

QUEENSLAND COAL MINING BOARD OF INQUIRY

Coal Mining Safety and Health Act 1999

Establishment of a Board of Inquiry Notice (No 01) 2020

Before:

Mr Terry Martin SC,
Chairperson and Board Member

Mr Andrew Clough,
Board Member

At Court 17, Brisbane Magistrates Court
363 George Street, Brisbane QLD

On Thursday, 6 August 2020 at 10am
(Day 3)

1 <KELVIN SCHIEFELBEIN, on former oath:

2

3 MR RICE: I just have a few more questions, if I may.

4

5 <EXAMINATION BY MR RICE CONTINUING:

6

7 MR RICE: Q. I just want to ask you a little bit about
8 the layout of the initial incident report, being the green
9 form that you referred to yesterday, and see what you can
10 tell me about it. Mr Operator, can we bring up an example
11 of that form, being ACM.004.001.0060. The reproduction
12 quality may not be the best, but hopefully there's
13 sufficient definition for you to follow.

14 A. Okay, yes.

15

16 Q. This is a form expected to be completed, I gather,
17 after an incident such as a methane exceedance?

18 A. Yes.

19

20 Q. The ones that we have seen in each case to be filled
21 out by the ERZ controller. Is that the normal process?

22 A. That's the normal process, yes.

23

24 Q. In addition to setting out details of what happened
25 and expressions of conclusion and so forth, there are
26 various classifications, it seems, that the author of the
27 document is required to complete.

28 A. That's right, yes.

29

30 Q. Just looking at the top half of that page, the first
31 classification appears about a quarter of the way down the
32 page. You'll see a number of boxes, commencing with
33 "Safety"?

34 A. That's right.

35

36 Q. Underneath that is "Environment"?

37 A. I see that, yes.

38

39 Q. The person completing it is expected, by the looks of
40 it, to choose which of those options apply?

41 A. That's right, yes.

42

43 Q. And likewise underneath that, there's a list of
44 departments, and the author, I assume, is expected to have
45 sufficient knowledge to select the correct one?

46 A. That's right, yes.

47

- 1 Q. Tell me, as a general proposition, do the workers get
2 some training in the completion of this document, in
3 particular as to the areas of classification?
4 A. Yes, they do, yes.
5
- 6 Q. What form does that take?
7 A. I know it from my experience with appointing deputies.
8 They're required, when they sit in front of me prior to
9 appointment, to have completed an incident report form, and
10 they've usually done that with other deputies or with the
11 training department.
12
- 13 Q. You mentioned a training department. Does it conduct
14 training in the completion of these forms?
15 A. In a mentor-type way, not in a formal training
16 programmed way, yes.
17
- 18 Q. In your experience, would some deputies come to the
19 job with experience of completing this kind of form?
20 A. Yes.
21
- 22 Q. Including classifications?
23 A. Yes, yes.
24
- 25 Q. These classifications, can I take it, are for the
26 purposes of Anglo's business and not for, say, the
27 inspectorate?
28 A. That's right, they're for Anglo, yes, and for
29 Grasstree, yes.
30
- 31 Q. The form would be styled, wouldn't it, to suit Anglo's
32 business?
33 A. That's right, yes.
34
- 35 Q. And its own internal reporting requirements?
36 A. That's right, yes.
37
- 38 Q. At the bottom of the page, there's another area of
39 classification - in fact, there's three rows. Do you see
40 the bottom three rows of that page on the right?
41 "Consequence Type", then underneath that, "Actual
42 Consequence" and then "Potential Consequence".
43 A. Mmm-hmm.
44
- 45 Q. To the left of the page, we also see a version of the
46 AAMC risk matrix?
47 A. That's right, yes, I see that, yes.

- 1
2 Q. The instruction to the author, apparently, is to have
3 regard to that in completing the form?
4 A. Classification, yes.
5
6 Q. Apart from being given the descriptions from the risk
7 matrix on the adjacent page, do workers get any teaching or
8 instruction as to how to complete that section of the form?
9 A. With regards using a risk matrix like that, that's
10 standard training in supervisor training across the
11 industry in the S1, S2, S3 training. They routinely
12 conduct that training about using risk matrixes and
13 identifying a risk ranking for an event or for a situation.
14
15 Q. Deputies will all have the S1, S2, S3 rating, will
16 they?
17 A. That's correct, it's mandatory, yes.
18
19 Q. So you can take it that a deputy will have sufficient
20 background to informatively and correctly, according to his
21 assessment, complete this form?
22 A. That's right, yes.
23
24 Q. It would be correct, wouldn't it, that this type of
25 classification is used, then, to enable a form of
26 classification to be assigned to this incident in Anglo's
27 internal reporting mechanisms?
28 A. That's right, yes.
29
30 Q. This form, I think you told us yesterday, will go to
31 the relevant department?
32 A. Yes, that's right, yes.
33
34 Q. And the relevant department in this instance is
35 identified as "Longwall", so does that go to - well, I was
36 going to say tech services, but that's obviously
37 a different department.
38 A. Mmm-hmm, yes.
39
40 Q. What happens to it when it goes to the department?
41 And I'm speaking here really about the classification of
42 the incident.
43 A. Righto. For the classification of the incident, that
44 bottom portion you were inquiring about, the people that
45 mostly use that are in the safety department, to determine
46 if the incident needs escalation within Anglo's reporting
47 structure and follow-up.

- 1
2 Q. So the safety department at some point will, what,
3 review this?
4 A. That's right. Review and determine if it requires
5 escalation. For example, the conduct of an LFI is one of
6 the triggers that classification enables.
7
8 Q. Do you have any input into incident classification?
9 A. Yes.
10
11 Q. As mine manager?
12 A. When there's a question mark, would come to me back
13 from the safety department, I've had occasions where
14 they've come and asked me about the classification, do
15 I think it's correct or should I determine that it needs to
16 be handled a bit differently because someone may have
17 classified it too high or too low.
18
19 Q. The worker completes this with his own assessment --
20 A. That's right.
21
22 Q. -- of the situation, but it's reviewed by the safety
23 department and may or may not be changed; is that right?
24 A. That's right, yes.
25
26 Q. It might be changed up or it might be changed down?
27 A. That's right. When it's reviewed, it might be either
28 way, correct.
29
30 Q. And is a classification of the incident then entered
31 into, say, Enablon?
32 A. That's right, yes.
33
34 Q. That's the principal reporting --
35 A. Yes, there's a database called Enablon that records
36 all of the safety incidents and, just like its brand name,
37 enables the safety management system to go into action.
38
39 Q. Is the rating like a simple number or a letter or is
40 it more complex?
41 A. It's basically a number that comes up in that matrix,
42 yes.
43
44 Q. Well, the matrix shows 1 to 5, so will it be assigned
45 one of those numbers?
46 A. No, it's ranked as it, as it says, "Insignificant",
47 "Minor", "Moderate", "High" or "Major", and the

1 colour-coding in the matrix, although this doesn't show the
2 colours there - L is for low, M is for middle, S is for
3 severe, and the darker area that I can't really see is for
4 high, so it classifies across those bands.
5

6 Q. So is the result of that to get a figure for a risk
7 rating?

8 A. Yes. The risk ranking then, using the matrix, you
9 identify across the grid where you believe it fits. For
10 example, you might arrive at an 8M, because it's identified
11 as being possible, and I can't quite see the top to use the
12 term, but I believe "Insignificant", then "Significant",
13 then "Major", but the screen, the way you've cut it, I just
14 can't see the top there. Yes, so it's listed, looking
15 there, as "Insignificant", "Minor", "Moderate", "High" or
16 "Major", based by the loss type.
17

18 Q. In terms of having the final say on the risk ranking
19 that goes into the system, is that at safety department
20 level or does the SSE have the final say?

21 A. The SSE can be drawn into the final say. Generally
22 that's not the case. Generally it's signed off by the
23 final signatory level on the other side of there, on the
24 other side of that document.
25

26 Q. Being, what, the head of the safety department?

27 A. Correct, yes - no, not the head of the safety
28 department on this form, but, yes, ultimately he gets to
29 see what's been classified and run through, yes. As
30 a signatory, sort of answer that a couple of ways - so the
31 final signatory on the form is a different person to the
32 safety manager.
33

34 Q. The final signatory on this form?

35 A. Yes, that's right, yes.
36

37 Q. Perhaps we'll go to the next page, which is 0061. Can
38 you tell from looking at that who would be the final
39 signatory for this form?

40 A. Damian Cavanagh is listed there as the
41 superintendent/manager.
42

43 Q. What's his role in signing off on this form?

44 A. He's the superintendent of the longwall.
45

46 Q. Yes, I appreciate that, but by signing off on it, what
47 is he doing - indicating that he's seen it or something

1 more meaningful than that?
2 A. That he's received the report and has seen the
3 incident description, the causes and the proposed actions.
4
5 Q. In this instance, that process, it seems, happens
6 fairly promptly because he appears to have signed off the
7 day after the form was completed?
8 A. Yes, we try to have the green form completed as soon
9 as possible, because incidents need to be followed up
10 straightaway.
11
12 Q. It so happens, if we look down towards the - yes, we
13 have that on display now. Sorry, just go back to where we
14 were. This form indicates, by completing the tick box
15 "yes", that there is a form 5A required?
16 A. That's right, yes.
17
18 Q. Adjacent to that, the tick boxes are empty from the
19 question, "Is a learning from incident investigation
20 required?" I assume that's an oversight?
21 A. Yes, it should have been ticked "yes" as well.
22
23 Q. Because in every such instance, an LFI process
24 commences; is that right?
25 A. That's correct, yes.
26
27 Q. We'll just go back to the top of the first page, on
28 the right-hand side. In this instance, we see, as we do on
29 a number of these forms, someone has handwritten the
30 inscription "DNRM HPI".
31 A. That's right, I see that.
32
33 Q. Who writes that on?
34 A. Who would have done that?
35
36 Q. Yes.
37 A. I would suspect it's been done by the administration
38 in the safety department, just so they can bundle them
39 correctly.
40
41 MR RICE: Thanks, Mr Schiefelbein. That's all I have,
42 Mr Martin.
43
44 THE CHAIRPERSON: Yes, thank you. Mr Crawshaw?
45
46
47

1 <EXAMINATION BY MR CRAWSHAW:

2
3 MR CRAWSHAW: Q. Yesterday you gave evidence about
4 real-time monitoring, and do you remember saying in
5 response to counsel assisting:

6
7 *But volume is actually what we want, and*
8 *monitoring it won't make the strata cave in*
9 *any earlier or won't make the hole come on*
10 *any earlier than it would have.*

11
12 A. Yes, I do remember that, yes.

13
14 Q. I just want to know what you meant when you talked
15 about volume there?

16 A. The volume of the goaf drainage going up that borehole
17 is the volume I referred to, yes.

18
19 Q. Could I just ask you one further question about
20 real-time monitoring. Can you point to any downside in
21 having real-time monitoring?

22 A. No, there's no downside to it. I might also add in
23 there, when asked yesterday about the real-time monitoring,
24 the question came at me in a way I didn't quite give you
25 the full picture. There is real-time monitoring on the
26 wellheads. I was answering it on the context of a person
27 in the field going out to operate the valves and change the
28 flows. There is real-time monitoring of the flow on the
29 wellheads.

30
31 Q. Thank you. The other part of your evidence yesterday
32 that I wanted to ask about was the change in configuration
33 that came about earlier this year. I'm referring to
34 yesterday's transcript, TRA.500.002.0101. Do you remember
35 giving that evidence?

36 A. I'll just have to read it, sorry.

37
38 Q. You have it up, do you?

39 A. Yes, I do, yes. There's quite a page there. Is it
40 the whole page you want to look at, or --

41
42 Q. I'm not asking you to read it, but - you can read it
43 if you want. I just want to ask you some questions about
44 the response.

45
46 MR HOLT: That's not his evidence that's up. It's
47 Mr Newman's evidence.

1
2 THE CHAIRPERSON: Right. Thank you. I think we have an
3 incorrect page there, Mr Crawshaw.

4
5 MR CRAWSHAW: I'll give the reference again.
6 TRA.500.002.0101. Page 205, going on to page 206 of
7 yesterday's transcript.

8
9 Q. I'm not sure whether it has come up. It's not up on
10 my screen.

11 A. Yes, I can see it, and it appears to be a reflection
12 of the discussion, yes.

13
14 Q. This was a matter taken up by the inspectorate with
15 your company?

16 A. Yes. There were some directives and discussion about
17 the location of the 243A sensor.

18
19 Q. Did you interact with the inspectorate yourself?

20 A. In this particular instance, not directly, no.

21
22 Q. Who in the company interacted with the inspectorate?

23 A. The SSE.

24
25 Q. Sorry, what's the SSE's name?

26 A. Damien Wynn.

27
28 Q. And you talked about, as it were, two groups within
29 Anglo dealing with this matter.

30 A. No, I think there was only one group.

31
32 Q. Well, I thought you said you got together with some
33 people on site to seek a solution, and then there was
34 a higher-up group that also dealt --

35 A. Yes, that's correct. I understand your question now.
36 Yes, there was a site-based group, which I called, and
37 there was a group within Anglo meeting at a higher level
38 with the regulator about it.

39
40 Q. So the inspectorate dealt with the higher group, as it
41 were?

42 A. Yes, I believe so, yes.

43
44 Q. You didn't deal with the inspectorate?

45 A. No. No, I did not deal with the inspectorate, no.

46
47 Q. What about the SSE, was he in either of those --

1 A. No, the SSE was, I believe, in discussion with the
2 people at the Anglo level. The SSE - I don't know if there
3 was direct discussion at that time, and the way you'd
4 pitched the question earlier, I thought you were talking
5 about the directives placed later. At this particular time
6 when the sensor was being placed, I don't know of any
7 direct discussion on site with the inspectorate.
8

9 Q. Do you know who was in the higher-level group that you
10 talk about?
11 A. There were a number of people, but two names I do know
12 were Glen Britton and Les Marlborough.
13

14 Q. Who is Glen Britton?
15 A. He is the chief operating officer in Anglo.
16

17 Q. And what's his role at your mine?
18 A. He oversees the mine operations.
19

20 Q. Including safety?
21 A. Yes, full range, yes. There are other departments at
22 corporate level, but of course being an operations
23 executive he oversees safety.
24

25 Q. And Mr Marlborough, what's his position?
26 A. At that time in the company, he's the mine manager at
27 the Aquila mine.
28

29 Q. Ultimately they made the decision in relation to this
30 matter, did they?
31 A. I believe so, yes.
32

33 Q. They don't hold any statutory position at your mine,
34 do they?
35 A. No, they don't.
36

37 MR CRAWSHAW: Yes, thank you.
38

39 THE CHAIRPERSON: Ms Holliday?
40

41 **<EXAMINATION BY MS HOLLIDAY:**
42

43 MS HOLLIDAY: Q. Just following on from that line of
44 questioning, my name is Deborah Holliday and I'm appearing
45 for the Resources Safety and Health Queensland.
46 A. Mmm-hmm.
47

1 Q. At the time the directives were issued in relation to
2 the 243A sensor, you were actually on leave, weren't you -
3 14 April 2020?

4 A. Yes, that's right, yes.

5
6 Q. And Mr McNally was temporarily in your position?

7 A. Temporarily was the mine manager, yes.

8

9 Q. In relation to inspections at Grasstree, they have
10 been, whilst you've been underground mine manager, both
11 announced and unannounced by the inspectorate?

12 A. I'm not sure what you mean by "announced and
13 unannounced".

14

15 Q. Sometimes you knew they were coming and sometimes you
16 didn't know they were coming?

17 A. Okay, I get you, yes.

18

19 Q. "Unannounced" means you didn't know they were coming,
20 and "announced" means you did?

21 A. That's correct, yes.

22

23 Q. In relation to those inspections, they generally
24 comprise of three stages; do you agree with that?

25 A. I'll hear what your three stages are, but --

26

27 Q. All right. So there would be the introductory stage
28 where you would meet with the inspector?

29 A. Yes.

30

31 Q. Then you would have the inspection phase where they
32 would inspect the mine?

33 A. Yes.

34

35 Q. And then there would be the closeout stage where you
36 would have the final meeting?

37 A. That's right, that's the usual routine.

38

39 Q. When I said "three stages", it is because every mine
40 record entry is set up in relation to those three stages;
41 were you aware of that?

42 A. Yes, it reflects the day as it went. I'm not sure
43 that they - I wouldn't know that they deliberately write it
44 out that way, but that's the way it's usually done and the
45 way it's usually written, from my perspective, yes.

46

47 Q. I'll take you to an example of an unannounced

1 inspection that you were present for. Mr Operator, if the
2 witness can see RSH.002.320.0001. Do you see in the top
3 right-hand corner, it has "Activity Type", "Inspection -
4 Unannounced"?

5 A. I see that, yes.

6
7 Q. The date is 5 February 2019?

8 A. That's correct, yes.

9
10 Q. If we scroll down the page a little bit, we can
11 actually see there:

12
13 *We were met by Mr Damien Wynn (SSE) ...*

14
15 and yourself?

16 A. Yes:

17
18 Q. --

19
20 *and we discussed the format for the day.*

21
22 A. Yes.

23
24 Q. It says the site safety and health representative was
25 consulted, Mr Watts. Do you have any independent
26 recollection now of that inspection on 5 February 2019?

27 A. Not directly, no.

28
29 Q. So you can't say whether or not Mr Watts actually took
30 part in the inspection or whether he was just consulted and
31 he wasn't present?

32 A. No, I can't really recall that day very well, sorry.

33
34 Q. Sometimes the SSHRs are present for the inspection; is
35 that your recollection?

36 A. Yes, generally, as soon as we're aware of an
37 inspection we try to get the SSHRs to be along with the
38 inspection.

39
40 Q. And what about if it's an announced inspection - would
41 you let them know, the SSHR, that the announced inspection
42 was going to happen? So "announced" means you knew it was
43 going to happen?

44 A. That's right. Yes. So was the question in an
45 unannounced visit, do we make them known?

46
47 Q. You've already answered that; you said that you'd let

1 them know.

2 A. Yes.

3

4 Q. With an announced one you know the inspectorate is
5 coming, so you would have let the SSHR know in advance of
6 the inspection?

7 A. That's right, yes.

8

9 Q. If they were available, they would accompany the
10 inspectorate and someone such as yourself on the
11 inspection?

12 A. That's right, yes.

13

14 Q. On this particular unannounced inspection on
15 5 February 2019, you had an introductory meeting as per
16 usual, the first stage?

17 A. Yes.

18

19 Q. In relation to that introductory meeting, there seems
20 to have been a focus on longwall 909 and longwall 910. Can
21 you scroll down the page, Mr Operator. Presumably that's
22 because those were the longwalls that were in operation at
23 the relevant time?

24 A. Yes, that's correct. They were currently in
25 operation, yes.

26

27 Q. In relation to longwall 909, it makes the comment
28 there that the mine has substantially increased its methane
29 drainage capability in the last two to three years and the
30 number of HPIs related to methane exceedances had decreased
31 significantly.

32 A. That's right, yes.

33

34 Q. That was in that period from 2017 - very late 2016 to
35 2017; you're aware of that?

36 A. Yes.

37

38 Q. That there was a lot of interaction with the
39 inspectorate at that point in time with Grasstree and its
40 gas management?

41 A. Yes, I understand there was, yes.

42

43 Q. As a result of that, action was taken by the mine?

44 A. That's right, yes.

45

46 Q. And that as a result of that increase in methane
47 drainage that occurred at the end of 2016, beginning of

1 2017, you then didn't have as many exceedances in the years
2 that were following; is that correct?

3 A. That's correct, yes.

4
5 Q. In relation to longwall 909, it records there that:

6
7 *We asked --*

8
9 that being the inspectorate asked --

10
11 *about control of methane while installing*
12 *supports transported through TG909 ...*

13
14 and that you informed them that at some times, transport
15 had to halt because of the methane levels.

16 A. That's right, yes.

17
18 Q. It's common, isn't it, that in inspections, be they
19 announced or unannounced, there is a focus of the
20 inspectorate on management of methane at the mine?

21 A. Yes, absolutely. They - it's part of the whole
22 management of mines, particularly coal mines, to be very
23 direct and inquisitive into methane exceedances and to
24 ensure that they're adequately dealt with.

25
26 Q. In relation to longwall 910 there, the comment is made
27 that:

28
29 *This was driven to midpoint but is now on*
30 *stand because in situ methane was not*
31 *drained below compliance level.*

32
33 A. Yes.

34
35 Q. It means there, doesn't it, that in fact what occurred
36 was you had to come about the mining from another way, from
37 the maingate side?

38 A. Ultimately it was mined in the normal way, but at that
39 point it looked as though it may need to be done that way
40 only, yes.

41
42 Q. I see. So that was what looked like was going to have
43 to happen - that was in the development phase at that
44 stage?

45 A. Yes.

46
47 Q. So if we can go now to the next page, 0002, this is

1 still in the introduction meeting. You discussed the
2 longwall 908 sealing.

3 A. Mmm-hmm, yes.

4
5 Q. And, in particular, that you had been requested by the
6 inspectorate to supply five previous ICAMs, investigation
7 reports, in relation to exceedances during the longwall 908
8 seal-up and the commencement of production in 909?

9 A. Yes.

10

11 Q. The comment that's made there from the email that had
12 been sent by the inspectorate is:

13

14 *There will be lessons to be learned for the*
15 *next similar situation.*

16

17 That's your understanding, isn't it: one of the functions
18 of HPI reporting is to ensure that there are learnings,
19 both by industry and the inspectorate, to move on into the
20 future to try to prevent those from occurring again?

21 A. Yes, that's right, we need to identify hazards, causes
22 and what can be done and then learn from it and take
23 actions.

24

25 Q. You discussed the ongoing difficulties associated with
26 stabilising the sealed goaf and to not over-drain, because
27 of course that also causes problems in relation to ongoing
28 issues with drainage and methane levels moving forward?

29 A. Yes, that's correct, yes.

30

31 Q. Further down on that page, it says, "1.2 Grasstree
32 High Potential Incidents". Invariably in the initial
33 discussion with the inspectorate, in any inspection, be it
34 announced or unannounced, there is a review of HPis that
35 had occurred in the period following the last inspection
36 and in between both inspections?

37 A. That's right. Almost always there's a review of
38 incidents that have happened since last visits or most
39 recently, and also of any industry-type safety alerts or
40 such matters, to see --

41

42 Q. We'll get to that, because that's on the next page in
43 relation to updating you about industry and alerts.

44 A. Yes.

45

46 Q. But in relation to the discussion or the review of
47 high potential incidents - let's just focus on methane ones

- 1 presently, given the focus of the Board of Inquiry.
2 A. Okay.
3
4 Q. At those inspections, you will be asked questions in
5 relation to what you have done in terms of controls as
6 a result of the exceedances; that's correct?
7 A. That's right, yes.
8
9 Q. And again to ensure that not only risk is reduced to
10 an acceptable level but also to prevent it from occurring
11 again in the future; that's correct?
12 A. That's correct, yes.
13
14 Q. So in relation to, for example, this matter that was
15 on 21 December 2018, it was explained that a brattice had
16 been put in place, and it goes on from there in terms of
17 matters that you'd discussed to ensure that, or try and
18 ensure that, there wasn't a similar HPI of the same cause?
19 A. Correct, yes.
20
21 Q. Mr Operator, could we go to 0003. You mentioned
22 a short time ago that another purpose of the introduction
23 is to make the mine and persons such as yourselves, coal
24 mine workers, aware of industry HPIs and safety alert
25 bulletins, things of that nature?
26 A. That's correct.
27
28 Q. You will see there at 1.3 that there is a record of
29 what was discussed in that meeting with you in this
30 unannounced inspection, and that's invariably the case as
31 well, isn't it, that there will be discussion of matters
32 relevant to the mine to ensure that the mine is aware of
33 what has occurred at other mines?
34 A. Yes.
35
36 Q. And learnings from industry?
37 A. Yes.
38
39 Q. In particular - and, Mr Operator, if we can go down to
40 the bottom of that same page - there was an explanation of
41 the background of something that occurred at a neighbouring
42 mine.
43 A. Mmm-hmm.
44
45 Q. To ensure that there were learnings as a result of
46 that incident at another mine.
47 A. Mmm-hmm, yes.

- 1
2 Q. No doubt as underground mine manager, you may have
3 been aware of some of these matters already when they're
4 brought to your attention by the inspectorate?
5 A. Yes.
6
7 Q. But if you're not, you would ensure that you share
8 those with other persons at the mine?
9 A. That's right, yes.
10
11 Q. And that the mine puts action in place, if necessary,
12 to also make learnings, moving forward, as a result of
13 incidents at other mines?
14 A. That's right, yes.
15
16 Q. If I can take you now - so, Mr Operator, we're at
17 0004. We were talking about the process of inspection and
18 that it was in three stages. The second stage is to go
19 underground, because of course it's a coal mine, one needs
20 to do that to inspect the workings of the mine?
21 A. That's right, yes.
22
23 Q. In this particular instance, the inspectors actually
24 attended the pre-start meeting?
25 A. That's right.
26
27 Q. That occurs, too, doesn't it, on inspections, to
28 ensure that not only the actions underground but also the
29 things are occurring as they should in terms of bringing to
30 the attention of the coal mine workers on shift things such
31 as the TARPs and matters that need to be brought to the
32 coal mine workers' attention?
33 A. That's right, yes.
34
35 Q. You then went underground, and it actually says that
36 you were the person who accompanied the inspectors
37 underground on this occasion.
38 A. That's right, yes.
39
40 Q. And there were a number of matters that were
41 inspected. Earlier, I asked whether you had any
42 independent recollection of this inspection on 5 February
43 2019. As we're reading through, it may --
44 A. That's right, some may come back to me, yes.
45
46 Q. Exactly, because in relation to this particular
47 inspection, unannounced, there was actually a directive

1 issued in relation to longwall 909 - and can we go further
2 down the page, Mr Operator - because the inspectorate
3 wasn't satisfied with the roadway condition.

4 A. Mmm-hmm.

5

6 Q. So you recollect that now as having occurred?

7 A. That's right, yes.

8

9 Q. You then would have had to have taken action to ensure
10 that risk was reduced to - or that risk became at an
11 acceptable level in relation to the floor conditions in the
12 longwall 909 travel road?

13 A. That's right, yes.

14

15 Q. We can go now, Mr Operator, to page 0005. It records
16 there that the inspectorate actually spoke to two drillers
17 who were working at the time, and they were able to satisfy
18 the inspectorate in terms of their drilling plan.

19 A. Mmm-hmm.

20

21 Q. So that's also common, isn't it, that whilst
22 underground, the inspectors will interact with the coal
23 mine workers?

24 A. That's right.

25

26 Q. And ask questions of them also?

27 A. They often stop and talk to coal mine workers to
28 verify their knowledge of site procedures and that things
29 are happening as they should be.

30

31 Q. The inspectorate was also concerned in relation to an
32 aspect of the state underground, again in longwall 909, of
33 the dry dust that was down there.

34 A. Mmm-hmm.

35

36 Q. And then there was another directive issued in
37 relation to the safety and health management system; you're
38 aware of that as well?

39 A. It's coming back to me, but, yes, I would need to read
40 it to fully get it again.

41

42 Q. On page 0007, under the heading "Directive", if you
43 keep going down that page, Mr Operator, it sets out there
44 the two directives that were given. One was in relation to
45 the safety and health management system and we've also
46 spoken about the one in relation to the floor conditions.

47 A. Yes, mmm-hmm.

1
2 Q. If we can go back up to page 6, there was further
3 inspection of tailgate 808 during that inspection as well.

4 A. Okay, mmm-hmm.
5

6 Q. As invariably happens, there were questions that were
7 asked of you in relation to matters that the inspectorate
8 wanted to have further knowledge about. For example, on
9 this occasion, it was in relation to the entrance, the
10 district noticeboard, the place of safety, how one ensures
11 that there is that place of safety for coal mine workers to
12 go to, if necessary?

13 A. That's right, yes, mmm-hmm.
14

15 Q. There was an ability to be able to explain that
16 satisfactorily, and then the next issue that was then
17 discussed was in relation to equipment that was required
18 about another aspect of the 808 longwall?

19 A. Mmm-hmm, yes.
20

21 Q. So in a close-out meeting, and this is at 0007, that
22 invariably will involve a recap of what has occurred over
23 the day of the inspection?

24 A. That's right, yes.
25

26 Q. And that is what it takes, isn't it, most of the day,
27 for one of these inspections?

28 A. That's right, yes, most of the day.
29

30 Q. This close-out meeting happened with yourself, the SSE
31 and also the SSHR?

32 A. Yes.
33

34 Q. And you discussed the contents of what had occurred?

35 A. Yes.
36

37 Q. And what needed to occur because of the two directives
38 that had been issued to the mine?

39 A. Yes.
40

41 Q. And matters reinforced to you in those close-out
42 meetings is what is documented here?

43 A. That's right, yes.
44

45 Q. We've used that as an example, but that is a typical
46 example of an unannounced inspection, of the systems that
47 are checked by the inspectorate?

1 A. Yes, that's a typical example, yes.

2

3 Q. I'll only take you to one other, because this is
4 during the period of the terms of reference. It's
5 RSH.002.362.0001. This is another unannounced inspection -
6 you'll see that at the top right-hand corner - on
7 27 February this year. If we can go down that
8 page a little bit, under the heading of "Opening Meeting",
9 you will see that you were there, again, for the opening
10 meeting?

11 A. Yes, that's right, yes.

12

13 Q. With two other persons from the mine. Similarly, it
14 follows the same structure, that there was a discussion of
15 the high potential incidents that had been reported to the
16 inspectorate in the period between the last inspection and
17 this inspection?

18 A. That's right, yes.

19

20 Q. And you can see there in the third paragraph that
21 there was one in relation to a gas exceedance on
22 28 January.

23 A. Mmm-hmm.

24

25 Q. Invariably what occurs is that there will be
26 discussion; it won't just be, "Here are the high potential
27 incidents." You'll engage in discussion, won't you --

28 A. That's right, yes.

29

30 Q. -- in relation to each of those HPIs and what the mine
31 has done to ensure that risk is at an acceptable level?

32 A. Yes.

33

34 Q. And to try to prevent one happening again in the
35 future?

36 A. Correct, yes.

37

38 Q. Could we go to 0003. The second part of this
39 unannounced inspection would be again, and it did occur,
40 travelling underground, and there was actually review of
41 the previous night shift 909 ERZ controller's statutory
42 report.

43 A. Yes.

44

45 Q. What the inspectors would be looking for there is to
46 ensure that not only it's recorded correctly, but also the
47 gas levels that have been recorded; that's correct, isn't

1 it?
2 A. That's right, yes.
3
4 Q. Mr Operator, could we go to 0004. Similarly in
5 relation to this inspection, there was a focus on methane
6 management underground?
7 A. Mmm-hmm.
8
9 Q. And there's a note there of a brattice that had been
10 hung from the roof at B1 intersection?
11 A. Mmm-hmm.
12
13 Q. Mr Operator, can we go down a little bit more. There
14 was a request to inspect the in-seam gas drainage?
15 A. Yes.
16
17 Q. And it was raised with the mine about poor hole
18 identification?
19 A. Yes.
20
21 Q. And how that could be remedied was suggested by the
22 inspectorate?
23 A. Yes.
24
25 Q. There was then a close-out meeting again. You didn't
26 attend that on this occasion; it was the operations manager
27 that would have attended in your place, by the look of the
28 persons that were there.
29 A. Yes.
30
31 Q. Again, there was a discussion in relation to what had
32 occurred over the period of the inspection.
33 A. Mmm-hmm.
34
35 Q. You were asked some questions in relation to a number
36 of the exceedances because you had reported almost all of
37 the exceedances for Grasstree?
38 A. That's right, yes.
39
40 Q. One of them was what we call the third HPI on 20 March
41 2020.
42 A. Yes.
43
44 Q. And as a result of you reporting that exceedance to
45 Inspector Brown, he then followed up with you, didn't he?
46 A. That's right, yes.
47

- 1 Q. You reported it to Inspector Brown on Friday,
2 20 March; that's correct?
3 A. That's right, yes.
4
- 5 Q. And then on Saturday, 21 March you received an email
6 from Inspector Brown?
7 A. That's right, yes.
8
- 9 Q. Do you have an independent recollection of having
10 received that email?
11 A. Not succinctly, but I do know I got an email, yes.
12
- 13 Q. And do you know that it detailed that you had to
14 provide significant further detail in relation to the
15 exceedance?
16 A. Further information, yes, that's right.
17
- 18 Q. You in fact provided that to Inspector Brown on
19 Sunday, 22 March?
20 A. That's right, yes.
21
- 22 Q. But in further follow-up on Monday, 23 March, matters
23 were requested of the mine to ensure that, in the future,
24 there could not be a repeat of such an incident, or to try
25 to reduce the risk of there being a repeat of a further
26 incident of that nature?
27 A. I'm not familiar with what you're talking about
28 exactly.
29
- 30 Q. Hopefully you were made aware of it. Mr Operator,
31 could we bring up RSH.002.060.0001. It wasn't sent to you,
32 it was sent to Mr Wynn, but it refers to a conversation
33 that you had had with Inspector Brown that same morning, on
34 the Monday, 23 March.
35 A. That's right, yes, I had travelled in to Mackay to
36 meet with the inspectors about other matters but met
37 Mr Brown in the hallway, yes.
38
- 39 Q. Were you made aware that Inspector Brown had contacted
40 the SSE in relation to that exceedance?
41 A. No.
42
- 43 Q. The purpose, though, of your communications with the
44 inspectorate was twofold: firstly, to find out more
45 information; you'd accept that?
46 A. That's right, yes.
47

1 Q. And, secondly, to put steps in place to try to reduce
2 another exceedance of that nature occurring?

3 A. That's right, yes.

4

5 Q. And you'd accept that it may well have been of
6 particular concern for the inspectorate because of the fact
7 there had been three reported in such a short period of
8 time?

9 A. Yes, they were in discussion with Paul and with the
10 inspector that I met with later, Mr Brennan, that - that
11 was also part of discussions, yes.

12

13 Q. In relation to the email that's on the screen in front
14 of you, it speaks of the fact - this is at the last dot
15 point:

16

17 *I suggest a more disciplined approach must*
18 *be applied. Kelvin did explain how the*
19 *dynamics of pressure and ventilation behave*
20 *as you approach these ... that is all the*
21 *more reason to control any changes to VCDs*
22 *through an approved ventilation change*
23 *form.*

24

25 Are you aware of whether or not the mine did take action as
26 recommended by Inspector Brown in that email?

27 A. No, not particularly do I have a recollection of that.
28 I believe what that was referring to was the opposite
29 cut-through to where the longwall was at the time. There
30 were some brattices that needed to be adjusted, apart from
31 the brattices that we've been talking about on the tailgate
32 drive. There were other brattices adjusted.

33

34 Q. So alternative action was taken; is that what you're
35 suggesting?

36 A. Yes.

37

38 Q. But it had the same effect as that which the
39 inspectorate was recommending?

40 A. I'm not sure exactly with this letter what it was
41 referring to. I believe I've tried to state what I think
42 it was about, but you've asked that question as though it's
43 a categorically "no" type thing. I believe that it was
44 about adjusting the brattices and that action was taken
45 appropriately about the adjustment of VCDs for the form.

46

47 Q. Let's put the email to one side. Think of the

1 conversation that you had with Inspector Brown on that
2 Monday morning.

3 A. That's right, yes.

4

5 Q. You and he had discussion in relation to the
6 exceedance?

7 A. Yes.

8

9 Q. And steps that the mine should put in place to try to
10 prevent a further exceedance?

11 A. Not as deliberate as that. Initially I met with him,
12 as I said, in the hall. We were passing each other, and
13 I was due to meet with Mr Brennan. I asked him did he get
14 the information that I provided for him as a lead-up
15 conversation. There was a little bit of discussion, and
16 then I asked him, "So will you be looking after the matters
17 that come out of this, or will another inspector, eg,
18 Mr Brennan, continue on with it or are you now the
19 controlling inspector for this particular situation?" He
20 said to me, no, he wasn't, that he was about to be sent off
21 to other mines to look after other matters and that
22 I should go and see Mr Brennan about it. That's what
23 I recall of the --

24

25 Q. So perhaps it's a matter to take up with Mr Wynn,
26 given the fact that this email was sent to him, but as far
27 as you're aware, the action that the mine took was what the
28 inspectorate expected you to take in relation to those
29 exceedances?

30 A. That's right, yes.

31

32 MS HOLLIDAY: Thank you.

33

34 THE CHAIRPERSON: Q. Mr Schiefelbein, how much notice
35 does the mine get if there is to be an inspection, an
36 announced inspection?

37 A. An announced one? It typically goes to the SSE a day
38 prior.

39

40 Q. Just a day prior?

41 A. Yes.

42

43 Q. I think I've read some material somewhere suggesting
44 that the mine takes the opportunity to clean up around the
45 place, knowing that the inspection is coming. Is that your
46 understanding?

47 A. Generally, when you have an announced inspection, you

1 polish up what you can, make it look right, when you're
2 about to be inspected.

3

4 Q. It would be unsurprising if you did not?

5 A. Yes. It would not look good, from an inspection point
6 of view, if you didn't even bother, yes.

7

8 Q. In relation to the unannounced inspections, and if
9 it's you accompanying the inspector on that inspection, who
10 covers your usual duties whilst that's being done?

11 A. Yes, it's the same as when I'm absent from the mine,
12 the MSO, or the under-manager, looks after the statutory
13 operations of the mine.

14

15 **<EXAMINATION BY MR HOLT:**

16

17 MR HOLT: Q. Mr Schiefelbein, I want to talk to you
18 about what we've been describing in shorthand as the LFI
19 process, so the internal Anglo processes for reviewing
20 incidents of any kind. Just a couple of things at the
21 outset about that. You were asked some questions by
22 Mr Rice about what I think we are all now referring to as
23 the "green form". You're aware of that?

24 A. Yes.

25

26 Q. Do you understand that the green form is designed very
27 much to be the initial assessment, in accordance with the
28 Anglo standards that I'll come to in a moment, of the
29 classification of whatever incident it is that has
30 occurred?

31 A. That's right, yes.

32

33 Q. Again, as you explained to Mr Rice, because it's an
34 initial assessment of that risk classification or of that
35 incident classification, it's subject to change by others
36 who might review it and review the processes, review the
37 situation, as things move forward?

38 A. Yes, that's right, yes.

39

40 Q. In particular - and we might not go to the detail of
41 it now, but the Board has the material - we see in a number
42 of HPIs in a number of different mines those
43 classifications being crossed out and changed at various
44 stages.

45 A. Mmm-hmm.

46

47 Q. In your experience, would that be reflective of that

- 1 kind of review process that goes on?
2 A. That's right, yes.
3
4 Q. You recall that you would sometimes be involved in
5 that process?
6 A. Yes, sometimes they would come and ask me about it,
7 yes, the safety --
8
9 Q. And equally the SSE?
10 A. That's right, yes.
11
12 Q. And also, though, the learning from incidents, the LFI
13 report and the investigation and report process, that's
14 something which would be positively looked at during that
15 phase, as you would understand it?
16 A. That's right, yes.
17
18 Q. While we're talking about that question of
19 classification, you're familiar, I'm sure, with - and we've
20 referred to it already in this hearing, I won't bring it
21 up - what's called the Anglo incident reporting standard
22 which results in those classifications of 1 through 5?
23 A. That's right, yes.
24
25 Q. I want to be clear about a couple of things. It's
26 correct, isn't it, that regardless of what number is given
27 under that process, so long as something is an incident at
28 all, as all of these HPIs are --
29 A. Yes.
30
31 Q. -- they will be investigated through Anglo's learning
32 and investigation report process?
33 A. That's right, gas exceedances that are a regulatory
34 matter instantly head along that path, yes.
35
36 Q. Again, we'll go through it with others later, but in
37 terms of the process that then must be followed for that
38 incident investigation, you would understand that that is
39 enabled by, governed by, an Anglo standard called the Anglo
40 Learning From Incidents Standard?
41 A. That's right, yes.
42
43 Q. So we can see how the things work together, we might
44 pull that up, if we may. Mr Operator, it's
45 AAMC.001.004.1472. We can see that's the "Learning From
46 Incidents" standard. Do you see that?
47 A. Yes.

1
2 Q. We might make it a bit bigger, for my sake, and if we
3 can come down, please, we can see the second paragraph
4 under "Purpose and Objectives":

5
6 *The LFI process has five steps which ensure*
7 *incidents are reported, investigated,*
8 *learnings shared, and corrective and*
9 *preventative actions communicated and*
10 *closed out in a consistent manner.*

11
12 A. That's right.

13
14 Q. So we're clear, regardless of the language of HPI or
15 anything else that is used, everything that is called an
16 incident at all, which includes every regulatory HPI, if we
17 can call it that, gets assessed as captured by this
18 learning from incidents process?

19 A. Correct.

20
21 Q. So we're all talking about consistent language, or not
22 as the case may be, the LFI process is one which Anglo has
23 introduced which was more commonly known as, and which used
24 some different tools, the ICAM process previously?

25 A. Correct, yes.

26
27 Q. If we can scroll down a little further, Mr Operator,
28 we can see there in the second paragraph under "Scope":

29
30 *The Standard is not intended to take*
31 *precedence over, or alleviate one from any*
32 *local jurisdictional requirements, rather*
33 *this Standard outlines a standardised*
34 *investigation management approach intended*
35 *to supplement and work in tandem with any*
36 *local legislative requirements.*

37
38 A. Yes, that's correct, yes.

39
40 Q. You would understand that was necessary because Anglo
41 operates across a range of different jurisdictions?

42 A. That's right, yes.

43
44 Q. Without going into the detail of every column there,
45 we can see there those five stages that I took you through
46 before: first response, which is about securing of the
47 scene, preserving evidence, identifying witnesses and

- 1 taking statements?
2 A. That's right.
3
4 Q. Then classification and notification. That's that
5 kind of process with the green form, using the other
6 standard we were talking about before?
7 A. Mmm-hmm.
8
9 Q. And then the analysis phase - planning, visiting the
10 scene, determining what, how and why?
11 A. Yes.
12
13 Q. Then a report - making conclusions, determining
14 corrective and preventative actions, completing the report
15 template, and so on?
16 A. Yes.
17
18 Q. Then, finally, the sharing and learning, which is
19 making sure that lessons learnt in this process are shared
20 on site and across the business?
21 A. That's right, yes.
22
23 Q. The Board will see - I'm not going to go through more
24 than one, I don't think - those LFI reports, what used to
25 be called ICAM reports, which have been produced in
26 relation to every single one of these HPIs which we're
27 dealing with in this case?
28 A. That's right, yes.
29
30 Q. Can we go over, please, to the second page of that
31 document, Mr Operator. Again, just as a matter of
32 a process, I want to be able to see 4.3:
33
34 *Enablon is the mandated platform to record*
35 *the LFI process.*
36
37 A. Mmm-hmm.
38
39 Q. And Enablon, as you alluded to earlier, is a piece of
40 software which is specifically designed to enable these
41 kinds of processes?
42 A. Yes.
43
44 Q. It has some different functions, but for present
45 purposes, critically what it has is a task management
46 function?
47 A. Mmm-hmm, yes.

- 1
2 Q. Which ensures that any tasks that are allocated from
3 the learning from incidents process are documented and
4 followed up on to ensure that they are met on time and to
5 an appropriate standard?
6 A. That's correct, yes.
7
- 8 Q. As I understand it, no-one but the SSE can extend the
9 time for an Enablon task to be closed out?
10 A. Correct, yes.
11
- 12 Q. And, again, as I understand it, it's a big deal to
13 fail to comply with an Enablon time line; in other words,
14 it's not one of those task management pieces of software
15 that just has 500 unmanaged tasks on it?
16 A. That's correct, yes, there's an accountability level,
17 and at daily meetings any people that are getting close to
18 their time line, they're listed on the board and made aware
19 that they have to complete their tasks on time, and the SSE
20 makes, yes, quite a deal of people who need extensions.
21
- 22 Q. It's not just the SSE, as we understand it. Also the
23 safety folk in Brisbane at Anglo corporate also keep
24 a close eye on those Enablon tasks?
25 A. That's right, yes.
26
- 27 Q. Could we have a look, just as an example of Enablon,
28 at ACM.004.001.0003. Could we make that a little bigger,
29 for my benefit. Just as an example, this is an example of
30 a task out of Enablon and the way in which it's recorded
31 and the way in which it's closed out?
32 A. Yes.
33
- 34 Q. We can see there - I've chosen it specifically - it
35 relates to one of the actions that flow from what I'll call
36 the compressor HPI?
37 A. Yes.
38
- 39 Q. We can see there one was, "Review and implement
40 compressor and goaf drainage critical spare list and stock
41 store", a critical task arising out of that incident?
42 A. Yes.
43
- 44 Q. Can we scroll down, please. We can see there the due
45 date, revised due date, real due date, completed
46 100 per cent, and it had been allocated to Mr McNally, who
47 we will hear from later today.

- 1 A. That's right, yes.
2
- 3 Q. That's just an example of the way the Enablon system
4 follows you up?
5 A. Yes.
6
- 7 Q. Mr Operator, can we bring up an example of an LFI
8 report, please. That would be AAMC.001.001.0703. We can
9 see here, "Learning From Incidents Investigation Report".
10 This one relates to 22 February 2020, which - though we're
11 all getting familiar with the dates now - was the first of
12 the HPIs which related to an exceedance in what we call the
13 canopy sensor or the zero metre sensor?
14 A. Yes.
15
- 16 Q. Again, I know you're not in the investigation team;
17 you have more of a helicopter view of these things?
18 A. That's right, yes.
19
- 20 Q. But can we just scroll through, please, to understand
21 a couple of things, to 0706 of that, which is page 4 of 22
22 of the document. Could we zoom in on the little table
23 there, "Methodology and Tools Used". There are a number of
24 tools, aren't there, which Anglo provides to assist in the
25 analysis and the work that's done in particularly stages 3
26 and 4 of the processes we saw before?
27 A. That's right, yes.
28
- 29 Q. We've got there: "Time Series Events Chart", which is
30 mandatory, as it is noted, "Control Analysis"; "Behaviour
31 Analysis"; "Change Analysis"; and "Why Analysis"?
32 A. Yes.
33
- 34 Q. Those who are facilitating or running this
35 investigation process have access to those tools?
36 A. That's right, yes.
37
- 38 Q. And particularly - I said this was about Enablon, and
39 it is - within Enablon, in actual fact those tools exist
40 and you can operate them from within that piece of
41 software?
42 A. That's correct, yes.
43
- 44 Q. And it gives you the outputs that you need, so long as
45 you know how to operate it?
46 A. That's right.
47

1 Q. Thanks very much. We'll come back to that one with
2 Mr Braedon Smith in a little while, but you were asked
3 about distribution of LFI reports by our learned friend
4 Mr Rice. Do you recall that?

5 A. Yes.

6
7 Q. A couple of things about that. Firstly, you explained
8 that even more so now, but even then, these kinds of
9 incidents were incorporated into, firstly, start of tour
10 briefings for new crews who were coming on for a new tour?

11 A. That's right, yes.

12
13 Q. I think I've read somewhere that safety is the first
14 slide in the presentation that's given to the coal mine
15 workers who are coming on board for a new tour?

16 A. That's right, yes.

17
18 Q. Does that incorporate a review, in terms of those
19 slides, of the incidents that occurred and issues that
20 might arise as a result of them?

21 A. That's right, yes.

22
23 Q. In that sense, the coal mine workers, to ensure
24 they've taken that on board, have to sign off that they've
25 received that?

26 A. Yes.

27
28 Q. Again, on a more regular basis, the crews who are
29 impacted by incidents, an exceedance or something that has
30 occurred - that is, the crews who are working in that
31 particular area - those particular incidents or exceedances
32 are explained to them, reported to them, on a beginning of
33 shift basis as well?

34 A. Yes.

35
36 Q. On the toolbox talks, I think they're called?

37 A. That's right, yes.

38
39 Q. In addition, you were asked about communication -
40 sorry, I should say this. You referred to some changes
41 that have gone on to ensure more effective distribution of
42 LFI reports and the learnings from these kinds of incidents
43 on site?

44 A. That's right, yes.

45
46 Q. To be clear, is that a learning and a new
47 implementation of process or an improvement of process that

1 has arisen from this very process that we're involved in
2 here and the thinking that has been done on site and by
3 Anglo about those kinds of things?

4 A. That's right, yes.

5

6 Q. You're aware, obviously, of the obligation on a coal
7 mine operator to keep a mine record?

8 A. Yes.

9

10 Q. And you would be aware, I'm sure, that under
11 section 68 of the Act, the mine record has to include
12 a record and reports about all serious accidents and high
13 potential incidents that have happened at the mine site?

14 A. That's right, yes.

15

16 Q. Equally there's the obligation on the coal mine
17 operator to ensure that the mine record is available for
18 coal mine workers?

19 A. Correct.

20

21 Q. That's one of the key things about enabling coal mine
22 workers to have access to this kind of material?

23 A. Yes.

24

25 Q. And again your expectation, borne out by materials
26 before the Board, is that those learning from incidents
27 reports we see are in fact included as part of the mine
28 record and able to be accessed?

29 A. That's right, they're available, made available to all
30 coal mine workers, yes.

31

32 Q. Could we then go to 0713 of that. It includes, in all
33 cases, the green form being put in as well, so there's
34 essentially a complete record for people to look at, and
35 they can see the development of the thinking from the
36 deputy who has first made the assessment right through the
37 LFI thinking process?

38 A. That's right. We want to have it presented very
39 transparently so people can understand the process.

40

41 Q. I understand, thank you. A couple of additional
42 topics, rolling all the way back to when Mr Rice was asking
43 you questions. Firstly, you were asked some questions
44 about what I'll call for shorthand purposes the compressor
45 HPI, so that's the HPI that occurred by virtue of goaf fall
46 but where it was also known that there was a compressor
47 failure which was a significant causal link in all of that

1 process. Do you recall that?

2 A. Yes.

3

4 Q. You were asked some questions by Mr Rice about what
5 was done or what could be done in light of the fact that it
6 was identified by you in the form 5A that there was an
7 absence of additional goaf drainage capacity at that point
8 in time. Do you recall that?

9 A. That's right, yes.

10

11 Q. And you explained in response to his questions that
12 the goaf holes had been pre-drilled, obviously, at
13 50 metres?

14 A. Mmm-hmm.

15

16 Q. And, as you explained, goaf drainage in the immediate
17 vicinity of the longwall was an issue at that time?

18 A. That's right.

19

20 Q. In terms of being able to ensure that you could clear
21 that well enough to have a low level of general body gas?

22 A. That's right, yes.

23

24 Q. Is it right in fact that given that that event occurs
25 on 28 July 2019, over that very period of time, and indeed
26 in the period immediately following also, the mine and
27 Anglo centrally also were giving very serious consideration
28 to strategies to assist in draining the goaf near the
29 longwall?

30 A. That's right, yes.

31

32 Q. And, in particular, by 30 August 2019, so about
33 a month after that incident occurred, there was approval
34 given for the purchase of what are called blowers, four
35 blowers, to go on top of the goaf wells?

36 A. That's right, yes.

37

38 Q. That's not a cheap piece of equipment; right? We're
39 talking millions of dollars?

40 A. Millions of dollars, yes.

41

42 Q. They had to be manufactured and brought in from
43 Germany, as I understand?

44 A. That's right, yes.

45

46 Q. What they do is they effectively speed up that
47 drainage process out of the goaf wells?

1 A. Yes.

2

3 Q. And they allow you some flexibility because they can
4 be moved as you go along?

5 A. That's right, yes.

6

7 Q. Is it correct that as between longwalls 909 and 910,
8 that, together with other gas management initiatives that
9 were being put into place by the mine, managed to increase
10 goaf drainage by about 34 per cent?

11 A. That's right, yes.

12

13 Q. So again, I guess in terms of the questions you were
14 being asked by our learned friend Mr Rice, understandably,
15 given the terms of reference, we're focusing on each HPI,
16 but is it the case in fact that these issues of gas
17 management and ensuring that steps are being constantly
18 taken and resources constantly being put into that process,
19 was something that was front of mind for you all the time?

20 A. That's right, yes. We're always increasing it to meet
21 demand, yes.

22

23 Q. Indeed, since these times, over the last year or so,
24 there are other initiatives that have been put into place,
25 site-driven at Grasstree, to try to be right at the
26 forefront of gas management and gas extrusion reduction on
27 the longwall?

28 A. That's right, yes. An example - the compressor
29 failure that we spoke of, where we had one compressor
30 driving a Venturi, we viewed that putting two compressors
31 in the same location, so that in the event of one
32 compressor failing in the future, the other one would still
33 operate and there still would be redundancy, that was taken
34 almost immediately, and we apply that to any of our goaf
35 wells that have a Venturi and a compressor and are running
36 in a critical state sense.

37

38 Q. That's a great micro example of the LFI process coming
39 up with real solutions to issues?

40 A. That's right, yes.

41

42 Q. In addition, you would be aware, I'm sure, of on site
43 some of the other bigger-picture initiatives, such as the
44 use of nitrogen on the active goaf to try to reduce methane
45 extrusion from the active goaf?

46 A. That's right. We apply nitrogen into our adjacent
47 goaf areas. That puts a blanket of nitrogen between the

1 methane and the fresh air of the roadway so that any
2 leakage that occurs subsequently is mostly nitrogen, which
3 is harmless, there's no flammable gas, and makes it safer
4 and more manageable.

5
6 Q. Is all of this recognising that Grasstree is, I think
7 as everyone accepts, a gassy mine, if we can put it that
8 way?

9 A. We're a very gassy mine, but I also say we're
10 a benchmark mine and our management systems are the best.

11
12 Q. Is that nitrogen example a good example, from your
13 perspective, of innovation that seems to be working?

14 A. That's correct, yes.

15
16 Q. I should just say, just to tie a ribbon around the
17 blower issue, I don't think it was suggested, but if one
18 was listening one might have got the impression of
19 a suggestion, maybe, that budgeting, in terms of these goaf
20 drainage issues, might have been a concern. But from your
21 perspective, the moneys that were required to purchase the
22 blowers, which had to be manufactured and brought in from
23 Germany, that was approved and approved quickly?

24 A. Approved quickly, yes. Anglo is absolutely committed
25 to the management of methane in the mine, and it's quickly
26 agreed that we'll do what we need to to get these matters
27 dealt with as quickly as we can.

28
29 Q. Just one minor topic that came up in the conversation
30 you were having with our learned friend Ms Holliday about
31 the email from Inspector Brown, do you recall that, about
32 ventilation changes and issues that might occur?

33 A. Yes.

34
35 Q. You said you couldn't recall - I know it's a long time
36 ago. You said you couldn't recall what occurred in
37 relation to that. Do you understand or would you at least
38 expect that Mr Braedon Smith, the ventilation officer,
39 would have been the person dealing with that on
40 a day-to-day basis?

41 A. That's right, yes.

42
43 Q. And you understand he's coming in after you?

44 A. That's right, yes.

45
46 Q. Let's turn in a group sense to the HPIs which occurred
47 as a result of exceedances in what we're calling the canopy

1 sensor or the zero metre sensor. There's a couple of
2 topics I need to cover off with you reasonably quickly on
3 these. Firstly, do you understand - indeed, we've had
4 evidence already of it, but can you confirm - that for
5 every single one of those exceedances, it was only the
6 canopy sensor which demonstrated an exceedance?

7 A. That's right, yes.

8

9 Q. That is, the other methane monitors that were (a)
10 required by the regulation or (b) implemented by the mine
11 in accordance with its own risk assessments - none of those
12 were measuring exceedances on those days?

13 A. That's right. They were all well below, yes.

14

15 Q. I don't say that for a moment to suggest you just go
16 "Oh, well, it doesn't matter", but it's a significant
17 feature in terms of identifying what the hazard is and why
18 that particular exceedance is occurring?

19 A. That's right, yes.

20

21 Q. Just in terms of the positioning of that canopy sensor
22 initially, you've explained that that was done in order to
23 comply with, or it was thought then to comply with the new
24 regulation 243A.

25 A. Yes.

26

27 Q. And you were aware, I'm sure, that the new
28 regulation 243A came about in consequence of a report that
29 was issued by the Chief Inspector of Mines, or by the
30 inspector, I think, in June 2019?

31 A. That's right, yes.

32

33 Q. And its location - that is, the requirement for that
34 new sensor - was driven by a recognition of a risk which
35 had manifested internationally of issues with high
36 concentrations of methane at the point at which the shearer
37 enters the tailgate?

38 A. Yes.

39

40 Q. And because of the kind of equipment that's around
41 there, the sprocket in particular, as it's called, that was
42 an area where one had to be really careful about the
43 concentrations of methane on that international experience?

44 A. That's right, yes.

45

46 Q. Am I right that you may recall that one of the
47 concerns that was expressed in that report was that the

1 existing mandated methane sensor which was on the tailgate
2 of the AFC might not in fact be properly measuring that
3 little bit of methane that had the risk of being in that
4 sprocket area?

5 A. That's right. A substantial part of that report gives
6 different models to show where richer gas concentrations
7 could be not far away from the longwall when the shearer
8 enters into the tailgate, and that the AFC sensors might
9 not detect it.

10

11 Q. And so the new requirement was for a sensor to be
12 within 400 metres, because the modelling had demonstrated
13 that if you know what's happening at 400 metres, you might
14 have a good sense of what's happening up in that sprocket
15 area, if I can use a horrible, non-technical description?

16 A. Yes, that's right.

17

18 Q. And, again, just in terms of the choice to locate that
19 sensor in the canopy that was made at Anglo, did you
20 understand that that was driven by, effectively, two
21 things - firstly, that it was seen to be the place where
22 you could get closest to the body of methane or the body of
23 atmosphere that you were attempting to measure for methane
24 near that sprocket area?

25 A. That's correct, in the first place, as you said, yes.

26

27 Q. And you also had already, as we know, a sensor that
28 was 400 metres outbye?

29 A. That's right. It was our view that we already had
30 that one outbye because we were leading industry, our
31 belief, in that area, and that the legislation change - we
32 could go to the next step and put a sensor directly where
33 the problem was being spoken about.

34

35 Q. Also one of issues - upon which, of course, reasonable
36 minds can differ - was if you just went, "Oh, well we've
37 already got it 400 metres outbye, so we'll just use that
38 one in any event", the risk is that by the time you get an
39 exceedance 400 metres outbye, because it will take quite
40 some time for a body of methane to travel that far outbye,
41 you might already have a much bigger exceedance down in the
42 area where the sprocket is?

43 A. Yes, there is a time delay. The ventilation travels
44 at about 3 metres a second, so a sensor 400 metres away,
45 you've already had the gas there for a period of time
46 before you've caused a reaction to it. Putting the sensor
47 directly where the risk is gives you an instant result.

1
2 Q. I guess what I'm looking to understand is this:
3 whilst ultimately there was a difference of view about
4 where that sensor should be located, you understood that
5 the point was to try to understand the particular risk or
6 the particular hazard which had been identified in that
7 2019 report with a good engineering solution, effectively?
8 A. Correct, yes.

9
10 Q. Thank you. Now, if we talk, then, about those actual
11 exceedances that occurred - again, it might be clear, but
12 just so we can ensure that everyone is clear about it - we
13 have eight exceedances only in the canopy monitor; right?
14 A. Mmm-hmm.

15
16 Q. As we've noted, no exceedances anywhere else on that
17 basis?
18 A. That's right, yes.

19
20 Q. And it wasn't as if that canopy sensor was pinging all
21 the time; so it wasn't like there was necessarily layering
22 there every second of every day, no matter what was going
23 on?
24 A. Yes, that's right. It's read in real time in
25 milliseconds, actually, and there's quite long periods of
26 time where there's no readings there that would indicate
27 a problem.

28
29 Q. To be clear, whenever that sensor went to I think
30 2 per cent, but tell me if it's 1.9 - I can't recall,
31 I apologise - it cut power at that point to the longwall?
32 A. Yes. The regulatory limit is 2 per cent. As soon as
33 it reaches 2 per cent, it already takes the power out to
34 the entire area.

35
36 Q. And the other methane sensors were working
37 appropriately. Thus, if the general body gas in those
38 other areas being measured by those other sensors had hit
39 that 2 per cent, they would also have cut power to the
40 longwall?
41 A. That's right, yes.

42
43 Q. That's just an example of a layer of critical control;
44 right?
45 A. Yes, and that's a step up on the regulation, as well.
46 The regulation only required it to stop the cutters on the
47 shearer and to stop the AFC. We've adopted an approach

1 where we take the power out in the entire area.

2

3 Q. Is that an example of you responding in accordance
4 with your statutory obligations at the local mine site
5 level to respond to the local site conditions?

6 A. Correct, yes.

7

8 Q. So, nonetheless, you got some exceedances, the first
9 in February and then the series that we know about in March
10 and following?

11 A. Mmm-hmm.

12

13 Q. Is it fair to say it was a challenge, a genuine
14 intellectual challenge, to try to work out why that was
15 happening and what the effects were?

16 A. Yes, it was. It was illogical to people that gas
17 could go from the tailgate shields over to the maingate
18 side, across an air stream of 45 cubic metres of air. It
19 was unfathomable. There were people saying, "There's just
20 got to be something wrong with the sensor or there's just
21 some technical error going on here. It's unfathomable."
22 Yes.

23

24 Q. But the response, if one looks at the LFI reports -
25 and we'll look at them with Mr Smith because he was more
26 sleeves rolled up, I guess would be the way to put it, on
27 that?

28 A. That's right, yes.

29

30 Q. One of the early questions after that first incident
31 in February was to look at whether or not that sensor was
32 in fact measuring the general body methane or whether it
33 was measuring stratification or layering in some particular
34 context?

35 A. That's right. It was the view that it must have just
36 been measuring a very thin layer and that it wasn't
37 detectable by the deputies, it wasn't detectable by the
38 other sensors in the area, wasn't apparent on the other
39 sensors in the airways.

40

41 Q. Again, what you came to understand was that there
42 seemed to be a correlation between the staggered movement
43 of the shields and the exceedances; that was a link that
44 was drawn at some point?

45 A. That's right. So when I'm on the phone with people,
46 I'm saying to them, "Well, we've got to find where the gas
47 is coming from. If you go to the scene and have a look at

1 it after the trip and you're finding no gas, okay, look
2 again. We've got to find out where the gas is coming from.
3 We've got to find that source", and that's where we found
4 the shield staggering was the source in that area.
5

6 Q. But it wasn't, as these things aren't sometimes, quite
7 as simple as that, and in fact what needed to be done, and
8 was done through the LFI process, was an analysis of what
9 multiple causes or multiple circumstances were existing to
10 create that exceedance in that canopy sensor?

11 A. That's right, because there's periods of time where
12 this gas doesn't appear, where the trip doesn't occur, and
13 then there's different symptoms observed by different
14 people when they go to investigate. You needed, in the
15 end, to create a table. We went through a routine-type
16 period where on the Friday where we've had three incidents
17 in a row, we're looking at the same things that usually
18 cause our exceedances and saying, "Well, we've got that
19 under control now", and go again. "We'll apply this extra
20 control, we've got that under control." But by the Monday
21 and that week, we're going, "Hang on a minute, you're
22 getting into an adaptive mindset to say, well, things
23 aren't exactly the way we've always thought them to be.
24 There's a new hazard there, and let's start to make tables
25 of things, let's look at different factors that were
26 present in each of the incidents and identify common root
27 analysis and change analysis."
28

29 Q. Mr Operator, could we look at AAMC.001.006.0080,
30 please. This is a learning from incidents investigation
31 report and you'll see, unlike most, it has a number of
32 incident dates in it - 20, 24 and 26 March, and 6 April and
33 11 April 2020?

34 A. Correct, yes.
35

36 Q. Is it in this process that what you did was to
37 effectively say, "We've got a series of things that have
38 happened here and we need to understand the patterns. We
39 need to see how these things have actually all worked
40 together"?

41 A. Yes.
42

43 Q. Again, I will not go into the detail of it, because,
44 because of your role, you were having a helicopter view
45 over it?

46 A. Yes.
47

1 Q. But you talked about the idea of using a table to
2 identify patterns, and could I ask you, Mr Operator, to go
3 to page 0093 of that document. Could we try to make the
4 table as big as we can. Thank you. Perfect. That's the
5 table you're talking about?

6 A. That's right, yes.

7
8 Q. What this did was to take potential contributing
9 factors - we can just take some examples down the left that
10 we know have an impact on the level and nature of extrusion
11 from the longwall face - from the goaf, I'm sorry - and the
12 other issues that you've identified all listed down the
13 left-hand side there?

14 A. Yes, that's right, yes.

15
16 Q. Even things like the presence or absence of controls
17 that you had tried or not tried?

18 A. That's right, yes.

19
20 Q. Can we have an example there, for example, the absence
21 of a Sherwood curtain?

22 A. Yes.

23
24 Q. Because a Sherwood curtain was one of the things that
25 had been used to try to change, as I understand it - I'm
26 sure I'll get this wrong - the differential pressure such
27 as to move, in effect, the goaf stream away from that
28 sensor or that area?

29 A. That's correct, that's what the Sherwood curtain does,
30 it moves the gas mix point away from the back of the
31 shields.

32
33 Q. Then you have the incidents across the top and then
34 you table whether they were - in fact, could we go back to
35 the main page of the document, I think it's on the next
36 page, the "Key" there - "Y", "P", or "N", considered
37 a contributing factor, potentially one or not considered.
38 Then could we go back, Mr Operator. What that then allowed
39 you to do was, rather than just going, "Oh, we will try one
40 thing: Does it work? No". "Try another thing: Does it
41 work? No." This is a sophisticated root cause analysis,
42 in effect?

43 A. That's right, yes.

44
45 Q. To try to say what are the combination of factors that
46 we have to manage?

47 A. Yes, and it, down the bottom, ranks ones that have the

1 most common factors, yes.

2

3 Q. There's a suggestion made in the literature, and
4 indeed it has already been referred to in the course of
5 this inquiry, the idea of the danger of the normalisation
6 of exceedances, when they happen in the same way over time?

7 A. Yes.

8

9 Q. Is this an example of the way in which this pattern of
10 exceedances was not seen as being normal and was in fact
11 investigated, and investigated in a sophisticated way, by
12 those on your mine site?

13 A. It absolutely is, yes.

14

15 Q. As a consequence of this was the ultimate choice
16 made - there are two choices I want to talk about, but the
17 ultimate choice in terms of the best control from these
18 processes was the use of the Sherwood curtain?

19 A. That's right, ultimately, yes.

20

21 Q. The Sherwood curtain, as I understand it, is a bit
22 impractical from a mining perspective - it gets in the way,
23 it has to be moved, it requires more effort and more
24 resources; is that right?

25 A. That's right.

26

27 Q. But, nonetheless, that's the control that has been
28 chosen to deal with that particular hazard?

29 A. Yes, it ultimately dealt with it, yes.

30

31 Q. And there have been none since then, as I understand
32 it?

33 A. That's right.

34

35 Q. I guess the other point is this: you've left the
36 canopy sensor in place, even though you know it's not
37 required under the regulations?

38 A. Yes.

39

40 Q. Why have you done that?

41 A. We need to be sure that we've still got it safe, and
42 some of these following incidents you can see where
43 people's work practices, their understanding and that, had
44 allowed the system to fail sporadically, occasionally, and
45 we need to keep controls, and then controls on controls,
46 and controls on controls.

47

- 1 Q. Is a great example of that in this context, and it
2 might be what you're alluding to, the issue of the
3 staggering of the chocks and how that was being done by the
4 crews on the ground?
5 A. That's right.
6
- 7 Q. Because a decision was made that because the
8 staggering of the chocks seems to be one of the potentially
9 causative factors, that you would automate that process so
10 as to prevent decisions being made that created that set of
11 circumstances?
12 A. Yes.
13
- 14 Q. But what you found was there were times when new guys
15 would come on the tour, I think, that actually that process
16 was still being done manually?
17 A. That's right.
18
- 19 Q. So again there was an education process and also a
20 continued automation process to try to fix that?
21 A. Correct.
22
- 23 Q. And you just keep building on those processes?
24 A. Yes.
25
- 26 Q. Just one final topic. You're aware, of course, that
27 at Grasstree there's a combination, in terms of coal mine
28 workers, of Anglo employees --
29 A. Yes.
30
- 31 Q. -- some labour hire staff as well --
32 A. Yes.
33
- 34 Q. -- and also contractors?
35 A. Correct, yes.
36
- 37 Q. I just want to ask you some questions about that in
38 the context of risk assessment and how risk assessment is
39 done on site. It's right, isn't it, that the labour hire
40 folk in particular are not put to one side and designated
41 as labour hire folk; they are part of the teams that are
42 operating on the mine?
43 A. That's correct, yes.
44
- 45 Q. In that sense, they are required to conform with and
46 apply the same procedures and processes as the Anglo
47 employees who they stand side by side with?

1 A. Correct, yes.

2

3 Q. In particular, are they then, on literally a daily
4 basis, if not a weekly or monthly basis, probably a daily
5 basis, engaged in and involved in risk assessment
6 processes?

7 A. Yes, they are.

8

9 Q. Have you seen any unwillingness from those people to
10 be involved in those risk assessment processes --

11 A. No.

12

13 Q. -- in a diligent, thorough and committed way to the
14 workforce and to the mine?

15 A. No, they're fully integrated. They wear the same
16 clothes as our permanent employees. In fact, I'd be hard
17 pressed to actually determine which ones are which.

18

19 MR HOLT: Thank you, Mr Martin.

20

21 THE CHAIRPERSON: Thank you. Mr Rice?

22

23 MR RICE: Nothing.

24

25 MR CLOUGH: Q. Mr Schiefelbein, I do have a couple of
26 questions. I noticed in the MRE January 2020, which was
27 put up earlier today, that compliance hadn't been reached
28 in the course for longwall 909 development. Have I read
29 that correctly?

30 A. Yes, that's right.

31

32 Q. So I'm just curious. Had there been any previous
33 events that had maybe deferred the gas drainage or resulted
34 in a diminished gas drainage lead time for that to happen?

35 A. No. The development of that particular panel, we're
36 doing the final drilling for the install road, which gets
37 driven not back to the previous longwall in our case, it's
38 developed ahead and into the new ground ready for the next
39 development. So the UIS drilling that's done for it is
40 done from only just behind the miner and just in time on
41 that basis for the install road to be driven.

42

43 Q. The full seam is extracted by the longwall; that's
44 correct?

45 A. That's right, yes.

46

47 Q. So, in theory, there's no coal caving back into the

1 goaf?
2 A. That's correct, yes.
3
4 Q. So where is the source of the methane that accumulates
5 in the goaf?
6 A. Yes, there's a number of seams above the seam that we
7 mine that contribute to that gas.
8
9 Q. Are those seams pre-drained?
10 A. No, they're not pre-drained - oh, we have been
11 experimenting with pre-draining them, but we haven't been
12 wholesale successful in that area.
13
14 Q. So it would be fair enough to say that the methane
15 that accumulates in the goaf, the only two ways it can make
16 its way out of the goaf are up the goaf drainage wells or
17 down the tailgate; is that correct?
18 A. That's one of the sources. In a longwall with an
19 adjacent goaf, there's also leakage from the adjacent goaf,
20 both in front of the longwall, in the seals outbye in the
21 tailgate, and also through crushed seals back into the
22 active goaf.
23
24 Q. Yes, sorry, I think you misunderstood the question.
25 The question was the only way for the methane to get out of
26 the active goaf --
27 A. Oh, okay.
28
29 Q. -- is up the goaf wells or down the tailgate; is that
30 correct?
31 A. That's right, yes.
32
33 Q. I also noted that some stronger blowers were actually
34 ordered and installed to increase goaf drainage capacity;
35 that's correct?
36 A. That's right, yes.
37
38 Q. But if a goaf well hasn't come online, will a stronger
39 blower make any difference to that well?
40 A. No. If it hasn't caved yet, it doesn't make any
41 difference.
42
43 Q. And I also noticed in the table in the document
44 AAMC.001.006.0093 that on the factors contributing to each
45 HPI event, the proximity to the face of the goaf well was
46 actually a fairly - potentially a fairly significant
47 contributing factor?

1 A. That's right, yes. When we were studying that, we
2 were finding that the distance back to the last active hole
3 before you come on to the next one was a common factor.

4
5 Q. So if well holes had been spaced closer together,
6 would that potentially have ameliorated that effect?

7 A. It could potentially do that. We've had attempts at
8 trying closer hole spacing in some previous blocks to see
9 if that works entirely, and it doesn't work entirely,
10 because the holes can only draw the gas at a certain rate,
11 anyway, and they merely scavenge the gas off each other and
12 make themselves run out of gas and go to air rich more
13 often and therefore end up being shut down rather than
14 capture more gas or totally get rid of the problem.

15
16 Q. So I'm hearing there's an opportunity to maybe improve
17 or refine the whole spacing maybe as a potential solution?

18 A. That's right, so that's one of the potential solutions
19 in that area. When we trialled the more narrow hole
20 spacing, we ultimately concluded that a better casing
21 design to prevent the holes from deteriorating and
22 therefore operate at maximum flow longer was a better
23 solution at that time.

24
25 MR CLOUGH: Thanks very much. I have no more questions.

26
27 THE CHAIRPERSON: Mr Schiefelbein, thank you for your
28 evidence. You are excused.

29
30 **<THE WITNESS WITHDREW**

31
32 MR RICE: I propose a break, Mr Martin.

33
34 THE CHAIRPERSON: All right. A quarter to 12, thank you.

35
36 **SHORT ADJOURNMENT**

37
38 THE CHAIRPERSON: Yes, Mr Rice?

39
40 MR RICE: Mr Martin, there is a list of documents that has
41 been circulated to the parties referencing documents which
42 were either directly referred to in the course of evidence
43 yesterday or are related to it. There is no objection, as
44 I understand, to the tender of the documents referred to in
45 the list, and I do so.

46
47 THE CHAIRPERSON: All right, thank you. Those documents

1 on the list will be admitted into evidence.

2

3 MR RICE: I call Braedon Smith.

4

5 <BRAEDON SMITH, sworn:

6

7 <EXAMINATION BY MR RICE:

8

9 MR RICE: Q. Is your name Braedon Smith?

10 A. Yes.

11

12 Q. Mr Smith, you're employed, are you not, as
13 a ventilation officer at the Grasstree mine?

14 A. That's correct.

15

16 Q. In terms of your qualifications, is it correct that
17 you completed a statutory ventilation officer course
18 offered by the University of New South Wales back in
19 December 2013?

20 A. Yes.

21

22 Q. Did that qualification enable you to be recognised as
23 a ventilation officer in Queensland?

24 A. Yes.

25

26 Q. And you were appointed, I think - correct me if I'm
27 wrong - as ventilation officer at Grasstree by
28 Mr Schiefelbein on 7 November 2019?

29 A. That seems appropriate, yes.

30

31 Q. For how long have you worked at Grasstree overall?

32 A. Since 15 October 2019.

33

34 Q. What was your experience between 2013 and 2019, could
35 you tell us?

36 A. I practised as a ventilation officer at a mine in
37 New South Wales called Springvale, and a number of other
38 roles at that operation as well, subsequently, before
39 coming to Grasstree.

40

41 Q. You participated in a number of what we know as LFI
42 processes for some exceedances that occurred at Grasstree,
43 did you not?

44 A. Yes.

45

46 Q. We've already heard some evidence, so we can perhaps
47 be a bit briefer than we might otherwise have been, but

1 could I take you firstly to one in which you were not
2 involved because it seems you were only very recently
3 engaged at Grasstree. It concerns an incident on
4 25 October 2019, and hopefully you've had a chance to have
5 a look at the LFI.

6
7 Mr Operator, could I put up AAMC.001.001.0810, and if
8 Mr Smith could have a hard copy, that would be convenient,
9 I think. Have you had a chance to have a look at that,
10 Mr Smith?

11 A. I'm familiar with the document, yes.

12
13 Q. We've heard some evidence that there was a methane
14 exceedance on that date associated with a goaf fall that
15 may have been in fact the first caving. What I want to ask
16 you about is the configuration of the ventilation
17 arrangement and how the incident was dealt with having
18 regard to that ventilation arrangement.

19
20 Could I ask you first just to have a look at page 4,
21 which is 0813 last four digits, and the bottom half of the
22 page. You'll see in those first three paragraphs under the
23 heading that it seems as though the longwall tailgate
24 ventilation set-up was designed in a certain way; correct?

25 A. Yes.

26
27 Q. And that the design had been - I see this in the third
28 paragraph - effectively used in previous three-heading
29 gateroads?

30 A. Yes.

31
32 Q. We take it from that that Grasstree had some history
33 of use of three-heading gateroads?

34 A. Yes.

35
36 Q. That's as you understand it?

37 A. That's correct, as I understand it.

38
39 Q. Why was that method of ventilation not utilised, do
40 you know, for the last two longwall blocks, as this report
41 reads?

42 A. I'm not aware.

43
44 Q. Do you see the last sentence in that third paragraph:

45
46 *It has been reintroduced for LW808 due to*
47 *the two-heading tailgate layout without an*

1 *adjacent block.*

2

3 Are you able to elaborate on what that sentence means?

4 A. Yes, so typically when you're developing your first
5 longwall block you require two sets of roadways, a maingate
6 and a tailgate roadway. If you have adjoining gateroads,
7 you typically run, in most operations, with
8 a single-heading tailgate roadway, because the subsequent
9 other roadway has formed part of the adjacent goaf. So
10 because longwall 808 was the first block in a new area of
11 the mine, it required both, a two-heading gateroad
12 development, both of which were open to the extraction of
13 808.

14

15 Q. I think we will go to a diagram of that shortly and
16 I will ask you to explain it.

17 A. Yes, sure.

18

19 Q. If you would go to page 6, which is 0815, we see in
20 the first paragraph under "Findings" that the start-up of
21 longwall 808 didn't have the tailgate ventilation set up
22 adequately. Apparently it wasn't set up as it was
23 designed. Is that as you understand?

24 A. No. I believe what it's referring to there is that it
25 wasn't set - it wasn't set up in a way that was adequate to
26 provide that amount of ventilation through the C heading
27 roadway. All of the modelling that was conducted for the
28 commencement of the block and for the initial retreat up
29 until the subsequent routine retreat of the tailgate
30 roadway was for the arrangements depicted in this LFI.

31

32 Q. Perhaps we could go to page 9. There is a diagram.
33 That's at page 0818. Is that a diagram of the ventilation
34 arrangement in place at the tailgate?

35 A. Not at the time of the incident. That's of a typical
36 arrangement thereafter. So the previous page has the --

37

38 Q. Could you speak up a little, Mr Smith?

39 A. Sorry. The previous page has the layout at the time
40 of the incident.

41

42 Q. We'll go to the previous page, page 8. Could you give
43 us an explanation of the functioning of the two gateroads?

44 A. Yes, certainly. The right-hand side of the page is
45 the maingate roadway, which is typically the intaking
46 ventilation paths, which then goes across the longwall face
47 and out the tailgate, being the left-hand side roadways.

- 1
2 Q. That's where we see, for example, 21CT and 22CT?
3 A. That's correct.
4
5 Q. And the sensor was located where?
6 A. I believe it was outbye of 19 or in the vicinity of
7 19. I'll just check the documentation. It was in the
8 C heading road, 19 cut-through.
9
10 Q. We see the letters A and C on the bottom of that
11 diagram, in the bottom left-hand corner. A heading is -
12 that depicts A heading and C heading?
13 A. Yes, that's correct.
14
15 Q. Could you identify the flow of ventilation by
16 reference to those two headings?
17 A. Yes. The way that it was designed and modelled for
18 the longwall commencement was that after the air is
19 reported to the tailgate corner of the longwall face,
20 a portion of that would then report via A heading, between
21 21 to 22 cut-through, through those what you can see is the
22 squiggly lines, I guess. They represent some stoppings.
23
24 Q. I might need you to take it a little bit slower,
25 Mr Smith.
26 A. Sure, no problem.
27
28 Q. Take us from the bottom right-hand corner where we see
29 the letter A to indicate A heading.
30 A. Yes.
31
32 Q. What's the flow of ventilation to and from that area?
33 A. So we have four hammer holes.
34
35 Q. I beg your pardon?
36 A. We have four hammer holes, four downcasting shafts, if
37 you will, small diameter shafts, between 22 and 21
38 cut-through on the bottom right-hand side of the page. Is
39 that what you're referring to?
40
41 Q. Yes.
42 A. So they downcast a portion of air, and the remaining
43 portion of the air is being intaked from the mains up
44 A heading from the top right-hand corner of the page.
45
46 Q. You refer to the top right-hand corner of the page.
47 There's a blue arrow.

1 A. Yes.

2

3 Q. What's the significance of it?

4 A. In this drawing, this is obviously a snap of the mine
5 map at some stage after the incident, if that makes sense,
6 where you can see the goaf area there being extracted. So
7 the stopping arrangement that's relevant to the incident is
8 in the bottom left-hand corner.

9

10 Q. How did the stopping arrangement impact on the
11 exceedance that occurred on that day?

12 A. The design was such that when modelled at the
13 commencement of this longwall block we would have between 7
14 and 9 cubic metres of air reporting basically through the
15 goaf in a back-bleed arrangement to the C heading roadway
16 and back out, and that was the design with the stoppings at
17 20 cut-through and 21 cut-through in place for the initial
18 commencement of this longwall.

19

20 At the time of the incident, it appears as though that
21 hadn't functioned as effectively as had been designed --

22

23 Q. The cut-through arrangement?

24 A. The back-bleed arrangement, yes, hadn't functioned as
25 effectively as had been modelled or designed, contributing
26 to the incident.

27

28 Q. And how was that rectified?

29 A. So at that point in time obviously those areas have
30 become goaf, so they're no longer accessible, so the
31 remedial action that was taken at that point in time was to
32 establish a brattice wing coming from the intaking side of
33 the roadway from A heading, from 19 inbye, to force air up
34 into - between that area and the face where the longwall
35 return was.

36

37 Q. What, then, is the significance to this report of the
38 diagram that's on page 9?

39 A. The diagram that's on page 9 is representative of the
40 arrangement that occurred thereafter, which was the design
41 arrangement for subsequent extraction.

42

43 Q. In that longwall?

44 A. Yes, that's correct.

45

46 Q. Could you explain the ventilation flow by reference to
47 that diagram?

1 A. Yes, absolutely. So across the face you've got
2 50 cubes of intaking air. That's I guess that denoted area
3 with the blue line. It subsequently splits at the
4 intersection of the tailgate roadway in A heading, where
5 a portion of it indicated by the dotted red lines goes back
6 behind the goaf through the brattice, designated as
7 brattice 2, and then also reporting down through to
8 brattice 1, between 3 and 5 cubes at that stage, and then
9 we've also got an intaking portion of air in the tailgate
10 roadway in A heading, about 40 cubes, as denoted by the
11 diagram, and then the methane sensor outbye in C heading.

12
13 Q. How does this type of two-heading tailgate ventilation
14 system differ from that which was used on previous
15 longwalls, do you know?

16 A. With respect to 909 as an example?

17
18 Q. Yes.

19 A. 909 only had a single returning roadway in the
20 tailgate.

21
22 Q. So instead of the two roadways with airflow in or gas
23 flow in both directions, we would see only one heading?

24 A. Yes, that's correct.

25
26 Q. Being, what, the equivalent of A heading?

27 A. Yes.

28
29 Q. Is that the more typical instance of a ventilation
30 arrangement?

31 A. Yes.

32
33 Q. In that kind of instance, we would see, would we,
34 airflow across the face as currently drawn in this diagram
35 by reference to the blue arrow?

36 A. Yes.

37
38 Q. And then taking a right-hand turn, so to speak, down
39 the tailgate return roadway?

40 A. Yes, that's correct.

41
42 Q. And that's it?

43 A. Yes.

44
45 Q. Are there advantages to successful ventilation from
46 using this kind of system as depicted there?

47 A. Yes, there are some advantages. One is the ability to

- 1 put positive pressure around that tailgate area through the
2 back-bleed arrangement.
3
- 4 Q. What does that do?
5 A. You see that portion of the dotted red line returning
6 inbye towards the goaf and then back across, that's driven
7 by ventilation pressure, so it's drawing back in that
8 regard.
9
- 10 Q. Tell me, does that serve to diffuse, to some extent,
11 the gas concentration in the goaf stream?
12 A. "Diffuse" is probably not --
13
- 14 Q. Dilute?
15 A. No, no, it's not about dilution. It's purely about
16 the pressure that's holding it back, if that makes sense,
17 so that you have a wider scouring angle.
18
- 19 Q. I may have interrupted you. I was interested to know
20 the advantages of this kind of ventilation arrangement
21 compared to the single tailgate return?
22 A. That's one of the advantages. To be honest, that's
23 the primary advantage of doing this, is that it provides
24 you that capability to put back pressure on. However, it
25 is a more complicated arrangement to maintain.
26
- 27 Q. What's the advantage of having that back pressure?
28 A. To keep that goaf stream away from operating area of
29 the longwall face.
30
- 31 Q. That's really what I was getting at.
32 A. Yes.
33
- 34 Q. Where would you otherwise see the goaf stream tend to
35 feature?
36 A. It would vary in, I guess, its typical area, if that
37 makes sense, in a regard. So it is always on that - in
38 this case, the pillar side rib as it comes out and the goaf
39 gas pushes to --
40
- 41 Q. Can you identify where a rib is by reference to this
42 diagram?
43 A. Yes, sure. So I guess where the blue arrow, across
44 the longwall face, points towards the tail of the first red
45 arrow, the immediate black line to its left would be what
46 you would call the chain pillar rib.
47

- 1 Q. Is that where goaf stream tends to accumulate?
2 A. Yes. It tends to be manifest in that area and it's
3 scoured by the ventilation air stream as it comes past.
4
5 Q. That's directly at the intersection; correct?
6 A. Yes.
7
8 Q. Of the face and the tailgate return?
9 A. In the vicinity, yes.
10
11 Q. Under the normal arrangement, you would find the
12 airflow going only in one direction, from across the face
13 and then down the tailgate return roadway - do I understand
14 that correctly?
15 A. Yes.
16
17 Q. In this instance, that airstream can be split?
18 A. Yes.
19
20 Q. As depicted by the red arrow in one direction and the
21 dotted line in the other direction?
22 A. Yes.
23
24 Q. I may be asking you a repeat question, but in terms of
25 management of the goaf stream, how does this kind of
26 arrangement improve or otherwise that management of the
27 goaf stream?
28 A. It gives you the ability to have an impact on it
29 through the application of that positive pressure. It also
30 introduces some complexity into the ventilation
31 arrangement --
32
33 THE CHAIRPERSON: Q. Mr Smith, I'm sorry, could you just
34 sit a bit closer to that other microphone, might be the go.
35 Thank you.
36 A. Is that better?
37
38 THE CHAIRPERSON: Yes. Thank you.
39
40
41 THE WITNESS: Sorry. It also introduces some complexity
42 into that arrangement in the tailgate, which also has with
43 it some inherent variability.
44
45 MR RICE: Q. You say "inherent variability". Is that
46 a good thing or a bad thing?
47 A. It can be problematic if it's not controlled

- 1 correctly. So we have a roller door, that brattice 1 there
2 is a variable control that allows us to control the amount
3 in the back bleed through that area into the goaf.
4
- 5 Q. That ventilation arrangement was pursued for the
6 balance of the production of that longwall, as you said?
7 A. Yes, that's correct.
8
- 9 Q. But not used on subsequent longwalls?
10 A. No.
11
- 12 Q. I want to go to one of the subsequent LFIs that you
13 were involved in and just ask you to explain some technical
14 terminology.
15 A. Sure.
16
- 17 Q. Could we go, Mr Operator, to AAMC.001.001.0691. It
18 concerns the event on 11 January 2020. You were part of
19 the LFI team, according to the team list; correct?
20 A. Yes, that's correct.
21
- 22 Q. If you go to page 5, could you give us a little
23 explanation on the significance of, as the first line
24 reads, "production approaching the drillers stub in 14
25 cut-through".
26 A. Yes.
27
- 28 Q. What's the significance of mining towards a driller
29 stub for production of methane?
30 A. We have driller stubs in various locations to help us
31 conduct our underground in-seam drainage, so they're pulled
32 off the regular tailgate roadway and into the block. So
33 when we approach those, they're obviously an open part of
34 the roadway that we intersect with the longwall during
35 retreat.
36
- 37 Q. Is that a feature which is a leftover, so to speak -
38 that might not be the correct term, but the product of the
39 in-seam pre-drainage?
40 A. Yes.
41
- 42 Q. And is it known where they're located?
43 A. Yes.
44
- 45 Q. Is that a feature, for example, on a mine plan?
46 A. Yes.
47

- 1 Q. I suppose, in light of that, you would be looking to
2 know when you're approaching such a stub?
3 A. Yes, that's correct.
4
- 5 Q. Is that part of the planning that goes on?
6 A. Yes.
7
- 8 Q. What can happen when mining at or into a driller stub?
9 Can you explain the significance of it?
10 A. In so far to the operation?
11
- 12 Q. We're talking about production of methane.
13 A. Those holes - sorry, those stubs and the holes that
14 are associated with them remain on drainage for a period of
15 time before we intersect them to try to maximise the
16 ability for us to drain the coal. At a point in time when
17 we go to intersect them, we disconnect all of that
18 apparatus, because it has served its functional life at
19 that point in time. Then when we come into the
20 intersection of the stub itself, we have a process and
21 a procedure and a standardised layout for how we treat
22 those stubs, so that they remain ventilated during that
23 process of holing into them, to prevent the accumulation of
24 methane in the stub.
25
- 26 Q. So there is a particular plan?
27 A. Yes.
28
- 29 Q. By way of treatment of the scenario where you're
30 drilling towards what's known to be a driller stub?
31 A. Mining towards, yes.
32
- 33 Q. Mining towards a driller stub, okay. Given that those
34 things, the location of it and the fact of approaching it,
35 are known and there is some plan in place for dealing with
36 that, what went wrong on this occasion?
37 A. So this event was attributed to the fall of some goaf
38 behind the longwall. So the context surrounding this event
39 is that we had had some, I guess, poorer than expected
40 geotechnical conditions in that tailgate. On approach to
41 this stub, when it was holed, we did a regular cut into the
42 tailgate which consists of two shears, and then the
43 subsequent advance of the chocks. The ERZ controller at
44 the time noted that he did another push at the face and
45 another advance because he wanted to catch the lip of the
46 stub for geotechnical stability in this instance, and that
47 succession of a number of pushes and advances appears to

1 have opened up a sufficient amount of goaf area that
2 subsequently came in in a single event at that point,
3 flushing some of the methane from the goaf back over into
4 the tailgate drive.
5

6 Q. I'm sure it's very basic to you, but can you explain
7 what you're talking about when you mention a number of
8 pushes to the face?

9 A. Sorry, a number of advances is probably the best
10 way to understand it.
11

12 Q. Advances of the shearer?

13 A. Advances of the shearer. So the shearer had advanced,
14 cut into the tailgate and taken two webs, so that's
15 two metres of advance, of retreat. Subsequently, the
16 chocks advance and move forward another metre with that
17 motion so that the roof is supported in the working area of
18 the mine, and in a normal sequence, that would just be two
19 advances in a tailgate shuffle, which is the cutting
20 sequence in that process where the two webs have been
21 opened up.
22

23 Q. That's what normally is done?

24 A. That's correct, yes.
25

26 Q. And number three was apparently undertaken, and the
27 expression appears, "to catch the lip of the drill stub"?

28 A. Yes.
29

30 Q. You might need to interpret that for us, if you
31 wouldn't mind?

32 A. Sure. So when we cut into the driller stub and
33 intersect, there's a portion of the driller stub from where
34 it was that is obviously already supported from when it was
35 used as a gas drainage stub for that activity. When we cut
36 into that, there's a portion, being what we call the tip to
37 face, between the tip of the chock canopy and the cut face
38 position of the longwall, and that area is not typically
39 supported until the shield advances over it. So when the
40 ERZ controller has tried to catch the lip, he has tried to
41 pull the tip of the chock into under where the supported
42 roof of that stub is.
43

44 Q. What learning comes out of that?

45 A. So through the process of this investigation, the
46 outcome was that we needed to communicate the balancing of
47 the need to maintain the geotechnical conditions on the

1 face and also the potential risk that has of opening up an
2 additional span in the goaf for a fall to occur. It's the
3 role of the ERZ controller in the panel to balance the
4 risks that he's faced with in the dynamic mining
5 environment. So at that point, we didn't want to issue
6 a direction to them that prevented them from making the
7 assessment under their competency as to what risks they
8 needed to address, whether it be the risk of a strata
9 failure or the risk of gas migration.

10

11 Q. Was there some form of misjudgment in the first
12 instance in this incident?

13 A. No, I don't believe so. I believe the ERZ controller
14 acted in a reasonable way to fulfil his statutory
15 obligations.

16

17 Q. Notwithstanding that there is a process which is in
18 place, and it's in place with a view to successfully
19 drilling - mining towards a drill stub without creating an
20 exceedance?

21 A. Yes, that's correct.

22

23 Q. Is it, then, the feature of conducting a third push
24 towards this drill stub so as to catch the lip - is that
25 the essence of it?

26 A. That precipitated this event?

27

28 Q. I beg your pardon?

29 A. Sorry, that precipitated this event?

30

31 Q. Yes.

32 A. Yes.

33

34 Q. You say that was a legitimate choice that the ERZ
35 controller could have made in that particular scenario?

36 A. Yes.

37

38 Q. So in terms of how to deal with the situation in
39 future, if you say that what occurred was a reasonable
40 choice, faced with the same scenario would we not have the
41 same thing reoccur?

42 A. I don't believe so.

43

44 Q. Why?

45 A. We've gone through a process where we iterated to the
46 ERZ controllers for them to be mindful of the decisions
47 they're making with regards to the risks that they are

1 trying to manage on their shift, in particular with the
2 drill stubs. Subsequently, we've also reviewed our
3 standard work procedure for the intersection of gas
4 drainage stubs in the longwall to make the standardised
5 arrangement a bit more robust to handle some greater level
6 of variability in the mining process.

7
8 Q. Can we go forward to the group of eight instances
9 involved with the zero metre tailgate sensor. You've
10 looked into this in a fair bit of detail, have you not?

11 A. Yes.

12
13 Q. You were on the LFI team for the first incident on
14 22 February 2020?

15 A. Yes.

16
17 Q. Then there was a number of repeat instances and
18 I think you may have led the preparation of the report for
19 the remaining seven instances?

20 A. Yes, that's correct.

21
22 Q. Let's just go to the first of them, because it seems
23 to set out a number of features, and I'll ask you if they
24 were recurring features. Mr Operator, could we go to
25 AAMC.001.001.0703. Just while that opening page is there -
26 if it helps, you now have a hard copy - I notice that the
27 incident date was 22 February, and on this document the
28 report date is also the same date?

29 A. Yes, that's correct, that's what's written.

30
31 Q. That couldn't be right, could it?

32 A. No. That was an oversight of mine in the preparation
33 of the report.

34
35 Q. Do you know when this report was actually completed?

36 A. Not off the top of my head, no.

37
38 Q. In the sequence of events that subsequently occurred -
39 and you were involved in the LFI for them - were both
40 reports completed at the same time or was this one
41 completed first?

42 A. No, this one was completed first. Typically an LFI
43 report is given a due date of 14 days from the initial
44 incident report.

45
46 Q. And you may not recall exactly, but do you expect you
47 complied with that?

- 1 A. Somewhere in that vicinity, yes.
2
- 3 Q. In that case, we can take it that this report was
4 completed before the next sequence?
5 A. Yes, preceding the subsequent incidents, yes.
6
- 7 Q. But you nonetheless did investigate the other seven
8 and could tell us, perhaps, whether what you discovered on
9 the first incident was also a feature of what emerged from
10 subsequent incidents?
11 A. So we identified a number of factors in the process of
12 conducting the first LFI, and some of those factors were
13 replicated in the other incidents, but not all.
14
- 15 Q. Could you look at page 3 of that report. There's
16 a number of things. At about dot point 5, you make
17 reference to the position of the sensor, and is it correct
18 it's not only the position of the sensor on the particular
19 canopy but where that particular shield itself was located?
20 A. Yes.
21
- 22 Q. Can you explain the significance, then, of the
23 position of the canopy - position of the sensor on the
24 canopy on chock number 197, as I think it was?
25 A. Yes. The sensor was installed on the roof of canopy
26 chock 197, which is the last chock in the sequence of
27 chocks on the longwall face, being the point imminently on
28 the tailgate intersection of the roadway, yes.
29
- 30 Q. Did you, as part of this, go and observe its location?
31 A. Not at the time of the incident, but I did
32 subsequently during another underground inspection.
33
- 34 Q. It didn't change its position, did it?
35 A. No.
36
- 37 Q. Throughout this time frame of these eight exceedances
38 it remained in the same location?
39 A. Yes, at no point during the subsequent incidents we
40 had reported on this sensor was the location of that sensor
41 changed.
42
- 43 Q. One or more of the reports about it has the 197 chock,
44 I think an expression might be used, "fully in the
45 roadway". What did you observe about its location?
46 A. During my inspection I previously alluded to?
47

- 1 Q. Yes.
- 2 A. At the time that I inspected I believe that chock was
3 about halfway into the tailgate roadway, with the remaining
4 half of that chock square with the cut face of the block
5 side of the rib.
- 6
- 7 Q. Does that location of protruding, so to speak, into
8 the roadway have an effect on what kind of - or what level
9 of gas is going to be read by that sensor?
- 10 A. Yes, it does.
- 11
- 12 Q. Why?
- 13 A. I believe in the subsequent LFI, the seven-in-one,
14 there's some diagrams at the back of it that are pretty
15 easy to speak to, if that's all right.
- 16
- 17 Q. Okay, we might do that, but the position of it was one
18 feature?
- 19 A. Yes, correct.
- 20
- 21 Q. Partly, as it were, in the tailgate roadway?
- 22 A. Yes.
- 23
- 24 Q. What about alignment with its neighbours, or with its
25 neighbour, 196?
- 26 A. Yes, that was another factor.
- 27
- 28 Q. Did you make any observation about that?
- 29 A. I inspected, and I'm not recalling exactly which
30 inspection it was, but I've inspected that sensor a number
31 of times where we've had both alignment consistent with its
32 neighbouring chock and alignment inconsistent with the
33 neighbouring chock.
- 34
- 35 Q. I'm sorry, I didn't hear your last --
- 36 A. Sorry. I've inspected that sensor both being in
37 alignment with its neighbouring chock and also out of
38 alignment with the neighbouring chock.
- 39
- 40 Q. What is the significance of the lack of alignment with
41 its neighbour?
- 42 A. So when the chock 197 is misaligned, or unaligned is
43 probably the better term, with its neighbouring chock, 196,
44 which occurs when that chock is predominantly out into the
45 roadway in its entirety because it attempts to set to the
46 height of the roadway that's cut and not to the height of
47 the face, you have a mismatch in the chock heights, which

1 permits an amount of gas to accumulate in that higher space
2 where that sensor is and be detected there.

3

4 Q. And being, as it was, at the very end of the
5 tailgate - indeed, partly at least into the tailgate return
6 roadway - in what proximity is that to what you would
7 describe as the goaf stream?

8 A. It would depend on the alignment of the face. It
9 could be potentially in the goaf stream or not at all, and
10 it could be exposed to some of the gas coming out between
11 the misalignment of the chocks.

12

13 Q. You note in this report, in the second-last dot point,
14 that elevation relative to its neighbour was an issue?

15 A. Yes.

16

17 Q. Is that something that you would expect would have
18 been considered in the assessment to place the sensor in
19 that location or did it just turn out to be a particular
20 feature that it was installed in a position which was
21 somewhat higher than its neighbour?

22 A. Look, it was something that we observed following the
23 installation of it. It was not something that we
24 anticipated seeing.

25

26 Q. The face was not level, I take it? It was on some
27 kind of a slope which affected the relative positions of
28 the two chocks, 196 and 197?

29 A. Depending on the mining condition, it can be the
30 gradient of the block or it can be the alignment of the
31 roadways. It can be a number of factors that impact it.

32

33 Q. One of the things arising from this report, we see it
34 at page 7, 0709, under the tasks, is that you were tasked
35 to undertake a review of that sensor and determine if it
36 was recording readings that were representative of general
37 body?

38 A. Yes.

39

40 Q. Do I understand that you didn't actually get to carry
41 out that particular review?

42 A. No, I conducted that review.

43

44 Q. Did you?

45 A. Yes.

46

47 Q. Okay. I may be wrong. I thought I had seen somewhere

1 that Mr Moreby may have done so?
2 A. Oh, he may have closed the action out, but the review
3 itself was completed by me.
4
5 Q. What did you conclude?
6 A. At that time when the review was conducted, we
7 basically determined that we didn't have sufficient
8 evidence to determine whether it was or was not
9 representative of the general body, which drove
10 a subsequent action that we've since implemented of
11 installing a secondary sensor on that tailgate drive, which
12 we now refer to as the sprocket sensor, which is located
13 more or less directly below the chock canopy sensor so that
14 we can get an understanding as to whether - if they're both
15 registering a methane concentration relative to one another
16 or divergent from one another.
17
18 Q. Do I understand you correctly that arising from the
19 reviews and the learnings from incident that there was an
20 additional sensor?
21 A. That's the sensor I'm referring to, the tailgate
22 sensor.
23
24 Q. At or near the sprocket?
25 A. Subsequent to the LFIs.
26
27 Q. Yes, I understand.
28 A. Not at the time of this.
29
30 Q. But that was the result?
31 A. Yes, that's correct.
32
33 Q. Did the canopy sensor remain in its position?
34 A. Yes.
35
36 Q. Let's just go to the next report, which is the joint
37 one. It's number AAMC.001.006.0080. If you wouldn't mind
38 going to page 13, Mr Operator, which is 0092. You were
39 looking into seven events, and each event is given
40 a particular identifying number; correct?
41 A. Yes.
42
43 Q. We won't go to it at the moment, but on the following
44 page there's a depiction of which event relates to which
45 incident number.
46 A. Yes.
47

1 Q. Could you summarise for us what you found in terms of
2 miscommunicated operating practices that you refer to under
3 that heading?

4 A. Yes. On a number of occasions, we found, through the
5 process of investigating these incidents, that the sequence
6 of shield advance in relation to the shearer position was
7 identified as a contributing factor, I believe in seven of
8 the eight instances specifically. And on the basis of
9 determining that, we identified that we needed to modify
10 the sequence of operation.

11
12 Because we seek to implement the controls as quickly
13 as possible, we initially gave those instructions to the
14 crews, to operate in a sequence that varied from the normal
15 automation state.

16
17 Q. Verbally, I think?

18 A. Verbally in the first instance, yes, which inherently
19 resulted in some people or some crews misunderstanding the
20 intent of that instruction, which was subsequently verified
21 and validated through a formal memo process with the sign
22 on.

23
24 Q. Was the sequence that was initially communicated
25 verbally a sequence that was verified or assessed in some
26 way as being appropriate to deal with the issue that had
27 been identified with respect to chock advance?

28 A. The set of circumstances that we were identifying was
29 one that we hadn't seen before because we weren't measuring
30 in this location, so we believed that the sequence of chock
31 advance relative to the shearer position was a contributing
32 factor, and the way to alleviate that was to separate the
33 shearer position from the shields at that particular stage
34 in the automation sequence, and we wished to assess whether
35 that was an effective control or not.

36
37 Q. Could you explain what the preferred identified method
38 of advance was?

39 A. Yes. We identified that during the automation state
40 of cutting back out of the tailgate after the first cut in,
41 that the shield started to advance with the shearer still
42 in motion to what we call the buttock, or its turn-around
43 position. When we identified that, we saw a consistency in
44 the locations of where the trip events were occurring. It
45 was nominally at around 185 chock.

46
47 During that state, the shields had started to advance,

1 during the shearer retreat. Our instruction quite simply
2 was that we were to take the longwall out of its automated
3 state doing that, bring the shearer back to its turn-around
4 point at about 174 chock, then advance the shields from
5 tailgate to main.

6
7 Q. In a block or --

8 A. Not in a bank advance, no, sequentially from tailgate
9 to main.

10
11 Q. A staggered advance.

12 A. Yes.

13
14 Q. Is that the correct terminology?

15 A. It would be from a tailgate to maingate single advance
16 sequence.

17
18 Q. An expression we've heard is a like a fan advance.
19 Does that mean anything to you?

20 A. That would be a similar description, yes.

21
22 Q. Then, because there was some confusion, I think was
23 your word, the instruction was reduced to a formal memo?

24 A. That's correct, yes.

25
26 Q. We don't need to go to it, but it's included in your
27 report, the memo that was issued to crews?

28 A. Yes.

29
30 Q. What's the method of communication?

31 A. So it's a documented memo. I believe it was
32 communicated by the longwall superintendent during the
33 start of tour meetings, which was subsequently then
34 verified by crew sign-off.

35
36 Q. As you've assessed it, what was some initial
37 misunderstanding or confusion about the identified
38 preferred sequence of chock advance - was that the reason
39 why there were several exceedances that continued, to which
40 chock advance was related?

41 A. I believe it was a contributing factor in two of the
42 instances, from memory, but it was also a contributing
43 factor in many of them - when I say two of them, it's two
44 of the instances where it was miscommunicated, because we
45 hadn't communicated an instruction in a number of instances
46 when these events had occurred because we had yet to
47 identify that as a potential cause.

- 1
2 Q. Well, it was a gradual process, was it, of
3 identification?
4 A. Yes, we were trying to characterise the problem.
5
6 Q. And then implementation, initially verbally, followed
7 by a written instruction?
8 A. Yes.
9
10 Q. Having done that, was success achieved in managing
11 methane in this area?
12 A. Not entirely, no. We found that that was one factor.
13 The table that's on the subsequent page, I think we
14 identified 13 potential factors which we determined during
15 the course of us characterising the problem that we had
16 identified when we were having these incidents on this
17 sensor. So the automation was only one potential factor
18 involved in these.
19
20 Q. If we could have a look at that, it's on the next
21 page, Mr Operator. We saw this before you came in, or
22 perhaps you were in watching, but we have seen this before.
23 In terms of chock advance sequence, we see halfway down the
24 left-hand column that you have attributed that to all
25 except one - attributed in a positive way to all except one
26 of the exceedances?
27 A. Yes.
28
29 Q. Moving from that page to the next, you refer in the
30 first paragraph of that page to something called - it's
31 a risk assessment called "Ignition of a flammable
32 atmosphere at the tailgate drive"?
33 A. Yes.
34
35 Q. Is that a report of some kind?
36 A. That was a recommendation from the LFI to conduct
37 a risk assessment in that area. I believe the title of
38 that risk assessment subsequently changed, just out of
39 administration, to, I think it was "Longwall tailgate gas
40 management" or something like that.
41
42 Q. Are you, in effect, recommending that there be a risk
43 assessment with that title?
44 A. A risk assessment in that vein, yes.
45
46 Q. Beg your pardon?
47 A. A risk assessment around what we were detecting there,

- 1 yes.
2
- 3 Q. You say that that should be done because that was the
4 hazard the sensor was intended to detect?
5 A. Yes.
6
- 7 Q. Flammable gas at the tailgate drive?
8 A. Yes.
9
- 10 Q. With particular reference to the sprocket?
11 A. Yes.
12
- 13 Q. In fact, in the next paragraph, you recommended moving
14 this sensor to that different location for that purpose?
15 A. Yes.
16
- 17 Q. Do I understand correctly that, instead of that, an
18 additional sensor was put in the location that you
19 recommended?
20 A. Yes, that's correct.
21
- 22 Q. And the canopy sensor stayed where it was?
23 A. Yes, so we had both sensors.
24
- 25 Q. Can I show you a document - I don't know if you've
26 seen it, you may have done in the course of your LFI.
27 Mr Operator, could we have AACM.004.004.0004. Sorry, it's
28 ACM.004.004.0004. That is an email circulation that
29 occurred on 12 April, by the looks, being the day after the
30 very last of these eight events on the 11th. Have you seen
31 this email before?
32 A. Yes.
33
- 34 Q. Is this something that you would have taken into
35 account in the course of your LFI for the joint sequence?
36 A. Yes.
37
- 38 Q. We see that in this instance Mr Moreby has expressed
39 some opinions about the event of the preceding day?
40 A. Yes.
41
- 42 Q. From what you've seen of what he's set out and what
43 you uncovered, was what he described in this email
44 a correct assessment?
45 A. Yes, I believe so.
46
- 47 Q. We see a graphical depiction, on the second half of

1 the page, of where this sensor was and how its position is
2 relevant to its neighbour; correct?

3 A. Yes.

4
5 Q. Then there's another diagram over the page. Could you
6 explain what's depicted in that diagram?

7 A. This is a top-down or a plan view of the same
8 arrangement on the previous page, where 197 was the chock
9 with its attitude facing up, and 196 is the chock with its
10 attitude at the regular horizon, and what that disparity
11 between them allows is a gap through which some of the goaf
12 gas was found to be emanating over 196 into the vicinity of
13 the sensor on 197.

14
15 Q. Is this an instance where the order of advance of
16 chocks was relevant, or is it more this kind of scenario?

17 A. It could have been exacerbated by the order of advance
18 of chocks.

19
20 Q. Was there any recurrence of methane exceedance at that
21 sensor subsequent to this event that you know of?

22 A. No.

23
24 MR RICE: Thank you.

25
26 THE CHAIRPERSON: Mr Crawshaw?

27
28 MR CRAWSHAW: No questions, Mr Martin.

29
30 THE CHAIRPERSON: Thank you. Ms Holliday?

31
32 MS HOLLIDAY: I have no questions.

33
34 THE CHAIRPERSON: Mr Holt?

35
36 **<EXAMINATION BY MR HOLT:**

37
38 MR HOLT: Q. Mr Smith, Mr Rice was asking you questions
39 about your background and qualifications. A couple of
40 things to add - the first is that you have a degree in in
41 mining engineering?

42 A. Yes.

43
44 Q. You also now have recognised as the equivalent of
45 a first class ticket in Queensland, or New South Wales
46 equivalent, qualifications?

47 A. Yes, that's correct.

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Q. Does that mean at Grasstree there are now four members of the senior leadership team who have that qualification?

A. Four members of staff, yes.

Q. If we could deal, then, with a topic that hasn't yet been covered but may be of importance. From your perspective, would you be able to assist the Board, please, with what the process is on the day when an incident of this kind occurs - that is, when there is an HPI which involves an exceedance? What actually happens? Who's doing what role and practically how are people moved from the face and so on?

A. Yes. So normally the first person who becomes aware of an incident is the ERZ controller for the district, and he typically will respond by taking the people that are in that area to a place of safety, as per his obligation, and then notifying the shift supervisor, being the MSO.

Q. Can I pause you there. If you're talking about coal mine workers on the longwall, where is the place of safety ordinarily in that context?

A. Ordinarily it's the crib room.

Q. How far back is that?

A. Depending on the configuration, it could be a couple of hundred metres away from the face, in this case the tailgate.

Q. Sorry, I interrupted you. That's that part of the process.

A. Yes. After notifying the MSO, he will then also subsequently attempt to notify the mine manager and the SSE, in the case of an HPI. Generally the ERZ controller goes about commencing investigations to make the area safe or disperse the methane as best possible within the scope of their duties.

Where that can't be achieved or isn't easily achieved by the ERZ controller and he requires assistance, the MSO, myself, the underground mine manager may become involved at that stage.

Q. You mentioned an investigation. Could I divide that up into two components. The first is that initial step of identifying where the methane exceedance is coming from and what's causing it, I suppose. How is that done in

- 1 practice? What does the person do?
- 2 A. The deputy would attend the area with his hand-held
3 gas detector. He would go through the process of making
4 a number of measurements, both the measurements on the gas
5 detector and also the ventilation in the area, trying to
6 ascertain the source of the methane in the area in which
7 the exceedance has occurred, and then developing a means of
8 controlling, diluting, dispersing, otherwise eliminating
9 that accumulation greater than 2.5 per cent.
- 10
- 11 Q. What sorts of strategies are deployed, or does it
12 wholly depend on what's been found in terms of where the
13 methane has come from?
- 14 A. It can be situational dependent. Sometimes the deputy
15 may attend the area and the methane may have been readily
16 diluted by the mains ventilation system of its own accord,
17 but in some instances they may erect brattice sails, things
18 like that, to direct airflow such that we can dilute the
19 gas to an acceptable concentration.
- 20
- 21 Q. The second part of that investigation - I indicated
22 I wanted to talk to you about two parts - is the coal mine
23 workers who have been removed to a place of safety, are
24 statements then taken from those people?
- 25 A. Typically, yes.
- 26
- 27 Q. Who is responsible for that at that stage?
- 28 A. Their supervisor, being the ERZ controller.
- 29
- 30 Q. Obviously it is wholly HPI dependent, but what process
31 is then gone through to make a decision as to whether the
32 longwall can be started up again and it be safe for coal
33 mine workers to return to the face?
- 34 A. Production is ceased immediately following the HPI and
35 is not permitted to resume until we've reduced the gas
36 accumulation to below the required level. Once that's been
37 done, an escalation process is undertaken where the ERZ
38 controller talks to the MSO, being the shift supervisor, to
39 basically gain authorisation to resume production, and
40 typically if the mine manager is on site and is not having
41 the MSO act as his representative, then it's escalated
42 through the mine manager and also the SSE as well.
- 43
- 44 Q. You mentioned that obviously the key thing is getting
45 the methane back down below the levels that they need to
46 be, but what do you do to ensure you have confidence that
47 that's a sustained position rather than just a drop down

1 and a risk that it's going to go higher again?

2 A. So it's verified by the ERZ controller in the first
3 instance that that's the case, before production resumes.
4 Obviously in the dynamic environment of the longwall, and
5 as we've seen, where we can have moving pieces that impact
6 the gas concentrations in areas, we then obviously continue
7 with our monitoring to validate, in the next sequence, that
8 that has been controlled adequately.

9

10 Q. Can we deal, then, briefly with the HPis that we're
11 dealing with here but, in particular, the LFI process,
12 because, to use a phrase I used earlier, you were the
13 person I think who had your sleeves rolled up, actually
14 getting into the LFI process and identifying the root
15 causes and consistently with the standard that we've seen
16 presented to the Board?

17 A. Yes, that's correct.

18

19 Q. There are 12 HPis over this period that we've heard
20 about, and we've got the LFI reports for those. You were
21 involved I think in at least - almost all of them if not
22 all of them?

23 A. There were a few before my time being appointed, but
24 the majority of them, yes.

25

26 Q. It might sound like an odd way of putting it,
27 Mr Smith, but you will have heard, I'm sure, in the course
28 of this inquiry and, indeed, I imagine in the course of
29 your training, the idea of exceedances becoming
30 normalised - that is, if you're in a mine environment and
31 there are multiple exceedances or multiple HPis, the idea
32 that it gets normalised and so those in your kind of
33 position see it as being okay or just an ordinary part of
34 doing business.

35

36 Could you tell us from your perspective what approach
37 you took to each of these exceedances and how you treated
38 them, in terms of their significance?

39 A. Yes, all HPI events, particularly in my area of
40 responsibility with respect to ventilation, we treat as
41 unacceptable, and in the course of doing that we really
42 want to undertake a thorough investigation to understand
43 the root causes and the potential controls that we can
44 implement to make sure that they don't recur, which you can
45 see through the LFI process. We undertake an LFI for every
46 single HPI that occurs.

47

1 Q. I guess, just expanding on that, one of the criticisms
2 that one sees in the literature and that is spoken about in
3 terms of the analysis of HPIs or any kind of incidents of
4 this kind that might be seen as indicators is the idea of
5 the problem that can occur if you just look at each one in
6 isolation, kind of tick it off, put a ribbon around it and
7 put it away. Can you tell us what approach you take to
8 HPIs, as you say, that fall within your area of
9 responsibility over a period of time?

10 A. So I guess to use this as an example, we had the first
11 instance of an exceedance on this sensor, which we treated
12 as a stand-alone LFI process and a HPI, and we didn't fully
13 understand or hadn't fully characterised the problem that
14 we were experiencing with this sensor as being in
15 a location that we hadn't previously monitored.
16

17 Then, subsequently, we obviously had a number of
18 subsequent exceedances in similar circumstances but not
19 entirely identical, which threw some concepts into our head
20 about, we don't have a rounded understanding of this
21 particular mechanism, and if we continued to look at them
22 in an isolated sense, one HPI with one LFI, we may fail to
23 see the broader picture and all the contributing factors
24 that are associated with it.
25

26 Q. That idea of looking at all of them - and we'll go
27 very briefly, because we've already seen it, to the table -
28 that idea of looking at all of them and looking at
29 a multi-causation kind of analysis, was that something that
30 there was any resistance to by either the senior leadership
31 team on the site, the SSE, or from Anglo generally to your
32 conducting that kind of a process?

33 A. No, not at all. I think particularly in the instance
34 of 20 March when we had three in the one day, and I think
35 they were the first events immediately after our first HPI,
36 the discussion was had around, "We need to get these
37 together and what's happening", and it was pretty well
38 accepted that that was a good approach. And then obviously
39 unfortunately we had subsequent events that we really
40 sought to understand through that process.
41

42 Q. If we can have a look at that larger LFI report,
43 that's AAMC.001.006.0080, and if we could go to firstly
44 page 14 of that, which is the table. Thank you,
45 Mr Operator, you're way ahead of me. We can see there, and
46 I think you've already explained the kind of nature of the
47 analysis that you undertook. As a result of this, were you

1 able to determine what, in your assessment, was the best or
2 the best series of controls to deal with this hazard that
3 had been identified by virtue of the placement of the
4 sensor somewhere where no-one had previously been
5 monitoring?

6 A. Yes, the best series of controls, yes.

7
8 Q. Can you explain for the Board what they were, what you
9 ultimately concluded?

10 A. We identified a number of, as you can see,
11 contributing factors from the table, and addressing only
12 one of them was not going to be sufficient to ensure that
13 we had robust control over the situation. So a number of
14 controls that we implemented was the installation of the
15 Sherwood curtain in the longwall tailgate, and I guess
16 we've already discussed at length the advance sequence of
17 the shearer.

18
19 So to make that process more robust, we went through
20 and modified the coding of the automation sequence of that
21 shearer and the shields and their advance, directly linked
22 to the methane concentrations as registered on the sensors.

23
24 Q. Could I pause you there.

25 A. Sorry.

26
27 Q. No, no, just because I'm interested. Could you just
28 explain what that means? So what automatically now happens
29 when the methane at that level gets to a certain trigger -
30 I think it is 0.6 per cent, from memory, but could you
31 explain?

32 A. We identified through the LFI - and there's another
33 table in there - that certain methane concentrations were
34 indicators that we were approaching having an event if we
35 allowed the longwall sequence to continue in its normal
36 automation state, and those trigger points were
37 0.6 per cent methane on the chock canopy sensor or
38 1.5 per cent on the tailgate roadway sensor.

39
40 So when those two methane monitors detect those gas
41 concentrations, it triggers a change in the automation
42 sequence of the longwall to prevent the shields from
43 advancing over the shearer, such that we minimise the risk
44 and the potential of having the methane being washed out of
45 the goaf and over those sensors.

46
47 Q. It might be obvious from the word "automation", but

1 that now requires no human intervention at all; it simply
2 happens as a matter of course?

3 A. That's correct.

4

5 Q. And Sherwood curtains - I know you were desperate to
6 go to this diagram and you weren't taken to it. Could we
7 go to page 0154, Mr Operator, and we can go backwards and
8 forwards as Mr Smith needs to. You will understand that
9 there are others in this room who understand this as well
10 as you, but I'm not one of them. Can you assist us,
11 please - perhaps if you could zoom in on the top diagram,
12 Mr Operator. You have been talking about a goaf stream.
13 Again, treat me like I'm stupid - it won't be hard - and
14 explain what it is using that diagram, please?

15 A. The goaf stream is the portion of the mine atmosphere
16 that is emanating from the goaf, which is obviously in
17 a methane-rich state. So in this diagram, it's depicted as
18 this orange area, just for the sake of simplicity.

19

20 Nominally behind the longwall you've got methane, it's
21 part of the mining process, and at some stage it reports in
22 a portion to the tailgate roadway. And what we refer to as
23 the goaf stream is that sort of fringe that you see heading
24 down the page along outside the roadway.

25

26 Q. Thank you. While we have that up, we can see the
27 little red dot there is the zero metre methane sensor, or
28 what we have been calling the canopy sensor?

29 A. Yes.

30

31 Q. We've heard also about stratification as a potential
32 cause for why there have been exceedances on occasions
33 there, or one of the causes. Again, can you explain, using
34 this diagram, how that happens?

35 A. If you see in this diagram, the sensor's situated
36 outside of the area of the goaf stream. I believe on the
37 subsequent diagram on this page --

38

39 Q. Could you drop down to the lower diagram, Mr Operator.
40 Thank you.

41 A. -- you can see - this one is trying to depict,
42 I guess, a state where that goaf stream or goaf fringe has
43 encroached on that sensor, and I think there's another
44 diagram - there's another series of diagrams on the
45 subsequent pages which relate to the alignment of the
46 roadway.

47

1 Q. Perhaps if we could go to the next page, and we'll
2 just keep the two up at the moment. So we can see in these
3 diagrams what you're demonstrating or what you're looking
4 to depict are different configurations, different
5 interventions leading to a different path of the goaf
6 stream?

7 A. Correct, yes.

8

9 Q. Ultimately what was the conclusion that was drawn from
10 this analysis that you did?

11 A. So there's a number of controls that we determined to
12 put in place. One was the automation, which I've already
13 spoken about. You can see in this diagram here there's
14 a number of green lines on some of those chocks, which are
15 annotated with chock-mounted butchers flaps. They're
16 basically a rigid, like a 10mm thick sort of plastic that
17 we hang from the canopies of the chocks to try and direct
18 additional airflow in to disperse and scour effectively
19 over that sensor.

20

21 Q. By "scour", you mean effectively push the goaf stream
22 away; is that right?

23 A. Yes, and dilute it at the same time.

24

25 Q. Thank you.

26 A. And then also the installation of a Sherwood curtain.

27

28 Q. Can you talk us through what a Sherwood curtain is, in
29 very basic terms?

30 A. Yes. It's a device that sits in the roadway made of
31 brattice, which is basically a tarpaulin sort of material,
32 which we secure to the roof and to the floor and to the
33 blockside rib outbye. Basically, its function is to try to
34 put a positive pressure, positive ventilation pressure, up
35 over the tailgate drive and, in a similar function to those
36 butchers flaps but in a different way, push more air over
37 through the goaf stream to improve the scouring and
38 dilution of that area.

39

40 Q. And does it have an impact on the efficiency of the
41 mining itself? Is it hard or easy to work with
42 underground?

43 A. Insofar as efficiency of mining, I wouldn't say so.
44 It's challenging to erect in some circumstances and it
45 requires some maintenance, but it's normally a fairly
46 reasonable thing to install during a maintenance shift.

47

1 Q. Since you've had that in place, obviously with the
2 other controls - I'm sure you haven't removed any of
3 those - have there been any further exceedances in that
4 canopy sensor?

5 A. No.

6
7 Q. To be clear, that canopy sensor is still there?

8 A. Yes, and an additional sensor below it.

9

10 Q. The one you're calling the sprocket sensor?

11 A. The sprocket sensor.

12

13 Q. Again, to be absolutely clear, that's in addition to
14 the section 243A sensor, consistent with the regulation
15 that now exists?

16 A. Yes, so that's further outbye in the tailgate roadway.

17

18 Q. How far outbye on the tailgate roadway is that at the
19 moment?

20 A. At the moment, it's 150 metres outbye.

21

22 Q. Because of the change in the regulations?

23 A. Because of the change in the regulations.

24

25 Q. Now, dealing still with the canopy issue, you were
26 asked some questions by our learned friend Mr Rice about
27 a risk assessment that was recommended in the - well, it
28 was an action that arose out of that LFI process. Were you
29 in fact involved in the doing of that risk assessment?

30 A. I was involved in the preparation of that risk
31 assessment.

32

33 Q. So that was actually completed, and was that a useful
34 process as far as the identification of these risks was
35 concerned and the continued management of these issues?

36 A. Yes. You can see that in the LFI report, when we
37 refer to making a determination with respect to the canopy
38 sensor as being representative of the general body. At
39 that stage, we hadn't referenced placing an additional
40 sensor around the tailgate sprocket, whereas that was an
41 outcome of the risk assessment process.

42

43 Q. Could we have a quick look at it, please. It's
44 ACM.004.003.0019. Do you recognise that, Mr Smith, as
45 being the ultimate risk assessment that you are referring
46 to?

47 A. Yes.

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Q. We just need to be clear about dates, because this is dated, obviously, 9 April 2020 --

A. Yes.

Q. -- whereas the LFI reporting is occurring after that. Can you assist us with the overlap in timing of this risk assessment and that LFI process as well?

A. Sure. During the LFI process, we're developing an understanding of what's occurring and we also understand and know where some of our actions are going to lead us, and this was one of the items that we identified we were going to have to do, so we didn't wait for the finalisation of the LFI process to commence addressing some of the actions that we knew were going to come out of it. We started to run them in parallel.

Q. Mr Rice was asking you about the timing of that risk assessment. Obviously enough, it was clear that that has occurred after the canopy sensor has been put in place, at the time intended to comply with the new regulation 243A?

A. Yes.

Q. We've heard already that the positioning of a sensor on the canopy or on the tip of the canopy to comply with that regulation was something which had been assessed Anglo-wide, or at least Met Coal-wide as far as Queensland was concerned?

A. There was a desire to have a standardised approach, yes.

Q. Please tell me if you are not, but are you aware that there was in fact a risk assessment done, unsurprisingly, in terms of the location of that sensor by Anglo, at a Met Coal level?

A. No, I wasn't aware.

Q. In any event, when it was clear that that was where the canopy sensor was going to be, do you just chuck it in there, or was there a site-specific change management process involved?

A. No, we have a process for any interaction with gas monitoring plant throughout the mine, which is also legislated as being required - the authorisation from the VO or the underground mine manager. So we have a process of implementation, a series of forms that manage the change of the integration of gas sensors, whether that be the

1 installation, the removal, the change of a set point, or
2 the decommissioning of a sensor or the change of
3 a location.

4
5 Q. In this context where you're putting in a new sensor
6 to comply with a regulatory change, does it result in
7 consideration of whether any other sensors need to stay or
8 go or have their trip levels changed or anything like that?

9 A. Sorry, could you repeat the question?

10
11 Q. Sure. You obviously already had a range of other
12 sensors. Does the change management process also include
13 considering the set of methane sensors as a whole, if I can
14 put it that way?

15 A. Not typically. It's at the discretion of the V0 and
16 the UMM to determine what other sensors may be required to
17 be adjusted or changed with the implementation of another
18 one.

19
20 Q. I'm not being clear. I'm interested in the fact that
21 we know that there was already a sensor 400 metres outbye.

22 A. Yes.

23
24 Q. Were any changes made to that sensor at that time, or
25 was there a decision made just to keep it regardless?

26 A. We determined to keep it regardless and have it as an
27 additional sensor.

28
29 Q. Given where you've got to with that canopy sensor, can
30 you explain the reasoning behind keeping it there, given
31 that it's not required as a matter of regulation?

32 A. Yes. When we initially implemented it and we believed
33 that we were operating in compliance with the regulation,
34 we found a hazard. We identified that we were finding
35 methane in a location that was within the operating area of
36 the mine, and we elected that we needed to treat the
37 hazard. It wasn't a reasonable location for us to have
38 detected it previously, because it's behind the shearer,
39 particularly in the circumstances where it's on a return
40 run of the shearer back to the maingate. It's not
41 a prohibited place for an ERZ controller to be taking
42 measurements during operation, so we identified a hazard in
43 a potential area of risk and we then therefore, obviously,
44 had an obligation to control it, and removing the sensor
45 was not in the interests of complying with that obligation.

46
47 Q. Now, final topic, I think. I said that before, but

- 1 final topic - no, it's not. It's two. There was
2 a reference earlier in the hearing to some communications
3 with the inspectors about changes to a ventilation system
4 that resulted in an amended ventilation plan occurring. Do
5 you recall that?
- 6 A. With respect to one of these incidents?
7
- 8 Q. Yes.
9 A. Yes.
10
- 11 Q. Could you explain what the change was and what
12 involvement you had in making it?
- 13 A. I think this was in the event of 20 March. One of
14 those brattices in the tailgate was adjusted, which is
15 broadly in the scope of an ERZ controller's ability to
16 control through what we call a minor panel ventilation
17 change. But because it potentially had an impact on the
18 outcome of one of these incidents, we elected to provide
19 some further additional guidance, which was in the form of
20 a ventilation advice issued by myself and the mine manager
21 to the ERZ controllers, with a set of parameters which we
22 were happy for them to operate within.
23
- 24 Q. You may or may not have been aware of it, but what
25 we've seen is an email to the SSE from one of the
26 inspectors which proposed exactly that --
27 A. Okay.
28
- 29 Q. -- which said, look, in light of the fact this is an
30 issue which has resulted from an HPI, from an incident, we
31 think it's better if it's more formalised in that way that
32 you've discussed. Were you aware of those inspector
33 communications, or from your perspective was it simply good
34 practice, or a combination of both?
35 A. Not directly, no.
36
- 37 Q. In any event, it wouldn't surprise you if the
38 inspector was engaging in that kind of a positive way?
39 A. No, absolutely not.
40
- 41 Q. And it's the nature of the relationship you've
42 observed?
43 A. Yes.
44
- 45 Q. Finally, I want to get a little bit of the benefit of
46 your expertise in relation to gas drainage at Grasstree
47 generally. Again, it's described by a lot of people, and

1 I guess you would agree, as being a gassy mine, that is,
2 gas is something which has to be managed?

3 A. Yes.

4

5 Q. In terms of drainage, that is, pre-drainage, what are
6 the techniques that have been used at Grasstree in the time
7 that you've been there?

8 A. We typically utilise UIS. At some stage before my
9 time with the development of 808 block, I believe there was
10 some SIS employed as well.

11

12 Q. What are SIS and UIS?

13 A. Underground in-seam drainage, so that's drainage that's
14 commenced from the workings, that being that we have
15 a drill rig underground that's doing the drilling and the
16 drainage and connecting into our drainage system. And SIS
17 is surface in-seam, so they're holes that are drilled from
18 the surface to the seam.

19

20 Q. In terms, then, of the capacity to drain the goaf
21 using goaf holes, using the goaf drainage holes, are you
22 aware that there were blowers commissioned and purchased at
23 one point to go on to the goaf drainage holes?

24 A. Yes.

25

26 Q. What positive effect did they have on the capacity to
27 drain the goaf at that point?

28 A. They increased our overall capability and capacity to
29 drain.

30

31 Q. Do you know by how much?

32 A. I believe it's around 35-ish per cent, something in
33 that vein.

34

35 Q. The precursor for doing that, obviously enough, is
36 that there was gas to be managed in that area?

37 A. Yes.

38

39 Q. Was there any resistance from your perspective -
40 I don't mean from you but that you observed from anybody
41 about investing in those blowers in order to be able to
42 increase that drainage capacity?

43 A. No.

44

45 Q. Quite the opposite, I would imagine?

46 A. Yes.

47

1 Q. In terms, then, of ongoing management of gas at
2 Grasstree, I think you've been involved, together with
3 others, including the SSE, in really looking hard at how to
4 be innovative in improving gas management, improving gas
5 drainage, given that it is a particularly gassy mine?

6 A. Yes.

7
8 Q. What steps have been considered and taken?

9 A. We undertook a fairly wholesale review of our gas
10 performance, particularly in the area of the longwall.
11 We've recently commenced production on longwall 910, and in
12 the review process we came up with a concept, basically
13 a target zero HPI initiative, where we implemented a range
14 of controls, some of them standard and some of them
15 innovative, to try to reduce the risk of HPis in and around
16 the longwall area.

17
18 Some of those include the application of nitrogen
19 injection to adjacent goaf; roads, because we historically
20 at Grasstree had seen some impact of adjacent roadway
21 emissions into the longwall tailgate; the drilling of
22 additional downcast shafts into a longwall tailgate; and
23 also obviously the automation sequence and gas-initiated
24 automation control on that shearer and the longwall plant
25 as a whole.

26
27 Q. Now, I take it that doesn't mean you weren't thinking
28 about gas management before then?

29 A. No.

30
31 Q. So what caused you to have this kind of fresh overall
32 look at potential innovative solutions?

33 A. We had a run of significant HPis that warranted our
34 attention and something that wasn't just incident-specific
35 focus insofar as holistic methane management control in the
36 longwall.

37
38 Q. One of the topics but within the same area, that is,
39 we've heard mention of the fact obviously there's the coal
40 seam that is being mined by the longwall, and then there's
41 also a seam above and a seam below; is that right?

42 A. Several, yes.

43
44 Q. And above is the Corvus seam in particular?

45 A. Yes, Corvus 1 and 2.

46
47 Q. And then below - I'm not going to get the name right,

1 so you can tell me?

2 A. Lower German Creek.

3

4 Q. The Lower German Creek seam. What challenges have
5 there been in terms of dealing with the drainage of those
6 seams?

7 A. We've undertaken some drainage of those areas. We
8 had, I believe it was in 909 but outside of the terms of
9 reference, some floor blower incidents in the extraction of
10 that panel from the LGC, being Lower German Creek. Part of
11 our response to that is to do targeted drilling of the
12 Lower German Creek and also of the Corvus from our
13 underground in-seam infrastructure. We typically do that at
14 the start and the end of the blocks, where we have found,
15 through a review process, that they are the locations that
16 we obtain the best performance out of the pre and post
17 drainage.

18

19 In addition to that, we drill horizontal goaf holes,
20 which are holes that are drilled basically parallel but
21 above our working section to also aid in the post drainage
22 capture of goaf gases in the longwall block.

23

24 Q. Finally, in terms of LFIs, and in particular gas
25 exceedance LFIs, reports that have arisen from HPis
26 associated with gas exceedance, what communication of those
27 on site occurs to coal mine workers who are, say, coming on
28 to shift or coming on to a new tour?

29 A. From an initial standpoint, all coal mine workers have
30 a briefing at the start of their tour, being at the
31 commencement of their rostered period, where all the
32 significant incidents are communicated to those workers and
33 the outcomes immediately that were implemented from those
34 incidents.

35

36 Obviously in the case of LFIs, some of those have
37 a lag time following the incident. So while the incident
38 may have some initial controls, there may be some
39 additional controls that come out of the LFI process, and
40 they also get communicated. So, for instance, myself and
41 the operations manager did a campaign at the commencement
42 of longwall 910, where we did a review of our HPis in
43 longwall 808 and also longwall 909 and communicated the
44 outcomes and the controls that we had put in place to try
45 and mitigate those from happening again in the commencement
46 of the extraction of longwall 910.

47

1 MR HOLT: I'm sorry, Mr Martin, I've noted that I have
2 gone 10 minutes over the luncheon adjournment.

3
4 THE CHAIRPERSON: Have you finished, though?

5
6 MR HOLT: I have.

7
8 THE CHAIRPERSON: Mr Rice?

9
10 MR RICE: Nothing, thank you.

11
12 THE CHAIRPERSON: Mr Clough?

13
14 MR CLOUGH: Q. Mr Smith, I just have a question based on
15 your previous experience or what you might have read. One
16 of the contributing factors to the gas coming out of the
17 goaf stream is the amount of air wash going back into the
18 goaf. Are you in agreement with me on that?

19 A. Yes.

20
21 Q. One of the areas where that needs to be managed is at
22 the maingate?

23 A. Yes.

24
25 Q. What practices do you have in place at Grasstree to
26 try to keep that air stream from getting into the goaf at
27 the maingate?

28 A. Typically as part of routine practice, we operate with
29 a standard maingate brattice wing, which I believe is
30 pretty typical throughout the industry as a management
31 tool. That's our primary control with regards to the goaf
32 wash that may come through the maingate.

33
34 Where we also are building seals behind the longwall
35 face and there's potential for ingress of oxygen into the
36 goaf through that path, we immediately build
37 a substantial - upon retreat, being a brattice stopping.
38 We subsequently build a 5 psi flexi normally within
39 24 hours of retreating past that point and then
40 subsequently the seal. We're also looking into some
41 innovative options around the injection of a stabilised
42 foam into the maingate corner area to further prevent the
43 ingress of oxygen around that area, so it's easier to
44 maintain and more effective than just a brattice.

45
46 Q. That was actually my second question. You've answered
47 it. I was going to ask are you aware of any technologies

1 that are better than the standard brattice wing in the
2 maingate. So you're currently experimenting with
3 injectable foam; is that correct?
4 A. We haven't undertaken it yet, but there's a unit with
5 Queensland Mine Rescue Service that they've developed for
6 underground use that we're in discussions with bringing to
7 our site for that sort of purpose.
8
9 MR CLOUGH: No more questions for me.
10
11 THE CHAIRPERSON: Thank you. Can Mr Smith be excused?
12
13 MR RICE: Yes.
14
15 THE CHAIRPERSON: Mr Smith, thank you. You are excused.
16
17 **<THE WITNESS WITHDREW**
18
19 THE CHAIRPERSON: We might adjourn until 2.30, I think.
20
21 **LUNCHEON ADJOURNMENT**
22
23 THE CHAIRPERSON: Yes, Mr Rice.
24
25 MR RICE: Mr Martin, I call Tim McNally.
26
27 **<TIM McNALLY, sworn: [2.30pm]**
28
29 **<EXAMINATION BY MR RICE:**
30
31 MR RICE: Q. Is your name Tim McNally?
32 A. Yes.
33
34 Q. I don't mean to be too familiar - is it Tim or
35 Timothy?
36 A. Tim.
37
38 Q. You're employed at Grasstree mine; correct?
39 A. Yes.
40
41 Q. Can you tell me for how long you've been employed
42 there?
43 A. Since December 2018.
44
45 Q. Can I just get the details of your qualifications, to
46 begin with. You have some certificates of competency,
47 I think?

- 1 A. Yes, I do.
2
- 3 Q. Can you explain what you hold?
4 A. I have a Mine Manager's Certificate of Competency in
5 Queensland.
6
- 7 Q. Which class?
8 A. First class.
9
- 10 Q. Yes.
11 A. And a Mine Engineering Manager's Certificate of
12 Competency in New South Wales. I have a Bachelor of
13 Science at the University of Queensland, majoring in
14 geology, and I have a Masters in Mining Geomechanics at the
15 University of New South Wales. I also have an Advanced
16 Diploma in Coal Mine Management, which was a requirement to
17 get the first class certificate of competency.
18
- 19 Q. When did you acquire your first class certificate?
20 A. In 2016. Sorry, the Queensland certificate of
21 competency in late 2019.
22
- 23 Q. Do you have some other experience of working in mines
24 prior to December 2018?
25 A. Yes.
26
- 27 Q. Would you give us a brief overview?
28 A. Yes, of course. I started my career in the Bowen
29 Basin working for BMO Coal in Central Queensland, working
30 at a variety of different mines.
31
- 32 Q. How long ago did you start?
33 A. In - 15 years ago, let's say, 15 years ago. I worked
34 at Crinum mine, I did 12 months at Crinum mine; did
35 two years at Broadmeadow mine; a couple of years at an
36 open-cut; I did four years at Moranbah North mine; up until
37 December 2018 I did seven years in New South Wales at Ulan
38 coal mine and Ulan West coal mine; and the last 18 months
39 at Grasstree.
40
- 41 Q. I've seen your name associated with a couple of
42 different descriptions, one of which is operations manager?
43 A. That's my current role.
44
- 45 Q. For how long have you held that?
46 A. Six months, just about six months.
47

- 1 Q. I've also seen you sign one or more documents as
2 department manager?
- 3 A. Yes. I was the technical services manager at that
4 point in time.
- 5
- 6 Q. Was that prior to taking on the operations manager
7 role?
- 8 A. Yes, that's right.
- 9
- 10 Q. Technical services is responsible for what, can you
11 tell us?
- 12 A. For the management and - the strategic long-term
13 management of mine planning, of ventilation, of mining
14 geomechanics, surveying and I guess technical assurance of
15 the mine.
- 16
- 17 Q. Are you associated with the process of planning for
18 and implementation of gas drainage?
- 19 A. Yes.
- 20
- 21 Q. Can you tell us this, if you can: with respect to the
22 overall capacity of goaf gas drainage plants, ought there
23 be a factor in reserve beyond the predicted or expected
24 goaf gas emissions?
- 25 A. There should.
- 26
- 27 Q. Is there any rule of thumb associated with what that
28 factor should be?
- 29 A. We relied on technical reports to make decisions
30 around goaf drainage infrastructure.
- 31
- 32 Q. You take advice, in other words?
- 33 A. That's right.
- 34
- 35 Q. External advice?
- 36 A. External advice, yes. And for the case in question,
37 the primary source of advice was a report written by
38 Roy Moreby.
- 39
- 40 Q. What's the name of that, do you know?
- 41 A. I'll have to find it for you and get back to you.
42 I don't believe it's been submitted --
- 43
- 44 Q. Do you mind, and perhaps your solicitor would let us
45 know?
- 46 A. Yes.
- 47

- 1 Q. To come back to my question, is there a rule of thumb
2 factor or does it depend on a panel-by-panel assessment?
3 A. It would depend on a panel-by-panel assessment.
4
- 5 Q. But is there a minimum that's prudent?
6 A. Oh, yes, there's a minimum of - so the report that I'm
7 referencing talks in terms of medium-term demand or average
8 demands and then peak demands, and it would be a minimum
9 requirement to exceed the peak demand - or meet the peak
10 demand.
11
- 12 Q. So meeting predicted peak demand?
13 A. That's right, yes.
14
- 15 Q. Is that the standard that Grasstree operates under?
16 A. We do. We certainly do.
17
- 18 Q. So the process is to do your best to assess and
19 predict what peak demand will be?
20 A. That's right.
21
- 22 Q. And work from there to achieve what that peak demand
23 is?
24 A. Yes.
25
- 26 Q. We've seen in this inquiry so far that sometimes
27 factors which have a bearing on demand can occur
28 concurrently, so that peak demand is at least stretched.
29 So in that regard, peak demand is really the least that
30 could be expected from goaf gas drainage plant; am I right?
31 A. It's the maximum expected quantity that we anticipate
32 for all of the factors to coincide together. So, yes,
33 I understand what your line of questioning is.
34
- 35 Q. I think we're on the same wavelength. You try to
36 predict what factors will influence the demand?
37 A. Yes.
38
- 39 Q. And from what you say, do you then assume that those
40 factors could coincide?
41 A. Yes, that's right.
42
- 43 Q. So as to arrive at a peak demand, having regard to all
44 factors that are identified; is that the process?
45 A. Yes, that's right.
46
- 47 Q. We'll see that in this report, will we?

1 A. Yes, yes.
2
3 Q. I mainly wanted to ask you about your role in the
4 aftermath of one of the incidents that we're looking at.
5 A. Yes.
6
7 Q. You may recall it. It's the incident that involves
8 the burst radiator hose on longwall 909.
9 A. Yes, I'm familiar with the event.
10
11 Q. It turns out that by virtue of that burst radiator
12 hose there was, on one count I've seen, probably five, six
13 hours of production lost?
14 A. That's right.
15
16 Q. And, in addition, an HPI triggering the necessary
17 processes that go with that?
18 A. That's right.
19
20 Q. That must have been an unsatisfactory day; would that
21 be fair to say?
22 A. It was an absolutely unsatisfactory outcome.
23
24 Q. From both perspectives?
25 A. Primarily from a safety perspective.
26
27 Q. I beg your pardon?
28 A. Primarily from a safety perspective, but certainly
29 from both perspectives.
30
31 Q. I want to go to the initial incident report and ask
32 you about some of the entries in it that have your name
33 against them.
34 A. Yes.
35
36 Q. Mr Operator, could you put up document
37 AAMC.001.001.0675. This is the LFI. You're very familiar
38 with that format of document?
39 A. Yes.
40
41 Q. I know you weren't part of the team for this
42 investigation, but within this is a copy of the incident
43 report, so we'll have a look at that. Could we go, please,
44 to page 0685. The reproduction quality from this is not
45 the greatest, but if you can't see, I can tell you that
46 this appears to be a report by the ERZ controller for the
47 day, Mr Stingle. You would know him?

- 1 A. Yes, I do.
2
- 3 Q. He has prepared an account to fill up parts of this
4 form. The part I want to take you to is at page 3. I take
5 it you would be familiar with the layout of these forms and
6 what their purpose is, and so forth?
7 A. Yes, definitely.
8
- 9 Q. Could we perhaps go to the first half of the page.
10 There look to be different people who have written on this
11 form. As I look at it, there's different handwriting. Do
12 you recognise the handwriting at that portion of the form?
13 A. My understanding is that that is Ben Millar's
14 handwriting, who was the MSO on shift.
15
- 16 Q. The interest is that there are a number of tasks that
17 have been identified?
18 A. That's right.
19
- 20 Q. And your name - correct me if I'm wrong, it's your
21 name that has been associated with each of them?
22 A. That's correct.
23
- 24 Q. I was interested in how that came about?
25 A. I believe the process in this case was Ben has got
26 hold of the incident form, he's understood - gone to seek
27 to understand the contributing factors and how it's
28 occurred, and he's put some actions down that he believes
29 are appropriate to try to solve those, solve the causes of
30 the event.
31
- 32 Q. We will come back to this, but I'll just show you the
33 signature blocks at the bottom of the page. That might
34 help. We see Mr Stingle's name is shown as the person
35 reporting?
36 A. Yes.
37
- 38 Q. Consistent with what we saw before. Then the
39 under-manager - whose signature is that?
40 A. Ben Millar.
41
- 42 Q. So he was the, well, mine senior official. Does that
43 equate to like a shift supervisor?
44 A. Yes, that's correct.
45
- 46 Q. In the scheme of things, not as senior as you; would
47 that be fair to say?

1 A. Yes, that would be fair to say. From a statutory
2 point of view on this occasion, he was the mine manager's
3 representation on shift. So from a statutory point of
4 view, he's as significant as me in this case.

5
6 Q. Did it fall to him to make an assessment of this
7 situation and assign corrective actions?

8 A. He's taken it upon himself on this occasion to do
9 that, and I imagine it was in consultation with other
10 members of the technical services team about what
11 appropriate actions would be.

12
13 Q. Just while we're on the signature block, we see
14 Mr Cavanagh's name. He's superintendent of what?

15 A. The longwall.

16
17 Q. Let's go back to the tasks on the top half of the
18 page. In his position as representative of the mine
19 manager on that shift, within the operation of the mine
20 does he have the authority to identify and assign tasks
21 that he thinks are necessary to be done?

22 A. He certainly has the authority to assign tasks and to
23 correct actions. Some of these actions are rather large
24 and have a fair amount of delegated authority, so there was
25 certainly an opportunity for me to challenge them and
26 decide on the veracity of those actions at a later date.

27
28 Q. They were assigned to you, so I assume that before too
29 much time elapsed, this form or at least a list of the
30 tasks that were assigned to you actually came to you for
31 consideration?

32 A. Yes, that's right.

33
34 Q. I gather that you didn't veto any of them?

35 A. No.

36
37 Q. Or dismiss any of them?

38 A. No.

39
40 Q. Did you conduct some form of inquiry yourself to
41 satisfy yourself that these were things that deserved to be
42 done?

43 A. Yes, I did. I did.

44
45 Q. Independently of Mr Millar's recommendation?

46 A. Yes, I formed a view about what occurred and what
47 happened, and I made some decisions about what was

1 appropriate to do and I supported the actions.
2
3 Q. What would you have had regard to - simply this form
4 or other --
5 A. No, the LFI process as well.
6
7 Q. You weren't, I think, a team member of the LFI
8 process?
9 A. No, no. I do participate in them, I provide advice in
10 them and I ultimately sign off on the LFIs as a department
11 manager at points in time.
12
13 Q. Just looking at the investigation team members, there
14 was Mr Cavanagh, the superintendent of longwall?
15 A. Yes.
16
17 Q. Dennis Black, who was a ventilation officer at the
18 time?
19 A. Yes, that's right.
20
21 Q. Mr Holt - what was his position?
22 A. He's gas drainage engineer or gas drainage
23 superintendent, in charge of surface gas drainage
24 infrastructure.
25
26 Q. Mr Brouwer, I think he was - well, you tell us?
27 A. A ventilation superintendent.
28
29 Q. And then finally the ERZ controller who's --
30 A. Mr Stingle.
31
32 Q. A mandatory participant, I think.
33 A. Yes, that's right.
34
35 Q. That's a fairly significant-looking team, if you don't
36 mind me saying so?
37 A. That's right.
38
39 Q. Is it?
40 A. No, it is. It is.
41
42 Q. There are records produced by Enablon identifying
43 these tasks and what was done. We can go to them if you
44 feel you need to, but I'll ask you some questions and we'll
45 see how we go.
46 A. Yes.
47

1 Q. The first task that's assigned to you, and which you
2 accepted, was to review and implement access rights to
3 remotely monitor goaf well performance for the number of
4 people that are shown on the form?

5 A. That's right.

6
7 Q. Can I suggest to you that the Enablon close-out
8 against your name records "Personnel all have access to
9 remote monitoring data"?

10 A. That's right.

11
12 Q. Can you tell me, firstly, what was the purpose of that
13 task, that first task?

14 A. So there's a different set of software that's used to
15 remotely monitor the well performance and surface gas
16 drainage infrastructure. There have been some steps
17 changed to subsequently try to bring the two systems closer
18 together, but at that point in time there wasn't. It's
19 called Global Link. The statutory personnel on site at
20 that point in time did not have access to that software and
21 could therefore not visualise what was happening from
22 a performance issue on the surface.

23
24 Q. We've heard from Mr Schiefelbein, for example, that in
25 his office he has visual access to certain data.

26 A. That's right.

27
28 Q. Perhaps you do, too, do you?

29 A. Yes, certainly.

30
31 Q. The same as him?

32 A. Yes.

33
34 Q. But am I right, then, that prior to this event, the
35 system wasn't set up, so that he and you and some others
36 didn't have remote access to this goaf well performance
37 data?

38 A. There are two systems that work in isolation or
39 separation at the mine. There's the SCADA system or the
40 Citect system. It monitors the underground environment
41 per se. And then there's the Global Link system that
42 monitors the surface gas drainage infrastructure. And at
43 this point in time and up until recently, they don't
44 communicate and talk and you need separate access to both
45 programs. At the time, we didn't have access to Global
46 Link.

47

1 Q. Would you mind just describing the benefit of the
2 outcome whereby it appears that personnel all do have
3 access to the remote monitoring data?

4 A. It gives people the ability to interrogate the
5 software and interrogate what is happening on the surface
6 at points in time. It was particularly prevalent or
7 required on night shift where surface gas drainage
8 personnel weren't around to monitor it wholesale, and the
9 statutory officials at the mine then had a way to be able
10 to check and validate that things were working as they were
11 intended.

12
13 Q. And presumably not simply wait for reports from
14 somewhere else necessarily?

15 A. No, no, that's right.

16
17 Q. Is that the idea?

18 A. They could, if they saw a change in the underground
19 gas environment, go and interrogate why that was happening.

20
21 Q. The second task that's listed is "Review and implement
22 compressor and goaf drainage critical spare list and stock
23 store"?

24 A. Yes.

25
26 Q. You apparently did that in conjunction with the
27 surface team?

28 A. That's right.

29
30 Q. And came up with some revised strategy; am I right?

31 A. That's right.

32
33 Q. What was that, can you tell us?

34 A. It wasn't as simple as getting another radiator hose
35 and putting it on a shelf, because the compressors used on
36 the surface - can I take a step back and provide a little
37 bit more detail to this situation?

38
39 Q. By all means.

40 A. There's two primary methods that we extract gas from
41 surface wells, vertical wells. There's the gas plant,
42 which is a dual system that works on blowers and gas to
43 a plant that generates power, and then we also have
44 a remote or modular set of systems which is a Venturi
45 attached to a compressor. Okay? And we can upscale and
46 downscale our gas drainage capability by using compressors
47 and Venturis and set them up quickly to extract goaf from

1 different locations at different holes.

2
3 Those compressors are all hired, on a hire
4 arrangement, and the maintenance is done via a third-party
5 provider. So we didn't really have an ability
6 contractually to be able to change their maintenance
7 arrangements, so what we did was we hired an additional
8 compressor and our system now has a requirement for us to
9 always have an additional compressor on hire on the
10 surface, hooked up on a well that's not in service or
11 parked in a location where it can be set up quickly.

12
13 Q. So the extra compressor is a form of plan B, if the
14 first one suffers a similar problem or some problem?

15 A. That's right, that's right. Again, if I can provide
16 another element of detail to this particular incident, the
17 hole in question, the 17 cut-through hammer hole, was
18 a trial hole that we set up - it's a different type of hole
19 to our conventional goaf hole, where it's drilled all the
20 way to the workings, and it was originally used to
21 ventilate the tailgate roadway to provide gas dilution for
22 access to vehicles and personnel for the previous longwall
23 block.

24
25 So, as a trial, we set up a compressor and a Venturi
26 there to try to alleviate some of our barometric effects
27 associated with, well, with longwall extraction, basically,
28 and it was particularly successful.

29
30 So what happened was it provided a much more immediate
31 effect, particularly on barometric swings, to the effective
32 gas that we're seeing in the general body at the tailgate
33 roadway. And what's happened is that at the wrong time of
34 the barometer, that compressor has failed and caught us off
35 guard.

36
37 I guess the other point to make is that now when we
38 use those types of holes, those critical holes - not
39 necessarily limited to a hammer hole but any hole we deem
40 as critical - we'll set up dual compressors on those holes
41 so there's a redundancy in place.

42
43 Q. Is that something that's being taken forward?

44 A. Yes.

45
46 Q. Not only for longwall 909 but --

47 A. No, you'd see it set up today, and it's intended to

1 remain that way.

2

3 Q. So it would be deployed, for example, at the
4 succeeding longwall, 808?

5 A. Yes.

6

7 Q. And it will be applied henceforth?

8 A. Yes. We didn't have holes of that type in 808, but
9 critical holes, where we used Venturis, were set up like
10 that.

11

12 Q. Today, does that Venturi and compressor arrangement
13 give you the flexibility to apply it where it's most
14 needed?

15 A. That's right. We can move things quickly and set it
16 up without having pipeline infrastructure installed.
17 I don't know if we're going to go there, but if I can jump
18 forward a little bit, we did order four extra blowers to
19 increase our capacity wholesale. In the interim, until
20 they arrived, we did upscale I think an additional six
21 compressors and Venturi units to be able to deal with the
22 increased demand to always have that extra compressor
23 available at all times in longwall 909.

24

25 Q. The third task that's on the incident form is: "Set
26 up 17 cut-through hammer hole to extract". You may have
27 already described the content of that, but would you mind
28 saying what was done to complete that action?

29 A. We set up a Venturi and a compressor and used it in
30 a very similar way.

31

32 Q. Task 4 sounds like perhaps the most significant of the
33 tasks. It is to review and implement total goaf extraction
34 capacity and increase total availability. You undertook
35 that task?

36 A. Yes.

37

38 Q. And Enablon says that you completed strategy review
39 for the remainder of 909 and 808 extraction.

40 A. That's right.

41

42 Q. Can you tell us what was involved in your review and
43 in the outcome?

44 A. Yes. We did a number of different things, really. We
45 started off with the base case, which I talked about
46 earlier, the Roy Moreby report. We took that and we looked
47 at what we actually received from SGE, and what we found

1 was that report was prone to underestimate our peak demands
2 at points in time by a significant margin.

3

4 Q. How was that ascertained - just through experience?

5 A. We went and looked at our plots. We determined our
6 extraction rates, so number of shears per day, and then we
7 looked at the amount of goaf gas that we extracted from
8 various wells and we were able to plot those up in a neat
9 little plot that shows you, on a per tonne basis, what gas
10 you're emitting from the goaf.

11

12 Q. So if I understand correctly, you performed an
13 exercise to calculate your peak capacity?

14 A. Yes.

15

16 Q. And, as it turns out, it differed from what you had
17 previously been advised?

18 A. That's right.

19

20 Q. Your review showing a higher figure, presumably?

21 A. Yes, that's right.

22

23 Q. So that raises a scenario where you have to do
24 something about it, presumably?

25 A. Yes, and we did.

26

27 Q. What did you do?

28 A. Well, the compressor strategy was working and we were
29 going to continue to on-hire compressors as required to
30 ensure that we were effectively dealing with the gas
31 generated from longwall production, but the longer-term
32 approach was to buy an additional four blowers, and we did
33 that, which gave us an extra 8,000 litres per second of
34 capacity.

35

36 Q. As a matter of interest, since you described the
37 process whereby you did your own calculation of peak demand
38 according to the factors that were known to you, why then
39 take the initial external advice in the first place?

40 A. I guess it was a journey that I went on as a tech
41 services manager at Grasstree. I can only really talk to
42 the strategy that was in place while I was there, and they
43 were the things that I did in that management role and in
44 that capacity.

45

46 Q. Let's speak about since then and for the future.

47 A. Yes.

- 1
2 Q. Is Grasstree going to do its pre-drainage calculations
3 internally, perhaps with your guidance?
4 A. We've done a review for the rest of the mine life.
5 There's only 18 months, two years of mine life left. And
6 the infrastructure that we purchased is suitable for the
7 mine life, on the basis of those forward calculations.
8
9 Q. Tell me if this you can: how old is that Roy Moreby
10 report?
11 A. I couldn't give you an accurate answer.
12
13 Q. We'll find out.
14 A. Yes.
15
16 Q. The final task is to "Implement an alarming system to
17 the control room with hole performance", and Enablon
18 reports that you regarded the current system as adequate?
19 A. Yes. There was an extensive amount of consultation in
20 making these determinations. I sat down and spoke to the
21 ventilation officers and to Kelvin about this and we formed
22 a view that we had a system that was capable of the
23 personnel on site being able to monitor the system
24 adequately.
25
26 Q. The alarming system that the task speaks about
27 presumably is some form of colour or sound?
28 A. That's right.
29
30 Q. Both?
31 A. Yes.
32
33 Q. But you decided you had competent people who could
34 watch --
35 A. That's right.
36
37 Q. -- effectively, and monitor?
38 A. Yes, yes. The point was really a conflict between the
39 Global Link system and the Citect system.
40
41 Q. The Enablon outcome continues, "No real-time
42 monitoring capability on goaf drainage wells".
43 A. Okay, that is not correct. So we have real-time
44 capability on all of our vacuum plant which monitors flow.
45
46 Q. Continuously?
47 A. Yes, and pressure.

- 1
2 Q. 24/7?
3 A. That's right.
4
5 Q. Could we go in this document to page 0679. Do you see
6 section 7 there, "Critical Control Failure". The entries
7 there are either "nil" or "not applicable". Would you
8 accept that goaf drainage is a critical control for methane
9 management at Grasstree mine?
10 A. You need to take this particular box in context of the
11 Anglo American system.
12
13 Q. Just answer my question first.
14 A. Can you ask the question again, please?
15
16 Q. I asked you whether you would accept that methane
17 drainage is a form of critical control of the hazard of
18 methane at Grasstree mine?
19 A. Yes, it is.
20
21 Q. And if for some reason - in this instance a burst
22 radiator hose - the goaf drainage system fails or
23 inadequately supports the ventilation system, can that be
24 anything other than a failure of critical control?
25 A. It will be a failure of a critical control the way
26 you're expressing the term "critical control".
27
28 Q. I think you want to provide some context, then, to
29 this box?
30 A. I need to provide some context, because a critical
31 control in Anglo American terminology is a control that's
32 been determined via a cross-section that is an absolute
33 barrier between an event occurring that puts life at risk
34 or has a fatality event. Okay? So what's happened is --
35
36 Q. It sets the bar pretty high, does it not?
37 A. That's right.
38
39 Q. Well, ventilation is a critical control.
40 A. It is.
41
42 Q. And methane exceedances involve a loss of that
43 control, do they not?
44 A. That's right, yes.
45
46 Q. Is that not also a critical control failure?
47 A. Yes.

- 1
2 Q. At least in the sense that I've used it?
3 A. Yes, absolutely, it is.
4
5 Q. Would you mind explaining again the approach that
6 Anglo takes to what a critical control is? I'm not sure
7 I quite follow it.
8 A. A critical control is a specific, an absolute specific
9 thing that is in place, that is required to be in place to
10 prevent an event occurring or a serious outcome occurring.
11 It's not the most succinct definition, but that's the best
12 I've got at hand.
13
14 Q. If it fails, it would lead directly to catastrophic
15 outcome?
16 A. That's right.
17
18 Q. Whereas perhaps you would say that goaf drainage, as
19 in this instance, has the potential to do so but won't
20 necessarily do so?
21 A. That's right.
22
23 Q. Is that the difference?
24 A. Yes, that's right. And there is a process in place of
25 identifying specific controls, and then there's an auditing
26 system and control system in place to ensure that they're
27 adequate and working effectively, and that's what the
28 language around this particular part of the LFI process is
29 trying to cover.
30
31 Q. It depends how you define "critical control", from
32 what you're saying?
33 A. That's right, and it has a specific meaning in this
34 context, is what I'm trying to say, and not the way you're
35 talking about critical control - we're not discounting
36 that.
37
38 Q. We're just on a different wavelength.
39 A. Well, yes, there's a lot of work and a whole system of
40 assurance processes behind the Anglo American critical
41 control system.
42
43 Q. There is a critical control register for the site, is
44 there not?
45 A. There is.
46
47 Q. Is it true that it contains some hundreds of items?

- 1 A. Yes.
- 2
- 3 Q. How could that be?
- 4 A. Because there are hundreds of things that are
- 5 absolutely required to keep people safe in the mine.
- 6
- 7 Q. A failure of any of them will, what, on Anglo's terms
- 8 lead directly to --
- 9 A. Has the potential to lead to. It is a necessary
- 10 barrier to ensure that people are safe, and if it's not
- 11 there, then --
- 12
- 13 Q. Safe at what level, from lost time injury or something
- 14 more?
- 15 A. No, it's a higher bar than that.
- 16
- 17 Q. Do you know what it is?
- 18 A. It's a fatality event.
- 19
- 20 Q. Fatality. Just to be clear, critical control is
- 21 a thing that must occur, in the absence of which it leads
- 22 to a fatality? Or is there a document - rather than test
- 23 your memory, is there a document to which we could have
- 24 regard that sets this out?
- 25 A. I think you would be better served reading the
- 26 document that defines our critical control process.
- 27
- 28 Q. You wouldn't know offhand what that is?
- 29 A. No, but I can provide it to you.
- 30
- 31 Q. Thank you. We'll ask your solicitor later.
- 32 Thank you. In this same document, if we could go to
- 33 page 0680, we see there a list of preventative actions.
- 34 Perhaps we could zoom the first half of the page. We see
- 35 three tasks identified there. Take a moment to look at it.
- 36 Do those tasks have any additional coverage to the five
- 37 tasks that you undertook?
- 38 A. The second one.
- 39
- 40 Q. I thought you told us that there was real-time
- 41 monitoring of goaf drainage borehole performance?
- 42 A. Yes, and I was correct in saying that. The part that
- 43 we don't have capability of is the composition part of that
- 44 action.
- 45
- 46 Q. For the uninitiated like me, you might need to explain
- 47 what that is a reference to?

- 1 A. At the moment, all of our vacuum holes have real-time
2 monitoring for flow, so total amount of gas liberated from
3 the hole, and pressure. We don't have real-time monitoring
4 for what concentrations of various gases are coming out of
5 the hole, whether that be oxygen, methane, nitrogen or CO.
6
- 7 Q. Again, we can go to the task close-out if we need to,
8 but you probably can tell us. Against task 1, there's
9 a close-out that says "Additional four blowers have been
10 approved for purchase and orders have been placed"?
11 A. Yes, they're now on site and in use.
12
- 13 Q. At the risk of repetition, the blowers are what?
14 A. They're a vacuum plant that provides - that deals with
15 the gas and I guess burns it, so that the gas is
16 effectively dealt with in an environmentally responsible
17 way.
18
- 19 Q. I will put up one document. I'm not sure if it is
20 related to this event, but you can tell us. Mr Operator,
21 it's document ACM.004.001.0019. Just take a moment to look
22 at that. It's an email to Mr Holt?
23 A. Yes.
24
- 25 Q. Who is the designated officer for close-out of these
26 tasks from the LFI?
27 A. That's right.
28
- 29 Q. It's in a time frame, being 16 September, which
30 appears to accord with the performance of the tasks
31 allocated to him?
32 A. Yes.
33
- 34 Q. You can see the email, and then perhaps if we go to
35 the next page you'll see what appears to be a formal
36 quotation.
37 A. I'm aware of the quote.
38
- 39 Q. Okay. You might assist us, then. Is that quotation
40 in fact related to one of the close-out tasks from the LFI?
41 A. The second task that I spoke about.
42
- 43 Q. And what is it a quote for?
44 A. It is a quote to provide the additional monitoring
45 capability of gas composition for each of the holes.
46
- 47 Q. Why 38 of each, can you explain?

1 A. That's how many wellheads we run consecutively at
2 points in time.

3

4 Q. You can see how much I don't know.

5 A. I'm trying to explain things clearly.

6

7 Q. Yes, that's okay. The third task from the LFI I think
8 you've already referred to, but the close-out is "Holes
9 identified as critical to goaf drainage infrastructure have
10 been set up to plant and compressors"?

11 A. That's right.

12

13 Q. So that's in accordance with what you told us was one
14 of your tasks?

15 A. That's right, they're very similar. There's a bit of
16 cross-pollination between the LFI process and what I had,
17 and we worked together to get them done.

18

19 MR RICE: Thanks, Mr McNally.

20

21 THE CHAIRPERSON: Mr Crawshaw?

22

23 MR CRAWSHAW: No questions, thank you, Mr Chair.

24

25 THE CHAIRPERSON: Thank you.

26

27 MS HOLLIDAY: No questions.

28

29 THE CHAIRPERSON: Yes, Mr Holt.

30

31 <EXAMINATION BY MR HOLT:

32

33 MR HOLT: Q. Just briefly, Mr McNally. Dealing with, as
34 Mr Rice has, the incident that occurred on 28 July 2019,
35 the compressor incident, my friend has taken you through
36 the tasks that were assigned as a result of that and
37 completed, which were both in the incident report and in
38 the LFI as well.

39 A. Yes.

40

41 Q. And you indicated there was some cross-over, and we
42 can also see some difference between those tasks?

43 A. Yes.

44

45 Q. But it's right, isn't it, that ultimately in terms of
46 the Anglo system, all of those tasks end up as separate
47 items within Enablon?

- 1 A. That's right.
2
- 3 Q. And so then are able to be checked and monitored, both
4 through the SSE and through the safety folk back in
5 Brisbane as well?
6 A. Yes, that's right.
7
- 8 Q. As we've heard from other witnesses, failing to comply
9 or failing to comply with the time line on an Enablon task
10 is a big deal?
11 A. Yes, it is.
12
- 13 Q. How is it monitored and enforced in the Anglo
14 structure?
15 A. So we have a mine operating system and a review is
16 undertaken of tasks that are either due or coming up, and
17 they're talked about at a whole of mine meeting and there's
18 accountability conversations had when actions are becoming
19 overdue and extensions are required.
20
- 21 Q. An extension, as I understand it, can only be granted
22 by the SSE?
23 A. That's right.
24
- 25 Q. And not granted easily, as I understand it?
26 A. No. The bar is high.
27
- 28 Q. In that sense, just so we're clear, obviously we've
29 described Enablon as task management software. It's more
30 than that, but in terms of that task management function,
31 it doesn't include everything, right? It is not, "Have you
32 bought the tea for the week?" It's only those matters that
33 relate to audit and safety and compliance issues.
34 A. That's right, there are two very distinct systems, one
35 that deals with production-related issues and actions that
36 are attributed to the day-to-day running of the mine, and
37 then there's a second system that has the additional checks
38 and balances that deals with safety matters.
39
- 40 Q. And they're the ones that get escalated and elevated
41 and a light shone on them to ensure they're completed?
42 A. That's right.
43
- 44 Q. Dealing with the process of covering off those tasks
45 and what that event actually meant for you, 28 July 2019,
46 as we understand it, is pretty soon after that panel
47 commences, and, indeed, the goaf was hanging at some stage,

1 which I understand can happen early on; is that right?

2 A. Yes. This event wasn't --

3

4 Q. No --

5 A. The one in October was a new goaf. The one in July
6 was, we were mid-block. Yes, sorry.

7

8 Q. But at this point on the 28 July 2019 incident, by
9 virtue of the LFI process you identified that there was
10 insufficient goaf drainage capacity to deal with the high
11 methane background levels at that point?

12 A. Yes.

13

14 Q. And what you've indicated is that you identified that,
15 in fact, having been at that capacity, having insufficient
16 capacity at that stage was inconsistent with the work that
17 you had got from the Roy Moreby report?

18 A. That's right.

19

20 Q. Was the Roy Moreby report based on modelling and
21 prediction rather than actual measurement?

22 A. Yes, that's right.

23

24 Q. Based, obviously, I would imagine, on data that had
25 been obtained from the site on previous occasions?

26 A. That's right.

27

28 Q. But nonetheless a modelled prediction as opposed to an
29 actual measurement?

30 A. Yes.

31

32 Q. My friend seemed to be suggesting that maybe you
33 should trust your own measurements rather than Mr Moreby's
34 measurements, but they were two different things, weren't
35 they?

36 A. Yes, we were measuring as-built and the day-to-day
37 measurements undertaken, and in Mr Moreby's report, he was
38 using measurements taken from in-seam, in reserves that
39 hadn't been mined yet, and he was making assertions as to
40 what future emissions we would see on the basis of certain
41 production rates.

42

43 Q. And it's modelling and prediction?

44 A. That's right.

45

46 Q. You were then able to test those outputs against the
47 actual outputs you had seen from the mine and see that

1 there was a distinction between them?

2 A. That's right. I think the model was correct; we just
3 needed to calibrate it.

4

5 Q. I suppose it makes good the old phrase that all models
6 are wrong, but some are useful?

7 A. That's right.

8

9 Q. When we then look at the tasks that followed from
10 that, because, obviously enough, recognising that you had
11 insufficient goaf drainage capacity, given your
12 acknowledgment quite properly to Mr Rice that it's
13 important that you do have excess capacity and that you're
14 always able to meet your peak demand, from your
15 perspective, how significant a task was it to make that
16 right, if I can put it that way, to ensure that you had
17 excess capacity going forward?

18 A. It was no small undertaking. From the point in time
19 where that event occurred, our compressor or Venturi-driven
20 capacity was increased by nearly 10,000 litres per second,
21 which required the additional hire of 10 compressors,
22 a number of Venturi units that we had to borrow from other
23 mine sites. To ensure that we were able to always provide
24 the right equipment for people to be able to make good
25 decisions when operating goaf - extracting the right amount
26 from the goaf, we needed to take some pretty significant
27 steps until we could procure the blowers, which was
28 a complex engineering task in buying them and took some
29 time.

30

31 Q. Now, I want to contextualise 10,000 litres per second,
32 if we can. What were you capable of drawing before you put
33 the compressors online, so that we understand what an extra
34 10,000 litres per second actually means?

35 A. We were drawing 11,000 to 12,000 litres a second.

36

37 Q. Before then?

38 A. Yes.

39

40 Q. So by adding 10 - my maths is awful - you're not
41 doubling, but not far off?

42 A. We weren't far off. The peak extraction on any given
43 day was 22,000 litres a second out of the 909 goaf, and we
44 had 23,000 available capacity at that point in time.

45

46 Q. I understand. And how quickly were you able to get
47 those compressors online in order to increase that capacity

- 1 by 10,000 litres per second?
2 A. It happened over the next month.
3
4 Q. Then in terms of the blowers, which were the kind of
5 long-term solution, I think you said, but please correct me
6 if I'm wrong, they have now given you an additional
7 8,000 litres per second?
8 A. That's right.
9
10 Q. Where does that leave you overall in terms of covering
11 your peak capacity?
12 A. 22,000 of vacuum capacity, and then we've got
13 additional compressor capability as well.
14
15 Q. So you haven't lost that additional --
16 A. No, that's right.
17
18 Q. As a result of those steps, but I guess given the time
19 frame we're talking about for the terms of reference and
20 these HPis, having the compressors online from that point
21 onwards on 28 July 2019, did you again find yourself in the
22 position of having the problem of insufficient goaf
23 drainage capacity?
24 A. No, we didn't. We always had available wellheads to
25 draw from and we always had ample infrastructure to be able
26 to draw gas when it was required.
27
28 Q. So if we can summarise it, ideally the modelling would
29 have given you a better sense of your peak capacity, but
30 once you learnt about it, you were very quickly able to
31 increase the capacity?
32 A. Yes, we took action to address it.
33
34 Q. Was there any difficulty or limitation from Anglo
35 generally, in terms of being provided the resources in
36 terms of these compressors and the blowers and being able
37 to do that?
38 A. Absolutely not. We had absolute support to move
39 mountains to make sure that these things happened.
40
41 MR HOLT: Thank you, that's the cross-examination.
42
43 THE CHAIRPERSON: Yes, Mr Rice.
44
45
46
47

1 **<EXAMINATION BY MR RICE:**

2
3 MR RICE: Q. You mentioned just a moment ago that you
4 had support by way of resourcing to implement the various
5 measures. We know something about their cost. Tell me, if
6 you can, at what level is the expenditure actually
7 authorised?

8 A. In what regard, can you --

9
10 Q. Well, are there, for example, such things as
11 delegations, having certain limits for expenditure of
12 company money?

13 A. Yes, that's right. Everyone has a delegated
14 authority.

15
16 Q. Do you know to what level the expenditure of the kind
17 of money that was involved in these various steps had to
18 go?

19 A. It went to the SSE.

20
21 Q. Did he have sufficient authority to authorise the
22 level of expenditure to implement, in effect, all of the
23 steps that were to be put in place?

24 A. Yes.

25
26 Q. Do you know whether he needs to, before doing that,
27 have recourse to someone like Glen Britton?

28 A. You would be best served asking him that question
29 because I'm not in direct knowledge of the answer.

30
31 MR RICE: Thank you.

32
33 MR HOLT: I apologise, there's one brief topic I forgot to
34 raise, which arises from something Mr Clough asked earlier.
35 I apologise, Mr McNally.

36
37 **<EXAMINATION BY MR HOLT:**

38
39 MR HOLT: Q. We understand that the standard goaf well
40 drainage distance is 50 metres?

41 A. Yes.

42
43 Q. We've heard some reference, but I think you may be
44 able to assist us a little more, to a test that was done or
45 a trial that was done of closer-spaced holes?

46 A. Yes.

47

1 Q. I think that might be of relevance to a question
2 Mr Clough asked earlier. Would you mind just explaining
3 what happened and what were the results?

4 A. Again, later in the 909 block post this incident,
5 really trying to get good, consistent tailgate gas readings
6 and be able to have a good, sensitive response to
7 barometric flows and changing production rates, we did
8 a pretty significant trial of 25 metre spaced holes over -
9 I think we drilled an additional six holes.

10
11 What we found was there was no discernible change in
12 the way that we were able to manage that tailgate goaf
13 environment with those holes being spaced at that close
14 a distance. They tended to interact and we found that they
15 became oxygen rich much quicker, and, as a result, we were
16 hamstrung by our TARPs and by spontaneous combustion
17 controls, and we weren't able to fully utilise the holes as
18 we do for the 50 metre spacing.

19
20 Q. Obviously enough what you're talking about there, is
21 that the last thing you want is to have oxygen in contact
22 with coal because of the risk of spontaneous combustion?

23 A. And explosibility, yes. There's a dual risk there.

24
25 MR HOLT: Thank you. I apologise for that.

26
27 THE CHAIRPERSON: Thank you. Mr Clough?

28
29 MR CLOUGH: Q. Just one question to explore a little bit
30 further the last topic. So we've had hole spacings at
31 50 metres and at 25 metres, but we have no knowledge about
32 how it might perform at some distance between those two
33 extremes?

34 A. No, no, we haven't done any additional trials with
35 spacing in different realms to that. One of the risks to
36 necessitate such a trial is it has to be planned well in
37 advance because you don't want to risk not having the next
38 hole available.

39
40 MR CLOUGH: No more questions for me.

41
42 THE CHAIRPERSON: Thank you. Might Mr McNally be excused?

43
44 MR RICE: Yes, Mr Martin.

45
46 THE CHAIRPERSON: Mr McNally, thank you for your evidence.
47 You are excused.

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<THE WITNESS WITHDREW

MR RICE: I call Peter Noton.

<PETER NOTON, affirmed: [3.23pm]

<EXAMINATION BY MR RICE:

MR RICE: Q. Is your name Peter Noton?

A. Yes.

Q. Mr Noton, you're employed by Anglo Coal as an ERZ controller at Grasstree mine?

A. Yes.

Q. You first obtained your certification as an ERZ controller in 1992, I think?

A. That's correct.

Q. And you've been working in that capacity since then?

A. That's correct.

Q. At the same mine?

A. No, no.

Q. Just give us a brief rundown on the mines at which you've carried out that role?

A. I started off at Gordonstone, in fact, I was there till about '93, and then I was at North Goonyella until about 2000. Then at Newlands, southern and northern, Carborough Downs, and then I did a brief stint at Broadmeadow and Oaky North and then Grasstree.

Q. That's quite a few.

A. Yes.

Q. With the assistance of solicitors, you've prepared a statement, I think?

A. That's right, and I'm afraid there's an error in there.

Q. We might just put that in front of you and you can tell me what it is.

A. Definitely.

Q. It's document NOP.001.001.0001.

1 A. It is at point 18 and it should say "12.10pm" - yes,
2 12.10pm.

3

4 Q. Paragraph 18. You arrived at the face about 12.10pm;
5 is that right?

6 A. Yes.

7

8 Q. Okay, thank you. It may be of some significance that
9 that was so, because the event that you described, being
10 the event on 20 March, was the subject of an incident
11 report by you, was it not?

12 A. That's right.

13

14 Q. Related to an event that's timed as having occurred at
15 12 noon, not 12.10.

16 A. Yes, it's a mistake by me getting the - I didn't read
17 it properly.

18

19 Q. No, that's okay, but I suppose the more important
20 point is that the event comprising the methane exceedance
21 had actually occurred by the time you got to the face?

22 A. That's correct.

23

24 Q. And your statement recites that you normally aimed to
25 take over production at 11.30, but there was some delay?

26 A. That's right.

27

28 Q. And in fact you got a report that there had been an
29 exceedance before you arrived at the face, so you went to
30 assist; is that the correct scenario?

31 A. Yes, I was doing a handover with the day shift deputy
32 in our crib room and then I got a phone call from the
33 maingate after the HPI had occurred.

34

35 Q. You know Mr Stingle; he's a colleague of yours?

36 A. That's right.

37

38 Q. Was he the deputy on the shift prior to yours?

39 A. No, Dion Bolton. Mr Stingle and myself do afternoon
40 shift, night shift, alternating, so Mr Stingle would have
41 been on night shift then.

42

43 Q. But was he not the deputy on the night shift just
44 prior to commencement of your day shift?

45 A. No, no, I'm on afternoon shift. There's a day shift
46 in between.

47

- 1 Q. I see. Can I show you the relevant incident form
2 first. It's document ACM.004.001.0044. Could we blow up
3 the right-hand page. You would be familiar with the layout
4 of this form, I take it?
5 A. Yes.
6
7 Q. The incident description involves cutting into the
8 tailgate - perhaps you'd interpret in your own words to us
9 what the description you've provided means?
10 A. Yes, that means we've cut it from the maingate, we've
11 cut in to the tailgate, and the supports were already
12 advanced, as in they were in.
13
14 Q. The supports being the shields?
15 A. The shields, yes. So that means they were already
16 advanced.
17
18 Q. What's the significance of that to the event?
19 A. To the event? We were leaving them a web further
20 back, we were leaving them back to leave a bigger air gap
21 at the tailgate supports. So 197, 96 and 95, we were
22 leaving a web further back.
23
24 Q. Why was that?
25 A. To make a bigger - a bigger air gap so we could get
26 more ventilation to flow in that direction.
27
28 Q. Whose plan was that, whose idea was that?
29 A. I could not say.
30
31 Q. Was that some form of instruction that you were given,
32 your crew, or was that the normal way to do things?
33 A. No, it's not, that's not the normal way to do things.
34
35 Q. I'm trying to source down the origin of doing it
36 differently. Do you see what I mean?
37 A. Yes, I do.
38
39 Q. If you remember.
40 A. I couldn't give a - I could not give a definite answer
41 to that question, no.
42
43 Q. You've given an incident description, but as you've
44 pointed out, you arrived at the face at 12.10.
45 A. Yes.
46
47 Q. By which time the incident had actually occurred;

- 1 correct?
2 A. Yes.
3
4 Q. So this is really your description of what you found
5 by way of inquiry rather than observation?
6 A. Yes.
7
8 Q. Or both, perhaps?
9 A. Well, from observation after I had arrived.
10
11 Q. If you go over the page to page 0044, can you tell us
12 how much of that is your writing? Take the left-hand page.
13 There's a time line there.
14 A. That's all my writing.
15
16 Q. I beg your pardon?
17 A. That's my writing.
18
19 Q. Yes, okay. There seem to be some different
20 contributors to the page on the right-hand side. Perhaps
21 we could zoom on that page.
22 A. Oh, sorry. Do you see where it says "High CH4 content
23 in seam drainage?" That's me. "Maingate and tailgate
24 cut-throughs in line" - that's my writing. And "Maingate
25 flexi not up", and "Spacing of goaf drainage holes" -
26 that's my writing.
27
28 Q. Are you looking at that page? I'm just not following.
29
30 THE CHAIRPERSON: Q. I think you start at the second
31 line from the top, do you? Is that your writing there?
32 A. That's correct. You see where it says "Potential root
33 causes"? That's not my writing. The others are.
34
35 MR RICE: Q. Mr Maguire and Mr Cavanagh have also signed
36 off. Would one of those be the author of the root causes?
37 A. They could be. I wouldn't know.
38
39 Q. You don't know, all right. Was that blank when you
40 signed it off, do you remember?
41 A. When I signed this off, the only writing on there was
42 mine.
43
44 Q. If we could blow up page 0045, the right-hand side of
45 the page. Do you see on that page "Potential root causes".
46 I think you told us what appears underneath that is not
47 your writing?

- 1 A. No. Where it says "Potential root causes", that is
2 not my writing. The next three statements are my writing.
3
- 4 Q. I see, okay. Did you assign those to the people whose
5 names appear in the column, Mr Holt and Mr Smith?
6 A. No.
7
- 8 Q. At any rate, from the looks of it, various people can
9 contribute, make a contribution to the completion of this
10 form?
11 A. That's right, yes.
12
- 13 Q. You did some bits and other people did other things?
14 A. That's correct.
15
- 16 Q. The actual task that you carried out, is that what is
17 described in paragraph 18 of your statement, to put up the
18 brattice?
19 A. That's what I'm describing, yes. Some of the brattice
20 was already up, but, yes, that's what I --
21
- 22 Q. By the time you got there?
23 A. Yes.
24
- 25 Q. So you continued with that task?
26 A. I continued with that task and putting the butchers
27 flaps in.
28
- 29 Q. What's the purpose of the brattice being erected at
30 that particular location, 195 to 197?
31 A. That was to separate the air coming from the goaf from
32 the air going across the face.
33
- 34 Q. Provide a barrier?
35 A. Yes.
36
- 37 Q. And the butchers flaps on 193 and 194, were they for
38 the same purpose?
39 A. No, they were for the purpose of directing more air
40 towards the goaf.
41
- 42 Q. Towards the goaf?
43 A. Or towards the brattice we'd erected.
44
- 45 Q. Towards the brattice?
46 A. Yes.
47

- 1 Q. With what objective?
2 A. To reduce the gas content.
3
- 4 Q. Dilute --
5 A. Dilute the gas.
6
- 7 Q. -- the concentration of methane, all right. You
8 outline another step at paragraph 21, that you wanted to
9 make an alteration to allow more air to return down the
10 C heading. C heading is a return road; am I right?
11 A. That's right.
12
- 13 Q. What was the objective that you had in mind with this
14 ventilation control alteration?
15 A. To - by putting more air - because we were very close
16 to 6 cut-through at this time, the face was close to
17 6 cut-through, so I believe that altering that VCD and
18 putting more air directly into the return would have pulled
19 the goaf seam - goaf stream further that way.
20
- 21 Q. Forgive my ignorance, but what is the relevance of the
22 proximity of 6 cut-through?
23 A. Just that it would have more effect. If it was
24 further away, it wouldn't have served the same purpose.
25
- 26 Q. It seems as though the improvement was able to be
27 rapidly achieved from when you arrived, because you
28 described the gas levels dropped at approximately 12.20?
29 A. That's correct.
30
- 31 Q. So it was a fairly quick process to set up this
32 brattice and get the gas level down to an acceptable level;
33 correct?
34 A. That's right.
35
- 36 Q. Were you told by anyone that there had been two other
37 exceedances earlier that day - that is, on the night shift,
38 Mr Stingle's shift - involving this sensor on chock 197?
39 A. I can't remember.
40
- 41 Q. At any rate, at paragraph 25, you met with Mr Stingle
42 later when he was coming on to his night shift?
43 A. That's right.
44
- 45 Q. Did you tell him what had happened and what had been
46 done as part of your handover to him; is that right?
47 A. That is correct.

1
2 Q. Did he engage with you about the fact there had been
3 two other exceedances on his shift the previous night?

4 A. He probably did.
5

6 Q. You were involved in another incident a few days
7 later, on 25 March, and in this case you did a written
8 statement, so can I show you that. Mr Operator, it's
9 ACM.004.001.0062. That's your statement of 25 March?

10 A. That's right.
11

12 Q. If we go over the page, we get the description that
13 you provided. At the second of those three block entries,
14 you refer to 197, 196, 195 canopies. Can you talk us
15 through the four lines that you've written there and
16 explain the significance of what you found?

17 A. Yes. The significance of the canopy levels is it was
18 a theory, I suppose, at the time - the canopies being the
19 roof of the support - if they became uneven, this gave -
20 like, if 197 was higher than 196.
21

22 Q. That was a theory that you explored?

23 A. Yes. The theory was that that could prove a pathway
24 for the methane to accumulate at the sensor.
25

26 Q. In this instance, you've noted that the canopies were
27 level?

28 A. That's correct.
29

30 Q. Rather than uneven; is that right?

31 A. That's right.
32

33 Q. You've noted the sequence was followed. What's that
34 a reference to?

35 A. The sequence was we had been - throughout the previous
36 little while, previous time, there had been various
37 attempts to improve the sequence in the tailgate, but
38 I believe on the - sorry, the 24th, we were given
39 a procedure to follow.
40

41 Q. There was a memo, I think, to crews; is that what
42 you're referring to?

43 A. That is what I'm referring to. On the 24th, before we
44 went down the pit, my crew was - we went into an office,
45 and the longwall superintendent gave us and talked us
46 through the sequence and gave us the memo.
47

- 1 Q. Am I right that you need to sign off on the memo?
2 A. I cannot remember signing off on the memo.
3
4 Q. Is that normal, though, if you're given a form of
5 instruction by way of memo or in some other way, do you
6 normally sign off on it to acknowledge that you've at least
7 seen it?
8 A. Not always.
9
10 Q. You can't remember whether you did so on this
11 occasion?
12 A. No, I can't remember.
13
14 Q. At any rate, there was such an instruction and it
15 concerned the sequence of advance of the chocks?
16 A. That's correct.
17
18 Q. And that was what you understood was to be applied for
19 your shift; correct?
20 A. Correct.
21
22 Q. Are you noting there that the sequence that you'd been
23 instructed had been followed?
24 A. Correct.
25
26 Q. Another feature apparently of this is what you note in
27 the third block, that there was not enough CH4 drainage
28 capacity?
29 A. Sorry, which line are you on there?
30
31 Q. Under the typed words, "What conditions influenced the
32 incident"?
33 A. That's correct.
34
35 Q. Why did you report that there was not enough goaf
36 drainage capacity?
37 A. Because of the - because of the gas levels in the
38 tailgate roadway.
39
40 Q. Why does that indicate that the drainage capacity was
41 an issue, can you tell us?
42 A. Most of the gas that comes into the tailgate is from
43 the goaf.
44
45 Q. Yes, I understand.
46 A. So if you're getting high readings in the tailgate
47 itself, it's got to be coming from the goaf. So if it's

- 1 coming from the goaf, you're not draining enough out of the
2 goaf.
3
- 4 Q. Understood. You made then particular mention of the
5 distance between goaf holes.
6 A. That's right.
7
- 8 Q. Was that an opinion of yours or based on some data or
9 information or what?
10 A. That would be an opinion.
11
- 12 Q. Do we take it that the fact that you've noted it,
13 you're indicating that there was too great a distance?
14 A. Yes.
15
- 16 Q. The words "off drivage at tailgate", what do they
17 mean?
18 A. The roadway was closer to the maingate roadway than it
19 was designed to be. So that meant that the 197 chock - all
20 the roof supports are supposed to be within the bounds of
21 the longwall block.
22
- 23 Q. Understood.
24 A. But because of this off drivage, it meant that 197
25 chock was actually stood in the tailgate roadway.
26
- 27 Q. And what's the significance of that from the point of
28 view of the readings of that sensor so located?
29 A. Well, it put - it tends to put it closer to the goaf
30 stream.
31
- 32 Q. One of the things that was done, apparently, was to
33 manually slow the shearer. Do you see that in that list of
34 four items that we looked at earlier, commencing with 197,
35 196, 195 - you see the fourth line there - throughout the
36 shift you manually slowed the shearer?
37 A. That's correct.
38
- 39 Q. Do you need approval to do that or is that within your
40 authority to take that --
41 A. Yes, I don't need approval.
42
- 43 Q. I beg your pardon?
44 A. My authority.
45
- 46 Q. I didn't hear you, I'm sorry.
47 A. I am sorry, yes, I did that. I had authority to do

- 1 that.
- 2
- 3 Q. With a view to reducing methane production from the
- 4 action of the shearer?
- 5 A. Correct.
- 6
- 7 Q. Tell me this: if you decided in such a scenario that
- 8 the best thing to do would be to slow the shearer for that
- 9 reason, you say you have authority to make that decision.
- 10 Can someone else, like the MSO, come and tell you you've
- 11 got it wrong, or is it your absolute authority to do that?
- 12 A. They can come and tell me they think I'm wrong.
- 13
- 14 Q. Has that ever occurred, in your experience at
- 15 Grasstree?
- 16 A. At Grasstree, not that I can recall, no.
- 17
- 18 Q. Can I show you the incident report for that day. It's
- 19 document ACM.004.001.0060. Could we go to the bottom half
- 20 of the right-hand page. I just want to ask you about the
- 21 final entries, the final set of check boxes on the bottom
- 22 of that page. Do you see that?
- 23 A. Yes, I do.
- 24
- 25 Q. Did you complete that?
- 26 A. No.
- 27
- 28 Q. Why are you so confident you did not?
- 29 A. Because if there's anything on that form I don't
- 30 understand, I don't fill it in.
- 31
- 32 Q. You don't understand what's required for completion of
- 33 that section of the form?
- 34 A. Not fully, no.
- 35
- 36 Q. At any rate, you didn't fill it in?
- 37 A. No.
- 38
- 39 Q. The reason you gave is you didn't know how to?
- 40 A. I didn't - I wouldn't say I didn't know how to.
- 41 I would say it would be - with the incident being an HPI,
- 42 the possible consequences --
- 43
- 44 Q. You're shrugging your shoulders. Are you not the best
- 45 one to judge; is that the idea?
- 46 A. That's what I'm saying, the possible consequences of
- 47 the HPI, the gas exceedance, could be - you could blow the

1 mine up. But is that a reasonable - is that the reasonable
2 estimation of it?
3
4 Q. It's entirely a matter of what you think and what you
5 understood at the time, that's really all I'm looking to
6 explore?
7 A. Well, that's why I left it.
8
9 Q. Okay, thank you. Had you been given any training or
10 instruction in the completion of that section of the form
11 that you can recall?
12 A. That I can recall, I've received no formal training on
13 that form, but there is a guide that comes in the accident
14 investigation pack.
15
16 Q. That may say something about it?
17 A. It may, yes.
18
19 Q. You don't know, can't remember?
20 A. I can't remember.
21
22 THE CHAIRPERSON: Q. Mr Noton, do you ever fill in that
23 part of the form when you have to use one?
24 A. Yes.
25
26 Q. You do sometimes?
27 A. Yes.
28
29 THE CHAIRPERSON: Okay, thank you.
30
31 MR RICE: Q. Since there are two that you contributed
32 to, just for completeness can we go to the first one, on
33 20 March. It's ACM.004.001.0044. Could we look similarly
34 at the bottom part of the right-hand page. You see there
35 that a number of boxes have been marked and some unmarked,
36 so to speak?
37 A. Yes.
38
39 Q. Can you tell us whether you filled out any of the
40 boxes on that part of the form?
41 A. I can't remember if I did or didn't fill out the
42 boxes. No, I can't. I can't tell you if I did or
43 I didn't. It looks like I may have done.
44
45 Q. If we could go back to the document as a whole, you'll
46 see on the left-hand page, in the bottom half there's half
47 a page of dense writing. It's called "Anglo American Plc

- 1 Risk Matrix". Have you ever read that?
2 A. Yes.
3
4 Q. In association with the completion of this form or in
5 what circumstance?
6 A. Oh, that forms - this matrix is used when you do,
7 like, a risk assessment or even a SLAM, you use this
8 matrix, yes.
9
10 Q. So you're familiar with --
11 A. Yes.
12
13 Q. Familiar with it from other contexts?
14 A. Yes.
15
16 Q. Is there any reason why you would have made an entry
17 on this form for 20 March and you were so confident you
18 didn't make an entry for the one on the 25th?
19 A. Well, I can tell by the handwriting, it's not my
20 ticking on the other form.
21
22 Q. And can you tell on this form?
23 A. Oh, not positively. But the - the "Possible
24 Consequences" - in fact, I wouldn't be able - I couldn't
25 say. I couldn't say.
26
27 Q. Would you have marked against "Actual Consequence" -
28 would you have marked all three?
29 A. No.
30
31 Q. In the second --
32 A. I can tell you for sure that the "Actual Consequence"
33 where it says "Insignificant", I do not make a mark of that
34 ilk. My tick's just a straight tick, so you see the one
35 being "Moderate" in the "Potential Consequences" - that may
36 be mine.
37
38 Q. More than one person at least has had a go at that,
39 from what you say?
40 A. Yes.
41
42 MR RICE: Thanks, Mr Noton.
43
44 MS HOLLIDAY: Does Mr Crawshaw have any questions first?
45
46 THE CHAIRPERSON: No, Mr Crawshaw is acting for this
47 witness.

1
2 MS HOLLIDAY: I see.

3
4 <EXAMINATION BY MS HOLLIDAY:

5
6 MS HOLLIDAY: Q. The only question that I have for you,
7 Mr Noton, is if you look at your statement at paragraph 39,
8 you state there "after Mr Lowe refused my request for more
9 drainage"?

10 A. Yes.

11
12 Q. And earlier, at paragraph 36, you sate:

13
14 *Mr Lowe called me and advised words to the*
15 *effect: "We're already at maximum*
16 *capacity ...*

17
18 A. That's correct.

19
20 Q. So how does one refuse a request if it's not possible
21 to be carried out, or am I misunderstanding something
22 there?

23 A. It's probably my poor English.

24
25 Q. So if something is at maximum capacity, it's a decline
26 of request because of the fact that there is maximum
27 capacity that's been reached; is that correct? In other
28 words, he couldn't have acceded to your request because
29 there was no more drainage to give you?

30 A. That's correct.

31
32 MS HOLLIDAY: That's the only question that I had,
33 Mr Martin.

34
35 THE CHAIRPERSON: Thank you. Mr Holt?

36
37 <EXAMINATION BY MR HOLT:

38
39 MR HOLT: Q. My name is Saul Holt, I'm one of the
40 lawyers for Anglo. Good afternoon. One question for you,
41 really. In your statement, you describe on 25 March there
42 was a point at which you were getting readings of
43 1 per cent at the shearer and it was starting to
44 automatically slow down.

45 A. That's right.

46
47 Q. Again, that's just a function of the methane sensor

1 relationship with the shearer, which is a failsafe, in
2 effect?

3 A. Oh, that's actually in the - it's not actually on the
4 shearer. It's in the PLC, but yes.

5
6 Q. In any event, it has that effect?

7 A. That's correct.

8
9 Q. Up until that point, you had the authority and the
10 capacity, and indeed did start to slow the shearer in order
11 to manage the environment that you were in?

12 A. Yes, we slowed the shearer down to prevent the
13 1 per cent.

14
15 Q. But then when the 1 per cent happens, it starts
16 automatically slowing down, anyway?

17 A. That's right, yes.

18
19 MR HOLT: Thank you.

20
21 THE CHAIRPERSON: Mr Crawshaw?

22
23 MR CRAWSHAW: No questions, Mr Chair.

24
25 THE CHAIRPERSON: Thank you. Mr Rice?

26
27 MR RICE: Nothing.

28
29 THE CHAIRPERSON: Mr Clough?

30
31 MR CLOUGH: Q. Yes, I have one question. I'm not sure
32 if you have the answer, but that risk rating at the bottom
33 of the incident report - does that have any effect on how
34 far the report is escalated within Anglo?

35 A. I wouldn't know.

36
37 MR CLOUGH: Okay, thank you.

38
39 MR HOLT: We can answer that question, Mr Clough, for you
40 at an appropriate point and will do.

41
42 MR CLOUGH: Thank you.

43
44 THE CHAIRPERSON: Mr Noton, thank you for your attendance.
45 You are excused.

46
47 <THE WITNESS WITHDREW

1
2 MR RICE: Mr Chairman, I call Josh Smith.
3
4 <JOSHUA SMITH, sworn: [3.55pm]
5
6 <EXAMINATION BY MR RICE:
7
8 MR RICE: Q. Is your name Joshua Smith?
9 A. Yes.
10
11 Q. Mr Smith, are you employed at Grasstree mine as an ERZ
12 controller?
13 A. Yes, I was.
14
15 Q. Can I just get a little bit of background about you.
16 For how long have you held the necessary qualification?
17 A. I've had a deputy's certificate of competency for
18 10 years.
19
20 Q. For how long have you worked at Grasstree mine?
21 A. I started at Grasstree in 2015. I left in mid-2018,
22 and the following two years I did six months, roughly,
23 a year as contract work.
24
25 Q. Was that a choice to work six months per year, as
26 I understood it?
27 A. Yes, it was.
28
29 Q. For personal reasons? I don't need to know what they
30 are.
31 A. Yes, for personal reasons, yes.
32
33 Q. How long have you been engaged in the occupation of
34 underground mining overall?
35 A. Fifteen years.
36
37 Q. You know, I think, that the inquiry is concerned to
38 have a look at some of the HPIs, including a number that
39 occurred at Grasstree, and you had an involvement in one of
40 them?
41 A. That's correct.
42
43 Q. You prepared, I think, an incident report for an event
44 that occurred on 6 April?
45 A. Yes.
46
47 Q. I'll show you that and we'll go through it. Okay?

1 A. No problem.

2

3 Q. It's document ACM.004.001.0070. That's the incident
4 form that you prepared? I think you've just been given
5 a hard copy of it, if it's easier to read. Actually, the
6 better thing may be to go to a separate statement that you
7 prepared, in which you set out some more fulsome details of
8 what happened, and we'll have a look at that.

9 A. Okay.

10

11 Q. The statement, Mr Operator, is ACM.004.001.0066.
12 That's your statement?

13 A. It's the first page of it, yes.

14

15 Q. You're just being given a hard copy now. We see
16 a description of the occurrence on the second page of that
17 statement. That's 0067. Could we blow up the first half
18 of that page. Have you had a look at that recently,
19 Mr Smith?

20 A. Yes, I have.

21

22 Q. I just want to work through some features of what
23 you've described there. You've said that earlier in the
24 shift, on inspection, gas readings were found to have
25 increased from previous shifts. You mean earlier in your
26 shift that was what you discovered?

27 A. No. What I was referring to there was there was
28 a slight increase from previous shifts throughout the
29 course of that week.

30

31 Q. Detected by you in the course of this particular
32 shift?

33 A. Yes, and the fixed monitoring as well.

34

35 Q. And the what?

36 A. And the fixed monitoring as well.

37

38 Q. Apparently you were in the crib room writing
39 a statutory report when you got some notification. Is that
40 the sequence of events?

41 A. Yes, yes, I've completed my inspection, went back to
42 the crib room to start the report, and I'd already started
43 making phone calls in regards to that sentence to the
44 control room and the maingate drive.

45

46 Q. Was that based on the fact that you've seen an
47 increased reading in it from earlier in the shift?

- 1 A. Yes, I've seen an increased reading from previous
2 shifts on this shift, yes.
3
- 4 Q. And that caused you, did it, to make some phone calls
5 about it from the crib room?
6 A. Correct. I rang the control room.
7
- 8 Q. To say what?
9 A. To say, "Can we check the goaf drainage at that time,
10 because ventilation hadn't changed", and I wanted to know,
11 firstly, when the next goaf well was coming on and the
12 current status of the goaf wells that were active at the
13 time.
14
- 15 Q. It seems from what you've written down that while you
16 were in the crib room, you got a notification from someone
17 at the maingate?
18 A. That's correct.
19
- 20 Q. About an exceedance on the number 197 sensor?
21 A. That's correct.
22
- 23 Q. Which had tripped power?
24 A. Yes, it had.
25
- 26 Q. You then went to investigate?
27 A. That's correct.
28
- 29 Q. You say that you instructed the crew to re-establish
30 the wing at 195, 196 shield and brattice at tailgate
31 shields. Can you explain to those of us who aren't miners
32 what that process involved?
33 A. Yes, absolutely. The first thing I did when I got up
34 there was asked the crew to withdraw to the other side of
35 the shearer while I went and inspected the area. When
36 I went inbye on the shearer to inspect the area around the
37 drive, there was gas found there at higher than
38 2.5 per cent, so I withdrew myself, and that continued for
39 a little while.
40
- 41 There was a wing that is established in that area,
42 196, and I noticed it was down. Up until that point, that
43 wing was meant to be in place, because it was assisting the
44 ventilation in this area to remove the gas around that
45 drive area.
46
- 47 Q. Can you explain how it was achieving that by virtue of

- 1 where it was, and so forth?
- 2 A. Yes, absolutely. It was hung from one of the top of
3 the shields down and rested on to the drive itself, and the
4 effect that that has is it - it does a couple of things.
5 The first thing it does is it splits the ventilation in
6 that area and forces more ventilation between the tailgate
7 drive and the shields. Subsequently, when it does that, it
8 assists in holding the goaf fringe back, because there's an
9 extra velocity pressure in that area.
- 10
- 11 Q. Is that a regular kind of response to that sort of an
12 issue?
- 13 A. Yes, and I have worked at other mines that conduct
14 themselves in a very similar way in that circumstance.
- 15
- 16 Q. Looking further through your explanation, it seems
17 that you instructed an electrician to replace the chock 197
18 sensor?
- 19 A. That's correct.
- 20
- 21 Q. Why did you ask for that?
- 22 A. Those sensors are known, once they've received a good
23 dose of gas, to basically potentially be faulty after that.
24 So to remove all doubt, I organised him to replace the
25 sensor altogether and recalibrate it.
- 26
- 27 Q. How simple or complex a task is that?
- 28 A. It's not overly complex. It would probably take him
29 about 25 minutes to do the whole job, and they usually have
30 that equipment in the section underground to deal with
31 that.
- 32
- 33 Q. Something else that apparently happened was to
34 construct a Sherwood curtain?
- 35 A. That's correct.
- 36
- 37 Q. That goes in the roadway, tailgate return roadway; am
38 I right?
- 39 A. That's correct.
- 40
- 41 Q. It seems as though you were advised from the control
42 room about a couple of relevant things, one being that
43 there was reduced goaf capacity overnight?
- 44 A. That's correct.
- 45
- 46 Q. Were you given a reason why that might have occurred?
- 47 A. Yes.

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Q. What was it?

A. The most immediate surface well had choked itself off, and that does happen with the strata mechanics behind the longwall. You know, it's just one of those things that can happen sometimes.

Q. When you say "choked itself off"?

A. It's a vertical well, obviously, that just drills right in down behind the longwall. The strata is caving in behind the longwall, and sometimes in that caving mechanism it actually closes off the hole and they can't get a vacuum on it, they can't get suction and remove gas, and that's what happened on that occasion.

Q. So the goaf drainage was not as effective as it would otherwise have been?

A. Absolutely.

Q. Was that an influencing factor to this exceedance, in your judgment?

A. Absolutely. The other thing that occurred was, alongside that, we have horizontal goaf drainage holes as well. They had backed up full of water and weren't producing, either, so we lost two lots of goaf drainage in a very key area of the longwall gas management.

Q. You've mentioned another piece of information that you were given, that the goaf was previously hanging up by 8 metres?

A. That was, yes, found by --

Q. Was that part of this incident?

A. Yes, it was. It was found by me earlier in the shift.

Q. Would you mind explaining what's involved in the goaf hanging up by 8 metres and then falling flush with the shields?

A. Absolutely. Essentially that caving mechanism that happens behind the longwall happens in a variety of different forms. Every now and then, for whatever reason, it might be the support density in the roadway, it might be the strata itself, it won't immediately cave in that area, and it'll reach a breaking point as you're retreating away from it and it'll all let go at once, which is what happened in that case. By flush with the shields, I mean it was level with the legs on the supports at the tailgate

1 number 197.

2

3 Q. So what fell from the caving --

4 A. Correct.

5

6 Q. -- was hard up against the rear of the shields?

7 A. Yes, alongside the shields, yes.

8

9 Q. And was it that, in conjunction with the reduced goaf
10 drainage, that was of influence to this exceedance?

11 A. Yes, absolutely.

12

13 Q. Was your erection of brattice and installation of
14 Sherwood curtain intended as a temporary measure whilst the
15 goaf drainage issue was rectified or not?

16 A. Yes, it was. So how that came about was once the
17 initial wing at the tailgate drive that had failed was
18 re-established, and gas levels were at an acceptable level
19 around the drive, I proceeded into the tailgate roadway
20 once that had stabilised.

21

22 In the tailgate at the time were a support crew. So
23 I made another phone call to the control room, and they had
24 some data for me by that point. I asked when the next well
25 was coming on, and it was in 8 metres time. I was on
26 speakerphone at the time, the ventilation officer was in
27 the control room as well, and I floated the idea of putting
28 a Sherwood curtain up for roughly 15 metres to assist us to
29 maintain safe gas levels to get us to the next goaf
30 drainage well.

31

32 Q. You gave me a figure a moment ago as to how far the
33 next goaf drainage well was. Was it 5?

34 A. Eight metres.

35

36 Q. How long in practice does it take to mine through that
37 8 metres?

38 A. If we're having a good day, we'll do that in a shift,
39 no problem.

40

41 Q. But that's how many hours - 12?

42 A. Yes, yes. Maybe less if everything's going well.

43

44 Q. During that time frame, the solution to the issue was
45 your erection of brattice and Sherwood curtain; is that the
46 situation?

47 A. Correct. Before we could get that next key point of

1 suction on the fringe of the goaf, the Sherwood curtain
2 will create a pressure system, a localised pressure system,
3 on the corner and it will assist us to keep the fringe back
4 away from mining activities.

5

6 Q. If things go well and you get 8 metres along to the
7 next well, and it works, does that put you in a position
8 where you perhaps no longer need the Sherwood curtain and
9 brattice?

10 A. Yes.

11

12 Q. Is that the expected order of events?

13 A. Yes, it would be - the wells are quite temperamental
14 as to how well they perform when they first come on to
15 suction, so there would be a bit of backwards/forwards
16 working out whether to leave the curtain up or not to leave
17 the curtain up, and that would just be down to the levels
18 of gas that you had at the time on your inspections.

19

20 Q. Do you have authority over the length of time the
21 Sherwood curtain stays in position?

22 A. That is something that I would push uphill, so to
23 speak, and talk to the MSO about, and I would do that in
24 such a way that - I would first find out if that goaf well
25 is producing at the capacity that it could. I would then
26 ring the MSO and inform him that the gas levels are
27 acceptable now and the goaf drainage was running, so I'm no
28 longer going to stick with the Sherwood curtain. And if he
29 gave an approval to that, then I would take it down.

30

31 Q. If this scenario isn't resolved by the end of your
32 shift, would it be fair to assume that it would form part
33 of your handover to the next shift?

34 A. Yes.

35

36 Q. What had happened and what the current state of gas
37 management was?

38 A. Definitely.

39

40 Q. If we go back to the form which you filled out, or at
41 least part of it, that's ACM.004.001.0070, if I could just
42 ask you about the tick boxes on the bottom of the
43 right-hand page, so if we could enlarge that - do you see
44 that part of the form?

45 A. Yes.

46

47 Q. Did you complete that?

- 1 A. More than likely I did, yes. I can't see why
2 I wouldn't.
3
- 4 Q. Can you explain why you might have ticked or marked
5 a number of boxes?
6 A. In all honesty, I was probably rushing, because on
7 this particular occasion I - I've obviously filled this
8 form out. I handed over to the afternoon shift, and myself
9 and the people involved in the incident went straight to
10 the surface to conduct this initial part of the
11 investigation with the ventilation officer along with the
12 superintendent and the MSO.
13
- 14 Q. Have you had any training or instruction at Grasstree
15 as to how to complete that classification section of the
16 form?
17 A. Yes, well, I was the MSO of Grasstree for three and
18 a half years, so there is actually a guide to fill that
19 form out, and I would always have one in my office, so
20 if I --
21
- 22 Q. What's it called?
23 A. I couldn't give you the exact document name, off the
24 top of my head.
25
- 26 Q. But it's a guide to what - completion of an initial
27 incident report?
28 A. Completion of a green form. It gives you the key
29 things on the form, such as agencies and mechanisms. It's
30 still up to you to determine which one is right, and the
31 safety team may work with you on that to adjust a few
32 things. It's a bit of a collaboration in some cases. But
33 there is a guide to filling it out, and that is a level of
34 training that I got.
35
- 36 Q. The risk assessment that appears on the left-hand side
37 of the page, is that a familiar form of matrix to you?
38 A. Yes, it is.
39
- 40 Q. Have you seen it in other contexts for completion of
41 perhaps JSA or SLAM?
42 A. Absolutely. I believe it is actually on the first
43 page of a JSA book, as well, for people to reference.
44
- 45 Q. The same one?
46 A. I believe so, yes.
47

- 1 Q. As best you can tell?
2 A. Yes, yes.
3
- 4 Q. Just to complete looking at this form, if we go to
5 page 0070 - it's page 0071, please, and if we could enlarge
6 the whole of the right-hand side of the document. We see
7 there in the box the person reporting appears to be
8 a B Smith?
9 A. Correct.
10
- 11 Q. The writing on the first page was yours, nonetheless,
12 wasn't it?
13 A. Correct.
14
- 15 Q. How did you come not to sign off on this form, or did
16 you perhaps on the right-hand side of the page as
17 supervisor?
18 A. I honestly have no idea how --
19
- 20 Q. Who is B Smith, is he an operator?
21 A. That's Braedon Smith, the ventilation officer, yes.
22
- 23 Q. He was the V0?
24 A. Yes.
25
- 26 Q. Was he in attendance?
27 A. When we went to the surface to have the initial
28 incident discussion, he was, yes. So that's quite possibly
29 how that form got filled out that way.
30
- 31 Q. There's more writing above the signature blocks. Do
32 you see the section that says "Conduct LFI into incident"
33 and all that appears below - that doesn't look like your
34 handwriting?
35 A. No, it isn't, no.
36
- 37 Q. Do you know whose it is?
38 A. It appears to be Braedon Smith's. His name is next to
39 it.
40
- 41 Q. If so, is it likely that that was entered in the
42 course of your discussion with him at the surface?
43 A. Yes, that's correct.
44
- 45 Q. What do you do with the form when you've completed it?
46 It normally goes to the MSO, doesn't it?
47 A. That's right, yes.

1
2 Q. So you don't think you would have given it to
3 Mr Smith?
4 A. No, I didn't give it to Mr Smith.
5
6 Q. But he may have written on it?
7 A. Sure, yes.
8
9 MR RICE: Thank you.
10
11 THE CHAIRPERSON: Q. Mr Smith, on 6 April, when you
12 found those higher readings, were they only readings in the
13 tailgate or were they elsewhere?
14 A. They were readings in the tailgate return roadway.
15
16 THE CHAIRPERSON: Thank you. Mr Crawshaw?
17
18 MR CRAWSHAW: No questions, Mr Chair.
19
20 THE CHAIRPERSON: Thank you. Yes, Ms Holliday?
21
22 MS HOLLIDAY: No questions.
23
24 THE CHAIRPERSON: Thank you. Mr Holt?
25
26 **<EXAMINATION BY MR HOLT:**
27
28 MR HOLT: Q. Good afternoon, Mr Smith. I'll try not to
29 keep you too long. You were talking about the green form,
30 that initial inquiry form, a moment ago and you described
31 to Mr Rice a process where you went to the surface and then
32 the form was completed collaboratively, as what
33 I anticipate was the beginning of the learning from
34 incident process, not formally, but kind of --
35 A. It was a collaboration of, yes, that and also just to
36 get the right heads in the room initially to work out
37 potentially what has failed, to begin with, and the
38 sequence of events.
39
40 Q. That kind of collaboration and the handwriting we see
41 on the form and so on - from your perspective, there's
42 nothing weird about that? That was just good process to
43 get everyone's heads together straightaway?
44 A. It does happen sometimes, yes.
45
46 Q. We know that there was, following this, a more
47 extensive LFI, learning from incident, process and quite

1 a lengthy report where the LFI process in fact took in and
2 considered a whole range of quite similar incidents that
3 had occurred. Do you recall that?

4 A. I don't recall it, but I have had it as part of this
5 process to look through.

6
7 Q. Because you were noted as part of the team for that,
8 presumably because you were involved in the occasion on
9 6 April?

10 A. That's correct, yes, but I wasn't aware of the LFI
11 details.

12
13 Q. Understood. But your input was added into that
14 process, effectively, as far as you're aware?

15 A. Correct.

16
17 Q. Again briefly, when you went down to the longwall as
18 the deputy on the shift when the power tripped on the
19 shearer, you went down and conducted what you've described
20 as an inspection?

21 A. That's right.

22
23 Q. There's a very clear process, isn't there, that as
24 a deputy you go through, and did go through, in order to
25 ensure that that inspection is really well conducted?

26 A. Yes, especially after an incident of this nature.

27
28 Q. That's exactly what I mean. After an incident of this
29 nature, you're looking for stability of conditions, gas
30 levels, checking the sensor levels are all correct?

31 A. Making the area safe.

32
33 Q. One of the key things, obviously, is also to ensure
34 that the coal mine workers are away from that area?

35 A. Absolutely.

36
37 Q. And checking the data so that you're safe before you
38 go in and start checking with your personal gas detector as
39 well?

40 A. Yes, but we knew the gas was over. So when I went
41 there, my first prerogative was to get the guys on the
42 outbye side of the shearer, in the fresh air, and then
43 I proceeded in with my gas detector, keeping a close eye on
44 it to ensure that it didn't go over 2.5 per cent. On
45 occasions it did, and I retreated from the area.

46
47 Q. Understood. Part of the reason why the gas event was

1 as you described it or you expected it to be over was
2 because you anticipated and could tell from your experience
3 that it appeared to be related to the goaf fall?

4 A. The goaf fall would definitely have been the initial
5 push of gas forward, and then what would have happened
6 after that alongside the position of the shearer would have
7 changed the dynamics of ventilation in that area.

8

9 Q. I understand. One of the pieces of information that
10 you had access to was the previous deputy's report from the
11 previous shift?

12 A. Yes, I definitely would have done, yes.

13

14 Q. You can have access to that on an iPad so that it's
15 immediately available to you, even if the deputy himself
16 wasn't available?

17 A. It's available to me when I read it and sign it on the
18 iPad.

19

20 Q. Now, just two more topics, in that case - one more
21 topic. You've explained that at the time that you were at
22 Grasstree at the time of this incident, you were
23 a contractor?

24 A. Yes, that's correct.

25

26 Q. So you weren't an Anglo employee; you were operating
27 through One Key?

28 A. That's correct.

29

30 Q. Nonetheless, you were effectively integrated into the
31 workforce, that is, you were operating on teams in the same
32 way as Anglo employees?

33 A. Yes. I would fit into whatever role and structure
34 that I was engaged in at the time, yes.

35

36 Q. And you would certainly have been following - I'm not
37 suggesting for a moment otherwise - indeed helping to
38 implement the safety and health systems that Anglo had in
39 place on that mine?

40 A. Absolutely.

41

42 Q. In that sense, as a result of that role, your
43 seniority and your function on the site, you were
44 conducting risk assessments on a very regular basis,
45 I would imagine, of different kinds?

46 A. Yes, depending on the day and where I was in the mine,
47 yes, and what role I was doing, yes.

1
2 Q. That was a function of your role as a deputy, not as
3 your status as an employee or a contractor? You were just
4 doing those risk assessments as part of your job,
5 effectively?

6 A. Yes, definitely, yes.

7
8 MR HOLT: Thank you.

9
10 THE CHAIRPERSON: Mr Rice?

11
12 MR RICE: Nothing, thank you.

13
14 THE CHAIRPERSON: Mr Clough?

15
16 MR CLOUGH: No, I have no questions, thank you.

17
18 THE CHAIRPERSON: Thank you. We will adjourn until
19 10 o'clock tomorrow. Oh, I'm sorry, Mr Smith. Thank you
20 for your evidence. You are excused. Thank you.

21
22 **<THE WITNESS WITHDREW**

23
24 **AT 4.24PM THE BOARD OF INQUIRY WAS ADJOURNED**
25 **TO FRIDAY, 7 AUGUST 2020 AT 10AM**

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