

<p>1 Wednesday, 18 July 2018</p> <p>2 (10.00 am)</p> <p>3 SIR MARTIN MOORE-BICK: Good morning, everyone. Welcome to</p> <p>4 today's hearing.</p> <p>5 We are going to hear first of all from another</p> <p>6 firefighter witness, I understand; is that right?</p> <p>7 MR KINNIER: Yes, sir. Good morning.</p> <p>8 May I call Mr Raymond Keane.</p> <p>9 RAYMOND KEANE (affirmed)</p> <p>10 SIR MARTIN MOORE-BICK: Thank you very much, Mr Keane, good</p> <p>11 morning.</p> <p>12 THE WITNESS: Good morning.</p> <p>13 SIR MARTIN MOORE-BICK: You are going to sit down to give</p> <p>14 your evidence. That's perfectly acceptable. Thank you.</p> <p>15 Questions by MR KINNIER</p> <p>16 MR KINNIER: Good morning.</p> <p>17 First of all, can you confirm your name?</p> <p>18 <b>A. Raymond James Keane.</b></p> <p>19 Q. Thank you very much for coming today to give evidence,</p> <p>20 it's much appreciated.</p> <p>21 First of all, can you confirm that you provided</p> <p>22 a statement for the purposes of this inquiry?</p> <p>23 <b>A. Yes, I did, yes.</b></p> <p>24 Q. If you open the blue folder in front of you, hopefully</p> <p>25 behind tab A, is that the statement you are referring</p> <p style="text-align: center;">Page 1</p>	<p>1 note, I'm simply going to cover certain topics that</p> <p>2 arise within it.</p> <p>3 <b>A. Yes.</b></p> <p>4 Q. Now, if my questions aren't clear, that's my fault. If</p> <p>5 they are unclear, please say so and I'll rephrase them</p> <p>6 and try and make them clearer.</p> <p>7 <b>A. Okay.</b></p> <p>8 Q. Mr Keane, first of all, can we start with the basics.</p> <p>9 As I understand it, you've been a firefighter for</p> <p>10 9 years; is that right?</p> <p>11 <b>A. That is, yes.</b></p> <p>12 Q. Since leaving training school, you've been based at</p> <p>13 Paddington?</p> <p>14 <b>A. I was, yes, until the beginning of this year.</b></p> <p>15 Q. You were on Red Watch during your time at Paddington?</p> <p>16 <b>A. I was, yes.</b></p> <p>17 Q. And at the time of the fire, you were still based at</p> <p>18 Paddington?</p> <p>19 <b>A. I was, yes.</b></p> <p>20 Q. It's right that Paddington's call sign is Alpha 21?</p> <p>21 <b>A. That's right.</b></p> <p>22 Q. And that there are four machines there, including</p> <p>23 Alpha 211, the ladder --</p> <p>24 <b>A. Yes.</b></p> <p>25 Q. -- Alpha 212, the pump --</p> <p style="text-align: center;">Page 3</p>
<p>1 to?</p> <p>2 <b>A. Yes. That's right, yes.</b></p> <p>3 Q. And are its contents true?</p> <p>4 <b>A. Yes.</b></p> <p>5 Q. Have you read the contents of that statement recently?</p> <p>6 <b>A. Yes.</b></p> <p>7 Q. Hopefully behind tab B you'll find your contemporaneous</p> <p>8 note.</p> <p>9 <b>A. Yes.</b></p> <p>10 Q. And do you confirm the contents of that document are</p> <p>11 true also?</p> <p>12 <b>A. Yes.</b></p> <p>13 Q. Finally, if I could ask you to turn to tab C. Hopefully</p> <p>14 you'll there find a sketch plan which was appended to</p> <p>15 your statement.</p> <p>16 <b>A. That's right, yes.</b></p> <p>17 Q. That's correct?</p> <p>18 <b>A. It is, yeah.</b></p> <p>19 Q. Thank you.</p> <p>20 Are you content that those documents stand as your</p> <p>21 evidence to the inquiry?</p> <p>22 <b>A. Yes, I am, yes.</b></p> <p>23 Q. Because your statement and your contemporaneous notes</p> <p>24 are your evidence to the inquiry, I'm not going to go</p> <p>25 through each and every aspect of your statement and</p> <p style="text-align: center;">Page 2</p>	<p>1 <b>A. Yes.</b></p> <p>2 Q. -- Alpha 213, the turntable ladder --</p> <p>3 <b>A. Yes.</b></p> <p>4 Q. -- and, finally, Alpha 216, the fire and rescue unit?</p> <p>5 <b>A. That's right.</b></p> <p>6 Q. Now, the first topic I'd like to discuss with you today</p> <p>7 is training and practical experience.</p> <p>8 For that purpose, could I ask you to turn to page 11</p> <p>9 of your statement.</p> <p>10 Unfortunately, these statements don't have paragraph</p> <p>11 numberings, but if you look at the first substantive</p> <p>12 paragraph on that page, which starts with words "I felt</p> <p>13 my training"?</p> <p>14 <b>A. Yes.</b></p> <p>15 Q. You say in the third sentence:</p> <p>16 "At least once a week we do a drill for high rise</p> <p>17 conditions or a combination drill and we normally use</p> <p>18 our training tower once every tour."</p> <p>19 First of all, what would a drill for high-rise</p> <p>20 conditions usually cover?</p> <p>21 <b>A. So basically we'd pretend that there was a fire on</b></p> <p>22 <b>a certain floor and we'd go about setting up the</b></p> <p>23 <b>bridgehead, and pretending, basically, like what we had</b></p> <p>24 <b>that night. We'd go through the procedures, what we'd</b></p> <p>25 <b>do and what we'd set up, run through that. So it was</b></p> <p style="text-align: center;">Page 4</p>

<p>1 just basically imagining that there was a fire.</p> <p>2 Q. What is a combination drill?</p> <p>3 A. So a combination drill -- so you'd basically set up your</p> <p>4 pumps and ladders. So you'd set up ladders to a certain</p> <p>5 floor. So it was just combining different ethics of</p> <p>6 firefighting and putting it into one drill.</p> <p>7 Q. Asking you a basic question, what's a tour for these</p> <p>8 purposes?</p> <p>9 A. Oh, so that's basically we work on a tour, so it would</p> <p>10 be four days on, four days off. So every four days we'd</p> <p>11 do a tour.</p> <p>12 Q. What types of exercises and training do you use the</p> <p>13 training tower for?</p> <p>14 A. So on Paddington we've got line rescue, so sometimes</p> <p>15 we'd use the tower for line rescue. We'd use it for</p> <p>16 ladder drills, and then combination drills as well.</p> <p>17 Q. Now, further down in the paragraph at line 6, you say</p> <p>18 that your training is not particularly realistic.</p> <p>19 A. Yes.</p> <p>20 Q. Why do you say that?</p> <p>21 A. Obviously as a firefighter you want to have realistic</p> <p>22 fires to be training on, but we've not got the</p> <p>23 facilities. We've tried arranging for the derelict</p> <p>24 buildings that are going to be knocked down to actually</p> <p>25 put a real fire in and actually tackle it in training,</p> <p style="text-align: center;">Page 5</p>	<p>1 in a flat fire in a high-rise building?</p> <p>2 A. We have had training. I mean, the coanda effect is sort</p> <p>3 of, in effect, a breach of compartmentation. So that's</p> <p>4 where the fire comes out of the building, up the window</p> <p>5 and it will try and find the easiest access back into</p> <p>6 the building. It will generally go into the next floor</p> <p>7 above. So we've been taught to put a covering jet when</p> <p>8 applicable. If it's high, you generally can't do that.</p> <p>9 Yeah, so we have been taught about that.</p> <p>10 Q. Have those lectures covered particular issues that arise</p> <p>11 when a high-rise building has a fire and that building</p> <p>12 has cladding on the exterior?</p> <p>13 A. No.</p> <p>14 Q. Did you receive any lectures following Lakanal House</p> <p>15 fire?</p> <p>16 A. Yes, we did, yes.</p> <p>17 Q. What was the content of the lectures you received</p> <p>18 following Lakanal House?</p> <p>19 A. It was just a training package trying to find out what</p> <p>20 happened, what people had done on the day and some</p> <p>21 conclusions of what could have been done differently,</p> <p>22 the faults that happened that day, but I can't really</p> <p>23 remember, as it was so long ago, what they were.</p> <p>24 Q. Did you have any lectures following the Shepherds Court</p> <p>25 fire?</p> <p style="text-align: center;">Page 7</p>
<p>1 but we're told we're not allowed to, it's too dangerous,</p> <p>2 because it could actually be a fire.</p> <p>3 So we have to pretend that there's a fire or we have</p> <p>4 to pretend some aspect's gone wrong and we're reacting</p> <p>5 to that. So it isn't really realistic, but the training</p> <p>6 that you do is geared up and it is a method of doing</p> <p>7 what we do.</p> <p>8 Q. Now, looking at the fourth sentence, you say, "We also</p> <p>9 have lectures."</p> <p>10 Who provides those lectures?</p> <p>11 A. There are training packages from Babcocks. It used to</p> <p>12 be through the Brigade, but since Babcocks has taken</p> <p>13 over, it's their training packages, and it's delivered</p> <p>14 by the watch members. So sometimes it would be a crew</p> <p>15 manager or sometimes it would be the actual watch</p> <p>16 manager.</p> <p>17 Q. Before the fire, did you receive any training on</p> <p>18 firefighting techniques in relation to high-rise</p> <p>19 buildings?</p> <p>20 A. Not that I -- well, I probably would've done, but</p> <p>21 I can't remember any specifics. I mean, we do go over</p> <p>22 quite a lot of different aspects of training, so it's</p> <p>23 hard to be specific.</p> <p>24 Q. Can you remember whether you received any training on</p> <p>25 what to do if there's been a breach of compartmentation</p> <p style="text-align: center;">Page 6</p>	<p>1 A. No.</p> <p>2 Q. Were you involved in fighting --</p> <p>3 A. Yes, we was, yes.</p> <p>4 Q. That was an instance, I think we now know, where fire</p> <p>5 re-entered --</p> <p>6 A. Yeah, the coanda effect, yeah.</p> <p>7 Q. Can you remember what firefighting techniques you</p> <p>8 deployed in fighting Shepherds Court that were useful</p> <p>9 when you came to respond to Grenfell?</p> <p>10 A. Well, we was called on quite late, I think when it was</p> <p>11 made 15 pumps, so we got there quite late in the</p> <p>12 incident, and we was deployed to do a covering jet to</p> <p>13 try and stop fire spread going on the outside of the</p> <p>14 building. We set up a jet from the ground -- it's like</p> <p>15 a mezzanine level. It took quite a while to get access</p> <p>16 to that floor, but by the time we done that, the jet</p> <p>17 weren't strong enough and the water weren't good enough</p> <p>18 to get to the actual fire itself, and the debris was</p> <p>19 falling down, so it was quite dangerous actually</p> <p>20 standing underneath because debris was coming down.</p> <p>21 So we had little effect at all, really, and by the</p> <p>22 time we'd actually got it set up tried doing it, the</p> <p>23 firefighters had gone in and extinguished the fire.</p> <p>24 Q. Looking at the second substantive paragraph on page 11,</p> <p>25 you discuss here the fire at Trellick Tower. I think</p> <p style="text-align: center;">Page 8</p>

<p>1 that was in April 2017; is that right?</p> <p>2 <b>A. Yes, I put a couple of weeks but, yeah, everything is</b></p> <p>3 <b>a couple of weeks with me.</b></p> <p>4 Q. In the penultimate sentence of that paragraph, you say:</p> <p>5 "After Trellick Tower we had a Watch Meeting about</p> <p>6 what we had done and to go over procedures."</p> <p>7 In relation to the firefighting response itself,</p> <p>8 what learning points did Red Watch at Paddington take</p> <p>9 from the Trellick Tower fire?</p> <p>10 <b>A. Well, I mean, on that particular fire, they had a wet</b></p> <p>11 <b>riser and when the pressure drops they should have</b></p> <p>12 <b>a pump that boosts the pressure in the water. We</b></p> <p>13 <b>couldn't get the pressure to work. The pumps weren't</b></p> <p>14 <b>working for some reason. So I didn't realise that the</b></p> <p>15 <b>fire safety expert would come out and he knew how to</b></p> <p>16 <b>work the systems, so we learnt that about that</b></p> <p>17 <b>particular job.</b></p> <p>18 It was just basically always secure a fire lift, who</p> <p>19 would bring what. We had specific roles, so the BA crew</p> <p>20 would bring two lengths of 45, a TIC, the crew manager</p> <p>21 would bring the high-rise bag. So just learning what --</p> <p>22 drilling into us what we'd do, what machine -- what</p> <p>23 stuff we'd bring with us to the bridgehead.</p> <p>24 Q. What particular learning points taken from</p> <p>25 Trellick Tower did you apply when you came to fight the</p> <p style="text-align: center;">Page 9</p>	<p>1 <b>A. Yes.</b></p> <p>2 Q. -- you were on the road at 01.17 and you arrived at the</p> <p>3 scene at 01.26; does that sound right?</p> <p>4 <b>A. Yes.</b></p> <p>5 Q. By the time you'd arrived at 01.26, the order had been</p> <p>6 made to make pumps 10.</p> <p>7 <b>A. Yes.</b></p> <p>8 Q. Now, if I can ask you to turn to page 4 of your</p> <p>9 statement, and the first substantive paragraph on that</p> <p>10 page, you say in the penultimate sentence:</p> <p>11 "I thought it must have been cladding or something</p> <p>12 on the outside because this wouldn't happen on a normal</p> <p>13 building."</p> <p>14 <b>A. Yes.</b></p> <p>15 Q. First of all, given your answer previously, you had</p> <p>16 previously fought fires in high-rise buildings which had</p> <p>17 external cladding; that's right, isn't it?</p> <p>18 <b>A. Yes.</b></p> <p>19 Q. Had Shepherds Court been the most recent experience?</p> <p>20 <b>A. Yes.</b></p> <p>21 Q. Was it your view at the time -- ie on the night of</p> <p>22 14 June -- that the rate and extent of the fire spread</p> <p>23 was in some way due to cladding?</p> <p>24 <b>A. Yes.</b></p> <p>25 Q. What was it about your knowledge of cladding that you</p> <p style="text-align: center;">Page 11</p>
<p>1 fire at Grenfell?</p> <p>2 <b>A. I didn't fight the fire at Grenfell myself, so ...</b></p> <p>3 Q. Phrasing that in a better way, what learning points did</p> <p>4 you take from Trellick Tower in terms of identifying the</p> <p>5 best firefighting equipment to deploy at Grenfell?</p> <p>6 <b>A. It's hard to say because obviously I didn't actually --</b></p> <p>7 <b>we didn't really put the fire out at Grenfell. So once</b></p> <p>8 <b>we got water onto the fire at Trellick Tower, it was out</b></p> <p>9 <b>within minutes. But it's a hard question so I can't</b></p> <p>10 <b>really answer.</b></p> <p>11 Q. I'm now turning on to the events on the night of 14 June</p> <p>12 last year.</p> <p>13 First of all, it's right that you were driving the</p> <p>14 pump, that's Alpha 212?</p> <p>15 <b>A. That's right.</b></p> <p>16 Q. And that your crew manager was Ben Gallagher?</p> <p>17 <b>A. That's right.</b></p> <p>18 Q. The other members of the crew were Harry Bettinson,</p> <p>19 Jim Wolfenden and another whose name you can't remember</p> <p>20 but think it was Geoff --</p> <p>21 <b>A. Geoff Campbell yes.</b></p> <p>22 Q. Are you more certain it was Geoff Campbell now?</p> <p>23 <b>A. Yes.</b></p> <p>24 Q. I think it's a matter of record now, but you were</p> <p>25 mobilised at 01.15 --</p> <p style="text-align: center;">Page 10</p>	<p>1 thought it may be playing a role in the fire?</p> <p>2 <b>A. Well, the fire at Shepherd's Bush was just one sort of</b></p> <p>3 <b>plume of fire coming out the window, whereas the fire at</b></p> <p>4 <b>Grenfell -- it seemed that everything else was catching</b></p> <p>5 <b>alight as well and it had like a reaction to the fire</b></p> <p>6 <b>and was coming away, whereas it was completely different</b></p> <p>7 <b>at Shepherds Court.</b></p> <p>8 Q. Given your experience of fighting fires previously</p> <p>9 involving cladding on high-rise buildings, on the night,</p> <p>10 did you feel that you would be able to extinguish or</p> <p>11 contain the fire at Grenfell?</p> <p>12 <b>A. I thought we would, yeah. Yeah.</b></p> <p>13 Q. Did you communicate your views that cladding may be</p> <p>14 involved to a more senior officer and give advice as to</p> <p>15 how best to respond, how best to fight the fire?</p> <p>16 <b>A. No.</b></p> <p>17 Q. Why didn't you raise those points with a more senior</p> <p>18 officer?</p> <p>19 <b>A. Normally it comes down from officers to us. I'm not in</b></p> <p>20 <b>control of the incident; I was just pumping. So he</b></p> <p>21 <b>could see what I could see, so he's further trained and</b></p> <p>22 <b>better trained than I am to make them sort of decisions.</b></p> <p>23 Q. Can I next ask you questions about the turntable ladder</p> <p>24 itself. Again, it's a matter of record that the</p> <p>25 turntable ladder's call sign is Alpha 213 --</p> <p style="text-align: center;">Page 12</p>

<p>1 <b>A. That's correct.</b></p> <p>2 Q. -- and it arrived on the scene at 01.32; does that</p> <p>3 accord --</p> <p>4 <b>A. That sounds about right, yes.</b></p> <p>5 Q. Looking at page 4 of your witness statement, looking at</p> <p>6 the final paragraph, in the first sentence you say:</p> <p>7 "When the Paddington Turntable Ladder (A213) arrived</p> <p>8 it parked right at the front of the tower by the main</p> <p>9 entrance."</p> <p>10 Can I ask you to turn to tab C of the blue bundle in</p> <p>11 front of you.</p> <p>12 <b>A. Yes.</b></p> <p>13 Q. There, hopefully, you see Alpha 213 parked in front of</p> <p>14 what I think is the east elevation of the tower. Is</p> <p>15 that a correct depiction of the siting of the appliance</p> <p>16 on the night?</p> <p>17 <b>A. That's correct, yes.</b></p> <p>18 Q. Now, could I ask you at this point -- and, Paul, could</p> <p>19 I ask you to turn up the LFB operational response</p> <p>20 report, which is LFB00001914_0112.</p> <p>21 You'll see in the bottom box there, Mr Keane,</p> <p>22 an explanation of a turntable ladder.</p> <p>23 <b>A. Yes.</b></p> <p>24 Q. First of all, does that photo depict the type of</p> <p>25 turntable ladder that A213 was?</p> <p style="text-align: center;">Page 13</p>	<p>1 to carry out search and rescue on the night?</p> <p>2 <b>A. I mean, if people could've got to the windows, they</b></p> <p>3 <b>could've relatively got people out, but obviously their</b></p> <p>4 <b>main focus was trying to put water onto the cladding</b></p> <p>5 <b>that was on fire. So that was the initial actions of</b></p> <p>6 <b>the turntable ladder.</b></p> <p>7 Q. Now, you go on into your statement to say that:</p> <p>8 "My plan was to set up North Ken's Pump with a water</p> <p>9 supply so that it could feed the TL which could then put</p> <p>10 water on the building to stop the fire."</p> <p>11 That's page 4, the final paragraph, fifth line.</p> <p>12 Now, did you decide to do that off your own bat or</p> <p>13 were you directed to do so?</p> <p>14 <b>A. I believe I was directed to do so.</b></p> <p>15 Q. Can you remember who directed you to do so?</p> <p>16 <b>A. I believe it was Mike Dowden.</b></p> <p>17 Q. Can you remember the words he used or the gist of the</p> <p>18 words he used telling you what to do?</p> <p>19 <b>A. It would've just been to get the pump ready for the TL.</b></p> <p>20 <b>Because when I first arrived, the pump was in the way,</b></p> <p>21 <b>it was right behind Golf 271, so there was no clear</b></p> <p>22 <b>access for the turntable ladder to get into where it</b></p> <p>23 <b>should've been.</b></p> <p>24 Q. Now, you say at the end of that paragraph:</p> <p>25 "There was a bit of chaos but it was normal,</p> <p style="text-align: center;">Page 15</p>
<p>1 <b>A. That is right, yes.</b></p> <p>2 Q. The commentary to the left of the photo says that the</p> <p>3 detachable cage can hold three people.</p> <p>4 Apologies if this is a question regarding the</p> <p>5 obvious, but would it be usual simply to have two</p> <p>6 firefighters in there to allow room for one person to be</p> <p>7 rescued?</p> <p>8 <b>A. Yeah, it depends on weight as well, really. I think</b></p> <p>9 <b>there's a maximum weight it can hold, and especially</b></p> <p>10 <b>with the water being charged as well, that adds to it.</b></p> <p>11 <b>So the more weight on the front of the cage, the less</b></p> <p>12 <b>sort of manoeuvrability it can actually do and the less</b></p> <p>13 <b>it can go out.</b></p> <p>14 Q. In the circumstances at Grenfell where you were trying</p> <p>15 to get the maximum amount of --</p> <p>16 <b>A. Reach.</b></p> <p>17 Q. -- water --</p> <p>18 <b>A. Yes.</b></p> <p>19 Q. -- in your view, what was the safe number of people that</p> <p>20 could be carried in that cage?</p> <p>21 <b>A. I would say just probably one, yeah.</b></p> <p>22 Q. One?</p> <p>23 <b>A. Yes.</b></p> <p>24 Q. Now, this may answer the next question I want to ask</p> <p>25 you: to what extent could the turntable ladder be used</p> <p style="text-align: center;">Page 14</p>	<p>1 controlled chaos."</p> <p>2 I understand what you men by "chaos"; what was the</p> <p>3 element of control?</p> <p>4 <b>A. Controlled chaos is like a Fire Brigade term. So</b></p> <p>5 <b>although from the outside world it looked like it's</b></p> <p>6 <b>pandemonium, but we're rushing around doing our jobs,</b></p> <p>7 <b>setting up stuff that we normally do. So it's a real</b></p> <p>8 <b>Fire Brigade term, that, controlled chaos.</b></p> <p>9 <b>But there was loads of people screaming and shouting</b></p> <p>10 <b>and members of the public around at that time as well,</b></p> <p>11 <b>so it was --</b></p> <p>12 Q. Now, where there's a presence of control, usually</p> <p>13 there's someone exercising control; who was the officer</p> <p>14 who was directing what you were to do and how to do it?</p> <p>15 <b>A. Mike Dowden.</b></p> <p>16 Q. What further instructions, what detailed instructions,</p> <p>17 did he give you as to how best to deploy the</p> <p>18 firefighting equipment that you had?</p> <p>19 <b>A. I didn't see him much after that, to be fair, it was</b></p> <p>20 <b>just to set up the turntable ladder and the pump. After</b></p> <p>21 <b>that, I didn't see him for the rest of the night.</b></p> <p>22 Q. Can I ask you to turn over the page to page 5 of your</p> <p>23 statement and the first paragraph on that page. Third</p> <p>24 line down it states:</p> <p>25 "The Pump Ladder was already using one hydrant, and</p> <p style="text-align: center;">Page 16</p>

<p>1 there was another hydrant fairly close to the Pump but</p> <p>2 that had a really bad water supply and there was hardly</p> <p>3 any water coming out of it."</p> <p>4 Now, so we can locate these two hydrants, could</p> <p>5 I ask Paul to turn up an extract from Barbara Lane's</p> <p>6 report. The reference is BLAR00000012_11.</p> <p>7 Now, Mr Keane, are you able to help us identify,</p> <p>8 first of all, which hydrant was servicing the pump</p> <p>9 ladder?</p> <p>10 <b>A. I don't know which one was servicing the pump ladder.</b></p> <p>11 Q. Which one had the really bad water supply?</p> <p>12 <b>A. So as we're looking at the building, I take it the</b></p> <p>13 <b>bottom part is east side, is it?</b></p> <p>14 Q. Yes.</p> <p>15 <b>A. Yeah. So the one that had really bad was the one that</b></p> <p>16 <b>said "hydrant, no sign".</b></p> <p>17 Q. Okay.</p> <p>18 SIR MARTIN MOORE-BICK: Sorry, is that the one --</p> <p>19 <b>A. That was really bad, the one that said "hydrant, no</b></p> <p>20 <b>sign", 33 metres away.</b></p> <p>21 <b>SIR MARTIN MOORE-BICK: There are three that say "hydrant,</b></p> <p>22 <b>no sign".</b></p> <p>23 <b>A. Oh, sorry, I didn't see that, I'm too far away.</b></p> <p>24 <b>So the one that had 33 metres next to it.</b></p> <p>25 <b>SIR MARTIN MOORE-BICK: Oh, right, thank you.</b></p> <p style="text-align: right;">Page 17</p>	<p>1 <b>road. So I'm not sure if it's where it says 23 metres</b></p> <p>2 <b>or if it was further up.</b></p> <p>3 Q. This may help. If we can go back to your own sketch</p> <p>4 plan, MET00013058_1, does this sketch plan help you</p> <p>5 answer the question?</p> <p>6 <b>A. Yes, it shows it was further up Grenfell Road, but</b></p> <p>7 <b>I don't know how far or if there was more than one</b></p> <p>8 <b>hydrant on that location.</b></p> <p>9 Q. Now, doing the best you can now, how long did it take</p> <p>10 between the TL arriving at the scene and for it to start</p> <p>11 to become operational and firing water at the tower?</p> <p>12 <b>A. Maybe 10 to 15 minutes.</b></p> <p>13 Q. So if it arrived at 01.32, somewhere between 01.42 and</p> <p>14 01.47 or thereabouts?</p> <p>15 <b>A. Maybe, yeah. It's hard to tell, really.</b></p> <p>16 Q. In terms of the fire spread on the building itself, are</p> <p>17 you now able to remember the extent to which the fire</p> <p>18 spread between the time the TL arrived and the time the</p> <p>19 TL became operational?</p> <p>20 <b>A. Not really. I remember as we was driving to Grenfell</b></p> <p>21 <b>itself, we was driving up to it and we could clearly see</b></p> <p>22 <b>it was three floors, but actually trying to get to the</b></p> <p>23 <b>building itself and get to the entrance and get to the</b></p> <p>24 <b>building entrance, it had pretty much spread the whole</b></p> <p>25 <b>east side of the building.</b></p> <p style="text-align: right;">Page 19</p>
<p>1 MR KINNIER: Now, it may be easier if we turn to tab C of</p> <p>2 the documents in front of you, which is the sketch that</p> <p>3 you provided to support your witness statement which is</p> <p>4 at MET00013058_1.</p> <p>5 Are you able to, using the benefit of your own</p> <p>6 sketch, identify the hydrant that was servicing the pump</p> <p>7 ladder?</p> <p>8 <b>A. I don't believe I drew[sic] on the -- where the pump</b></p> <p>9 <b>ladder was plugged into, to be fair. I didn't set that</b></p> <p>10 <b>up so I don't know where that was getting its water</b></p> <p>11 <b>from.</b></p> <p>12 Q. You go on to say in the first paragraph at the top of</p> <p>13 page 5 that:</p> <p>14 "I used the MDT to locate another hydrant with a</p> <p>15 good supply up on the main road. I think it was on</p> <p>16 Grenfell Road."</p> <p>17 Now, if we can go back to the extract from the</p> <p>18 Barbara Lane, report BLAR00000012_11.</p> <p>19 The good hydrant that you located, is that</p> <p>20 identified anywhere on that map?</p> <p>21 <b>A. I'm not sure if it's the one that says 23 metres,</b></p> <p>22 <b>because as I was trying to set it up, other crews were</b></p> <p>23 <b>coming on and they actually plugged into the hydrant</b></p> <p>24 <b>itself and tested it. So I was down at the pump end of</b></p> <p>25 <b>the operation, bowling them from the pump up towards the</b></p> <p style="text-align: right;">Page 18</p>	<p>1 Q. One of the questions that has been asked to be put to</p> <p>2 you is: what effect do you think the time taken to</p> <p>3 secure the water supply for the TL had on the</p> <p>4 effectiveness of the firefighting operation?</p> <p>5 <b>A. I don't know. I mean, once we got water on there, it</b></p> <p>6 <b>didn't seem to do -- it had very little effect when we</b></p> <p>7 <b>was putting water on it anyway. So I don't know if you</b></p> <p>8 <b>would've put water on it sooner if it would have made</b></p> <p>9 <b>any difference. If you put a covering jet on it, would</b></p> <p>10 <b>that have made any difference? I don't know.</b></p> <p>11 MR KINNIER: The next topic I want to talk to you is about</p> <p>12 the duration of the operation of the TL itself.</p> <p>13 Sir, for these purposes, I would like to take</p> <p>14 Mr Keane to some photos from Barbara Lane's report.</p> <p>15 They show the building on fire, so I think it's</p> <p>16 appropriate to provide a trigger warning not only to</p> <p>17 those here, but those viewing online and elsewhere.</p> <p>18 SIR MARTIN MOORE-BICK: I think that would be right.</p> <p>19 MR KINNIER: If we just take 30 seconds for that.</p> <p>20 But whilst that time is taken by people if they want</p> <p>21 to move away, could I ask you the first question: was</p> <p>22 the turntable ladder the only aerial appliance that was</p> <p>23 in use at this time, at around 01.42, 01.47?</p> <p>24 <b>A. Yes.</b></p> <p>25 MR KINNIER: I think that's probably sufficient time, sir.</p> <p style="text-align: right;">Page 20</p>

<p>1 SIR MARTIN MOORE-BICK: All right. Let's have a look at</p> <p>2 these pictures.</p> <p>3 MR KINNIER: Paul, might I ask you to turn up photos from</p> <p>4 the Barbara Lane report BLAR00000012_0015 and</p> <p>5 figure 17.11.</p> <p>6 Now, Mr Keane, this is timed at 01.52.</p> <p>7 You'll see that an aerial appliance is identified</p> <p>8 using a very large white arrow.</p> <p>9 <b>A. Yes.</b></p> <p>10 Q. Just for the sake of record, can you confirm that that</p> <p>11 is the turntable ladder or not?</p> <p>12 <b>A. It does look like a turntable ladder, yes.</b></p> <p>13 Q. If we now turn to figure 17.12, which is over the page,</p> <p>14 that, as you see, is timed at 01.54.</p> <p>15 Again, are you able to confirm whether the aerial</p> <p>16 appliance identified using the white arrow and then</p> <p>17 circled, and the water stream circled in the red circle,</p> <p>18 was the turntable ladder?</p> <p>19 <b>A. Yeah, it does look like the turntable ladder.</b></p> <p>20 Q. Finally, could we turn to figure 17.13, which is just</p> <p>21 below.</p> <p>22 Again, this is timed at 02.05 in the morning.</p> <p>23 Again, are you able to confirm that the triple ladder</p> <p>24 identified there is from the turntable ladder?</p> <p>25 <b>A. Yes. That's Crew Manager Dan Harriman in the cage.</b></p> <p style="text-align: center;">Page 21</p>	<p>1 Q. Whilst you're monitoring the pump, do you have to stand</p> <p>2 close by to it throughout?</p> <p>3 <b>A. Generally, yeah.</b></p> <p>4 Q. And on what side -- where were you standing or where</p> <p>5 were you --</p> <p>6 <b>A. So where you see Golf 272 and you've got the two lines</b></p> <p>7 <b>coming out the back, I was standing there.</b></p> <p>8 Q. Right. And during the course of the operation of the</p> <p>9 turntable ladder, you stayed roughly in that area?</p> <p>10 <b>A. Pretty much, yeah.</b></p> <p>11 Q. So throughout that, you must have had a very clear view</p> <p>12 of the eastern elevation of the tower.</p> <p>13 <b>A. Yes.</b></p> <p>14 Q. And you would be able to see the extent of fire</p> <p>15 spread --</p> <p>16 <b>A. Yes.</b></p> <p>17 Q. -- as it went on.</p> <p>18 So, presumably, from that, you were able to assess</p> <p>19 the effectiveness the firefighting operation using the</p> <p>20 turntable ladder.</p> <p>21 <b>A. Yes.</b></p> <p>22 Q. Overall, what was your assessment of the</p> <p>23 effectiveness --</p> <p>24 <b>A. It had little effect at all.</b></p> <p>25 Q. Now, I'll come on to the question of effectiveness in</p> <p style="text-align: center;">Page 23</p>
<p>1 Q. Finally, could I ask you to turn to figure 17.14 just</p> <p>2 over the page. That is a photograph timed at 02.22 in</p> <p>3 the morning.</p> <p>4 Can you confirm that no aerial appliance is apparent</p> <p>5 on that photo?</p> <p>6 <b>A. There's no aerial appliance on there, no.</b></p> <p>7 Q. Would it be fair to assume, then, that the turntable</p> <p>8 ladder had stopped operations before 02.22?</p> <p>9 <b>A. No, because they was -- at one point they tried</b></p> <p>10 <b>reversing it back to try and make a rescue from the</b></p> <p>11 <b>south side of the building, so it might -- in that</b></p> <p>12 <b>picture, it might have been -- it might have being doing</b></p> <p>13 <b>that then at that time, but I don't know.</b></p> <p>14 Q. Always a difficult question: can you remember how soon</p> <p>15 after 01.47 that attempted rescue took place?</p> <p>16 <b>A. I don't know. I didn't -- there was no big clock.</b></p> <p>17 Q. Now, turning back to your job monitoring the pump.</p> <p>18 <b>A. Yes.</b></p> <p>19 Q. Could I turn back to tab C of the bundle and the sketch</p> <p>20 plan appended to your statement.</p> <p>21 <b>A. Yes.</b></p> <p>22 Q. Which is MET00013058_1.</p> <p>23 Now, can you help us. A213 is there identified in</p> <p>24 front of the east elevation.</p> <p>25 <b>A. Yes.</b></p> <p style="text-align: center;">Page 22</p>	<p>1 more detail later, but if I can just deal finally with</p> <p>2 the operation of the turntable ladder itself.</p> <p>3 At page 6 of your witness statement, you say, in the</p> <p>4 first substantive paragraph on that page, line 2:</p> <p>5 "Although in ideal conditions the TL can extend to</p> <p>6 about ten floors they could not get that high on this</p> <p>7 occasion as it was not a straight up pitch. They had to</p> <p>8 position the TL quite far back and there were trees in</p> <p>9 the way so it was only reaching the seventh or eighth</p> <p>10 floor. Also debris such as cladding was falling down.</p> <p>11 Sometimes it was small bits but other times it was</p> <p>12 massive pieces of plastic and rubber."</p> <p>13 Sir, I am just going to ask Mr Keane to look at some</p> <p>14 further photos from Dr Lane's report, and so if I can</p> <p>15 give a further trigger warning that they do show the</p> <p>16 building on fire.</p> <p>17 SIR MARTIN MOORE-BICK: Yes, thank you.</p> <p>18 MR KINNIER: In the meantime, Paul, could you please set up</p> <p>19 again figure 17.11.</p> <p>20 I think if you could show that now.</p> <p>21 SIR MARTIN MOORE-BICK: Yes, I think that's all right.</p> <p>22 MR KINNIER: Now, my questions here are directed to how far</p> <p>23 or high up the turntable ladder could reach.</p> <p>24 Dr Lane has identified level 9 as to where</p> <p>25 presumably the cage was from which the water was fired.</p> <p style="text-align: center;">Page 24</p>

<p>1 Would you agree that level 9 is the correct 2 designation in that photograph? 3 <b>A. I don't know. I can't see the bottom of the picture so 4 you can't count the floors.</b> 5 Q. Fair point. 6 <b>A. I could count down from 24 and you'd know where it is. 7 That's one way of doing it.</b> 8 Q. If we can turn to -- this might be more helpful -- 9 Barbara Lane, BLAR00000008_21, figure 13.14, that gives 10 perhaps, relatively speaking, a better perspective. 11 <b>A. Yes.</b> 12 Q. Does that photo show the full extent of the turntable 13 ladder? 14 <b>A. Yes, that's fully extended, yeah.</b> 15 Q. And if Dr Lane is right, it extends just beyond -- 16 <b>A. Slightly above, yeah.</b> 17 Q. Thank you. 18 Could you help us just on one minor point of detail. 19 What is the distance between the tower and those trees? 20 Sometimes perspective on photos isn't ideal. Can you 21 remember? 22 <b>A. Maybe 7 metres, 8 metres. The turntable ladder is about 23 3 metres wide, I believe. Not the actual cage, the 24 actual chassis.</b> 25 Q. Now, at page 6, on the second substantive paragraph of</p> <p style="text-align: center;">Page 25</p>	<p>1 <b>they can do and what they can't do and the extent of 2 they're capabilities. Therefore, they would draw on the 3 information from the crew manager and ask him what he 4 thinks, if it's effective or not, and then they make 5 a decision together.</b> 6 Q. So the reasons you give there in your statement, they 7 are the reasons that you assume to be correct -- 8 <b>A. Yes.</b> 9 Q. -- for removing the turntable ladder, as opposed to 10 repeating the reasons that you were informed of on the 11 night? 12 <b>A. Well, I was standing close by to Chris Reynolds, who was 13 actually operating it from the bottom, and he said it 14 was too dangerous, so that's where I got my information 15 from.</b> 16 Q. Do you think it was he who made the decision in reality? 17 <b>A. Chris Reynolds? No.</b> 18 Q. Could we look at your contemporaneous note now, which is 19 at MET00005593. 20 Roughly half the way down that page, you say: 21 "TL was knocking flames back well until it was too 22 dangerous for crews as debris was falling everywhere." 23 I think, Paul, it is this bit of the contemporaneous 24 note there, if you could amplify (Indicated). 25 "TL was knocking flames back well until it was too</p> <p style="text-align: center;">Page 27</p>
<p>1 that page, you say this: 2 "After a while it became impossible for the TL to 3 remain in that position. It was too dangerous for the 4 operators at the top and bottom as the debris was 5 crashing down around them. Also the machine was getting 6 damaged as the debris was smashing into it. It was best 7 to move it out the way. I don't know if it was having 8 much effect anyway. They were trying to put water onto 9 the fire but it was just pissing in the wind, hardly 10 making any difference at all. I have never seen it like 11 that before." 12 Now, looking at the various elements within that 13 particular paragraph, you say you don't know who made 14 the order to withdraw the turntable ladder. 15 <b>A. No.</b> 16 Q. But who usually, what seniority of officer, would make 17 that type of order? 18 <b>A. It's between the watch manager and the crew manager in 19 charge of the machine. Between them two, it would 20 normally be a joint decision. Not all watch managers 21 know the effectiveness of the other machines because 22 the watch manager from North Ken only has two machines, 23 which are standard. Other stations like Paddington, you 24 have an FRU and a turntable ladder. So most stations 25 don't know the effectiveness of these machines and what</b></p> <p style="text-align: center;">Page 26</p>	<p>1 dangerous for crews as debris was falling everywhere." 2 Now, looking at that statement there, Mr Keane, it 3 looks like at the time -- so in the immediate aftermath 4 of the fire -- you had a more positive view of the 5 effectiveness of the turntable ladder firefighting 6 operation. Is that a fair summary of that? 7 <b>A. Yeah, maybe. I'm not sure if that was just I was tired 8 or exhausted or -- it was literally just after one of 9 the worst shifts I've ever done. So whether it was 10 knocking it back well until we got too high and the TL 11 couldn't reach it, I'm not sure.</b> 12 Q. Okay. 13 If you were unhappy about the effectiveness of the 14 firefighting operation conducted from the turntable 15 ladder, did you communicate that to anyone on the night? 16 <b>A. No.</b> 17 Q. No. Is that something you'd ordinarily raise with 18 an immediately senior officer? 19 <b>A. Well, there was a crew manager in charge on the cage who 20 had a bit of clearer view and knew what was going on, or 21 a closer angle than I was.</b> 22 Q. So you would be content for the crew manager to take the 23 view as to the effectiveness? 24 <b>A. Yeah, they would normally -- yeah, yeah.</b> 25 Q. If the firefighting exercise was not as effective as</p> <p style="text-align: center;">Page 28</p>

7 (Pages 25 to 28)

<p>1 you'd wanted it to be, by that stage in the evening,  2 when it appears to have started to cease operations, so  3 let's say 02.20 in the morning --  4 <b>A. Yes.</b>  5 Q. -- would the turntable ladder have had any further  6 utility, for example for conducting search and rescue  7 missions, at that stage in the evening?  8 <b>A. I mean, it could've been, but I don't know if -- there</b>  9 <b>was debris falling down anywhere, so it was really</b>  10 <b>dangerous for anyone to be in the cage to actually make</b>  11 <b>a rescue anyway. So I thought that was the decision to</b>  12 <b>make, that they wouldn't be used, because it was</b>  13 <b>actually too dangerous to put someone in the way of</b>  14 <b>something falling on top of them.</b>  15 Q. Can I move back to page 6 of your witness statement, and  16 it's really the last paragraph on that page.  17 You say on the second line:  18 "I think there was someone hanging out a window but  19 they couldn't physically get to the right position."  20 Were you aware of the instructions and the  21 background that led to that attempted rescue?  22 <b>A. I wasn't aware of it at the time, but speaking to</b>  23 <b>Chris Reynolds, who was actually operating it, he told</b>  24 <b>me afterwards that they tried moving the TL further back</b>  25 <b>to try and get to that window but they couldn't reach</b></p> <p style="text-align: center;">Page 29</p>	<p>1 If I can give 30 seconds for people to make  2 arrangements.  3 But, Paul, might I ask you to tee up from Dr Lane's  4 report BLAR00000012_23, which hopefully is figure 17.21.  5 Sir, with your permission, if I can show that photo  6 now.  7 SIR MARTIN MOORE-BICK: Yes.  8 MR KINNIER: Asking a basic question, Mr Keane, you'll see  9 in the bottom-right side of that photograph a red circle  10 within which is identified a machine which is said to be  11 a ground monitor. Is that right?  12 <b>A. That's right, yeah.</b>  13 Q. Could I ask Paul to go back a page to figure 17.20.  14 They are clearer photos. Do they also show ground  15 monitors?  16 <b>A. Yes, I believe so, yes.</b>  17 Q. Can you remember what time the ground monitor was set  18 up?  19 <b>A. It literally would've been only a few minutes after the</b>  20 <b>turntable was no longer in use.</b>  21 Q. So a very --  22 <b>A. I can't put a specific time on it.</b>  23 Q. You can't?  24 <b>A. No.</b>  25 Q. Okay.</p> <p style="text-align: center;">Page 31</p>
<p>1 <b>it.</b>  2 Q. Okay.  3 One final matter, just while we are discussing this,  4 did you at any stage go into the tower itself?  5 <b>A. No.</b>  6 Q. The next topic I'd like to discuss with you is the  7 ground monitor and its operation.  8 <b>A. Yes.</b>  9 Q. You say at page 7 of your statement that you were  10 instructed by Watch Manager Steve Collins to use the  11 pump to supply the ground monitor positioned on top of  12 the car port.  13 <b>A. Yes.</b>  14 Q. First of all, what is a ground monitor and what does it  15 do?  16 <b>A. It's just basically like a massive jet, so it chucks</b>  17 <b>a lot more water projected at the fire than you would be</b>  18 <b>able to with a normal jet. It's less labour-intensive,</b>  19 <b>so you haven't got to physically hold it. You can put</b>  20 <b>it in a position and it will do its job.</b>  21 Q. So it's very manoeuvrable; is that a fair observation?  22 <b>A. It is manoeuvrable, but obviously it's -- yeah, once you</b>  23 <b>get it in place, you can move it around. But, yeah.</b>  24 MR KINNIER: Sir, there's one final set of photos from  25 Dr Lane's report so, again, a further trigger warning.</p> <p style="text-align: center;">Page 30</p>	<p>1 SIR MARTIN MOORE-BICK: You may be able to help me,  2 Mr Kinnier. The caption on that photograph seems to  3 suggest that it's handheld hose.  4 <b>A. I think that's resting on top of -- it looks like a</b>  5 <b>slide, just to give it a bit more projection and height</b>  6 <b>and angle. It should ideally be on the ground.</b>  7 MR KINNIER: There is a question asking whether it was  8 a ground monitor or not.  9 <b>A. That may not be because there's a -- I'm not sure if</b>  10 <b>they was using a 45-mill going into it --</b>  11 Q. It's propped on a children's slide, isn't it?  12 <b>A. Yes.</b>  13 SIR MARTIN MOORE-BICK: That's the question: is it?  14 MR KINNIER: Is it?  15 <b>A. On the right, it doesn't look like it's actually</b>  16 <b>handheld. They're not holding it; it looks like it's</b>  17 <b>fixed on top of the slide.</b>  18 MR KINNIER: Okay.  19 <b>A. I can't see him holding that. He's got his right hand</b>  20 <b>down, so I don't --</b>  21 SIR MARTIN MOORE-BICK: Can you just describe in your own  22 words what a ground monitor looks like? I have in my  23 mind a picture of a sort of tripod with a big --  24 <b>A. Yes, it's like a tripod, yeah, with a massive -- so big</b>  25 <b>(Indicates) jet at the end of it, and so that big, long,</b></p> <p style="text-align: center;">Page 32</p>



<p>1 and it's angled up with three prongs that come out.</p> <p>2 <b>SIR MARTIN MOORE-BICK: Three legs?</b></p> <p>3 <b>A. Yeah, yeah, just to give it some sort of base so it</b></p> <p>4 <b>doesn't topple over.</b></p> <p>5 <b>SIR MARTIN MOORE-BICK: Okay. Yes, thank you.</b></p> <p>6 MR KINNIER: I think from memory, sir, unfortunately it's</p> <p>7 not one of the bits of kit identified in the operational</p> <p>8 response report, but it may well be looking as to where</p> <p>9 it was positioned, Mr Keane.</p> <p>10 Paul, could I ask you to turn up a further photo</p> <p>11 from Dr Lane's report, BLAR00000008_24, figure 13.17.</p> <p>12 Now, you'll see in the second box from the bottom on</p> <p>13 the right-hand side it says, "Jet on south elevation</p> <p>14 observed at various times between 02:41 and 03:33".</p> <p>15 Does that mark correctly the position of the ground</p> <p>16 monitor?</p> <p>17 <b>A. Yeah, that looks in the right position, yeah.</b></p> <p>18 Q. And the estimated period of its use between 02.41 and</p> <p>19 03.33, does that sound about right to you, bearing in</p> <p>20 mind your caveats regarding your recollection of precise</p> <p>21 times?</p> <p>22 <b>A. It was my recollection that the ground monitor was being</b></p> <p>23 <b>used throughout the whole night until we pretty much</b></p> <p>24 <b>were relieved at 8.30 or 9 o'clock in the morning.</b></p> <p>25 Q. Could I go back just one step, and looking at what the</p> <p style="text-align: center;">Page 33</p>	<p>1 more effective bit of kit for, first of all, containing</p> <p>2 the fire?</p> <p>3 <b>A. I think the ground monitor, but maybe the only reason</b></p> <p>4 <b>being that in the initial stages of the fire, it was</b></p> <p>5 <b>burning up, whereas the ground monitor was protecting it</b></p> <p>6 <b>from coming down. So I don't know if that had any</b></p> <p>7 <b>bearing on it at all, I'm not sure.</b></p> <p>8 Q. In that regard, could I ask you to go back to your</p> <p>9 contemporaneous note again, which is MET00005593, and</p> <p>10 you say, I think it's six lines up from the bottom:</p> <p>11 "We had trouble to supply ground monitor and had to</p> <p>12 keep stopping supply to wait for tank to fill back up."</p> <p>13 Again, it looks as if at the time -- the day after</p> <p>14 the fire or the day of the fire -- you were more</p> <p>15 negative about the effectiveness of the ground monitor</p> <p>16 compared to the turntable ladder. Would that be a fair</p> <p>17 summary of what you say there?</p> <p>18 <b>A. I don't think it's a negative, I just -- I think it's</b></p> <p>19 <b>more of a negative attack on the supply of the water.</b></p> <p>20 <b>It was the same with the TL, to be fair, we had to keep</b></p> <p>21 <b>waiting for the pump to fill up with water for that as</b></p> <p>22 <b>well, but I don't know if I put that in my notes or not,</b></p> <p>23 <b>but it was just in my mind because I'd been doing that</b></p> <p>24 <b>for longer.</b></p> <p>25 Q. You mentioned that you considered that the ground</p> <p style="text-align: center;">Page 35</p>
<p>1 ground monitor is, my recollection was entirely</p> <p>2 incorrect in that the ground monitor is set out in the</p> <p>3 operational response report at page 100.</p> <p>4 Could Paul put that up on the screen, please.</p> <p>5 There you'll see --</p> <p>6 <b>A. Yeah, that's it there.</b></p> <p>7 Q. That is a ground monitor?</p> <p>8 <b>A. That is, yeah.</b></p> <p>9 <b>SIR MARTIN MOORE-BICK: That was a very good description.</b></p> <p>10 <b>Thank you.</b></p> <p>11 <b>A. Thank you very much.</b></p> <p>12 MR KINNIER: Can you remember, doing the best you can now,</p> <p>13 what was the greatest extent of the ground monitor's</p> <p>14 reach? What floor could it get to?</p> <p>15 <b>A. I'm not too sure. If memory serves right, if you have</b></p> <p>16 <b>the pictures of the building, you can clearly see how</b></p> <p>17 <b>far it reached up because the fire spread actually</b></p> <p>18 <b>didn't damage any part where the ground monitor was</b></p> <p>19 <b>working.</b></p> <p>20 Q. How much higher than the 10th floor could the ground</p> <p>21 monitor jet reach if the pressure had been increased to</p> <p>22 15 bar, for example?</p> <p>23 <b>A. Maybe two or three floors.</b></p> <p>24 Q. Comparing the relative effectiveness of the turntable as</p> <p>25 against the ground monitor, in your view, which was the</p> <p style="text-align: center;">Page 34</p>	<p>1 monitor was the more effective device for stopping the</p> <p>2 fire from coming down; did you communicate that view,</p> <p>3 that assessment, to any more senior officer?</p> <p>4 <b>A. Well, my senior officer was on the end of that ground</b></p> <p>5 <b>monitor.</b></p> <p>6 Q. Okay, and you relied upon him to communicate --</p> <p>7 <b>A. Yeah. Yeah.</b></p> <p>8 Q. Thank you.</p> <p>9 The next topic I'd like to consider is the aerial</p> <p>10 ladder platform.</p> <p>11 First of all, could I ask you to go to -- and, Paul,</p> <p>12 would you mind bringing up this document --</p> <p>13 LFB00001914_94.</p> <p>14 The top box, does that show the type of --</p> <p>15 <b>A. Yes, that's an ALP, yes.</b></p> <p>16 Q. Can you remember the call sign of the particular ALP?</p> <p>17 <b>A. I'm not too sure. I don't know if I put it in my</b></p> <p>18 <b>contemporaneous notes.</b></p> <p>19 Q. Just trying to get some idea of the timeline here, when</p> <p>20 you started to assist in relation to the ALP, had the</p> <p>21 ground monitor stopped working or had someone deployed</p> <p>22 you to help out with the ALP, can you remember now?</p> <p>23 <b>A. The ground monitor was always in use. I was -- as the</b></p> <p>24 <b>water was going on to that, I was trying to help lay out</b></p> <p>25 <b>hose for the ALP.</b></p> <p style="text-align: center;">Page 36</p>

<p>1 Q. Okay.</p> <p>2 Can you remember roughly what time of the night this</p> <p>3 help was provided when you bowled out the hose?</p> <p>4 <b>A. No, I mean, there would be a call log of when the ALP</b></p> <p>5 <b>was on scene. I don't know how long after it was. Like</b></p> <p>6 <b>I said, there was no big clock.</b></p> <p>7 Q. Can you remember whether the ALP you were assisting in</p> <p>8 relation to was the first ALP to attend or not?</p> <p>9 <b>A. The first actual -- I'm not too sure because I could</b></p> <p>10 <b>only see really maybe two sides, definitely the east</b></p> <p>11 <b>side and some of the south. There was no other ALP in</b></p> <p>12 <b>that area. I don't know if there was one in the north</b></p> <p>13 <b>or west.</b></p> <p>14 Q. I think in the statement you say you started to assist</p> <p>15 roughly between two and a half, three hours into your</p> <p>16 attendance on the scene. Does that sound about right?</p> <p>17 <b>A. Maybe, yeah, it's too hard to be specific.</b></p> <p>18 Q. Okay.</p> <p>19 If I could ask you to turn to page 8 of your</p> <p>20 statement and the third paragraph on that page.</p> <p>21 If I could also ask you to turn to the sketch behind</p> <p>22 tab C.</p> <p>23 Are you able to confirm which hydrant was servicing</p> <p>24 the ALP?</p> <p>25 <b>A. Yeah, it was the one that I originally tried using that</b></p> <p style="text-align: center;">Page 37</p>	<p>1 the middle of them but it was hard. It felt like a</p> <p>2 wasted effort."</p> <p>3 Could I ask you -- this may be a question of the</p> <p>4 obvious -- why did it feel like a wasted effort to you</p> <p>5 at the time?</p> <p>6 <b>A. Because I knew there was hardly any water pressure in</b></p> <p>7 <b>that hydrant, and the amount of water that an ALP or a</b></p> <p>8 <b>TL would use, and once they'd set it up, it was just</b></p> <p>9 <b>like they was using a garden hose.</b></p> <p>10 Q. Now, at various paragraphs on page 8, you refer to the</p> <p>11 problems you encountered with water pressure and falling</p> <p>12 debris severing hoses on the night.</p> <p>13 <b>A. Yes.</b></p> <p>14 Q. Were you aware at the time that that debris falling, the</p> <p>15 problems with water pressure, were also causing</p> <p>16 difficulties for the dry riser within the tower itself?</p> <p>17 <b>A. I weren't initially, no.</b></p> <p>18 Q. Did you communicate to any more senior officer concerns</p> <p>19 about water pressure as it affected the ALP?</p> <p>20 <b>A. No, I told obviously the crew manager in control of the</b></p> <p>21 <b>TL that the water pressure was bad, and Steve Collins</b></p> <p>22 <b>knew there weren't much water pressure coming through on</b></p> <p>23 <b>the ground monitor, so I presumed that the people above</b></p> <p>24 <b>me knew the situation.</b></p> <p>25 Q. So you can't speak to what remedial action those more</p> <p style="text-align: center;">Page 39</p>
<p>1 <b>hardly had any water coming out of that had 33 metres</b></p> <p>2 <b>and no hydrant sign.</b></p> <p>3 Q. If I can ask Paul to turn up your sketch, MET00013058.</p> <p>4 <b>A. Yeah, you can see just behind -- I believe that's Soho's</b></p> <p>5 <b>pump ladder, it says "hydrant", it was right behind the</b></p> <p>6 <b>pump ladder.</b></p> <p>7 Q. Okay. How far -- are you able to estimate the precise</p> <p>8 distance -- was the ALP from the tower itself?</p> <p>9 <b>A. I'd say maybe 15 metres.</b></p> <p>10 Q. And you say in the penultimate line of this paragraph --</p> <p>11 if we can turn back to the statement and page 8 and the</p> <p>12 third substantive paragraph on that page -- and I'll</p> <p>13 read it out:</p> <p>14 "The hydrant they were using was the one I had</p> <p>15 decided not to use for my Pump as the water supply was</p> <p>16 poor. It did work a bit, but from what I saw the water</p> <p>17 was just trickling out with hardly any pressure. Even</p> <p>18 though the connection worked it was not effective at</p> <p>19 all. Also, the ALP was far back from the building due</p> <p>20 to the logistics of the situation. It couldn't get</p> <p>21 close as it would be damaged by the falling debris.</p> <p>22 Also there was grass all around the tower and you are</p> <p>23 not meant to put such heavy machinery on that surface</p> <p>24 because it could collapse. Also, the access was blocked</p> <p>25 by two massive trees - they were trying to go through</p> <p style="text-align: center;">Page 38</p>	<p>1 senior officers took?</p> <p>2 <b>A. No.</b></p> <p>3 Q. The next point I'd like to discuss with you is the</p> <p>4 positive ventilation system, and if I could ask you, for</p> <p>5 that purpose, to turn to page 9 and the bottom paragraph</p> <p>6 on that page. You say:</p> <p>7 "During another conversation I was told by someone</p> <p>8 that a positive ventilation system was tried halfway</p> <p>9 through the night but when they turned the fan on it</p> <p>10 just made the situation worse: instead of clearing the</p> <p>11 smoke it made it smokey everywhere so they stopped using</p> <p>12 it."</p> <p>13 Do you remember who told you about the difficulties</p> <p>14 that had been encountered?</p> <p>15 <b>A. No, I mean, you generally know the stations around your</b></p> <p>16 <b>station and there was 40 machines there, so I'd seen</b></p> <p>17 <b>people I'd never seen in my life before. So I don't</b></p> <p>18 <b>know whose names were what.</b></p> <p>19 Q. Can you remember the circumstances in which you heard</p> <p>20 this account of the operation of the positive</p> <p>21 ventilation system?</p> <p>22 <b>A. Well, I could just see it unfolding, so I could see</b></p> <p>23 <b>loads of smoke coming out and it just went up around the</b></p> <p>24 <b>entrance of the main building, and as you was talking,</b></p> <p>25 <b>I was asking what was going on and I was told that the</b></p> <p style="text-align: center;">Page 40</p>

<p>1 <b>positive -- PPV was being used.</b></p> <p>2 Q. Okay.</p> <p>3 Finally, may I now turn to the lightweight portable</p> <p>4 pump.</p> <p>5 First of all, in what circumstances would the</p> <p>6 lightweight portable pump usually be deployed?</p> <p>7 <b>A. It's like -- it's a small version of our machine,</b></p> <p>8 <b>really, so you use it in more access -- like lifts or in</b></p> <p>9 <b>floodings or if you can't get a machine in a certain</b></p> <p>10 <b>area, you can use that as an intermediary pump.</b></p> <p>11 Q. How heavy is it?</p> <p>12 <b>A. I believe it's 84 kilos.</b></p> <p>13 Q. So would you be able to carry it on your own or would</p> <p>14 you need help?</p> <p>15 <b>A. No, you're not allowed to for health and safety reasons.</b></p> <p>16 Q. How many men would use -- how many men or women --</p> <p>17 <b>A. Four persons, not four men! Sorry!</b></p> <p>18 Q. Looking at page 10 of your witness statement, the top</p> <p>19 paragraph, you say:</p> <p>20 "Towards the end of the incident Gareth Cook asked</p> <p>21 me if my Pump could supply both the Ground Monitor and a</p> <p>22 Lightweight Portable Pump (LWPP). The LWPP is a smaller</p> <p>23 version of my machine, a square engine which weighs</p> <p>24 80kg. Water was not reaching the top of the building in</p> <p>25 the dry risers so the plan was to install the LWPP</p> <p style="text-align: right;">Page 41</p>	<p>1 Q. Okay.</p> <p>2 Again, the pressure that an LWPP would normally</p> <p>3 operate upon would depend upon the particular</p> <p>4 circumstances for which it was called to be deployed?</p> <p>5 <b>A. Yeah, normally optimum performance is 4 bar.</b></p> <p>6 Q. 4 bar?</p> <p>7 <b>A. Yes, and I think you get 1,000 litres a minute.</b></p> <p>8 Q. Presumably, just for the avoidance of doubt, you can</p> <p>9 increase the pressure on the LWPP as you could for the</p> <p>10 ground monitor?</p> <p>11 <b>A. Yeah, but it doesn't always give you more water because</b></p> <p>12 <b>of the pressure.</b></p> <p>13 Q. Could I just go back to the turntable ladder and really</p> <p>14 the operation of pressure there.</p> <p>15 Could I ask you to go back to page 5 in your</p> <p>16 statement, and if this could be done at the top of</p> <p>17 page 6 as well.</p> <p>18 At the bottom of page 5 and the top of page 6, you</p> <p>19 explain water flow and the pressure operation of the</p> <p>20 turntable ladder.</p> <p>21 Now, before you reduce the pressure, what was your</p> <p>22 view of the effectiveness of the jet being deployed from</p> <p>23 the turntable itself?</p> <p>24 <b>A. I don't know if -- it's hard to really remember back,</b></p> <p>25 <b>it's all sort of a blur. I don't know if it was having</b></p> <p style="text-align: right;">Page 43</p>
<p>1 inside the building ..."</p> <p>2 Did you discuss with Cook why water wasn't reaching</p> <p>3 the top via the dry risers?</p> <p>4 <b>A. No.</b></p> <p>5 Q. Did he give you any further explanation as to why the</p> <p>6 LWPP was needed?</p> <p>7 <b>A. I can't remember, no.</b></p> <p>8 Q. So you did as you were told, essentially?</p> <p>9 <b>A. Yeah. Yeah, generally!</b></p> <p>10 Q. The operation of the LWPP, when it's in operation, is it</p> <p>11 a constant flow of water or not, or are you dependent</p> <p>12 upon the tanks refilling --</p> <p>13 <b>A. It depends on the water you're getting, what you can --</b></p> <p>14 <b>it's just basically a relay, so, yeah, it depends on</b></p> <p>15 <b>what you're receiving in and what you can give to what</b></p> <p>16 <b>that can provide.</b></p> <p>17 Q. Assuming a full tank, how long can an LWPP operate for?</p> <p>18 <b>A. Obviously, again, it depends on how much water you're</b></p> <p>19 <b>using. If you're using 230 litres a minute --</b></p> <p>20 Q. Well, assume that at the highest pressure, how long</p> <p>21 would the jet --</p> <p>22 <b>A. Five, six minutes.</b></p> <p>23 Q. Adopting those assumptions still, how long would it take</p> <p>24 for a tank to refill?</p> <p>25 <b>A. It depends what water you're getting in again.</b></p> <p style="text-align: right;">Page 42</p>	<p>1 <b>any effect or if it was working -- I'm not too sure, to</b></p> <p>2 <b>be honest with you.</b></p> <p>3 Q. After you changed the strategy and reduced the pressure</p> <p>4 from 10 to --</p> <p>5 <b>A. The reason why we changed -- basically, we was using the</b></p> <p>6 <b>water so quickly, so that's the reason why we changed</b></p> <p>7 <b>it. So we thought instead of giving optimum pressure to</b></p> <p>8 <b>have a good reach and then waiting again, for there to</b></p> <p>9 <b>be no water on it, we decided to lower the pressure so</b></p> <p>10 <b>you got a constant flow of water.</b></p> <p>11 Q. How long did the water supply last for before the tank</p> <p>12 was emptied after you'd decreased the pressure to 8 or</p> <p>13 7 bar?</p> <p>14 <b>A. Slightly longer, but I don't know. I mean, I think</b></p> <p>15 <b>I was just guessing on my statement.</b></p> <p>16 Q. I don't want you to guess, but can you give us even the</p> <p>17 minutest of indications?</p> <p>18 <b>A. It was lasting longer when we changed it, but obviously</b></p> <p>19 <b>I don't know. I wasn't timing it, so ...</b></p> <p>20 Q. Okay. Again, this may be a question that asks the</p> <p>21 obvious: does reducing pressure reduce the height the</p> <p>22 jet can reach?</p> <p>23 <b>A. Yes.</b></p> <p>24 Q. Looking at the tower itself, did it reduce it in terms</p> <p>25 of one floor, two floors, using that as a gauge?</p> <p style="text-align: right;">Page 44</p>

<p>1 <b>A. Maybe one or two floors, yeah, I'm not ...</b></p> <p>2 Q. Where you have problems such as this, is it the usual</p> <p>3 strategy to moderate pressure so as to achieve</p> <p>4 a greater, more constant supply of water?</p> <p>5 <b>A. I've not really had this sort of problem, to be fair, so</b></p> <p>6 <b>it was unprecedented for me, to be fair.</b></p> <p>7 Q. Did you make the decision to reduce the pressure</p> <p>8 yourself or did you consult with others or a more senior</p> <p>9 officer?</p> <p>10 <b>A. I spoke to the crew manager on the top of the cage.</b></p> <p>11 Q. What did you say to him? Can you remember now the gist</p> <p>12 of the words?</p> <p>13 <b>A. Basically we're running out of water very quickly.</b></p> <p>14 <b>I can reduce the pressure so you get constant water.</b></p> <p>15 Q. What did he say to that?</p> <p>16 <b>A. "Try that". Something along the lines of, "Yeah, we'll</b></p> <p>17 <b>try that".</b></p> <p>18 Q. Were you aware of who the incident commander was at this</p> <p>19 stage in the operation when you reduced the pressure on</p> <p>20 the turntable ladder?</p> <p>21 <b>A. It would've been still Mike Dowden.</b></p> <p>22 Q. Okay. And in your recollection, what effect did</p> <p>23 reduction of pressure have on the success in containing</p> <p>24 fire spread?</p> <p>25 <b>A. Not a lot, really. It was just that you had a constant</b></p> <p style="text-align: center;">Page 45</p>	<p>1 <b>even.</b></p> <p>2 Q. If they'd been deployed earlier, what effect do you</p> <p>3 think it would've had on containing fire spread?</p> <p>4 <b>A. Little.</b></p> <p>5 Q. And why do you say that?</p> <p>6 <b>A. Because the fire spread was externally. The lightweight</b></p> <p>7 <b>portable pump was in the stairwells. So I think you</b></p> <p>8 <b>needed to put more water on the outside of the building</b></p> <p>9 <b>as well as on the inside.</b></p> <p>10 MR KINNIER: Sir, those are all the questions I have for</p> <p>11 Mr Keane. It might be appropriate now to take a break.</p> <p>12 SIR MARTIN MOORE-BICK: I was just thinking, we could have</p> <p>13 a break now, and if you have any further questions after</p> <p>14 the break, you can put them, and if you don't, we'll</p> <p>15 thank Mr Keane and send him on his way.</p> <p>16 MR MILLETT: That was the plan. So quarter of an hour, sir?</p> <p>17 SIR MARTIN MOORE-BICK: Yes, I suppose if that is</p> <p>18 convenient, that's what we'll do.</p> <p>19 MR KINNIER: Thank you, sir.</p> <p>20 SIR MARTIN MOORE-BICK: Mr Keane, we're going to have</p> <p>21 a break now. I don't know whether Mr Kinnier will have</p> <p>22 some more questions for you after the break or not.</p> <p>23 We'll just have to wait and see.</p> <p>24 THE WITNESS: No problem.</p> <p>25 SIR MARTIN MOORE-BICK: So we'll sit again at 11.15 and then</p> <p style="text-align: center;">Page 47</p>
<p>1 <b>flow of water.</b></p> <p>2 Q. Did you pass on your view that its efficacy and</p> <p>3 effectiveness wasn't up to much to any more senior</p> <p>4 officer?</p> <p>5 <b>A. No.</b></p> <p>6 Q. Could I ask why you wouldn't do that normally?</p> <p>7 <b>A. Because my first line of line manager was actually in</b></p> <p>8 <b>the cage, so he was fully aware of it himself.</b></p> <p>9 Q. Going back to the question of the lightweight portable</p> <p>10 pump, would those pumps have been available earlier in</p> <p>11 the evening?</p> <p>12 <b>A. They're on every single -- not every single -- they're</b></p> <p>13 <b>on every pump.</b></p> <p>14 Q. And would there be one, two, how many would be</p> <p>15 carried --</p> <p>16 <b>A. There'd be one on every pump, but obviously the pump</b></p> <p>17 <b>ladder wouldn't have one because it's got different</b></p> <p>18 <b>stowage.</b></p> <p>19 Q. Alpha 212 --</p> <p>20 <b>A. It would've had one, yes.</b></p> <p>21 Q. Do you know when the lightweight portable pumps started</p> <p>22 to be deployed on the night? The first time you saw</p> <p>23 a pump being deployed.</p> <p>24 <b>A. It was really late in -- or early in the morning, sort</b></p> <p>25 <b>of like maybe 5 or 6 o'clock, maybe later than that</b></p> <p style="text-align: center;">Page 46</p>	<p>1 we'll know whether there's some more questions for you</p> <p>2 or not.</p> <p>3 So if you would like to go with the usher now.</p> <p>4 Please don't talk to anyone else about your evidence or</p> <p>5 anything to do with it while you're out of the room.</p> <p>6 All right?</p> <p>7 Thank you so much.</p> <p>8 (The witness withdrew)</p> <p>9 SIR MARTIN MOORE-BICK: Right, 11.15, then, please.</p> <p>10 (11.00 pm)</p> <p>11 (A short break)</p> <p>12 (11.15 pm)</p> <p>13 SIR MARTIN MOORE-BICK: Right, Mr Keane is on his way</p> <p>14 I think.</p> <p>15 MR KINNIER: Thank you, sir.</p> <p>16 (The witness returned)</p> <p>17 SIR MARTIN MOORE-BICK: All right, Mr Keane? Happy to</p> <p>18 continue?</p> <p>19 THE WITNESS: Yes.</p> <p>20 SIR MARTIN MOORE-BICK: I am not sure there are going to be</p> <p>21 many questions, but we'll see.</p> <p>22 Now, Mr Kinnier.</p> <p>23 MR KINNIER: Mr Keane, many thanks for your patience.</p> <p>24 I just have two very brief questions for you.</p> <p>25 First of all, do you know how many ALPs the LFB has</p> <p style="text-align: center;">Page 48</p>

<p>1 in London?</p> <p>2 <b>A. No, not off the top of my head, no.</b></p> <p>3 Q. Did you know that Gareth Cook had been appointed the</p> <p>4 water supply officer?</p> <p>5 <b>A. Not sure.</b></p> <p>6 MR KINNIER: Mr Keane, that concludes the questions I have</p> <p>7 for you.</p> <p>8 Thank you very much, sir.</p> <p>9 SIR MARTIN MOORE-BICK: I don't have any further questions.</p> <p>10 So, Mr Keane, it just remains for me to thank you</p> <p>11 very much giving your evidence. We're very grateful.</p> <p>12 THE WITNESS: No problem at all.</p> <p>13 SIR MARTIN MOORE-BICK: That's it, you're free to go. Thank</p> <p>14 you very much.</p> <p>15 THE WITNESS: Thank you.</p> <p>16 SIR MARTIN MOORE-BICK: If you go with the usher, that will</p> <p>17 be fine.</p> <p>18 (The witness was released)</p> <p>19 Evidence of ALEXANDRA NORMAN, DEBBIE REAL, PETER MAY, PETER</p> <p>20 DUDDY and SARAH RUSSELL read into the record</p> <p>21 SIR MARTIN MOORE-BICK: Now, then, Mr Kinnier, what's next?</p> <p>22 MR KINNIER: The final bit in relation to evidence today is</p> <p>23 reading in evidence in relation to five particular</p> <p>24 witnesses, namely Alexandra Norman, Debbie Real,</p> <p>25 Peter May, Peter Duddy and Sarah Russell.</p> <p style="text-align: center;">Page 49</p>	<p>1 SIR MARTIN MOORE-BICK: Yes.</p> <p>2 MR KINNIER: First of all, I have an application on behalf</p> <p>3 of Mr Millett -- it's a standard application, I'm</p> <p>4 afraid -- and that's to invite you to start at 9.30</p> <p>5 tomorrow morning to allow us to deal with all three</p> <p>6 witnesses that are timetabled to be dealt with.</p> <p>7 SIR MARTIN MOORE-BICK: We have quite a full timetable</p> <p>8 tomorrow, haven't we?</p> <p>9 MR KINNIER: It is, sir.</p> <p>10 SIR MARTIN MOORE-BICK: It would be nice to complete it.</p> <p>11 MR KINNIER: It would, yes.</p> <p>12 SIR MARTIN MOORE-BICK: And so with that in mind, although</p> <p>13 I've no doubt that a 9.30 start is not congenial to</p> <p>14 everyone, I think we should do that. So we will sit at</p> <p>15 9.30 tomorrow.</p> <p>16 MR KINNIER: Sir, the final element of housekeeping is that</p> <p>17 the intention is to publish next week's timetable today,</p> <p>18 if it hasn't already been published, and it's hoped that</p> <p>19 the timetable for the week commencing 30 July will also</p> <p>20 be published if not today, then certainly tomorrow.</p> <p>21 SIR MARTIN MOORE-BICK: Good. Thank you very much.</p> <p>22 MR KINNIER: So that concludes today's business.</p> <p>23 SIR MARTIN MOORE-BICK: That's it for today.</p> <p>24 Well, thank you all very much. It's been a rather</p> <p>25 short day, although I've no doubt you can use the rest</p> <p style="text-align: center;">Page 51</p>
<p>1 The references in respect of Alexandra Norman are:</p> <p>2 MET000080589 for the statement. In respect of her</p> <p>3 contemporaneous note MET00005199.</p> <p>4 In respect of Ms Real, the reference for the</p> <p>5 statement is MET00007696. In respect of her two</p> <p>6 exhibits, MET00013083 and MET00013082.</p> <p>7 In respect of Mr May, the Relativity reference for</p> <p>8 the statement is MET00007895. Contemporaneous note,</p> <p>9 MET00015882.</p> <p>10 In respect of Mr Duddy, the statement reference is</p> <p>11 MET00007787.</p> <p>12 Finally, in respect of Ms Russell, the statement</p> <p>13 reference is MET00007698.</p> <p>14 Sir, that deals with the evidence-related matters</p> <p>15 before you today.</p> <p>16 There are two points of housekeeping.</p> <p>17 SIR MARTIN MOORE-BICK: Now, before we go to the</p> <p>18 housekeeping, I wonder whether it would be helpful to</p> <p>19 people to know the statements to which you've referred</p> <p>20 will now form part of the evidence before the inquiry</p> <p>21 and will be posted on the inquiry's website so that</p> <p>22 anyone who wishes to read them can do so.</p> <p>23 MR KINNIER: Thank you, sir, yes.</p> <p>24 Housekeeping</p> <p>25 MR KINNIER: Sir, turning to housekeeping.</p> <p style="text-align: center;">Page 50</p>	<p>1 of it reasonably profitably.</p> <p>2 We'll resume at 9.30 tomorrow, please. Thank you</p> <p>3 very much.</p> <p>4 (11.20 am)</p> <p>5 (The hearing adjourned until Thursday, 19 July 2018 at</p> <p>6 9.30 am)</p> <p>7 INDEX</p> <p>8 RAYMOND KEANE (affirmed) .....1</p> <p>9 Questions by MR KINNIER .....1</p> <p>10 Evidence of ALEXANDRA NORMAN, DEBBIE .....49</p> <p>11 REAL, PETER MAY, PETER DUDDY</p> <p>12 and SARAH RUSSELL read into</p> <p>13 the record</p> <p>14 Housekeeping .....50</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p> <p style="text-align: center;">Page 52</p>

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