUMENT DOL3000130010**

Q. And zoom in on the diagram. Before lunch we were talking about the  
30 sensor at the top of the shaft and the material we've seen show that  
there were two issues, at least, with that sensor. The first as we can

see on the screen, it was reading around about half the level of the bottom sensor?

A. Correct.

5 Q. And secondly, the Energy New Zealand report tells us that it appears the sensor was latching at about 2.9% so it would've read 2.9% no matter how high the true level of methane was?

A. Correct.

Q. Would it have been your expectation that either or both of those issues would have been picked up at Pike?

10 A. I would've certainly expected both of these issues to be picked up.

Q. They both raise serious issues about the reliability or accuracy of that sensor?

A. They do in that respect, yes.

Q. How would you have expected those issues to have been picked up?

15 A. I would've expected them to be picked up during the calibration process as an absolute minimum had they run the span gas across the monitors that they would've found out that they monitors weren't responding as they should and then I would've expected that information would've been passed on.

20 Q. Would you have expected these issues to have been picked up in any other way through monitoring of the sensor?

A. In what respect, Mr Mount, I mean the monitors read to the control room and the not knowing that the monitor was faulty there's no reason why anyone in the control room would think otherwise in what it was reading.

25 Q. Well I suppose two possible red flags would be, first, what we can see on the graph, namely that you have two sensors in the same air way reading differently and secondly, the very distinctive flat line on the date of the gassing out. They were both very obvious signs weren't they that something was wrong?

30 1408

A. The flat line was a fairly obvious sign that the – and that was due to the gassing out the mine. The other issue of the inconsistency, there are certain levels of inconsistency amongst all monitors so it may not have

been picked up, but that is effectively between the two of those you're looking at on average a 1% difference, I would expect a 10% difference perhaps, but not a, was effectively over 50% difference.

5 Q. Just looking at the graph, it looks as if the blue line is reading roughly double the red line?

A. It's reading roughly 1% more than the red line. It's not reading double the red line, it's reading about 1% more than, about a third, two-thirds. The – it's more than half.

10 Q. Would you not have expected a control room officer or anyone looking at that graph to have raised the issue and had it investigated if it had been seen?

A. Like I said Mr Mount, the – I may not have expected that, but it was never in any time brought to my attention.

15 Q. The sensor at the bottom of the shaft is the top line on the graph we can see, and it was noted on the Energy New Zealand audit as not working on the 19<sup>th</sup> of November, and certainly we can see on the graph that there is no data recorded for that sensor after the 5<sup>th</sup> of September 2010. Were you aware that that sensor had stopped working or stopped reporting data to the control room after the 5<sup>th</sup> of September?

20 A. I wasn't made aware of the monitor not working until, I think it was about the 5<sup>th</sup> of August last year when I was interviewed by the police in Bathurst. That was the first time I was made aware of any problem with that particular monitor.

25 Q. Would you have expected that to have been drawn to your attention in some way?

A. I would've expected something like to be drawn to my attention.

Q. How?

30 A. Oh, just by inference, by telling me that there was an issue with the monitor, but as I say, I would expect something like that be picked up at regular cal-, at a very minimum, regular calibration and it was never brought to my attention.

Q. Who would you have expected to notice it and draw it to your attention?

5 A. As far as calibration's concerned, that was the responsibility of one of the electrical engineers, understand there were regular monthly process of calibration, or periodic process of calibration and when he was going through the calibration process if that had been recorded, that should've been brought to my attention.

1411

10 Q. It appears that this sensor was not working for at least a six week period prior to the explosion, sorry, longer than that, two and a half months. Are you aware whether there was any process to calibrate the sensor during that period?

A. As far as I'm aware there was a work order system that generated regular periodic monitoring of all the sensors Mr Mount.

Q. Was there any process to check and make sure that was being done?

15 A. The process was the work orders were generated and then given to the respective people to do and then handed back in and signed off back into the system by the schedulers so a record could be taken that that was done so yes there was a process.

20 Q. As the person who, if I've got this right, was taking some responsibility for the ventilation system at the mine, did you take an interest in checking to see that proper calibrations were being done?

**OBJECTION: MR HAIGH (14:12:36)**

## **LEGAL DISCUSSION**

### **THE COMMISSION:**

25 Q. The privilege is available, I just want to be sure, Mr White, that you appreciate that ultimately it's your privilege. Mr Haigh is asserting it on your behalf whether you choose to answer or not is ultimately your decision. So I'm saying it's available and the choice is yours whether you answer.

A. Thank you sir, I'll take advice of my counsel thank you.

30 Q. Do you mean you want to speak to him further or you're simply following his example?



A. If I'm given advice not to answer for fear of self-incrimination I'll take that advice.

5 Q. Well, I just want you to be aware that ultimately there may be issues where you do wish to answer and you're not precluded from doing so by the fact that Mr Haigh has asserted the privilege and the Commission has upheld its availability because the ultimate decision lies with you.

A. I think sir, and the last time I was here that I exercised that right a couple of times.

Q. Yes, so you're aware?

10 A. Yes.

Q. That's good.

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

15 Q. The position of the monitor at the bottom of the vent shaft was discussed to some extent by Mr du Preez in his interview so I just want to show you what he said. Mr du Preez of course was the communication and monitoring engineer so he had a particular role of the gas sensors, is that right?

A. Correct.

20 Q. He was asked about the sensor at the bottom of the shaft in INV0314145, page 31.

**WITNESS REFERRED TO DOCUMENT INV0314145/31**

25 Q. If we can zoom in on the bottom third of the page. He was asked, "What about the CH<sub>4</sub> sensor at the bottom of the Alimak, what was the situation with that?" He said, "It was part of the cluster, we installed it, the reading was a bit off compared to the one on the top of the vent shaft. We sent a leckie there to go and calibrate it then he came back and says the thing is stuffed, so yeah, and then the next day we were running a bit short of sensors so we just," and no more was said.

A. What page was this please?

30 Q. It's 31 of the interview. I'm just about to move onto the next page where Mr du Preez was asked about the timing of this. If we move on to page 32 at the very top. He was asked about what time it was, he said,

he can't remember, last year some time. He said, "Yep definitely last year, probably around the time of the monitor panel start-up, maybe the same time more or less." Now we know the monitor panel was started up about the 19<sup>th</sup> of September, so it does seem consistent with the information on the graph it shows no more data after the 5<sup>th</sup> of September?

Q. Yes.

1416

Q. Is it of concern to you that this situation could have been allowed to exist at Pike?

A. Yes it certainly is. I expressed that concern in interview as well.

Q. The experts' report for the Department of Labour notes on page 23, so it's DOL3000130007, page 23, that the shaft monitoring screen, this is the first bullet point, the shaft monitoring screen was annotated to indicate that the sensors were faulty and awaiting replacement, and the experts' report says they had been in this condition for some months. Do you know whether that is correct that there was actually something on the screen that said, "Faulty sensor awaiting replacement"?

A. I don't know if that's correct, no.

Q. Would it concern you if that was correct, that in the control room the situation was actually recorded on the screen, "Faulty sensor," and that it was allowed to continue for some months?

A. I would expect that that information would have got back to me.

Q. It appears from a document filed that Mr Whittall may have in fact had access to Pike's SCADA system even from his office in Wellington. I'll just refer to INV0400267. If we move to page 2, at the top of the page we'll see it's noted, "Peter W has asked me to set up the viewer for him to see the SCADA screens from his Wellington PC." And then if we go back to page 1, the message in reply is, "I have set up a link on his favourites in Explorer." Do you know whether it was the case Mr Whittall was able to view the Pike SCADA remotely?

A. I can't answer that with any certainty.

Q. Were you able to log into the SCADA and see the results yourself from your desk?

A. I had the facility but never used it. At least I think I had the facility, Mr Mount but certainly never used it.

5 Q. How frequently did you take the opportunity to look at the results of the gas monitoring system on the computer screens in the control room?

A. I would have been in the control room itself twice, three times a week, once a week on a regular basis I would say and have a look at the screens and I didn't notice anything untoward when I looked at the  
10 screens.

Q. Did you ever go back to the data that had been recorded over a period of time rather than the instantaneous data?

A. We did after, I can't remember the exact date, but we had some spikes prior the installation of the new fan and we interrogated that data and we  
15 went back then through the data to find out how we could correlate the spikes with what mining activity was taking place.

1420

Q. When you did that, did you notice any irregularities at all with the sensors?

20 A. I didn't pick up any irregularities at that stage. I did certainly pick up the spikes that were happening.

Q. Does it indicate to you that there had been some breakdown in process that you were not informed as mine manager or as the person with responsibility for ventilation, that there were defects in the functioning of  
25 the methane sensors at both the bottom and top of the shaft?

A. It was certainly of concern.

Q. Moving again into that hindsight mode, can you think of a process that would have picked that up?

A. A regular process of monitoring what was on the screens and recording  
30 at given intervals may well have picked it up.

Q. It certainly would appear that wasn't happening?

A. It would appear so.

Q. If we go back to the map CAC148?

**WITNESS REFERRED TO DOCUMENT CAC148**

5 Q. We've been talking about the sensors that are numbered 1 and 6, that's the top of the shaft and the bottom of the shaft, which are both in red, I just want to ask you now about the sensor circled in the top left which is marked in black, that is the sensor that was located in the return of the monitor panel?

A. Correct.

Q. As at November 2010, were you aware of whether any information from that sensor was reporting to the control room?

10 A. I had asked that that sensor when it was placed there originally, report directly to the control room, and that was my expectation. I've since learned that it wasn't reporting to the control room.

Q. And again we had some information about this in Mr du Preez's interview. If we can have INV0314145, page 27?

15 **WITNESS REFERRED TO DOCUMENT INV0314145**

Q. Top half of the page, he was asked whether there was a conscious decision made not to connect the monitor, that is gas monitor, in the return to the surface, and he answered that, "It was already wired up to the panel. It was working at one stage, but the problem with the CH4 sensors, if they hit high gas they switch themselves off." And he went on to say, "And every time we start the monitor – oh, I wouldn't say every time but very often it happened. Every day it happened basically, if they barrelled the nozzle, that thing craps out." Now, so firstly, was that, is that your understanding that if the sensor in the return encountered a high level of methane it would stop working?

20

25

A. It was my understanding that that sensor was calibrated frequently because it had reached a 5% mark.

Q. And sometimes the phrase "poisoned" is used, is that –

A. It's sometimes used that phrase, yeah.

30 Q. So returning to Mr du Preez's interview, it's clarified with him, "This was connected at some stage and reporting to the surface and it stopped sending a signal at 5.5." Is that your understanding that once the –

A. Once it reaches 5% it – excuse me. Once a monitor reaches 5% it has the – it can't be deemed, 5.5% is intrinsically safe any longer because it starts to encroach on the over-expose of range methane. That's for all the sensors that I'm aware of, telemetric monitoring that is.

5 Q. Does that mean that if the level of methane was higher, say 10, 15% the sensor would still just read 5.5?

1425

A. It would latch on, yeah.

10 Q. One of the issues raised in the DOL report is whether a different type of sensor would have been appropriate at that location, an infrared type of sensor that's capable of reading to a higher level. Was that something that was considered at Pike?

15 A. No it wasn't considered. I was asked that same question about infrared sensors. I wasn't aware that an infrared sensor of that type was available. However, that was one of the reasons for my pushing for a tube-bundle system because that would have picked up that spike. Sorry, it would have picked up that process.

20 Q. At the bottom of the page on screen you can see that Mr du Preez was asked, "Was that a concern to you as a miner?" I take it that that's referring to the situation with the sensor in the return. He said, "It's a concern to me that, you know, that's over 5%, that's explosive, and you know the fact that you've got a big cavity sitting there with potentially explosive mixture and I don't feel comfortable with that at all. So I'm new to coalmining industry and they, management is there and they decide it's fine then it's fine probably." Do you have any comment on those views expressed by Mr du Preez?

25 A. On which particular views, Mr Mount, the fact that he wasn't comfortable?

30 Q. Yes, he considered that it was a concern to have over 5% coming down the return?

A. It's a concern to allow that amount of methane into a return uncontrolled, yes it is.

Q. If we look further down this page, page 28. We have a little bit more explanation as to what happened in terms of it not reporting to the surface. So if we look at the bottom of the page he's asked, "Can we just go back to the sensor that kept going out? Somewhere, somewhere along the line somebody must have said, 'Oh look it's too much trouble.'" Mr du Preez said, "It was just the indication. So it's not like it's a trip and someone defeating it by switching it off or something. It's just an indication." Question, "Yeah, but somebody must have said, 'Disconnect it' on the surface?" Top of the next page, page 29, "It's not disconnected. At one stage it tripped out or it was switched off and just never fixed." And he was asked whether someone made a decision about this and he said he didn't think so, and then half way down the page you'll see, "Like I say, it's not disconnected. It just somehow stopped working and it was never fixed because nobody bothered or nobody realised." Do you have a comment on that state of affairs?

A. That no one would bother. I think that's highly unlikely that no one would bother. That no one realised given the fact that Mr du Preez' job is looking after monitors, he certainly realised and it was never brought to the account of anyone else, it was never brought to my attention.

20 Q. If we go back to CAC148, the map?

**WITNESS REFERRED TO DOCUMENT CAC148**

Q. The sensor in the return of the monitor panel circled in black was the only sensor in the return of the mine or the return of the ventilation system inbye of the ventilation shaft. Is that correct?

25 A. That's correct. At that point, yes.

Q. So in terms of fixed sensors reporting back to the control room that was the only sensor giving any information about what was happening inside the mine?

A. At that point.

30 Q. It must have been a matter of some concern when that fixed monitor stopped reporting to the surface?

A. Yes, that's correct.

1430

Q. Because from that time anyone looking into the surface control room would have no information about methane levels inside the mine, inbye of the vent shaft?

A. That's correct, other than the, sorry, on the surface yes.

5 Q. Do I understand you to say that you did not realise that that sensor was no longer reporting to the surface?

A. That's correct. This was identified in the risk assessment that we did and I asked that that sensor not just read methane that it read "CO" as well, for the reason of spontaneous combustion detection.

10 Q. Are you aware of how long the situation existed with that sensor not reporting to the surface?

A. Not exactly no.

Q. Without any information from fixed methane sensors inbye of the vent shaft, how were you able to make any assessment of whether the ventilation system was effectively dealing with the hazard of methane?

15

A. It was my understanding and it's since proven to be not the case, that not only was it meant to be the sensor working there, there was a sensor that was supposed to control the louvers that were going to be put in place so it could open and close the louvers and again, I thought that sensor was in place which would've been located roughly around about there, in the return.

20

Q. So you've indicated just to the left of distribution...

A. Yes, just down there outbye side of the overcast.

Q. So I just need to talk into the record, perhaps it's easiest for us if you say, "Just to the left of..."

25

A. They're between effectively one and two cut-through.

#### **THE COMMISSION:**

Q. It's the overcast on C heading?

A. The overcast is on C heading yes.

30 Q. So just outbye of that?

A. C one to two.

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. But in fact those sensors were not connected to the control room in any sense?

A. As I've later found out, yes.

5 Q. The question was, without any information reporting back to the control room, inbye of the vent shaft, how were you able to make any assessment of whether the ventilation system was effectively dealing with the hazard of methane?

**OBJECTION: MR HAIGH (14:32:45)**

10 **LEGAL DISCUSSION**

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. I think it was along the lines, Mr White, in the absence of any information from a fixed sensor inbye of the vent shaft, how were you able to make an assessment of whether the ventilation system is  
15 adequately dealing with the hazard of methane?

A. The sensors in place in the shafts were not ideal but they were the ones that gave us indication of what was going up the shaft. The ventilation management through the actual hydro-panel especially after the start-up and successful commissioning of the main fan, and the fact that there  
20 was a process put in place to manage expected plugs of methane in the cutting cycle at that point gave me the information to be comfortable as such, but I hasten to say if you go back to what I said earlier on about the placement of monitors, there was a plan in place discussed with where all the monitors we'd finally put in the mine, once certain parts of  
25 the mine were developed.

1435

Q. Mr Reece was asked last week if he could indicate on a plan where he believed fixed monitoring points ought to have been. Are you able to do the same exercise and tell us where, in your view, fixed monitoring  
30 points should ideally be?

A. Based on what, Mr Mount?



Q. Based on the need to give you confidence that the ventilation system is adequately dealing with methane?

A. Eventually, and if you accept the fact that the mine was, it was growing and there was a need for additional monitors in certain places once the  
5 ventilation structures had been made permanent, monitors would have been placed in the returns at every ventilating split, which is –

Q. So, if you could just help us with where that is on the plan?

A. So that there is a main ventilation split.

Q. So you've indicated just at the bottom of the return at the bottom of the  
10 monitor panel?

A. Yep. That's not a main ventilation split there, that's just, I don't think that heading from memory was going to be continued. When this heading had been driven up and that cut-through brought across here, that's a main ventilating split there.

15 Q. So, I'm just wanting to talk that in. This is, you're looking at the one west two right panel, heading A, and you've indicated roughly where auxiliary fan AF003 is on our map?

A. Eventually that would become, that would've become a main ventilation split, yeah. At the time of the incident, that wasn't considered a main  
20 ventilation split. That was a panel under development. And when the panels had been driven further out, wherever a panel intersected the return, would effectively have been a main ventilating split, and my expectation was certainly to have monitoring at all these locations.

Q. We were discussing the sensor and the monitor panel return and you  
25 mentioned, I think, your view that there ought to be measurement of carbon monoxide as well for spontaneous combustion reasons?

A. Correct.

Q. Can I just ask, was there an occasion where there was a concern raised that there might've been spontaneous combustion in the panel?

30 A. I remember someone reporting parts per million carbon monoxide, and it may well have been Simon Donaldson on a staff report, unfortunately didn't mention how many parts per million, or where in fact he recorded it, but one of the things I instigated at Pike was that all the deputies that

were in the panels, were trained in how to first detect spontaneous combustion. In fact the entire workforce was trained on how to detect spontaneous combustion. The deputies more so were taught how to calculate litres mic and that was done in an effort as to not having the full system but to having a system in place that we could detect carbon  
5                   monoxide early. When the deputies would do a reading every shift that information at the end of the shift was then given to the control room operator, I had a spreadsheet drawn up and it was able then, once the information was put into the spreadsheet, it was able to actually develop  
10                   a trend. And from my information at no time other than that one instance where the amount of parts per million weren't actually recorded was there any issue with carbon monoxide in the hydro-panel.

Q.    Can I just ask whether after that occasion there was a bag sample taken  
15                   in the goaf for analysis on a GC or more substantial analysis of the gases in the goaf?

A.    Mr Mount, there may well have been, I can't recall that.

Q.    So if we summarise the position on November 2010, in terms of fixed  
20                   points back to the control room, everything rested on the two sensors in red, except that number 6, the sensor at the bottom of the shaft was not reporting back to the surface and hadn't been for two and a half  
                  months?

A.    That would appear to be correct, yeah.

1440

Q.    And the sensor at the top of the shaft had two problems, or apparent  
25                   problems. One, it didn't appear capable of reading higher than about 2.9%?

A.    That's also correct.

Q.    And two, there was the anomaly that would've been picked up as a  
30                   result of the inconsistency with the reading from the bottom sensor while the two were still in operation?

A.    Correct.

Q.    Satisfactory situation?

A.    Not entirely satisfactory.

Q. When you say, "Not entirely," an unsatisfactory situation?

A. Yes, as I said before, Mr Mount, had I known about it there would've been action taken.

5 Q. So the question becomes, in effect, why didn't you know about it? Now, I appreciate that that may be a difficult question to answer in the abstract but as I think I asked you before, can you think of a system that would have picked up on that situation and led Pike to do something about it? What would've caught the situation and drawn it to your attention and enabled something to be done?

10 A. An alarm log would certainly have picked it up when any part of the system alarms were not necessarily trips, but goes into the first alarm stage, that would be recorded and respective action taken depending on the level of the alarm.

Q. If we could just have on the screen, INV0400676

15 **WITNESS REFERRED TO DOCUMENT INV0400676**

Q. Perhaps if we zoom in on the second email first? This is from Mr Gribble to you on the 8<sup>th</sup> of October. He raises a couple of issues. He says, "For some reason we have not put all our gas monitoring on the same system. We started to use SCADA for monitoring instead of  
20 SafeGas. My personal view is we should use SafeGas for all gas monitoring. When we get alarms SafeGas requires the alarm to be accepted and what action has been taken. It will also tie in with the gas alarm log book that will be developed out of this. SafeGas also has the four different alarm levels which are related back to the logbook and  
25 TARP." And you replied to that on the same day, "I agree entirely. All gas and minor environmental monitoring should be represented in the SafeGas system. Might also mean we need to get SIMTARS out to do some training." Do you recall that exchange with Mr Gribble?

30 A. I do recall reading that email in the last few days, I don't recall the actual, what's happened but I do recall having read that and being asked a question about that yes.

Q. The reason I've put it on the screen is because a moment ago you were referring to a gas alarm book which was said by Mr Gribble to be

something that will be developed. As at 19 November, had the gas alarm book been put into operation?

A. I don't think so.

Q. What would it have involved?

5 A. Either a system of spreadsheets or notes, preferably some form of electronic logging, that doesn't necessarily rely on people writing down but actually putting the information into the system and backed up with a written word.

10 Q. Is the position that there was in effect no formal process to make sure that gas alarms were monitored and then acted upon within the control room?

A. It would appear that way.

15 Q. The reference to SafeGas and to the alarm acknowledgement process on SafeGas, I take it that you agreed with Mr Gribble that all the monitoring should go through SafeGas because of its robust requirement that gas alarms be acknowledged and acted on?

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A. I think you'll see that that's exactly what I said.

20 Q. And the position in November 2010 appears that the fixed monitoring points were connected to SafeGas except for the one at the top of the ventilation shaft, which was not connected to SafeGas. Is that also your understanding?

A. Oh, I can't argue with that Mr Mount, yeah.

25 Q. So it would appear that the only functioning sensor in the return was not connected to SafeGas?

A. It would appear that way.

Q. Satisfactory?

A. (inaudible 14:45:55).

30 Q. If I can refer to a comment in the DOL experts' report, DOL3000130007, page 48. If we can zoom in on the top paragraph.

**WITNESS REFERRED TO DOCUMENT DOL3000130007**

Q. "The most serious issue from a ventilation perspective was the standard of monitoring for a gassy mine to rely on one sensor at the top of the

shaft that was difficult to access and in an environment that needed regular checking it's hard to comprehend. The mine should not have operated without at least two main return sensors operating and connected to alarm and power supply systems for underground fans. It appears from information provided that the reason this was not in place was that the gas sensors were being poisoned by exposure to high gas levels. This should have triggered a more effective solution with more robust interim control." Your comment on that?

A. I can't comment on that other than to say that is correct.

10 Q. We've spoken already about calibration. Are you aware of whether Pike was following the Australia and New Zealand standard for calibration of gas monitors?

A. Oh, I assume they were when the, there was a set way of testing and calibrating methane monitors, I've got no reason to believe they weren't following that system.

15 Q. Now I may have already asked you this, but at any stage did you call for or see records of calibration to satisfy yourself that that was in fact being done?

A. I didn't personally any records of calibration but I'm aware there was a system of calibration in place.

20 Q. Page 147 of the DOL report states that, this is paragraph 3.33.2, "Pike River was only able to produce two completed records of calibration for the three months prior to the explosion and of those two, one was for a methane sensor on the drill rig which reported a faulty sensor which was not replaced. And their second was a record for the sensor at the top of the vent shaft." Is that a matter of concern for you?

25 A. Yes it was.

30 Q. Again are you able to think of a process that would have dealt with this situation more effectively and made sure that calibration records were available?

A. I think in fairness Mr Mount, I thought there actually was a system in place. It's only since I've found out that the system had serious flaws.

Q. I just want to ask about the process at the control room, and we've already talked about the gas alarm book which hadn't yet been introduced. Mr du Preez was asked about the monitoring of gas data at the surface, at page 33 of his interview,

5 1450

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-page 33 of his interview, and just remembering that Mr Du Preez was the communications engineer with responsible for the gas monitoring system. He was asked at the bottom of page 33, "Who was responsible for monitoring those readings?" And you'll see his answer, "Next question, no idea." Is it a matter of concern to you that the engineer responsible for communications and monitoring had no idea who was in fact monitoring the gas sensors?

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A. That is a matter of concern, yeah.

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Q. Across the page, page 34, again at the bottom of the page, he was asked, "What system does the mine have to print those readings out and assess the trending?" And he said, "Nothing that I'm aware of. I'm sure, maybe tech services look at readings from time. I know tech services came in the control room from time to time and they looked at the gas going through the vent shaft." I take it that you would not consider it a satisfactory system to have tech services just come in from time to time to look at these readings?

20

A. I think the fact is that tech services in the shape of Borichevsky went in regularly, especially once we started hydro-monitoring. He went in and checked the gas readings every day and for a period of time up until Mr Ellis was brought into the mine, come and discuss any issues with me and that's when I said earlier on, when we saw spikes we then cross-referenced that to what was happening underground and how to deal with them and then after Mr Ellis was in place, he would've discussed these issues with Mr Ellis. To say "from time to time" is not correct. I'm fairly certain that Mr Borichevsky was in there regularly.

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Q. I just want to turn to Mr – We seem to have a problem with the sound system, for both of us apparently. Mr Borichevsky was, of course, asked about this at his interview. If we can have INV0318954, page 87?

**WITNESS REFERRED TO DOCUMENT INV0318954**

Q. He was at the top of page 87 being asked about plugs of methane and in particular a spike at 2.5%, but you'll see fourth paragraph down, he goes on to say, "What I'm saying is that there were larger volumes of methane that came out than that one." He goes on to say, "Higher and longer duration." And he was asked by the interview, "Was there some sort of system where these were noted and then investigated and traced back and determined what it was?" And he said, "Up until the time Steve Ellis got there, there was." And he explained that he would get a printout of methane for the period of time up until the production meeting and if there were any events of this nature, I take that to mean spikes, he would report it at the production meetings. So is that the position as you recall it?

A. That's just what I've just said, yes.

Q. And he went on to explain at the bottom of the page that he would enquire as to what might have happened at the meeting, and he'd look at the deputies' reports, note the time that certain things took place and those issues would be discussed at the production meeting?

A. Correct.

Q. If we move on to page 89, half way down, Mr Borichevsky was asked, "What happened – sorry. "What changed after Steve Ellis arrived?" And the answer was, "Steve wasn't interested in those matters. He changed the whole agenda for the meeting." Are you able to comment on that statement that after Mr Ellis arrived, the whole focus of the production meeting changed and there was no longer discussion of gas spikes?

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A. No, in fairness Mr Mount, I can't comment on that. All I want to say when Steve arrived and I handed over the reigns as it were to him I took a backseat in the mornings, because it was his meeting. I didn't want to be influencing how he was going to develop into running the mine so no I really can't comment because I pretty much stopped going to these morning meetings. What would happen after the morning meeting was

that Mr Ellis and Mr Klopper the prep plant manager would then come and give me a summary of what happened at that meeting and if there in fact was anything that I needed to act on.

5 Q. Can we just get a sense of the timing? I think Mr Ellis was at Pike for roughly four to six weeks before the explosion, is that about the right time?

A. No that's not correct. It's about nine to 10 weeks.

Q. So can you help us with when the morning production meeting would've been handed over from you to Mr Ellis?

10 A. Within a couple of weeks. I can't say exactly when but there was a handover process to tell Steve what was happening all the relevant stuff but effectively I didn't want to interfere then on how he developed having had a great deal of interference myself in that position.

Q. From whom?

15 A. From people above me, let's say.

Q. So would that make it about two months prior to the explosion that Mr Ellis was running that morning meeting?

A. Give or take a week, Mr Mount, yes.

20 Q. And as I understand it, Mr Ellis was hired with the expectation he would become the statutory mine manager is that right?

A. That is correct.

Q. But needed to go through a process of obtaining his ticket?

A. Which he did.

Q. After the explosion?

25 A. Before the explosion. He actually was granted his certificate of competency, I think, it was a matter of days after the event but he'd gone through the process some time before then.

30 Q. But had there in fact been a process where he was the mine manager designate, if you like, he was almost beginning to take over the reins even though he didn't have his ticket yet?

A. That is more or less how things were happening, yes.

Q. So if we turn over to page 90 of Mr Borichevsky's interview, in the middle of the page, he was asked, "Once Steve Ellis started who



would've been keeping an eye on those peaks going through the main vent shaft and any alarms associated with levels being exceeded?" Mr Borichevsky said, "I kept an eye, you know, a watching brief, I guess you might say that occasionally looked at. There were a lot of things going on in the airways. After Steve took over, principally Doug White was trying to get the number 1 fan started." Does it appear that the position after Mr Ellis started was that Mr Borichevsky would occasionally look at the gas starter for peaks but perhaps with less regularity than previously?

5  
10 A. I've no reason to believe he was doing it any less regular because, as I said, he'd stop then discussing those issues with myself.

Q. At the bottom of page 91, Mr Borichevsky was asked what the position was leading up to the explosion. Last three paragraphs. "Before the event I was aware that the methane levels in the mine were being exceeded but I wasn't reporting that on a regular basis because it was not required to report to those by me." He went on to say there was no interest in a production level and he went on to say, over the page at 92, "Obviously there was a risk associated with that." And he goes on to say that the law specifies certain levels in relation to methane. The comment, "There was no interest in a production level," does that indicate to you that there may have been increased focused on the production of coal at those production meetings in the weeks leading up to the explosion?

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25 A. Mr Mount, as I said I didn't attend those meetings. I certainly didn't wish that was the case but I can't comment on that not having been there.

Q. Were you aware that the reporting on gas spikes that had been occurring up until say a couple of months before the explosion, were you aware that that reporting had ceased or reduced?

30 A. Yeah, it wasn't brought to my attention.

Q. Given that you were still the statutory mine manager did you take an interest in what the situation was with gas spikes over that period?

A. I always had an interest in what the situation was with our gas spikes, Mr Mount. Though I said there was a period when that information stopped coming to me. I didn't for a minute think it had gone away. But it's also fair to say that I was fairly confident that any information that was being passed on to Mr Ellis would have been dealt with effectively.

5

Q. If you like an important line of defence in terms of methane issues in the mine would be in the form of the control room officers with the screen in front of them. Now I just want to ask you about the training of those control room officers on issues to do with gas monitoring. Was there a plan for the training of control room officers on gas monitoring?

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A. There was a training programme for control room officers. I'm not sure how much depth it went into the training for gas monitoring but we had discussed that. We'd had a meeting with the control room operators only, it was either a matter of days or weeks prior to the event, whereby we discussed a number of issues with the control room operators and one of the things that came up was the issue of training which was going to be organised to get SIMTARS on site, run them through the programme again because there had been some time since SIMTARS had been on site.

15

20 Q. Is it fair to say that the control room officers were calling for some training in SafeGas and gas monitoring?

A. That's a fair comment.

Q. What level of understanding of gas monitoring requirements do you consider that the control room officers had?

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A. My understanding was that they certainly knew how to acknowledge alarms on the safeguard system and they also knew to report any alarms to the or through the process to myself to the undermanagers. So there was an understanding of if they got alarms, (1) how to deal with them. It may well be it was just a case of acknowledging the alarm. Like I said, depending on the level the alarm was set at it might just be a case of acknowledging, and in the case of a spike as an example, it may go through the system alarm and then by the time the system acknowledges the spike it's cleared. So when you acknowledge the

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alarm it clears the system. If it was a longer-term alarm it wouldn't allow you to clear the system. The alarm would keep alarming so to speak.

5 Q. I just want to refer some comments made by one of the control room officers, Mr McIntosh in his interview INV0328697, beginning at the bottom of page 6.

**WITNESS REFERRED TO DOCUMENT INV0328697**

10 Q. He was asked, very bottom of page 6, "So as far as you know in the position as controller was anyone ever, did anyone ever sit down and say well this sensor is located here and this is what it's for. This sensor is in the return and this is what we've positioned it here for." Mr McIntosh said that he never had any instruction of that sort. Any comment on that?

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15 A. I personally didn't give him any instruction on that. I can't comment on whether or not he was given it prior to me being there. The position of the monitors was clearly marked on the screens with the respective alarm set points on them.

20 Q. Mr McIntosh went on to say, "Dare I say there were a lot of things went on here. Things got done but were never explained why or no none ever bothered to tell you why it was like that. It was regretful there was." And it was asked of him, you know the control room operator's job is to monitor these alarms for gas sensors and he said, "We knew how the alarms worked and we knew what they monitored," but he goes on to say that he didn't know about the details of where they were positioned or if they were ever moved on occasion. Comment on that?

25 A. It wouldn't be unusual for any mine not to tell the control room operator that they were moving sensors but what would normally happen is if a sensor was moved the screen would be reprogrammed and at that time the control room operator would be updated on the process.

30 Q. Further down on the same page, he was asked about the alarm level triggers for the sensors. Question: "I think you've answered me by saying no one actually said that sensor is set at that alarm level, or triggers at that alarm, is that right?" Answer, "We never got informed

that, we never had anything in writing.” Comment on that statement from a control room officer who had he didn't have anything in writing about what the alarm levels were for gas sensors?

A. Again I can only say I personally didn't give him anything in writing.

5 Again, the control room operators were in place prior to me getting there. The SIMTARS safeguard system was in place prior to me getting there and there are certain assumptions that I made with that system in place. I personally did not give any of the control room operators any training in SafeGas, however, I did give them training in the system for monitoring carbon monoxide that I put in place myself. I trained every  
10 one of them in that.

Q. We do have a document which I won't put on the screen, acknowledgement of gas alarms, it's a TARP which was prepared in  
15 2008, DAO.025.15271, now this document refers to a number of levels of alarm and I think from what you said earlier, that would tie into the SafeGas system that the TARPS, or the different levels would tie in with SafeGas?

A. Different levels require different actions, correct.

Q. The difficulty of course in November 2010, being that the one  
20 semi-functioning sensor in the return was not connected to SafeGas?

A. Correct.

Q. Page 15 of Mr McIntosh's interview just, if we have it on screen?

**WITNESS REFERRED TO DOCUMENT INTERVIEW OF MR MCINTOSH**

Q. The question was asked, “Did Doug or Steve or anyone come to you as  
25 a controller and say, ‘Look I need to know if gas is getting up to certain levels?’ And the comment was that Doug would come and say to me when we were shutting the underground fan off and operating the underground fan he wanted to know exactly if it hits 1% I want to know.” And further down, “We were told if it hits 2%, if we've got 2% going out  
30 the return then we should notify.” And he did say that it was part of his role to let you know if it went up to 2%. Comment on that statement?

1510

A. Yes that is correct, if when the time that I was formed of gas spikes, I would want to know why, I'd want to know what time the spike occurred, how long it lasted for, what percentage it was and then we could correlate that back to what activity was happening underground.

5 Q. And then finally from Mr McIntosh's interview, page 34, he said at the top of the page – I'm sorry, bottom of page 33, last paragraph, "Only thing I can say is it's pretty bloody difficult for us and much of the control room." He talked about the pumps and said, "We were never given any training." The last three lines, "There was no training, or there'd be a  
10 new programme added and they wouldn't come through and say, 'Oh this is a new programme, this is what you've gotta do.' There was none of that." Then, over the page, top of 34, if we can have page 34? "You know it was pretty poor and we spoke about it big time, more than once. Three weeks prior to the explosion, us controllers had a meeting with  
15 Steve Ellis and Doug White in town and spelled out a lot of things we weren't happy with." I take it that's the meeting you told us about?

A. That's the meeting I'm referring to, yeah.

Q. So given that the controllers had raised issues about gas monitoring at that meeting, again putting your forward looking hat on, what was the  
20 process that you would've liked to see in place?

A. I'm sorry, you mean in light of the events, or...

Q. The process that would've made sure that the control room officers were trained and then that the right information was coming through to you?

A. Yeah, I think I said that Mr Mount, that the process was going to be that  
25 there was formal re-training done of the control room operators and training in the monitoring systems was to be organised and that had been the – it was an action that was allocated to Mr Ellis.

Q. Staying with the topic of alarm levels for a moment, the requirement into the ventilation management plan, page 59, was it the ventilation  
30 engineer would be responsible for setting all of the alarm levels and that they would be posted on a ventilation plan in the surface controller's room. Did that happen to your knowledge?

A. As far as I'm aware it did. There was a vent plan in the control room with the locations of the sensors as well as being on the monitor. We had the alarm set points. There was a plan in place that had the set points of the monitors that were in place.

5 Q. Another requirement in the ventilation management plan was that any failure in the monitoring system be communicated to the mine manager if there's a delay in rectifying it. What was the system at Pike to ensure that any errors in the gas monitoring system were recognised and dealt with?

10 A. The system I expected to happen was any reports – sorry, any issues that were found would be reported through to me. That, in event, didn't happen on a number of occasions.

Q. Do you have any insight into how it could be that the failures of the connections to various sensors and sensors themselves within the mine were not reported to you?

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1515

A. No Mr Mount, no. I was in the operations area every day at the start of the shift. I've made myself available every day at the start of the shift for the process of passing on information. So it's not as if I wasn't available to pass that information on to...

20

Q. Move on to a new topic now which is the more general topic of the sufficiency of the ventilation and you covered some of that this morning. One of the recommendations in the Comlec report which we saw earlier was that there would be particular attention to the ventilation system prior to monitor start-up. Did you go through any process to satisfy yourself that the ventilation system was sufficiently effective before the monitor started?

25

A. The ventilation system was measured on a number of occasions when the, prior to the new fan being commissioned, and at the time that the ventilation system was measured it was deemed that there was enough ventilation to provide ventilation to the monitor and to one mechanised face and also that we could keep the McConnell Dowell face in stone with the requisite amount of ventilation going to it as well. Past that it

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would have been a bit of a stretch at that time with the air available to us.

Q. We saw on page 27 of Mr Nishioka's work record that on the 1<sup>st</sup> of October, this is NISH0002, page 27.

5 **WITNESS REFERRED TO DOCUMENT NISH0002**

Q. On the 1<sup>st</sup> of October it was agreed that the monitor would be stopped until the main fan was commissioned. Do you recall that issue being raised where the monitor production was stopped to wait for the main fan to be commissioned?

10 A. I recall stopping the monitor because we couldn't get the required amount of air into the monitor panel. How long it was stopped for I can't recall exactly but was in the process, fairly certain at that time we were in the process of commissioning the main fan. So it wasn't as if it was stopped for weeks or anything like that, it was possibly a matter of days.

15 I can't recall exactly, but I do recall on occasion monitoring being stopped. That was a control measure if we couldn't get the right amount of air around the panel to stop the system.

Q. If we could have one of the "permit to mine" documents, DAO.001.03563 and if we could zoom in on the top of the second box.

20 **WITNESS REFERRED TO DOCUMENT DAO.001.03563**

Q. You'll see reference under the topic, "Panel ventilation. Ventilation has to follow the approved ventilation plan." What was the approved ventilation plan?

25 A. The plan itself, as I said earlier, was in review in draft form, but the approved the amount of ventilation from memory was 20 cubic metres was the minimum that was allowed to flow and that was communicated to the operators and to the deputies and undermanagers.

Q. Sorry, does that mean the approved ventilation plan referred to is the ventilation management plan?

30 A. I could only assume that actually refers to yeah.

Q. There wasn't a specific ventilation plan for the monitor panel recorded anywhere in a document or anything like that?

A. There was a specific amount of air required for it and it was recorded somewhere. Off the top of my head I can't remember where it was recorded, but it was well known as it had been discussed in the risk assessment, the minimum amount of ventilation required around that panel and what would happen if that amount of ventilation couldn't be met.

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Q. And that level was 20 cubic metres a second was it?

A. From memory I think it was 20 cubic metres a second yes.

10 Q. If we could go back to the Minarco ventilation report DAO.012.02277

**WITNESS REFERRED TO DOCUMENT DAO.012.02277**

Q. Now this is a report that obviously was written well before your time, 2006, but presumably you saw this document at some point?

A. In all honesty, Mr Mount, I saw that document two days ago.

15 Q. At page 5 of this report stated at the top of the page, if we can zoom in on the top paragraph please, last sentence of the first paragraph, "In general a minimum of 45 cubic metres a second of air has been allocated to the hydro-monitored places and the splits being developed in advance of extraction." Were you aware of that statement that 20 45 cubic metres would be allocated to the panels?

A. No. But that does say, "And the allocated panels," that's not just the hydro-monitored panel.

Q. Can you tell us what the process was that you went through to determine what amount of air would be allocated to the monitored panel?

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A. We used, for want of a better word, some local knowledge in that respect as to what quantities were being used at neighbouring mines to give us a local perspective and we used that from the people that we had working for us on their behalf whether it be contract or whether it be people that had actually worked at neighbouring mines and it was agreed in line with some of the neighbouring mines, 20 cubic metres would be enough to go around the hydro-panel.

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Q. When did that discussion take place?



A. That discussion took place around about the same time as a risk assessment was had. Exactly when I can't remember.

Q. Prior to monitor start-up?

A. Absolutely.

5 Q. If we could have INV0400668?

**WITNESS REFERRED TO DOCUMENT INV0400668**

10 Q. Which is an email dated 4 October from Mr Gribble to you, Mr Ellis and Mr Mason. You'll see Mr Gribble's comment on the 4<sup>th</sup> of October 2010, "I've had a look at the two risk assessments I've been involved with with regards to the extraction panel. There are a couple of things that are not covered but may be covered in other risk assessments. What to do with different gas levels when cutting, what is the minimum air requirement?" And I'm not sure if we have your response to Mr Gribble but do you recall that enquiry at the time?

15 A. Not at the top of my head, it obviously took place.

Q. Is it concerning to you that there might be lack of clarity on the minimum air requirement for the monitor panel on the 4<sup>th</sup> of October?

20 A. It would depend in context that this email was sent to me. It's obvious that Nick is aware there's other risk assessments in the process or in the system and I can't, from looking at this, comment on what he was actually referring to without knowing what the whole thing was about.

Q. Equally, is it concerning to you that there might be lack of clarity on the issue of what to do at different gas levels while cutting?

25 A. There was instruction to the operators about what to do at different gas levels because the monitor linked directly to the screen where the operator worked. There was a cutting procedure that was given to the operators on how to react to different gas levels. So there was a process in place to control, as far as practical, the amount of gas that was being released, so it's not a concern in that respect that people didn't know what was going on because they did know what was going on.

30

1525

Q. I take it because the monitor panel was the first extraction panel at Pike that there must have been an element of trial and error in the setup or the calibration of the ventilation for that panel?

5 A. Not so much trial and error with the ventilation, no. And we had the ventilation that was available to us for the setup with respect to the original fan and then we had the ventilation that was available to us with respect to once a new fan was commissioned. So it wasn't trial an error. It was a case of what was available at the time, respective of the equipment that was working at the time. So I certainly would not call it  
10 trial and error.

Q. Because this was the first panel of its type at Pike, was there a need to focus in particular on whether the ventilation that was thought to be sufficient was in fact sufficient?

15 A. There was no reason to believe that the ventilation wasn't sufficient from the start-up of the panel. There were instances after the panel had started up and a goaf had started to form where plugs were pushed out. It was the spikes that were referred to earlier on in certain cases. There was a process put in place, a cutting process put in place to guide the operators on what to do if methane levels started rising and in fact the  
20 result was if they started rising to a certain extent, shut the machine down. But there was a process put in place so as far as the ventilation trial and error, no it was a bit more controlled than trial and error, Mr Mount.

25 Q. I want to turn now to ask you about some of the plugs or spikes in the monitor panel. Because that's a new topic I'm not sure if it's suitable to have a break.

**COMMISSION ADJOURNS: 3.27 PM**

**COMMISSION RESUMES: 2.44 PM****CROSS-EXAMINATION CONTINUES: MR MOUNT**

5 Q. A view expressed by Mr Reece last week, pages 4698 to 4699, was in short that it would not be acceptable to send 5% methane or more down the return, that there ought to be sufficient ventilation to dilute that before it goes down the return. If I haven't over-simplified the view, but does that strike you as correct view?

A. That strikes me as in general, being correct, yeah.

10 Q. Would it be correct to say that any instances of 5% methane or more within a mine, even in the return, is a high potential incident?

A. It could certainly be described as an HPI, yeah

Q. Was there a system at Pike to make sure that as mine manager you were aware of any incidents of 5% or more methane in the return?

A. There was not a documented system as such.

15 Q. I take it you're familiar with Mr Nishioka's evidence?

A. I have read it some time ago and parts of it in the last couple of days.

Q. His work record, we have referred to already, describes a number of instances of more than 5% methane going through the return. I want to take you to just some of them, so this NISH0002, page 21.

20 **WITNESS REFERRED TO DOCUMENT NISH0002**

Q. At the very bottom of the page, 20 September, so this is the day after the monitor was first commissioned and you see, "3. Methane content came up to 5% monitor face inbye and kicked out power and it was decided to stop the operation and check the ventilation doors to find that all vent stopping is loose." Were you aware of that occurrence?

25 A. I can't recall that occurrence exactly. I'm not saying I wasn't aware of it Mr Mount. I certainly can't remember of a vent stopping being loose, but again that's not saying that it didn't happen.

30 Q. I'm not sure I understand the phrasing, "in the monitor face, inbye and kicked out power." What does that suggest to you in terms of where the 5% level was found?

A. "In the monitor face inbye" – if it's talking about, "in the monitor face, inbye" it may well be talking of inbye of the cut-through that was in the monitor face, so between the face and the cut-through, it's hard to say without the detail what he's actually talking about.

5 Q. For it to have kicked out power, does that tell you anything about where the 5% level was found?

A. I'm not entirely sure where he's talking about here.

10 Q. The fact that methane had come up to 5% and kicked out power, and certainly the fact that ventilation stoppings had been found to be loose, are those matters that you would have expected to come to your attention?

A. Oh, absolutely. I would also expect them, especially the ventilation stopping part, to be fixed and come to my attention.

15 Q. Are you aware of whether there was any investigation into that occurrence to establish whether there needed to be any changes in practice?

20 A. I think as I said earlier, that we at that time, around about the time this happened, we investigated the spikes to see what was actually happening. A formal investigation or an incident report, I can't honestly recall if it was done on an incident report.

25 Q. Next page, page 22, the record for 22 September, point 5 – if we can zoom in on number 5? "Methane density came up to over 5% in return airway from time to time when monitoring." In Mr Nishioka's record "It must be noted it is a safety hazard to continue monitor extraction under this condition. Recommended that monitoring should be stopped until main fan becomes operational." First, were you made aware of the record of over 5% in the return airway on that 22<sup>nd</sup> of September?

A. I can't honestly recall being made aware of that.

30 Q. Would you, as mine manager and if we can call you de facto ventilation engineer, have expected to be aware of that?

1550

A. Oh, absolutely.

Q. Did you have a process in place to make sure you were aware of it?

A. Well a deputy's report is one way of capturing that. If there's any excess gas or any problems at all within the panel it should be recorded on the deputies' reports.

5 Q. This was within the first three days of the monitor starting up and it appears that of those three days, the 19<sup>th</sup> was the first and it's not clear what the situation was. The next day there was 5%. The next day the monitor was not working because of a problem with the pipeline and then the next day again over 5%. So in effect on the two days when the monitor was properly working, both of them had over 5%. Did you take  
10 particular interest in the situation with the monitor in those crucial first few days?

A. We took particular interest in the style of cutting that was actually leading to excess methane.

15 Q. This particular incident of 5% in the return was raised with Mr Nishioka in his evidence, page 3514, and he noted the record we can see on the screen and was asked, "Did you raise this with anyone at the time?" And his response at the bottom of 3514 has not been fully recorded because of language issues, but it appears at the bottom of that page that he said, "Somebody, presumably a deputy, came out of the mine  
20 and talked to Doug White and he couldn't stand for that dangerous situation to keep going on." And then continue on page 3515. Mr Nishioka goes on to say in effect that there was a really serious meeting and that following that "Doug White started to put more effort in commissioning a main fan," and he went on to say, "The system was not  
25 designed properly. The system was weak in ventilation fan. The shaft was touching through the casing making a spark. Equipment was not well built and Doug was having a hard time to commission it."

A. Can I just correct something there?

Q. Certainly.

30 A. Because it is a fact that when the fan was installed there was a brass, I think it was brass. There was a metallic plate put around the fan shaft itself. It was recorded that there had been that plate had heated up. There may well have been sparks coming off. That plate was since then

taken off and it was, apparently it was – I don't think it was replaced, but it was planned to be replaced with a neoprene thing so that it wouldn't spark. So that is perfectly correct about that. It was brought to my attention and that's the action that was taken.

5 Q. On the issue of this, if you like this plug of methane or the high level of methane, it appears Mr Nishioka's recollection was that this was discussed with you and that you had said it's an unsatisfactory situation or you couldn't stand for this dangerous situation to exist I think, and that this in effect led to the redoubling of efforts to get the main fan  
10 commissioned. I just want to ask for your comment on that evidence, appreciating that you may not remember the detail of conversations but...

A. As I've said before, Mr Mount, I can't recall discussing ventilation with Mr Oki. I mean we may have discussed ventilation with others and the  
15 hydro-monitor crew, so they're the deputies and the engineers and such, but I can't remember discussing it with Mr Oki.

Q. The next excerpt from the work record is page 23, which relates to the 25<sup>th</sup> of September. And if we can zoom in on the middle of the page, third bullet point down. "As soon as monitor start cutting coal, methane  
20 reading in return airway came up over 5% level and the guzzler came on," sorry, "The alarm on the guzzler came on." Again, do you know whether you were made aware of this occurrence of 5% in the return?

1555

A. I may have been. He makes reference there to the alarm on the monitor  
25 coming on and the action taken from that was the reducer stopped the monitor action. I think if you remember earlier on I did talk about a process being put in place to try and mitigate the chances of methane being forced out of the goaf as such.

Q. Now it should be pointed out of course that, as I understand the  
30 evidence, the sensor in that return panel was not capable of reading above about 5.5% so any of these references we see to above 5% mean just that. It could well have been somewhat higher than 5% is that correct?

A. It may well have been but then I would expect, if it was above 5.5% it would've latched on and it would've then had to be reset and I can't see anything from what Mr Oki's saying about that happening.

5 Q. Next page, page 24, record from the 27<sup>th</sup> of September. If we zoom in on the top group of bullet points, the second to last one. Mr Nishioka said he attended a meeting in Terry's office and the second to last bullet point, "Methane density shall be lower than 2% in the main return. No restriction on methane density on the upper sub-level." Your comment on that?

10 A. I can't say that meeting didn't happen. I can't recall being at that meeting.

Q. Would that be an appropriate policy to have that methane density in the main return be kept lower than 2%?

15 A. Absolutely. It was my expectation that we could keep methane below 1% in the main return.

Q. If we move to point 3, just below that box that we've got at the moment? We see reference to, once again, methane emissions over 5.56% in the return and indeed that the monitor was poisoned by the high level. Drawn to your attention, to your knowledge?

20 A. I can't recall that exact time being drawn to my attention, but I did make reference earlier on to times when the monitor was poisoned and re-calibrated.

25 Q. Next page, page 25, if we zoom in on the table in the middle of the page, we can see from the 30<sup>th</sup> of September reference at 10.40 am to CH<sub>4</sub> greater than 5.66% and then again at 12.20, "High methane kicked off," although there's not a reading. Drawn to your attention?

A. I can't say that it definitely was, no.

30 Q. Very bottom of this page there's a number, point number 3. Methane emission was too high to kick out power underground. Experienced that ventilation air was flowing backward to guzzler when monitor was cutting at full capacity. Monitor operation shall be stopped until main ventilation fan is commissioned." Were you aware that that irregularity had happened with the ventilation of air flowing back to the guzzler?

A. I can't recall if was aware of that or not to be honest, Mr Mount. There was a stopping between one, in one cut-through of the monitor panel. There was, to my knowledge, 20 cubic metres of air going round that panel. It would've been unlikely that that was enough to force the air backwards. It may have been enough, however, to maybe force some air back round the stopping which does happen on occasion, but I would doubt if it was very much enough to force the ventilation backwards. In the very nature of the monitor is forcing forwards, you know.

1600

10 Q. Given that you were de facto ventilation engineer at the mine, if that's a fair description, would you have expected to be aware of an irregularity like this?

A. Given that I was the de facto ventilation officer, yes, but I was made aware of a number of things, different things, not only ventilation and as Mr Oki does correctly point out and I was working hard to get the new fan commissioned, so it's not as if I was ignoring any issues.

15 Q. We'll move on to page 28. This is the 5<sup>th</sup> of October so the day after the first commissioning of the main fan. Second bullet point in the bottom half of the page, "As soon as water jet was shooting in the air to flush out methane gas at the face, and top bleeder sub-level methane gas density came up to over 5% which poisoned the methane detector in the bleeder sub-level." Is that something you were made aware of?

20 A. I may well have been Mr Mount, I can't recall exactly.

25 Q. And over to the next page, page 29, top half of the page we can see three references to methane over 5%, whether it's three separate incidences, I'm not sure, but 9.00 am, 12.18 and then point 2 below methane density in the return airway was increased over 5% instantaneously." Aware of those occurrences?

30 A. As I've said before Mr Mount, I can't remember these occurrences exactly. I may well be aware of them.

Q. Next page, page 30, very bottom of the page, point 3, this is the 7<sup>th</sup> of October, and this is of course the day when de-gassing was being completed and Mr Nishioka notes, "Cross-cut door was opened to short-



circuit ventilation but still more than 4% gas in the return sublevel.” And then he goes on to say, “The monitor panel inbye of the cross-cut is” – cross the page – “over 5% methane in both sublevels.” Any comment on that record?

5 A. When the then main fan which was the secondary fan broke for want of a better word, the fan blade actually broke on that occasion, over a period of time, I think it was 12 to 14 hours, the entire mine gassed out, so it’s not unusual that that would’ve been the case and the mine then went through, successfully I hasten to add, a de-gassing programme to  
10 get the mine back up and running again.

Q. Next page and next day, the 8<sup>th</sup> of October – oh, I’m sorry, it’s the same page, page 31, record for the 8<sup>th</sup> of October. Point 1, Mr Nishioka noted that, “The previous day de-gassing was continued to bring methane below 1.75%.” And he just notes that the methane density reading at  
15 the main fan was 2.4, which he said was obviously poisoned and he said, “It can tell the main return methane density came up higher than 5% during the de-gassing process.” So I take it that that is consistent with the findings that we have for the methane sensors in the return, namely that they were apparently poisoned by greater than 5% during  
20 the de-gassing process?

A. That would be consistent with the flat lining that you mentioned earlier on, yes.

Q. And then just on the last half, bottom half of the same page, page 31, the monitor started again on the 8<sup>th</sup> of October and it’s noted at 12.45,  
25 methane in the return came up to over 5%. Again something you were made aware of?

A. As I’ve said many times before Mr Mount, I may well have done. I can’t – sitting here I can’t remember that or not.

1605

30 Q. Last two days, page 32, 10<sup>th</sup> of October, if we zoom in on the table, see at 8.50 am, “As soon as cutting coals CH<sub>4</sub> came up to over 5.52%.” I take it your answer’s the same?

A. Yes it is.

- Q. And then finally page 34, at the very bottom of page 34, the record for 15 October. "Record of methane density of coming up to 4.5% on the 15<sup>th</sup>." So just to summarise all that Mr White, we can see that of the 14 days on which Mr Nishioka has recorded methane levels, the level in the return was greater than 5% on nine out of 14 days and of course the true level may well have been much higher than 5% but the sensor was not capable of detecting that. Given that that pattern existed in such a sustained way over a period of time, was there a process to make sure that you were aware of it and investigating and responding to it?
- 5
- A. There was no formal process, as such, other than I said earlier on deputies reporting that on their statutory reports and it's got to be noted as well is the spikes going up, they were soon cleared as well back down to acceptable limits for cutting to recommence.
- 10
- Q. Given that every one of those instances constituted potential explosive mixtures of methane through the main return, looking at it now is it fair to say that the process should've been stopped and the cause of those plugs of methane ascertained rather than allowing them to continue happening day after day?
- 15
- A. The process was investigated. The important thing you say there is, "Entering the main return," where upon it was diluted well below the explosive range. The process was stopped and a process put in place to try and mitigate that from the way that the cutting was taking place.
- 20
- Q. When you say that the methane was, "diluted below the explosive range," is the reality that we don't know that because of the lack of fixed sensors in the return in inoperable condition?
- 25
- A. Well, the reality is that since I've since found out that the methane monitors were not working effectively and that's a reality.
- Q. So it may be that those explosive levels of methane were diluted below the explosive range but equally it may be that they remained in explosive state all the way to the top of the vent shaft?
- 30
- A. Given the circumstances that we've since found out, yes, that may be the case.

Q. Just putting on your forward thinking hat again for a moment, what, in your view, ought to have been in place to make sure that did not happen?

5 A. Well, the first thing that should've been in place was making sure that these monitors were in an operable condition. It's not uncommon for plugs of methane, when I say it's not uncommon, it's not something that happens every day, for plugs of methane to enter as mine atmosphere, in fact from memory Queensland legislation allows for plugs above 2.5% to enter the mine atmosphere so long as they're readily diluted, so it's not an uncommon practice. Putting a forward thinking hat on, certainly 10 in my opinion, had I known the condition of these monitors they would've been brought into condition where they were working properly.

Q. Putting on a hat from a former life, if you had been an inspector attending at Pike and if you had been made aware of these, what would you have done as an inspector? 15

A. I'm not comfortable answering that question, Mr Mount, I wasn't employed at Pike River Coal Mine as an inspector. I don't think it's fair to ask what I would've done in hindsight in New Zealand. It's certainly something that I've never come across in my experience as an inspector 20 in Australia, but I'm not comfortable answering what I might have done or what I might not have done as an inspector here in New Zealand.

1610

Q. Given that you were both the mine manager and person with responsibility for ventilation, should there not have been a process where the first item in your in tray on any one of those days where 25 greater than 5% was encountered, was to deal with that issue?

**OBJECTION: MR HAIGH (16:11:02)**

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. I want to stay with the topic now of methane spikes. Mr Rowland filed a 30 supplementary statement in November last year, ROW007. If we could have that on the screen.

**WITNESS REFERRED TO DOCUMENT ROW007**

Q. I'm not sure whether you will have had a chance to see this?

A. As I've said, I've read a number of submissions Mr Mount. I may have read this. I may recall as I'm reading it whether I've read it or not.

5 Q. Paragraph 2, Mr Rowland refers to reviewing the document CAC0112 and he notes that page 29 of the document appears to show a spike of nearly 2.8% methane at the fan shaft in the early hours of 28 October. Perhaps if we could just have CAC0112, page 29.

**WITNESS REFERRED TO DOCUMENT CAC0112**

10 Q. You'll see the spike that Mr Rowland's referring to. Had you been aware of that spike at the time, 28-29 October?

A. I may well have been.

15 Q. If we go back to Mr Rowland's statement, ROW007, paragraphs 3 and 4. Zoom in on 3 and 4. He says, "If correct, this indicates the fan shaft was considerably contaminated by high levels of methane given that the total mine air is available there to dilute this gas." He goes on to say that "this would be considered by any mining official or experienced miner for that matter, to be an event with extremely high risk potential to the persons employed at the mine," and he goes on to calculate that the level at the monitor could be 10% or perhaps slightly less by  
20 extrapolating the maths. It goes on to say at paragraph 4, he would assume that "such an event would be of sufficient importance that subsequent investigations and remediation strategies would be widely publicised to at least all site personnel as a matter of very urgent priority." Could you comment on those statements?

25 A. I can't dispute what John's saying, no. I won't dispute what John's saying.

Q. Can you tell us why there was not a process of investigation, remediation strategy and wide publicity within Pike after that spike?

**OBJECTION: MR HAIGH (16:14:29)**

30 **CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. If we could have DOL3000130010, page 124. This is the investigation report.

**WITNESS REFERRED TO DOCUMENT DOL3000130010**

1615

5 Q. Paragraph 3, 16.4, it's said that the Department of Labour has examined the SCADA methane graphs for the period 25 October to 19 November and spikes of over 1.25% were recorded 12 times and of those, the spikes on 4 November can be attributed to calibration and one to the re-start of the main fan on 27 of October, but four events were in excess of 2.5% and another two in excess of 1.8. Now bearing in mind of course what we now know that that sensor at the top of the shaft was not  
10 reading correctly, is it of concern to you that there were that number of spikes recorded on the system?

A. Yes it is of concern to me, that that number of spikes were recorded on the system.

Q. Was there any formal investigation by Pike into any of those spikes?

15 A. There may well have been. You have to take into consideration by that time I wasn't being given a lot of this information, it was being brought up at the daily planning meeting.

Q. Should there have been formal investigations into each one of those spikes?

20 A. It'd be fair to say in hindsight, yes there should've been.

Q. I just want to trace through what appears to have been happening. If we just pick one day as an example, the 12<sup>th</sup> of November, a week before the explosion. If we could have DAO.001.03807.

**WITNESS REFERRED TO DOCUMENT DAO.001.03807**

25 Q. This is the graph for Friday the 12<sup>th</sup> of November, which appears to show three significant methane spikes?

A. It shows two above 2.5% and one about 1.25%, yeah.

Q. All significant?

A. Well, yes.

30 Q. If we just take the first, it's a little hard to be precise about the time, but it appears to be perhaps some time between say midnight and 1.00 am?

A. It would look that way.

Q. If we look at the nightshift control room event book for that night, DAO.001.02147.

**WITNESS REFERRED TO DOCUMENT DAO.001.02147**

Q. Do you recognise this as a standard control officer's event book?

5 A. Yes. Yep. I think that was something that was put in place not long after Stephen came on board.

Q. The first thing I want to ask you about is the section at the top of the page, perhaps if we zoom in on the top section which has the tables in it. on the left-hand side we've got "DS" and "NS", presumably dayshift and nightshift?

10

A. Yeah.

Q. And then there is a row for each of four time periods. So if we look at nightshift its 7.00 pm, 10.00 pm, 1.00 am and 4.00 am?

A. That's dayshift, 7.00 pm, oh, sorry I do beg your pardon. Yeah, yep.

15

Q. And then there are spaces for entries to be made in relation to methane, carbon monoxide, oxygen, ventilation and then some spaces for barometer readings.

A. Yep.

Q. Did you have a hand in the design of this form or are you aware of what was intended to be captured by it?

20

A. I can't recall having a hand in the design. Like I said earlier I think Mr Ellis introduced this sheet when he came along.

Q. The records for number 7 main drift old gurgler and there's a series of methane records, what sensor would that relate to, do you know?

25

1620

A. That would relate to the sensor bringing air into the mine.

Q. So is it the one at the end of the drift, effectively?

A. Effectively at the end of the drift.

Q. And then the other box is the top of the vent shaft, is that right? Top aux fan shaft?

30

A. Yeah.

Q. So I suppose the first question is that, given there appeared to be a spike, quite a significant spike between midnight and 1.00 am, is it a

matter of concern to you that the reading at 1.00 am is recorded as just 0.61% - or do you know the way in which those readings actually worked?

5 A. I'm sorry, what do you – I would expect that the readings at the given times were noted on the sheet.

Q. So is it your understanding they would just be a snapshot, so right on the dot of 1.00 am, you would note down what the level was?

A. Oh, there or thereabout.

10 Q. It turns out if we look at page 2 of this document that there is a record if we look at the bottom half of the page, it may give some explanation for the spike, it says, "0 hours 24," so 24 minutes past midnight, "CH4 spike main fan 2.86% due to McDow shotfiring and damaged stopping." And then another record at 2.09 am, "CH4 spike alarm, main fan 1.01%." I take it that this would correlate with the spike that we saw on that graph?

15 A. It may well do.

Q. Now what would be your expectation as to what would happen with this information once recorded on the control room officer's event book?

20 A. My expectation would've been that that information was then passed on, I'd say by this time, to Steve and action would've been taking – taken, sorry, on finding out actually what had happened. Its written here that it would appear that the stopping was damaged due to shotfiring, that then remedial action would've been taken to fix that stopping up.

Q. Was this particular record drawn to your attention?

25 A. I can't recall if this particular record was drawn to my attention or not, Mr Mount, no.

Q. Given your dual positions, manager/ventilation person, would you expect it to have been drawn to your attention?

30 A. Not necessarily by that time, seeing as that, although technically the position of statutory mine manager was still in my hands, Mr Ellis was taking on more and more of the role as mine manager and I can't answer for him, because he's not here, as to why he wouldn't have

brought that to my attention. Perhaps he thought that given the experience that he had, he could deal with it.

Q. Are you aware of any investigation or process that –

A. No, I'm not aware of that.

5 Q. – attempted to get to the bottom of this?

A. No.

Q. If we go back to the chart we were just looking at DAO.001.03807.

**WITNESS REFERRED TO DOCUMENT DAO.001.03807**

10 Q. The second peak, if we look at the graph, appears perhaps to have been sometime around 1.00 pm?

A. Around about then.

Q. If we look at the dayshift event book for that day, DAO.001.22394, there doesn't appear to be anywhere on the first page any reference to that spike being recorded on the dayshift, is that correct?

15 **WITNESS REFERRED TO DOCUMENT DAO.001.22394**

A. It looks likely, yeah.

20 Q. And if we look at page 2 of the document, there may be some clue as to the cause of the spike because it is noted in the top half of the page, "12.55 pm, monitor cutting." And so I suppose one explanation may be that the starting of the monitor caused a plug of methane and a spike at the shaft?

A. May well have done, yeah.

Q. Is it satisfactory from your perspective that the control room officers' event book does not note the gas spike around 1.00 pm?

25 1625

A. Not in as much as the fact that it's supposed to be recorded no.

30 Q. Just while we've got that on the screen, there's a reference at 4.48 pm, I just wonder if you might be able to help us with what it means. "Monitor station had a brain freeze, open circuit breaker at B1, rest of mine power still going." Any understanding what that might be referring to?

A. I take it it's referring to the monitor pump station which was in the outbye area of the mine, past that I'm at a complete loss as to what it's supposed to mean.



Q. If we could just deal with the third of the spikes on the 12<sup>th</sup> of November, so back to the diagram DAO.001.03807.

**WITNESS REFERRED TO DOCUMENT DAO.001.03807**

Q. This is the smaller spike, maybe some time around 10.00 pm, 0010307.

5 As you can see the smaller spike just above 1.25% around 10.00 pm.

A. Yes.

Q. If we track that through to the control room event book, DAO.001.02149, once we spin it up the right way. Firstly I just want to ask you a question about the format of this event book because it's slightly different. You'll  
10 see at the top that there's a reference to location 7 as a measuring point. Do you know what location 7 is?

A. No, I'm not sure. If I can just comment on this log that as a result of the meeting that we had with the control room operators, Steve and myself, this is evidence of the action that was taken to have a formal process of  
15 reporting. So I mean, in fairness to Steve he's put a relatively good system in place because he was, by that time, taking on a lot more control of these things.

Q. Now again, just looking at the event book for the nightshift on the 12<sup>th</sup> of November, there doesn't appear to be any reference to the  
20 smaller spike that we can see around 10.00 pm?

A. I don't see it recorded no.

Q. But if we move over to page 2, which will probably also need to be spun round, there we are. If we zoom in at the bottom half of the page, again there might be a clue because we see at 9.35 pm, "Started monitor  
25 pump 2."

A. Yes.

Q. Would it be conceivable that that may provide an explanation for the gas spike that the monitor pump again had been started up?

A. It may well have pushed a smaller plug out yes.

30 Q. Again, from your perspective as the mine manager, was it satisfactory that there's no record in the control room event book of that spike around 10.00 pm?

A. Well, in light of the fact that there is a process for recording that, that is quite disappointing that it's not recorded.

5 Q. I take it that in relation to the last two spikes we've been discussing, given that neither of them was noted on the event book, there's every chance that there was no formal investigation process into what caused either of those spikes?

A. That would be a fair assumption.

10 Q. In your view, given the number of apparent spikes coming through the ventilation shaft, is there a risk that it had almost become normalised at Pike?

A. I would hesitate to say, "Normalised," it was certainly something that was happening frequently, more frequently than would be desired.

15 Q. There is a more than subtle response in Mr Rowland's statement we referred to a few moments ago, to seeing just one spike. Is it fair to say that there doesn't appear to have been quite such a dramatic reaction to the spikes that were being detected on quite a regular basis at Pike?

1630

A. As dramatic as –

Q. Mr Rowland's reaction?

20 A. – Mr Rowland's, that would be fair to say yeah.

Q. If we could have INV.04.00001 and page 7.

**WITNESS REFERRED TO DOCUMENT INV.04.00001**

25 Q. This was the document prepared by Mr Borichevsky we saw earlier. Page 7, he refers in particular to methane levels in the ventilation shaft. So if we could zoom in on the section, "Methane monitoring". This document I should say for the record, appears to have been prepared after the explosion containing a number of Mr Borichevsky's observations about matters at Pike. His recorded comments on this document were as follows. First that continuous monitoring of methane  
30 levels was reported in the control room but he says that methane levels in the return ventilation shaft routinely exceeded 1%, regularly exceeded 1.5 and occasionally exceeded two and indeed had exceeded 3% on more than one occasion in the weeks prior to the disaster. He goes on

to comment at point 6 that levels at the face would be at least two to three times those in the vent shaft because of dilution factors. And so his comment at point 7, was that, "On this basis potentially explosive levels of methane would have been present in the active mine workings on a number of occasions." Your comment on those observations from Mr Borichevsky?

5

A. Well I can't argue with his observations if that's what he's saying. I would comment on the inference on the active mine workings could be drawn that when he's talking about the active mine workings that he's talking about all of the mine workings. That's certainly not the case. The machinery that were in the active mine workings were all protected to cut out at levels above 1.25% methane, so I'm just a bit dubious about the language used in that report.

10

Q. In terms of the comments about the levels of methane in the vent shaft, do you have any basis to say that his assessment is factually incorrect?

15

A. I'd like to know what time he was, the time span he was talking about. We've already established here that before the new fan was running that the magnitude of the spikes was greater than it was after the new fan was put in place. So it would be interesting to note what time span he was talking about. I certainly can't deny what he's written if that's what he said.

20

Q. What level of concern do you have looking now at statements of that sort about the levels of methane going through the vent shaft at Pike?

A. As I've said earlier on Mr Mount, it's not uncommon to get plugs of methane going through a fan. Certainly concerned if there was consistent above 2%. Again, it doesn't say what time we're talking about. Whether or not what state the ventilation was in, whether the new fan had been commissioned or not. So I'm reluctant to comment at all on that not knowing what exact time he's talking about.

25

30 Q. Considering the evidence we've seen from the SCADA system, even just for the one day on the 12<sup>th</sup> of November, together with Mr Nishioka's evidence of the 5% levels regularly throughout the

monitor return. Again, putting on your forward thinking hat, what should have happened in response to those?

1635

**OBJECTION: MR HAIGH (16:35:17)**

**5 CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. I take it you go along with that Mr White?

A. (no audible answer 16:35:43)

Q. Next topic is ventilation control devices. You'll be aware that through the course of Phase Three in particular there have been a number of concerns raised about the standard of stoppings at Pike?

A. Yes.

Q. And I think you, to a large extent given your response already today.

A. Yes.

Q. As an inspector in Queensland if you had come across a mine with stoppings at that standard in Queensland what would you have done?

A. As an inspector in Queensland there's a requirement to have a range of rated stoppings in different parts of the mine. Depending on what part of the mine it was would determine what my action would be on whether it was a 2 psi stopping a 5 psi stopping or a 140 kPa seal, there's a whole range of requirements in Queensland. As I say, it would depend on what the actual breach of that legislation was.

Q. Just imagining for a moment that the Queensland regime applied at Pike, would the stoppings have complied?

A. They would not have complied with the Queensland regime no.

Q. At one point in the evidence there was reference to a desire to try and comply with Queensland standards. Was that something you were hoping to achieve at a point in the future in relation to stoppings?

A. It's something that we'd already tried to start to achieve by implementing, as I said earlier on Mr Mount, the series of permanent stoppings. Just like to stress, "Permanent," not rated.

Q. One of the matters that is referred to in the Department of Labour report page 118, is the suggestion that the plan showing the ventilation control

devices provided to the Department of Labour does not correspond with the information that has come from interviews with those who worked underground. Are you surprised by that?

**OBJECTION: MR HAIGH (16:38:30) – SHOW WITNESS PLAN**

**5 LEGAL DISCUSSION**

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. Mr White, to your knowledge was the plan of ventilation control devices 100% accurate in terms of the...

10 A. I think it has to be mentioned that the plan that was given to the Department of Labour was around about a month old. That to my recollection the surveyor who had been underground on the day of the event had actually been underground for the very purpose of updating the next plan. So it's very possible that the plan was not the most up to date plan.

15 1640

Q. Now you may have already covered this, this morning, but I just want to make that I've understood, if we could have the plan DOL3000130008?

**WITNESS REFERRED TO DOCUMENT DOL3000130008**

20 Q. And focus on the area at the bottom of the monitor panel, there's been quite some discussion of the particular stopping at cross-cut three?

A. Yeah.

25 Q. And you talked about that this morning. Mr Reece's evidence last week at page 4497 was that that particular stopping, both three and four, were in his view very substandard stoppings, pogo sticks and brattice cloth, and he considered them very temporary arrangements. Did I understand you this morning to say that your understanding was that in fact they were not pogo sticks there –

A. That is correct, Mr Mount, yeah. My understanding was they were actually a board and batten stoppings with brattice nailed to them.

30 Q. Did you take a particular interest in the design or the standard of that particular stopping at cross-cut three? Did you have a role in –

A. Oh, other than the fact that I was instrumental in the formation of the standards to which the stopping should've been built to, I didn't take a role in actually that particular stopping, but more in general for the standard for temporary stoppings.

5 Q. Do you know whether any consideration was given when designing that stopping to the potential for there to be a rush of air, whether it's as high as a windblast or whether it's less than that, down the return from the monitor panel?

10 A. I would have to say that was unlikely Mr Mount. That was a temporary stopping, which would've been, as I've said earlier this morning, was in the process of being replaced once A heading had been joined up. That fan would've been moved. We'd already been in touch with the contractors to come and replace the non-permanent stoppings with permanent stoppings. To say that it would've been taken in  
15 consideration the event of an over-pressure of a windblast, it's unlikely, due to the nature that it was a temporary stopping.

Q. We know from earlier evidence in the Commission that in the early hours of the 30<sup>th</sup> of October 2010, there was a roof fall in the goaf. Do you recall that event?

20 A. I do recall that, yeah.

Q. And we understand that that roof fall in fact damaged the stopping in the cross-cut in the monitor panel?

A. Correct.

Q. And it was repaired following that?

25 A. Yeah.

Q. After that roof fall event in the goaf, was any thought given to the particular risk that might exist for the stopping at cross-cut three at the bottom.

30 A. My understanding is that there was no damage to the cross-cut three stopping. Certainly the cross-cut stopping in the monitor panel received damage and was substantially fixed after that. In light of the fact, I say again, that that was a temporary construction due to be replaced it's not likely that that would've been considered.

Q. Is it not the case that the roof fall on the 30<sup>th</sup> of October indicated the potential for a roof fall in the goaf to expel air with sufficient force to damage stoppings within the mine?

5 A. I don't think it was a significant roof fall in that respect, Mr Mount. I mean, it was expected to have roof falls in the goaf. That's the very nature of a goaf area is that we expect the roof falls, none of which to be significant enough with the evidence that we had or the information that we were given, to cause any major windblast events or anything like that. But goaf falls were definitely expected and as a result of the one  
10 that we had which showed that the stopping in the cut-through that you rightly say fell, was damaged, and from my recollection it actually got sucked in, it wasn't blown over. That was strengthened. Roof falls are expected to be a normal part of mining.

1645

15 Q. Given that a roof fall had knocked over a stopping, the question is whether there was any reassessment of the risk that might exist for the stopping at the base of the panel if you like, cross-cut three, in line of the panel return?

A. And if, the mechanism of that would take the roof fall as I remember  
20 bore no importance. When I say, "no importance," was not significant for that stopping. It was more significant for the stopping in the cut-through.

Q. I want to turn now to the question of windblast more generally, and if we could have CAC0149 on the screen. This is the windblast guideline  
25 from New South Wales.

**WITNESS REFERRED TO DOCUMENT CAC0149**

Q. I'm not sure if you're familiar in a general sense with this?

A. Not in a general sense, no. I mean up until recently I have never actually worked in New South Wales, Mr Mount.

30 Q. I put it up only because it contains a convenient definition of windblast on page 4 as an event with the potential to cause injury to persons or damage to equipment or to seriously disrupt ventilation, and it's said that an air velocity of 20 metres a second is considered a threshold value

above which a windblast event has occurred. Does that strike you as a reasonable working definition of windblast?

A. It certainly does, yeah.

5 Q. Certainly is the case that windblast had been identified as a risk at Pike in the Hawcroft insurance report in 2010?

A. That's correct.

Q. I take it you had been aware of the concerns raised in the Hawcroft report?

10 A. Oh, I had been given a summary of the concerns of the Hawcroft report, correct.

Q. We've already had this in the Commission so I won't dwell on it at length, but just so that you know what we're talking about. If we can have DAO.003.08710 page 26.

**WITNESS REFERRED TO DOCUMENT DAO.003.08710**

15 Q. Top paragraph. The authors of that report said that the risk of windblast was yet to be assessed at the mine. This is at July 2010. But the view of the report writers was that the risk for windblast existed in the monitor panel and that management should expedite the risk assessment for windblast to provide adequate time for mine planning and in the  
20 introduction of a management plan. If we can just zoom in on the bottom of the page, the mine's response 2010. So this is back in July 2010. The last sentence, "During development of the bridging panels the roof will be cored and geotechnical risks including windblast potential will be assessed." To what extent was this a matter that you  
25 dealt with as mine manager, the potential risks of windblast?

**OBJECTION: MR HAIGH (16:49:20)**

**CROSS-EXAMINATION CONTINUES: MR MOUNT**

Q. I'll leave that to you Mr White.

30 A. No I will answer that question. I mean I was involved in the windblast risk assessment. We were given an amount of information from geotechnical "experts" for want of a better word, and from that information we, the information concluded that windblast at the width of



that particular panel was not an issue and a risk assessment was held to that effect.

Q. When you talk about a risk assessment being held on the topic of windblast, what exactly happened? What was the process of that risk assessment?

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1650

A. The normal risk assessment process whereby you identify the hazards and put controls in place with the information that is to hand.

Q. Who was involved in that risk assessment?

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A. Mr Mount, I'm sorry, I can't remember everyone that was involved in that risk assessment. There was certainly members of the technical services team. I can't actually recall if I personally was involved in the risk assessment but I certainly personally was aware of it, I may well have been involved in it. There was information from geo technicians presented at that risk assessment.

15

Q. Was a formal document generated as a result of that risk assessment?

A. As far as I'm aware there was, yes.

Q. Are you able to help us with the date of the risk assessment for windblast?

20

A. It was done, I can't give you the exact date. It was definitely done prior to the start-up for the hydro-panel which was on the 19<sup>th</sup> of September. I seem to recall around about August some time, I can't remember exactly when.

Q. And to the best of your recollection there was a formal risk assessment document produced as a result of that was there?

25

A. To the best of my recollection, yes there was. There was a document produced that considered windblast as a risk.

Q. Can you recall what controls were proposed or put in place specifically to deal with windblast?

30

A. I think the main control, from memory, was the fact that the panel wouldn't reach a width where windblast was going to be an issue, Mr Mount. It's fairly difficult to put controls in place for something like windblast when it's in a lot of cases not a predictive or a predicted event

that happens, but in this instance and with the information that I have, I disqualify that by saying I'm not actually qualified to talk on that subject but there was information presented that suggested that windblast wasn't an issue.

5 Q. I just want to refer Mr van Rooyen's handover notes to you, PVR002.

**WITNESS REFERRED TO DOCUMENT PVR002**

Q. Perhaps if we just start with page 1 to orient you to the document? Do you recognise this set of handover notes, did you ever see them?

A. Yes I did, they were very comprehensive.

10 1653

Q. If we just turn over to page 8 and this may well be something that we can cover with Mr van Rooyen later in the week, perhaps zoom in on the passage. These notes are, of course, dated 2 November and his record of actions outstanding, first bullet point, "Assess windblast risk assessment and management plan." And he refers there to a windblast assessment having been conducted by Strata Engineering and subsequently a risk assessment was conducted for panel 1. Now what I'm just wondering is whether you can help us with the detail of that. Was there a separate windblast risk assessment or was windblast just dealt with as part of a general risk assessment for panel 1?

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A. I'm not entirely sure on that Mr Mount. It may well have been part of a general risk assessment where it was considered as a risk and you are right, maybe Mr van Rooyen can answer that with a bit more detail than I can.

25 Q. One of the matters that Mr Nishioka referred to in his evidence was his understanding that there was an intention at Pike not to induce the normal amount of roof cave-in in the monitor panel because of the fact that it was located in a subsidence zone and there was therefore a desire to have minimal subsidence. The reference is page 3498 of the transcript. Mr Nishioka said, was asked, "Did you also talk about the fact that Pike wanted the roof to stay up in the goaf?" Answer, "Yes that is what I was told by Doug White." He goes on, "Pike was not supposed

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to have any cave-in and any subsidence. They can't have cave-in underground. –

5 A. I think there's a difference in cave-in and subsidence Mr Mount. There certainly was expected cave-in, up to a particular level which was, from memory, the island sandstone which again from memory and again Mr van Rooyen will give you the exact details of this, was a fairly significant body of sandstone which cave-in was expected locally up to that area but subsidence was not expected because of the massive body of sandstone and the width of the panel and the number of factors taken into consideration was that whilst we did expect cave-in – so Mr Oki's not entirely correct there, we certainly did expect cave-in, we did not – and he is correct – did not expect subsidence.

1656

15 Q. I don't want to put words into Mr Nishioka's mouth, but as I understood him, he was not saying that there would be no caving because, of course, there must always be some caving in a goaf. But I think his understanding was that there would be an attempt, also that the usual process of trying to induce as much caving as possible would not apply in this panel because of the subsidence issue. Now is that something that you were aware of or agree or disagree with?

20 A. Oh, I think it's fair to say that the amount of caving would definitely have been limited to the island sandstone but that was expected to be enough of a caving to provide material in the goaf as such to fill or partially fill the void which is a normal mining process, but then the part of the process where it stopped was not going past the island sandstone where you would in fact get subsidence.

25 Q. The calculations in the experts' report prepared for the Department of Labour on page 40 of that report, DOL3000130007, those calculations indicate that the approximate void in the goaf could have been 6000 cubic metres, and I take it you're not in a position to take a different view or do you have a comment?

30

**WITNESS REFERRED TO DOCUMENT DOL3000130007**

A. No, absolutely not, no.

Q. But the estimate is that perhaps as much as 5000 cubic metres of that could be methane?

A. That's a fair estimate.

5 Q. Given that circumstance, was there any planning process at Pike that took into account the specific potential for a roof fall to send out a plug of methane into the mine?

10 A. It wasn't expected that the characteristics of a roof fall would send any significant plugs of methane into the mine. They're made to go to the roof. Immediately above the seam is a stratified mudstone which doesn't tend to break up in big lumps. It tends to break up in ballast for want of a better word, unlike a massive conglomerate or a sandstone which may well, given the size of an excavation, could fail catastrophically. So it was from the information that we had to hand deemed unlikely that a goaf fall would be of a major concern.

15 1659

Q. Were there any controls put in place specifically to deal with the risk, even appreciating, as you say, that the risk was not considered to be great?

A. No specific controls as such.

20 Q. If I could have INV.03.31562?

**WITNESS REFERRED TO DOCUMENT INV.03.31562**

Q. This appears to be a copy of a PowerPoint presentation, a little hard to read on the screen but from the AUSIMM conference in November 2010?

25 A. That's correct. It was never actually presented.

Q. There's just something on page 12 of that presentation I want to ask you about. You'll see the third bullet point, "The authority to mine is regularly updated with a calculated goaf size and the potential for a windblast event." Could you just explain what that is referring to?

30 A. It's referring to measurements that were taken as far as practicably possible without sending someone into an unventilated area where by use of a, I can't remember the name of this thing, it's a distantometer example, something like a laser where I could stand and point the laser

at the wall and it would tell me exactly how far away the wall was. There were attempts made to try and quantify the size of the goaf and that's what that's making reference to and then that would be then put on a permit to mine for the period that the permit to mine covered whether it be a day of the week or the shift or whatever that permit to mine covered.

5

Q. So when it says, "Regularly updated with the potential for a windblast event," what does that refer to?

A. Again, given the information that we were given based on the parameters that we were operating within, it meant, I assumed it meant saying as far as practically achievable monitoring the goaf size. Knowing that the information that we had allowed the goaf to be widened out to that size without the potential for a windblast event. What that would've indicated to us was if in fact the goaf was going wider than it should and then take responding actions to that.

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1702

Q. If you can see on the diagram on the screen there's just an arrow "windblast potential for extraction outbye from this point". What does that refer to?

20 A. It's talking about the potential due to the goaf being longer, not wider, getting longer.

Q. And what's the significance of the line and the arrows at that point? Is that meaning to say that the windblast potential exists once the goaf has reached that point, or what does that mean?

25 A. It's considering that that may be a risk past that point. It's alerting people to the fact that it may be a windblast risk. It was, as I said earlier on, with the information that we had, it wasn't an issue as such but we still marked it on the plan to alert the operators and staff that there was potential there.

30 Q. Meaning that once the goaf reached that line, that's when the windblast risk would exist?

A. Meaning that once the goaf got to that size, there may well have been a potential for windblast given the right set of circumstances, but like I've

said before Mr Mount, with the information that we had on the thickness of the island sandstone, windblast wasn't a real threat but it was one that we didn't ignore.

**5 THE COMMISSION ADDRESSES MR MOUNT – PROGRESS**

**THE COMMISSION ADDRESSES WITNESS – 9.00 AM START**

**COMMISSION ADJOURNS: 5.04 PM**

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