1 Friday, 17 June 2022 2 (10.00 am)LORD BRACADALE: Now, Ms Grahame, who is the first witness 3 4 today? MS GRAHAME: The first witness is Judith --5 LORD BRACADALE: Sorry. 6 7 MS GRAHAME: Oh, sorry. 8 MS MITCHELL: My Lord, I just want to point out that we 9 can't get into the network for wi-fi which means we 10 won't be able to get the transcript of things as the 11 witness is speaking. I don't know why (inaudible - mic turned off). 12 LORD BRACADALE: Is that a difficulty that everybody is 13 14 having? Some people are all right. Look, I will just adjourn briefly to see if you can sort that out. 15 (10.01 am)16 17 (Short Break) 18 (10.04 am)19 LORD BRACADALE: Right. Now, Ms Grahame. MS GRAHAME: The first witness is Judith Harley and she will 20 be taken by my learned junior. 21 LORD BRACADALE: Thank you. 22 Good morning, Ms Harley. Will you take the oath? 23 24 A. Yes, please. LORD BRACADALE: If you raise your hand and say the words 25 26 after me.

MS JUDITH HARLEY (sworn) 1 2 LORD BRACADALE: Ms Thomson. Questions from MS THOMSON 3 4 MS THOMSON: Good morning. 5 Α. Morning. What is your full name, please? 6 Q. 7 A. Judith Anne Harley. How old are you, Ms Harley? 8 Q. 9 Α. 36. I understand that you are a scene examiner with the 10 Q. 11 Scottish Police Authority? 12 That's correct, yes. Α. Q. You have held this role for some 18 years? 13 Yes, I have, yes. 14 Α. 15 And does your role involve taking photographs? Q. A. It does, yes. 16 17 Q. There should be a black folder in front of you, 18 Ms Harley, and if you open that up you should find 19 within it a statement that you gave to a member of the Inquiry team. This has reference 112 and this is 20 a statement that you gave on 7 April of this year. We 21 see the date at the top of the statement there and we 22 23 see that it is your statement, and if we could scroll 24 down, please, to paragraph 32, we see that it concludes 25 with the words: 26 "I believe the facts stated in this witness

- 1 statement are true. I understand that this statement
- 2 may form part of the evidence before the Inquiry and be
- 3 published on the Inquiry's website."
- 4 A. Yes.
- 5 Q. And if we scroll a little bit further down, do we see
- that it was signed by you on 16 May 2022?
- 7 A. Yes.
- 8 Q. Your signature has been redacted on the public copy, but
- 9 I think your signature should be on the hard copy in
- front of you?
- 11 A. It is, yes.
- 12 Q. Grand. And when you gave that statement to the Inquiry
- did you tell the truth and do your best to be as
- 14 complete and accurate as you could be?
- 15 A. I did, yes.
- 16 Q. I want to ask you some questions about photographing
- 17 injuries. Who instructs you to photograph a person's
- injuries?
- 19 A. It depends on the situation. It will either be the
- 20 inquiry officer, or occasionally there will be a senior
- investigating officer will ask us.
- 22 Q. An inquiry officer and senior investigating officer,
- 23 these are both police roles that are held by constables
- or senior officers within the force, is that correct?
- 25 A. Yes, that's correct, yes.
- Q. So one way or another, the instructions would come via

- 1 Police Scotland to the Scottish Police Authority, or
- 2 I think SPA for short, and so it would be the police who
- 3 would ultimately instruct that photographs be taken in
- 4 any case, is that correct?
- 5 A. Yes.
- Q. And where do photographs tend to be taken if you're
- 7 photographing injuries?
- 8 A. As in the location? Sorry.
- 9 Q. Yes, as in location.
- 10 A. Either at a forensic medical examination with a doctor
- 11 present, at a home address, or in a police station, or
- 12 an address agreed with the person being photographed.
- Q. Am I correct to understand that you don't yourself have
- any medical qualifications?
- 15 A. No, I do not.
- 16 Q. So how do you decide which parts of the body to
- 17 photograph when you're photographing injuries?
- 18 A. We are largely guided by the person we are
- 19 photographing. We ask them to direct us with whatever
- they feel is an area of significance.
- 21 Q. If we can call up your Inquiry statement please and look
- 22 at paragraph 6. In your Inquiry statement you said:
- "A lot of the time injuries are guided by the people
- 24 we photograph because we are not trained medical
- 25 professionals. So basically I will say to a person:
- 'what injuries do you want to disclose to us?' and 'are

1 you happy for these to be photographed?' Then we take 2 the photographs." 3 And is that essentially what you told us a moment ago, that you will be guided by the person? 4 5 Α. Yes. 6 And if we scroll down to paragraph 7, please: Q. 7 "If the injured party discloses an area of their 8 body which they believe is injured, as per SOP ..." 9 Is that statement of practice? Standard operating procedure. 10 Α. 11 Standard operating procedure, I beg your pardon: Q. 12 "... we would photograph the area. The exceptions potentially being when taking pictures under the 13 14 direction of medical professionals during medical 15 examinations and post-mortems. Even if they point to 16 something and we can't see anything, we still take the 17 picture, because they are disclosing that it is there. That is for everybody, custodies, people outwith. The 18 19 only exceptions to this are when we are in forensic 20 medical examinations with a doctor present. Photographs 21 are then guided by the doctor. And post mortem photographs are guided by the pathologist because they 22 23 know what they want to see." 24 So should we understand then that if a person tells 25 you that they have an injury that you can't see, you 26 would still take a photograph of that part of the body?

- 1 A. Yes.
- 2 Q. You mention there the SOP, standard operating procedure.
- 3 I wonder if we can have a look at that. It is reference
- 4 SPA 82. So we see that this has the title "Forensic
- 5 Services -- Scottish Police Authority" and beneath that
- 6 "Photography" and an approved date of 27 March 2015, so
- 7 it would have been in force in May 2015, this particular
- 8 SOP?
- 9 A. This version, yes.
- 10 Q. "Details of Amendment. New SOP".
- So this appears to be the SOP that relates to
- 12 photography and if we could scroll down please to
- chapter 7.6 which has the heading "Injury Photography",
- so not all of the paragraphs are relevant, but do we see
- that the chapter heading there is "Injury Photography"?
- 16 A. Yes.
- 17 Q. And if we scroll down to 7.6.6 please, it states:
- 18 "A facial view of the subject should be taken as
- 19 a means of identification regardless if subject has
- 20 facial injuries or not."
- 21 What's the purpose of that?
- 22 A. It's so that the identification of the person we're
- 23 photographing is clear because if we take photographs of
- other parts of the body then you won't be able to see
- 25 the face at that point.
- 26 Q. So it's to identify the subject of the photographs.

1 At 7.6.7, the SOP reads:

"A general view should be taken to show the position of the injury in relation to an easily identifiable part of the body where possible. It is good practice to work in a systematic way recording injuries from the head down whenever possible."

Is that the way that you work yourself, recording injuries from top-to-toe?

- A. Yes, generally, yes.
- Q. And at 7.6.12, please:

"In cases where a complaint has been made against the police alleging violence towards the subject then any area indicated by the complainer as an area that had sustained an injury should be photographed, regardless of whether an injury is visible or not. The same procedures apply when these injuries are in an intimate body area. Another instance is where an area with no apparent visible injury present would be photographed is where direction to that effect is received from an FME."

So this particular paragraph -- if we can scroll up again a little bit, please -- relates to cases where a complaint has been made against the police alleging violence towards a person and it goes on to say, if we can scroll down, please, that in that particular circumstance, an injury should be photographed whether or not the injury is visible where the complainer says

- 1 they have been injured.
- 2 So the SOP appears to relate that requirement to
- 3 cases where there has been an allegation of police
- 4 assault, but should we understand from what you said
- 5 earlier in your evidence, and indeed in your Inquiry
- 6 statement, that in all cases when you're photographing
- 7 injuries, if a person tells you they have an injury on
- 8 a particular part of their body, you will photograph
- 9 that body part irrespective of whether the injury is
- 10 visible?
- 11 A. As per now, yes, we do, as per this SOP. It may have
- 12 been different at that point.
- Q. Right. So what was your practice back in 2015?
- 14 A. We would generally follow the standard operating
- 15 procedure at that point.
- 16 Q. Right. And this particular standard operating procedure
- 17 refers to the requirement to photograph non-visible
- 18 injuries in a case of alleged police assault, but should
- 19 we understand that you would also have done that in
- 20 other cases that didn't involve an allegation of assault
- 21 by the police?
- 22 A. Generally, yes, but as I say, we would be guided by the
- 23 standard operating procedure at that point and it was
- quite some time ago, so ...
- Q. It was seven years ago.
- 26 A. Yes.

- 1 Q. And I think you said in your statement too, if we can go
- 2 back to your statement, at paragraph 6, and
- 3 paragraph 7 -- so this is the evidence that you gave to
- 4 the Inquiry in written form, that you would be guided by
- 5 the person who had been injured, and at paragraph 7,
- 6 that if they point to something that you can't see, you
- 7 will still take the picture because the person is
- 8 disclosing that an injury was present, is that right?
- 9 A. Yes.
- 10 Q. And would that have been your practice back in 2015?
- 11 A. I would have thought so.
- 12 Q. All right. Why would it be important for you to take
- a photograph of a body part if a person told you that
- body part had been injured and there was no visible
- injury?
- 16 A. I'm not a medical professional, so I can't say whether
- 17 there is an injury there or not, so largely they can be
- determined at a later date, if required.
- 19 Q. Ms Harley, do you keep notes relating to the
- 20 instructions that you received to take photographs of
- 21 injuries?
- 22 A. Yes.
- Q. And what sort of information do you record?
- A. We will generally record who we're photographing, when,
- where and what we have photographed.
- Q. I would like to ask you some questions now about

photographs that you took of a former police constable, 1 2 Nicole Short, who was a constable back in May of 2015 3 and I understand that you took photographs of her on 3 and 8 May of 2015. 4 I wonder if we might firstly discuss the photographs 5 6 that were taken on 3 May and if we could do this by 7 reference to your Inquiry statement at paragraph 19. It 8 would appear that when you gave the statement you had 9 your notes in front of you. I don't have those, 10 Ms Harley, but they have been copied verbatim into your 11 statement and you say at paragraph 19: 12 "I have read my notes and I can confirm 'At 1750 hours, 3 May 2015, I, accompanied by DC Grady, 13 14 attended Kirkcaldy Police Station to photograph injuries to Nicole Short'." 15 16 Do you recall who asked you to take photographs on 17 that occasion? I could only guess at this point, if I'm honest. 18 Α. Well, I won't ask you to guess. It may not be of any 19 Q. 20 importance. You say in paragraph 19 that you went to 21 the police station to do that and you were accompanied by DC Grady. And if we turn to paragraph 20 it reads: 22 23 "I have been asked if I remember what it was that 24 I was photographing or what I saw. I don't recall. 25 I genuinely can't remember. I would always photograph 26 the face because that is the ID photograph, we always

- take that prior, but anything else would have been
 guided by Nicole Short."
- Does that tie in very much with what you told us

 earlier, that there will always be an ID photograph and

 that you will be guided by the person who you are

 photographing in terms of what body parts to photograph?
- 7 A. Yes, that's correct.
- 8 I would like to show you now the photographs that were Q. 9 taken on 3 May 2015. I appreciate that these weren't to hand at the point in time that you gave your Inquiry 10 11 statement, so you might not have seen them recently, but 12 they are SPA 6. Now, this is a book of 42 photographs and it begins on photographs 1 and 2 with facial views 13 14 of Nicole Short. Is she familiar to you? Do you recall 15 this lady at all?
- 16 A. Yes.
- 17 Q. What I would like to do is scroll through the photographs very quickly, just so we can see what body 18 19 parts have been photographed and what photos are in the book. So 1 and 2 I think are photographs of the face. 20 21 3 to 8, the back of the neck. 9 to 17 are photographs of her hands. 18 to 22 are photographs of her elbows 22 23 and the remaining photographs 23 to 42 are photographs 24 of her knees.
- 25 Do you recall taking these photographs?
- A. Vaguely.

- 1 Q. Vaguely. So we have flicked through them very quickly.
- 2 It's a book of 42 photographs and there are images of
- 3 the face, back of the neck, hands, elbows and knees. So
- 4 there weren't any photographs there of Nicole Short's
- 5 back or the side of her torso. Can you explain why not?
- 6 A. I can only assume it was never disclosed as being
- 7 somewhere that was relevant to photograph at that point.
- 8 Q. And by relevant to photograph, what do you mean by that?
- 9 A. As in guided as that's somewhere that we would be asked
- 10 to photograph by the person being photographed.
- 11 Q. And you would be asked to photograph it on the basis
- 12 that...?
- 13 A. If they felt that there was something there to
- 14 photograph.
- 15 Q. Did you make any notes in relation to these photographs
- 16 at all beyond the notes that were copied into your
- 17 Inquiry statement?
- 18 A. I can't recall, genuinely.
- 19 Q. I would like to show you Constable Grady's notebook
- 20 entry. He was the officer that accompanied you when you
- 21 took the photographs. It is PS 3171, please, and if we
- 22 can go down to page 2, please -- sorry, I think page 2
- of the notebook, so it might be page 3 of the PDF. It's
- the entry at 17.50 in the margin. Do you see that,
- 25 Ms Harley?
- 26 A. Yes.

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Α.

"Present when PC Nicole Short had injuries photographed 1 2 by ..." 3 Can you read that, what follows? It looks like SEB, which will be Scene Examination 4 Α. 5 Branch. 6 I see, okay: Q. 7 "Present when PC Nicole Short had injuries 8 photographed by [Scene Examination Branch] 9 Judith Harley. Slight redness back of neck. Elbows. Palms. Scuff - redness both knees." 10 11 So that's his notebook entry and I appreciate you're 12 not medically qualified, but does that entry appear to relate to the book of photographs that we have just 13 14 looked at? 15 It would appear to, yes. Α. 16 Can we turn now to the photographs that were taken on Q. 17 8 May and if we look at your Inquiry statement again 18 please at paragraph 21. Again, you're reading from your 19 own notes here and you say: "At 1130 hours on 8 May 2015, I attended at her home 20 21 address to photograph injuries to Nicole Short ... these were further photographs and previous photographs were 22 taken by myself." 23 24 Who instructed you to take these further 25 photographs?

As far as I'm aware, it was PIRC, the PIRC inquiry.

- Q. What was the purpose of taking more photographs?
- 2 A. A revisit for photography can be carried out for
- 3 a variety of reasons. Sometimes if photographs are
- 4 taken very close to an event, we will re-attend and take
- 5 photographs further down the line just to ensure that
- 6 everything has been captured which was required to be
- 7 captured.
- 8 Q. And was the reason for the requirement to take a further
- 9 set of photographs shared with you on this occasion?
- 10 A. I can't recall, if I'm honest.
- 11 Q. Let's look at the photographs. They are SPA 5. Again,
- 12 I appreciate that these were not available when you gave
- your Inquiry statement, you might not have seen them
- 14 recently. It's a smaller book of photographs: there are
- 15 17 photographs in this book.
- 16 Again, do we see that you have begun with an
- 17 identification photograph showing Nicole Short's face?
- 18 A. Yes.
- 19 Q. If we scroll through the photos again, please. 2 to 10
- 20 show her elbows. 11 to 14, her knees. And 15 to 17 her
- 21 hands. So face, elbows, knees and hands. Again, there
- are no photographs of her back or the side of her torso.
- 23 Can you help us to understand why?
- A. I can only assume it was never asked for or requested
- 25 again.
- 26 Q. When you say "Asked for or requested again", do you mean

- 1 by the PIRC or by Nicole Short?
- 2 A. Both.
- 3 Q. Both. Did you make any further notes in relation to
- 4 these photographs?
- 5 A. I can't recall.
- Q. You can't recall. Now, if Nicole Short had complained
- 7 of pain or tenderness to her back or her side on 3 May
- 8 or 8 May, would you have photographed the painful area?
- 9 A. Generally. As per guidance now, yes; as per guidance in
- 10 2015, I can't recall whether that was standard procedure
- or not.
- 12 Q. All right, but should we understand that if Nicole Short
- had complained to you that she had pain or tenderness on
- 14 her back or the side of her torso, would it be more or
- less likely that you would have taken a photograph of
- that part of her body?
- 17 A. Generally, yes.
- 18 MS THOMSON: Bear with me just a second, please.
- 19 (Pause).
- I have no further questions, Ms Harley, thank you.
- 21 LORD BRACADALE: Are there any Rule 9 applications? No.
- Well, thank you very much, Ms Harley, for coming to
- 23 give evidence to the Inquiry. I will be rising briefly
- 24 to allow the next witness to be brought in and you will
- 25 be free to go.
- A. Thank you.

- 1 (10.25 am)
- 2 (Short Break)
- 3 (10.30 am)
- 4 LORD BRACADALE: Now, Ms Grahame.
- 5 MS GRAHAME: The next witness is Laura MacPhie and she will
- 6 also be taken by my learned junior.
- 7 LORD BRACADALE: Thank you. Good morning, Ms MacPhie.
- 8 A. Good morning.
- 9 LORD BRACADALE: I understand you will take the affirmation,
- so would you say the words after me.
- MS LAURA MACPHIE (affirmed)
- 12 LORD BRACADALE: Ms Thomson.
- 13 Questions from MS THOMSON
- MS THOMSON: What is your full name, please?
- 15 A. My name is Laura MacPhie.
- 16 Q. How old are you?
- 17 A. I'm 53.
- 18 Q. Am I right to understand that you work for the Scottish
- 19 Police Authority or SPA?
- 20 A. Yes, I do.
- 21 Q. And that you work within the Mark Enhancement
- 22 Laboratory?
- 23 A. That's correct.
- Q. As a mark enhancement recovery officer?
- 25 A. Yes.
- Q. Before I ask you any questions, I want to make sure

- 1 you've got everything you might need today. If you
- 2 wouldn't mind opening up that black folder, you should
- 3 find within it a copy of the statement that you gave to
- 4 a member of the Inquiry team on 21 April of this year.
- 5 It has reference 111. It is coming up on the screen in
- front of us just now as well. Is that your statement?
- 7 A. That's correct.
- 8 Q. And do we see that you gave the statement on 21 April
- 9 and if we scroll to the very bottom, paragraph 36, that
- it concludes with the words:
- "I believe that the facts stated in this witness
- 12 statement are true. I understand that this statement
- may form part of the evidence before the Inquiry and be
- 14 published on the Inquiry's website."
- Do you see that?
- 16 A. Yes, I do.
- 17 Q. So when you gave the statement, did you tell the truth
- 18 and do your best to be as complete and accurate as you
- 19 could be?
- 20 A. I did.
- 21 Q. Do we see that you signed the statement on 16 May?
- 22 A. I did.
- 23 Q. The copy available on the screen publicly has had your
- signature redacted, but did you see your signature on in
- 25 fact every page of the hard copy that's in the folder in
- 26 front of you?

- 1 A. I did.
- 2 Q. I want to begin by asking you a little bit about your
- 3 qualifications and experience and if we can turn to
- 4 paragraph 7 of your Inquiry statement -- sorry, if we
- 5 refer up to paragraph 5, firstly, paragraphs 4 and 5,
- 6 you explain that in your current role as a mark
- 7 enhancement recovery officer -- you have been in that
- 8 role for the past 10 years?
- 9 A. Yes.
- 10 Q. But before that you were a qualified fingerprint expert.
- 11 A. Yes.
- 12 Q. And you were in that role for 10 years too?
- 13 A. Yes.
- 14 Q. So you've got more than 20 years' service --
- 15 A. Yes.
- 16 Q. -- with the SPA. At paragraph 7 you explain that the
- 17 training to become a fingerprint expert is generally put
- 18 on par with a degree course because it tends to last
- 19 maybe three to four years and you explain there are
- 20 significant exams and job-based training courses and
- 21 examinations that you undertake both in terms of
- 22 practical skills and the theory, is that right?
- 23 A. Yes.
- Q. So did you do that at the beginning of your time with
- 25 the SPA or prior to your time with the SPA?
- 26 A. I did that at the beginning of my time with SPA when my

- first role was a temprint identification officer and
- 2 then a finger -- a trainee fingerprint expert and that
- 3 would be the point where I undertook the training
- 4 course, sat the exams and was authorised as
- 5 a fingerprint expert.
- 6 Q. And in total you were 10 years focused exclusively on
- 7 fingerprints --
- 8 A. Yes.
- 9 Q. -- before moving into your current role?
- 10 A. Yes.
- 11 Q. And at paragraph 6 you explain that you have taken what
- is known as the forensic laboratory officer course and
- examination at the College of Policing and that
- qualifies you to do the job that you do. So can you
- tell us a little more about what that course involved?
- 16 A. The course involved -- it was a residential course where
- 17 we undertook a series of lectures and practical
- 18 exercises involving the comparison -- sorry, the
- 19 examination and assessment of articles that have been
- 20 seized from crime scenes for the purposes of fingerprint
- 21 recovery from them and although it's often regarded as
- 22 a fingerprint-specific role, there are also significant
- emphasis put on the awareness of being able to always
- look for trace evidence and the availability of DNA, so
- 25 although we may be regarded as the people who generate
- the fingerprints in a case, we are also always alert to

- 1 the presence of other kinds of evidence.
- 2 Q. So did this particular course build on your existing
- 3 skills and qualifications and experience?
- 4 A. Yes. As a fingerprint expert you learn a bit and you do
- 5 some practical shadowing for a short period of time in
- 6 the lab for the development and recovery of
- 7 fingerprints, but the forensic laboratory officer course
- is specifically geared towards developing the ability to
- 9 be able to recover fingerprints from items, so yes, it
- 10 built on a specific area of the previous fingerprint
- 11 work.
- 12 Q. How long did this residential course last?
- 13 A. It was two weeks long.
- Q. When did you do this?
- 15 A. In 2013, I think -- yes, 2013.
- 16 Q. So roughly on the cusp of you moving from being
- 17 a fingerprints officer to a forensic laboratory officer?
- 18 A. Yes.
- 19 Q. So you have had about ten years focused on fingerprints
- 20 and ten years in this more expansive role. Can you help
- 21 me to understand -- because I think both roles involve
- 22 fingerprints -- the difference between your first role
- as a fingerprint expert and your current role as a mark
- 24 enhancement recovery officer?
- 25 A. Certainly. A fingerprint expert, their role is to take
- 26 the fingerprints that are effectively recovered by the

people doing what I do now and they then carry out fingerprint comparisons against fingerprint forms that are taken from individuals in order to be able to arrive at a decision of identity or non-identity.

I'm now at the kind of front end of that process where I'm now assessing and examining the items in order to recover those fingerprints that I then photograph and then move on to the fingerprint experts for them to be able to carry out their comparisons.

- Q. Thank you. I want to ask you some questions now about the Mark Enhancement Laboratory where you work within the SPA. What does the Mark Enhancement Laboratory do?
- A. It serves, effectively, as an evidence recovery supplier for productions that come in from crime scenes and the MERO staff, mark enhancement recovery staff, will taken items and examine the request that has come in with them which may be from the Crown Office or from the police, and examine the item and see if it's appropriate for the tests that have been requested by the people who are involved in the investigation.

Our priority is always -- with every -- along with everybody else in the forensic services -- is to recover as much evidence as you possibly can at every stage of the process, without compromising anything that you might have to do with an item later on in the process, or without compromising anything that another department

- may need, so we will regularly have input -- although we
 will recover DNA, we will also recover any other trace
 evidence that we find on an item, and then recover
 fingerprints. We will also work with and liaise with
 other departments within forensic services when there
 are instances of items that are more -- productions or
 things that we recover or observe on a production that
- 9 Q. Is it the case then that some examinations, or some
 10 tests could render it impossible for other types of
 11 examinations or tests to be carried out at a later
 12 stage?

are more relevant for them.

13 A. That's correct.

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- Q. So there has to be careful thought given to what tests
 are most relevant and important in a particular case and
 the order of priority?
- 17 A. Absolutely.
- 18 Q. What then does your individual role as a mark
 19 enhancement recovery officer involve day-to-day?
- A. On a daily basis I will allocate work to myself and
 assess what information is present on the electronic
 management system, which is an electronic system that
 holds all of the SFIs, that's standard forensic
 instructions, and ERFs, which are examination request
 forms, which will come in from the people who are
 involved in the investigation.

I will look at all that information and I will look at the items in front of me before I have even opened the bag. The items will come in a sealed production bag which are signed by the seizing officers and with the information that is supplied to me for the request and the knowledge that I have about what's possible and achievable with the item, I will then commence my work and the first thing I will obviously think about is does this item need to have any DNA sampled from it, because we have very specific areas within the building where we can sample DNA. These are kept in the highest levels of cleanliness and you wear full PPE when you're in there to ensure that you're not causing any contamination to the production that's within the sealed bag.

If I don't require to carry out any DNA, either because the item is not suitable or because it's not requested, or because it has been carried out in another department, I will then commence my fingerprint examination, always keeping an eye out for any other trace evidence that might be there.

The focus of fingerprint examination in a serious case such as this is to follow what's called sequential processing, and this is where you start the process at the very beginning, using the least invasive and least destructive techniques, which are basically just examining the item visually and then moving on through

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- a series of more intensive examinations, but at each

 stage recording any fingerprints that are generated as

 you're going.
- Let me ask you some more questions about this sequential 4 Q. 5 process and what it involves. Can we perhaps look at 6 your statement again, paragraph 12, very briefly. You have explained this already in your evidence, 7 8 Ms MacPhie. You have explained that if the item 9 requires to be examined for DNA, that has to happen first because it has to take place in a sterile 10 11 environment with full PPE, as you said, to minimise the 12 risk of cross-contamination.

Moving on to paragraph 18, please, just for the avoidance of doubt there you explain that you don't yourself carry out DNA analysis, you would simply take samples from any item to be analysed elsewhere within the SPA, is that right?

- A. That's correct. That's similarly to the generation of fingerprints. We don't actually carry out the comparison of the fingerprints. We will recover the evidence and then send that on and if we were to find any other trace evidence, similarly we would recover that, get it into the system and then move it on to the relevant departments.
- 25 Q. So at the risk of oversimplification, your role is to extract evidence from an item --

- 1 A. Yes.
- 2 Q. -- which is then analysed by colleagues within different
- departments of the SPA depending on what it is?
- 4 A. That's correct.
- Q. Can we look at paragraph 13, please. This, I think,
 will take us back to the idea of sequential processing
 and you explain in this paragraph that having opened the
 item and looked at it and dealt with whether or not DNA
- 9 requires to be sampled, you say:
- "... you are then in a position to start thinking 10 11 about what fingerprint examinations you're going to 12 carry out ... that can be a whole range of non-invasive tests using lights. Sometimes you can find latent marks 13 14 on an item, if the surface is appropriate, just with 15 a torch. Nothing more elaborate than a torch being shone at an angle at it. We would then photograph that. 16 17 In a case where it's a serious case or a major inquiry where there's been, for example, a loss of life, we 18 19 would generally carry out a visual examination, then a white light examination and then we would use lasers. 20 21 This is equipment that has the ability to fluoresce either backgrounds or body fluids, such as perspiration, 22 23 as you would find in sweat on a fingerprint, and 24 sometimes that will throw up the fact that there's 25 friction ridge detail there that you couldn't see with the naked eye." 26

- So should we understand that in terms of starting
- 2 with the least invasive process first, the least
- 3 invasive process would involve an examination with the
- 4 naked eye?
- 5 A. Yes.
- 6 Q. And then using a series of lights?
- 7 A. Yes.
- 8 Q. Can you tell us a little bit more about the lights and
- 9 how they help you to see things that you might not see
- 10 with the naked eye?
- 11 A. The lights -- we use equipment that allows us to be able
- 12 to isolate particular wavelengths of light for looking
- at items, which can allow the background to disappear
- 14 and ridge detail that's perhaps in a colour that's close
- to the background can then be made to be more visible
- and will enable us to be able to record it.
- With lasers and high-intensity light sources these
- 18 use -- rely on the process of fluorescence which is the
- 19 property of a substance to be able to absorb energy at
- 20 a particular wavelength and then emit that again as
- 21 light, so I think everybody is probably familiar with
- 22 luminous dials on watches: this is a slightly more
- 23 intensive version of that which could allow an item that
- has a fingermark, let's say, on it, which is very
- 25 difficult to see with the lights and the various light
- sources that we can use, if we fluoresce that, it may be

that the background will fluoresce and we will get 1 2 a relief of the fingerprint detail, or the fingerprint 3 itself will fluoresce, and that will allow us to -- give us sufficient contrast to be able to photograph it. 4 5 All of the processes that we use, whether it is 6 lights or the application of any chemicals or other 7 processes, is to maximise the contrast between the 8 finger mark and the background to be able to get the 9 highest resolution of detail in the fingerprint detail. And when you have succeeded in enhancing a mark in the 10 Q. 11 way that you have described using light, you said you will then photograph it, is that your way of capturing 12 the mark? 13 14 Yes. Α. 15 You would photograph it and then would the photograph be Q. sent on to colleagues elsewhere to carry out --16 17 Α. Yes. -- a comparison or analysis. 18 Q. 19 If we can scroll down to paragraph 14, please, you 20 go on to describe the use of lasers which you mentioned 21 a moment ago: "We will then use lasers or the other light sources 22 23 and filters on the camera to photograph that ... and 24 then you would move on to the next least destructive 25 testing process, which tends to be fingerprint powders. You would powder that. Pretty much everybody has at 26

least a passing awareness of what fingerprint powdering
looks like. Any marks that are developed will either be
photographed, or they will be lifted onto low-tack
adhesive tape, which is then put onto an acetate, and
that itself is photographed and creates a black and
white photograph."

So that's a very clear description of what you do, having begun with a visual examination, naked eye, using lights and lasers, you would then move on to applying a powder and take a lift which you would put onto acetate and then photograph, is that right?

A. That's correct.

- Q. In the paragraphs that follow you go on to describe a range of different chemical treatments that can then be applied which may not be directly relevant for today's purposes, but could you explain in very short compass, if you can, how you would chemically treat a fingerprint in order to enhance it?
 - A. The treatment processes that are available to us will depend on what's called the substrate, which is the surface upon which the fingerprint or the suspected fingerprint has been left. That might be a porous item like paper, in which case we would use a particular chemical for that. It may be something that's quite shiny, it may be also that the fingerprint is quite new, so will still contain quite a lot of moisture which

- 1 would then allow us to use fingerprint powders on it.
- 2 If there's a mark -- if there's contamination there
- 3 are various chemicals that we can use that will allow
- for the attachment of the chemical to the fingerprint
- 5 outwith the contamination and it allows for that
- 6 resolution of detail to permit photography.
- 7 Q. So far we have been talking about fingerprints. Can
- 8 I ask you whether the Mark Enhancement Laboratory works
- 9 with other types of mark, for example, possible
- 10 footprints?
- 11 A. We -- in the instance where we encounter a foot mark,
- 12 a footwear mark, we will contact the Chemistry section.
- 13 They are the department who will carry out the
- 14 comparison and searching of any marks that we find, so
- anything that we encounter on an item that is a mark of
- some inconsistency with the background surface, we will
- 17 have as much of an examination of that as we can to rule
- 18 out there being any friction ridge detail in it, which
- is the fingerprint area of the process, and then we will
- 20 contact the Chemistry section to ask them if they want
- 21 to look at the item and see if there's anything of
- 22 relevance in it for them.
- 23 Q. Does it ever happen the other way round? Do the
- 24 Chemistry department ever contact you and say: we have
- 25 found something that might be a footprint, it's
- a partial print, if it is a footprint, can you take

- a look at it and try to enhance it? Does that ever happen?
- A. That's correct. Because we have such a range of
 lighting equipment at our disposal, it's -- it gives
 additional opportunities to be able to try and resolve
 any detail or tread mark detail within an item, or
 a mark on an item that we would then -- they would pass
 it down to us, quite often come down with us and look as
 we examine that under various light sources.
 - Q. You explained the different procedures that you can follow to try to enhance a fingerprint. When it comes to a footprint or potential possible footprint, are the procedures the same? You have mentioned the lights: are you using the same range of light sources and lasers?
 - A. It depends on the extent of detail within the mark. If the mark is comprehensive and has enough detail in it for the Chemistry section for them to be able to do their recording and comparison, then we generally wouldn't be involved in that. It tends to be when there is something that is maybe less distinct that we would get involved and use the -- a lot of the processes that we currently use.

Depending, again, on the surface on which the footwear impression has been left, that would then dictate whether you would use chemicals or powders, how you would lift it in order to be able to permanently

- 1 record that detail.
- Q. And the range of options open to you, lights, chemicals,
- 3 powders, is it broadly the same as the range of options
- 4 available to you with fingerprints?
- 5 A. Yes.
- Q. So the processes that you have already outlined in your
- 7 evidence, the sequential processing for a fingerprint --
- 8 visual examination, examination with lights, powders,
- 9 chemicals -- would you essentially follow the same
- 10 processes and procedures if you were examining
- 11 a possible footwear mark?
- 12 A. I would.
- Q. I would like to move on to ask you some questions about
- 14 a vest that you were asked to examine and it was a vest
- that belonged to a female police officer, Nicole Short.
- 16 Staying with your statement for now, can we look,
- 17 please, at paragraph 19. There's a heading there
- 18 "Instructions from PIRC", so should we understand that
- 19 on this occasion it was the PIRC who asked you to
- 20 examine the vest rather than colleagues within
- Police Scotland?
- 22 A. Yes.
- Q. The paragraph reads:
- "The extent of the request from PIRC was available
- to us for everybody to see on the evidence management
- 26 system ... that we use."

- 1 You mentioned that acronym earlier in your
- 2 evidence -- there were a few acronyms actually, EMS
- 3 was --
- 4 A. Sorry.
- 5 Q. No, no, not at all. EMS was one of them. So what is 6 your evidence management system?
- 7 A. It's effectively an electronic database which holds all
- 8 of the details of all of the casework that is being
- 9 carried out within forensic services and the MEL are
- 10 slightly unique in that in that we use it entirely
- 11 within our casework and we don't generate any casework
- 12 files, so any requests that come in, or any instructions
- that are generated as a result of forensic strategy
- 14 meetings, will be communicated to us and will be put
- onto the EMS system as part of your processing of
- a case.
- 17 Q. Now, earlier in your evidence you gave two other
- 18 acronyms as well. I caught one, but I didn't catch the
- other. One I think was SFI?
- 20 A. Yes, that's a standard forensic instruction, and this is
- 21 an instruction that is issued by the Crown Office and it
- 22 details the productions and examinations that they wish
- 23 to be carried out and they give a date, a deadline date
- for the processing of the work.
- 25 Q. I'm afraid I missed the second acronym but I think it
- 26 was another type of instruction; do you recall what it

1 was?

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- A. That's an ERF, which is an examination request form, and
 this is generated within the police system for cases
 that haven't got to the point where somebody has been
 identified and the case has been referred -- generally
- the case has been referred to the Crown. So that's more of an investigative process.
- Q. Okay, so one of these request forms comes from
 the police, another comes from the Crown. What about
 instructions received from the PIRC? How do they make
 their way into your evidence management system?
- 12 They are uploaded in the same way that an SFI or a ERF Α. are. It may actually -- I can't recall, but the format 13 14 of it may be in the same form or paperwork as is used 15 for an SFI. That gets sent in and then uploaded onto 16 the system and then because it's an instruction from the 17 PIRC, it would be regarded as a serious matter that 18 requires priority, so there would also probably be some 19 follow-up instructions and direction from more senior 20 staff.
 - Q. Do you recall what the request was that you received from the PIRC in this case?
- A. In this case I examined a knife and I examined the vest
 and it was -- because the items had previously been
 examined within other departments, my examination
 request did not cover the sampling of any DNA, so

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I focused solely at that point on the recovery of any fingerprints that might have been on either of the items.

With the case of the knife, that was a fairly straightforward process in terms of us working through our own kind of timetable of examining things, but with the vest, because there was an area of interest on the vest which constituted an area of discolouration, or a mark of some sort, there was a lot of liaising over a period of time between ourselves and Chemistry because the treatments that I would generally use on the item would be on the shiny parts of the vest, so the reflective badging on the vest, and I would be staying away from the material, the yellow material on the vest because it's a wicking, woven nature, and I can't afford for any liquid contaminants that I add to the shiny bit rolling off onto the yellow part, of the fabric part of the vest, so it was a very slow and staged exam with a bit of backwards and forwards between the two departments.

Q. So you mentioned a knife and you mentioned a vest, and your examination was with a view to recovering any fingerprints that were on either item.

In relation to the vest, was that the limit of the instruction that you received from the PIRC to look for fingerprints, or was there anything more to the

- instruction than that?
- 2 A. I can't recall from the instruction -- given the length
- 3 of time, I can't recall if there was anything specific
- 4 requesting the MEL to look at any mark on it, but I know
- 5 that that was part of our focus and examination, just
- 6 because of the holistic way that the departments work
- 7 together to make sure that we maximise the recovery of
- 8 any piece of useful evidence.
- 9 Q. Do you have any recollection -- and I appreciate we're
- 10 seven years down the line -- of being asked to look at
- 11 a possible footwear mark on the vest?
- 12 A. I gather that what was being asked of as a possible
- footwear on the vest was the area -- the mark area of
- 14 discolouration that was on the vest, but I did not see
- anything of any recordable detail within that.
- Q. I will come on shortly to ask you more questions about
- 17 the detail of your examination, but at this stage I'm
- 18 going to ask you to look at the vest and the knife and
- 19 to confirm that these were the items that you examined
- 20 and we have the vest here. You signed the production
- 21 Label for that.
- 22 A. That's correct. I can see my signature on the
- production label.
- Q. And the knife. Thank you.
- 25 A. I can see my signature on the production label for the
- 26 knife.

- 1 Q. Thank you. I want to ask you questions about the vest
- 2 first, so your instruction to examine the vest -- indeed
- 3 the vest and the knife -- came from the PIRC, rather
- 4 than being a direct request from another department?
- 5 A. Uh-huh [nods], the area of interest on the vest was the
- 6 area of interest that was requested from the PIRC and
- 7 although I recall the item coming to me as a fingerprint
- 8 item, I was aware that there was this other area of
- 9 interest on the item that required us to have a look at
- it as well, in conjunction with Chemistry.
- 11 Q. So you were aware that this mark, if I can call it that,
- 12 was an area of interest to your colleagues in the
- 13 Chemistry department?
- 14 A. Yes.
- 15 Q. And you have explained that there was a degree of
- liaison as the examination took place?
- 17 A. Yes.
- 18 Q. Was the examination of the vest conducted over a short
- 19 period of time, or over a series of days, weeks, months?
- 20 A. It was over a period of days. It may have stretched
- 21 into a couple of weeks, just allowing for movement
- 22 backwards and forwards between different departments.
- 23 Q. What information, if any, were you given about the
- 24 background to the incident involving Nicole Short?
- 25 A. We were aware that it was a death following police
- 26 contact, and in any case -- all crime is serious, but in

- any case where there's been a loss of life that is

 automatically regarded as the most serious form of

 casework for us and we will go to every degree to try

 and maximise whatever potential that we can -- and can

 get out of an item, so that would have been regarded

 that -- any casework in this would have been regarded as
- Q. Were you made aware that it was alleged that Mr Bayoh,
 the man who lost his life following police contact, that
 it was alleged that he had stamped on Nicole Short's
 back as she lay on the ground?
 - A. I was aware of that information, yes.

of the most serious degree.

- Q. You were?
- 14 A. (Nods).

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- Q. I would like to ask you questions about the work that
 you carried out in relation to the vest and if we can
 perhaps scroll down just a little in your statement to
 paragraph 21. You said you were vaguely aware of there
 being a mark on the vest, something your colleagues in
 Chemistry would work on, because it is not a good
 surface for recovering fingerprints.
- 22 At 22 you say:
- "At first, what I focused on on the vest were the
 reflective strips and the police badging and anything
 that had a smooth surface on it. I know that I did
 recover some level of detail from the reflective area.

The front or the back of the vest. I photographed that, 1 2 but it was made insufficient by my colleagues in 3 fingerprints." Let me ask you some questions about that. You 4 describe there being reflective strips on the vest and 5 6 we have had the opportunity in the hearing to look at a sample vest -- I'm not sure whether we have that 7 8 today? We do. Thank you, Ms Taylor-Smith. So you 9 mention there being reflective strips and police badging and you were focusing on smooth surfaces. Would you 10 11 perhaps be able to hold that up and highlight the surfaces that were optimum, from your point of view, for 12 the recovery of fingerprints? 13 14 [indicating] from a fingerprint point of view, the items Α. 15 on this that would be of most significance for us are 16 the shiny plastic non-porous surfaces on the front and 17 back of the item, and that includes the police badging and -- on the back and front, and the reflective strips. 18 Returning to paragraph 22, you say: 19 Q. 20 "I know that I did recover some level of detail from the reflective area." 21 The detail that you recovered you photographed. 22 that a mark that later came to be known as LM3? 23 24 Α. That's correct. 25 So we will return to that, but you say: Q. 26 "I photographed that but it was made insufficient by

1 m	y colleague	s in find	gerprints."

- What does that last sentence mean?
- 3 For a fingerprint to be useful for comparison purposes 4 it has to contain an adequate degree and number of details within it and that will vary from print to 5 6 print, but there has to be sufficient in it for a fingerprint examiner to be able to look at it and find 7 8 marks and sequence an agreement with a fingerprint form, 9 thereby being able to identify who the donor of the mark was. In this case the item -- LM3 that I recovered from 10 11 the vest, was deemed to be insufficient in that it did 12 not contain enough detail.
 - Q. If we scroll down to paragraph 23, you say:

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14 "There were a number of conversations over different 15 days with Chemistry colleagues in relation to the vest and the knife. Because I knew that I was going to be 16 17 adding liquid chemicals to areas of the vest that might not be restricted to the shiny parts, what I didn't want 18 to do was have any chemicals run off onto the fabric 19 part and impede Chemistry's ability to look at anything. 20 I know that they had concluded all their examinations 21 before I did that, but I do have a recollection that 22 I carried out a light source examination of the fabric 23 24 of the vest and did not come up with anything 25 significant on [it]."

So if you could help me to understand what the

- 1 concern was about chemicals running off the shiny parts?
- 2 A. Some of the chemicals that we use are either for
- 3 recording -- for developing fingerprints on a shiny
- 4 surface -- are either black or white and they will stain
- 5 woven material, so there is no way on this of being
- 6 able -- even on the largest part -- of being able to
- 7 restrict the chemicals to just stay on the area that
- I want them to stay on, so there is a danger that they
- 9 will run off and wick through the yellow part, the
- 10 fabric part of the vest, and given that there was
- an area of interest on the vest, on the fabric part,
- 12 I couldn't afford for any detail -- any of that to
- 13 either get washed away, or to get contaminated or
- stained by any of the chemicals that I used.
- 15 Q. So the lift that you had managed to take from one of the
- shiny parts, LM3, did you succeed in taking that lift
- 17 just with the use of light alone, or with powders or
- 18 with chemicals? What did you need to do?
- 19 A. With powder.
- 20 Q. With powder. And you have expressed a reservation about
- 21 using chemicals in case they were to damage the
- 22 non-shiny parts of the fabric.
- 23 Did you in actual fact use chemicals on the vest at
- 24 all?
- A. May I refer to my statement?
- Q. You may.

- 1 A. Thank you. Is it possible to be able to refer to my
- 2 statement that I submitted to the PIRC?
- 3 Q. I don't have a statement that you submitted to the PIRC.
- 4 Did you submit a statement to the PIRC?
- 5 A. Yes, at the -- in 2000 and -- last year I wrote
- 6 a statement which I'm sure is included in the list of
- 7 documents that I provided to the Inquiry. I have it
- 8 with me and I might be able to give you the reference
- 9 number for it, if that's of any use.
- 10 Q. Let's see how far we can go without it, but I was
- 11 unaware that you had prepared a statement for the PIRC.
- 12 You said that you did that last year?
- 13 A. Yes.
- 14 Q. In 2021?
- 15 A. Yes.
- 16 Q. And on what basis? Did they ask you to prepare
- 17 a statement?
- 18 A. Yes.
- 19 Q. So last year the PIRC asked you to prepare
- 20 a statement --
- 21 A. Yes.
- 22 Q. -- and that was in connection with the work that you
- carried out in relation to this case?
- 24 A. Yes.
- 25 Q. All right. We may come back to that, but for now, I was
- asking whether you had in fact used chemicals on the

vest because I couldn't find an answer to that question 1 2 in your statement, so you can refer to it but it may be 3 that it doesn't shed any light on that. For present purposes, it may not matter, so what we 4 will perhaps do is move on for now, but returning to 5 6 paragraph 23. At the bottom of that paragraph, after 7 explaining that you wouldn't want any chemicals to run 8 off onto the fabric and impede Chemistry's ability to 9 look for anything further, you say: "I know that they had concluded all their 10 11 examinations before I did that, but I do have a recollection that I carried out a light source 12 examination of the fabric of the vest and did not come 13 14 up with anything significant ..." 15 So it sounds as though you had satisfied yourself that Chemistry had concluded all of their own 16 17 examinations. 18 Yes. Α. How would you have satisfied yourself that that was the 19 Q. 20 case? With liaison and conversation and meetings with my 21 Α. colleagues within the Chemistry section. 22 23 We worked -- we communicated closely. They are on 24 a different floor to us in the building, but we 25 communicated closely about the stages that the 26 examinations were at in order that nobody kind of went

- ahead of each other in the process of the examination.
- 2 Q. And the reason that it was important to satisfy yourself
- 3 of that was because you didn't want to run the risk of
- 4 getting in the way of any further investigations that
- 5 Chemistry might want to do further down the line, is
- 6 that correct?
- 7 A. That's correct.
- 8 Q. And indeed, at paragraph 33, if we could scroll down for
- 9 a moment, please, you explain at the very, very bottom:
- "I can't just race ..."
- If we can keep scrolling, please:
- "I can't just race into doing something because it
- might destroy something that someone else needs."
- 14 A. Yes.
- Q. So is there a need for caution in your line of work?
- 16 A. Absolutely.
- 17 Q. And, as you said earlier, some forensic examinations
- 18 involving the use of chemicals could render other
- 19 examinations impossible?
- 20 A. That's correct.
- 21 Q. Returning to paragraph 23, please, I don't know whether
- 22 this assists you at all, but looking at the part that we
- 23 were looking at a moment ago:
- " ... what I didn't want to do was have any
- 25 chemicals run off onto the fabric part and impede
- 26 Chemistry's ability to look at anything. I know they

- had concluded all their examinations before I did that."
- 2 Does "before I did that" suggest that you perhaps
- did go on to use chemicals, or does this not assist in
- 4 jogging your memory?
- 5 A. My recollection is that I did use chemicals, a chemical
- 6 called powder suspension, on the shiny parts of the
- 7 vest, but without my statement or without looking at the
- vest, I couldn't confirm that that's the case.
- 9 Q. All right. It may be that we can assist you with that.
- 10 It may be that we can in fact access your statement, but
- so far as the vest is concerned it's in forensic
- 12 packaging --
- 13 A. Yes, no.
- 14 Q. -- so I don't think we would be able to unwrap that.
- 15 A. No.
- 16 Q. Is there anything on the label that would assist you one
- 17 way or the other or by looking at that through the
- 18 window?
- 19 A. No.
- Q. I don't believe that we have your PIRC statement,
- 21 certainly not immediately to hand, but it is something
- 22 that we could perhaps revisit at a later date if that
- 23 would be of assistance to the Inquiry, but that's not
- 24 something that you should worry about.
- 25 (Pause).
- I am being shown, Ms [MacPhie], something disclosed

- to us by the PIRC which is headed up a "joint statement
- 3 A. Yes.
- 4 Q. Is that the document you are referring to?
- 5 A. Yes, that should have my name and my two colleagues'
- 6 names on it.
- 7 Q. Yes, so perhaps we're at cross-purposes. It doesn't
- 8 look like a statement as I understand a statement; it
- 9 reads like a report.
- 10 A. Okay.
- 11 Q. We will be able to check whether there's anything in
- there that might shed light on whether the powder
- suspension was used on the vest or not, but while my
- senior is kindly checking that point, can you explain
- what the powder suspension test would involve?
- 16 A. Powder suspension is a liquid chemical which is
- 17 effectively a detergent that has a suspension of very
- small particles of iron oxide in it, and it basically
- 19 acts like a wet fingerprint powder, so you would paint
- 20 that on to the item, let it sit and then run water on it
- 21 to wash it away, and if there are any fingerprints on
- 22 the surface that are of sufficient robustness, then the
- 23 powder suspension will adhere to them, the iron oxide
- 24 will adhere to them and then you will have them
- 25 disclosed as fingerprints that then permit photography
- and permanent recording.

- I know that with the vest, the only mark that
- 2 I recovered was LM3 with granular -- black granular --
- 3 black magnetic powder, I apologise.
- 4 Q. So if the powder suspension treatment was applied, it
- 5 didn't take you any further in terms of the enhancement
- 6 of LM3, which was a mark that you had already recovered
- 7 by means of the powder?
- 8 A. Yes.
- 9 Q. Do you recall where on the vest mark LM3 was?
- 10 A. I think I recall it being on the reflective panel on the
- 11 rear of the vest. I'm not sure if it will say that on
- 12 the lift, if you're able to access the actual photograph
- itself. It may have -- it may have the location of the
- 14 badge on the lift.
- 15 Q. It was one of the shiny parts on the vest and you
- 16 pointed to the police sign on the back, is that right?
- 17 A. Yes.
- 18 Q. I'm advised that the joint statement that you produced
- 19 for the PIRC states that black magnetic powder was used
- to enhance mark LM3?
- 21 A. Yes.
- Q. Would that be the powder stage of the process?
- 23 A. Yes.
- Q. And there's also reference to a wet chemical treatment,
- 25 black powder suspension there too?
- A. That's correct.

- Q. So I appreciate the statement isn't before you today,
- 2 it's just one of those things, but I'm reliably informed
- 3 that it does record that a wet chemical treatment, black
- 4 powder suspension was used, and that seems to accord
- 5 with your recollection today?
- 6 A. Thank you.
- 7 Q. Returning to paragraph 23, at the bottom you say:
- 8 "I do have a recollection that I carried out a light
- 9 source examination of the fabric of the vest and did not
- 10 come up with anything significant on it."
- 11 Can you explain what that sentence means?
- 12 A. I would have -- again, because of the nature of the case
- and the seriousness of the case, I would have examined
- 14 all the areas on the vest, including the areas that
- might not directly be involved for fingerprints, in
- order to be able to highlight anything to anybody else
- in any other departments and as part of that I did carry
- 18 out some laser and various wavelengths of light
- 19 examinations on the vest.
- There was some liaison between Chemistry and myself
- 21 about the area of discolouration that was on the vest as
- 22 being a particular area of interest, but I also
- 23 looked -- I looked at that in detail, but I also looked
- 24 at all of the yellow fabric on the vest.
- Q. What was the area of interest?
- 26 A. The area of interest was the area that had

- discolouration on it, whether you want to call it a mark
- or a patch of discolouration on the yellow part of the
- 3 vest.
- Q. I wonder if we can show you a photograph just to confirm
- 5 that we are -- we have in mind the same mark.
- 6 (Pause).
- 7 So the photographs are PIRC 1176365, and the
- 8 photographs are at pages 48 and 50. If we can pause
- 9 there, please. There is a mark on the rear of the vest
- 10 that is visible to the naked eye --
- 11 A. Yes.
- 12 Q. -- to the right and around about the area of the
- horizontal shiny strip, as you would look at the vest if
- it was being worn. Is that the mark that you are
- referring to?
- 16 A. Yes. This isn't a photograph I have seen, but that's my
- 17 recollection of there being a mark on the vest.
- 18 Q. And that mark is the area of interest that your
- 19 colleagues in Chemistry had?
- 20 A. Yes.
- 21 Q. And was that the area that you had examined with a light
- 22 source?
- 23 A. I examined all of the vest with light sources, but
- I paid particular attention to that area as it was an
- 25 inconsistency on the surface of the item, in the same
- 26 way that I would do with anything that is some kind of

- 1 contamination or inconsistency, so I focused a lot on
- 2 that area.
- 3 Q. And are you aware that your colleagues in Chemistry had
- 4 queried whether that mark might be a footwear impression
- or a partial footwear impression?
- 6 A. My recollection is that I did -- I was aware.
- 7 Q. Had you been asked whether there was anything that you
- 8 could do to enhance that mark?
- 9 A. Yes. I -- I had been asked to look at that in relation
- 10 to whether it was potentially a footwear impression.
- 11 The systems and the processes that I use will record or
- 12 enhance any contamination that's there, regardless of
- how it has been put on it, whether it's two different
- 14 things that have gone onto it, so I haven't examined
- that in the context of looking for a fingerprint
- 16 impression. I have gone in in the same way that I would
- 17 do when I'm examining anything for any other kind of
- 18 mark, whether it's a fingerprint or otherwise, to just
- 19 see what I can do to maximise the amount of contrast and
- detail that's there.
- Q. And you did that using a light source?
- 22 A. A variety of light sources.
- 23 Q. A variety of light sources. And you say -- sorry, if we
- can return to your statement -- in paragraph 23 that you
- 25 recall carrying out a light source examination of the
- fabric of the vest and did not come up with anything

- 1 significant on it. So what should we take from that?
- 2 A. That there was no other detail that could be enhanced or
- 3 brought out from that mark that was on the vest and that
- 4 was the maximum amount of detail that was going to be
- 5 available for anybody to record and further analyse.
- 6 Q. That assessment having been made using the light source,
- 7 would there have been any advantage in going forward and
- 8 using powders or chemical treatments?
- 9 A. Not on a fabric surface, especially one of this nature
- 10 which is quite woven and will wick away any wet
- 11 chemistry that you put on it. If a mark had been put on
- 12 it in a particular type of contaminant then there are
- 13 chemicals that we may have been able to use because they
- 14 would stick solely to the contaminating substance and
- wash away as far as possible, but the nature of that was
- not significant in a way that I would be able to
- identify a chemical that I could use.
- 18 Q. Can we scroll down to paragraph 27, please. You say
- that you have read the notes taken at the time of the
- 20 examination:
- 21 "Chemical enhancement in conjunction with general
- Chemistry input of any apparent footwear impressions
- 23 disclosed with HILS, that is high-intensity light
- sources."
- 25 So is that what you have described -- the process
- 26 that you have described --

- 1 A. Yes.
- 2 Q. -- that's its formal name:
- 3 "I did not see anything of any relevance or anything
- 4 that looked like a footwear mark when I carried out my
- fluorescence exam."
- 6 A. That's correct.
- 7 Q. So there was nothing over and above what could be seen
- 8 with the naked eye?
- 9 A. No.
- 10 Q. And at paragraph 28.
- "In my notes under my heading 'Fluorescence and
- 12 Quasar', I've said that, 'It was examined negative on
- the 8th of July 2015'. And then I've said, 'There's a
- range of quasar wavelengths, Crime-lites, UV and IR.
- Reflective strip negative and no improvement of marks
- and/or glare on the fabric area of the vest."
- 17 Can you help me with the technical detail there, the
- 18 quasar, Crime-lites, UV and IR?
- 19 A. These are -- fluorescence and quasar are the systems
- 20 that we would use that use either narrow or wide bands
- 21 of wavelengths to fluoresce items. A Crime-lite is like
- a smaller version of a laser in that it's a torch that
- you can use to fluoresce an item. UV is ultraviolet and
- IR is infrared, and we have an assortment of lighting
- 25 sources that allow us to use these and an assortment of
- 26 camera lenses that we would use in order to be able to

- disclose and record any detail that shows up within

 an area that's being investigated and there was nothing

 to record.
- Q. Scrolling down to paragraph 29. This relates to the use of a laser. You say:
- "... [it] is just the same thing but a different kind of kit, I have said 'It was examined negative on 8th July. Yellow and green lasers. The reflective strip is negative and reduction or no improvement of marks on the fabric area of the yellow vest."
- 11 A. Yes.

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- 12 Q. You then say:
- "The way that the fluorescence works is by changing perceptions of the colour by changing the lighting."
- 15 Yes. So depending on the chemical properties of Α. a contaminating substance, such as whatever it is that 16 17 has put the mark onto the vest, because you're always 18 striving to maximise the best contrast that you can get 19 between the background and the detail, using various light sources sometimes that will enhance that and 20 21 sometimes that will reduce the amount of contrast, just because of the chemical components that are within the 22 23 background material and within the contaminating 24 substance itself.
 - You really just have to try it and see. In a particular instance where you don't know what the

- substance is then that's a reason to start at the very
- 2 beginning and work your way through all of the kit that
- 3 you've got at your disposal.
- 4 Q. And at paragraph 30 you explain:
- 5 "We weren't able to see anything further than what
- 6 the mark looks like in normal light. That's as far as
- 7 we would be able to go."
- 8 A. Yes.
- 9 Q. That's essentially what you said in your evidence
- 10 a moment ago that -- if I might use lay person's
- 11 language -- you couldn't enhance this mark, you couldn't
- 12 create anything more than what was visible to the naked
- 13 eye?
- 14 A. That's correct.
- 15 Q. Now, should we understand that your role was limited to
- 16 enhancing marks, so you wouldn't have been provided with
- 17 a pair of boots or acetates taken from the soles of the
- 18 boots?
- 19 A. Absolutely not.
- 20 Q. Now, you have told us much about the fingerprint
- 21 analysis of the vest as well as the attempts you made to
- 22 enhance the dirty or black mark on the back of the vest.
- Can you help me to understand why fingerprint analysis
- 24 was thought to be relevant or helpful in this particular
- 25 case, bearing in mind there wasn't any question mark
- over the identity of the person said to have assaulted

1 Nicole Short?

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- A. This would be a standard, always included examination
 that would be carried out on any piece of casework, just
 to add any evidentiary value that is possible in the
 overall assessment and analysis of the case.
 - Q. So should we understand that every case that comes to you, every item that you examine, you will examine for fingerprints?
- 9 A. I will always assess any item that comes in for 10 fingerprints.
- 11 Q. I would like to ask you whether the science of mark

 12 enhancement -- and I'm particularly interested here in

 13 things like footwear rather than fingerprints -- has

 14 evolved or developed over the past seven years and if

 15 that's not something that you can help us with then

 16 please just say so.
- 17 Α. I can't recall anything that I have used in the last 18 seven years that would be in addition to what I would 19 have carried -- what I carried out at the time. I'm --20 I'm aware of new techniques that are being trialed for 21 fingerprints, but I'm not aware of any -- that are specifically for footwear impressions. I dare say you 22 23 could potentially apply any new, evolving fingerprint 24 recovery techniques for footwear impressions, but that's 25 not specifically my area.
 - Q. I want to ask some questions about the way that you work

- with other scientists. Am I right to understand that
 you didn't prepare a report in this case, certainly not
 at the time in relation to the examination of the vest,
 sorry?
- That's correct. I do recall communication with the PIRC 5 Α. 6 at the time because there had been some communication 7 backwards and forwards specifically about the vest and 8 to clarify information about the examination on the vest 9 and I asked if they required what we would call a statement to be prepared, but which is I think 10 11 slightly different to what you would assess as 12 a statement, and I was told it wasn't required at the time, but my awareness as, I think in January 2021, 13 14 a request was made for all information relating to the 15 Inquiry was to be kind of collated for yourselves and it was at that point that I prepared -- I think it was at 16 17 that point that I prepared my statement or joint report 18 with one of my two colleagues who worked on items in the 19 case.
 - Q. And if at the time you didn't prepare a statement or a report, how would other colleagues within the SPA come to know that you had completed your work and what your conclusions were?
- A. They would be able to see that on the electronic management system.

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26 Q. And how would the PIRC come to know that you had

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completed your work and what your conclusions were? 1 2 I would have generated various types of kind of process Α. 3 reports that the system generates and I would have sent that information to the PIRC. 4 What did you do with the vest itself after you had 5 Q. 6 completed your examination of it? 7 Α. I believe I checked with Chemistry that they had no 8 further requirement for it, and then packaged it up for 9 return to division or wherever it's held. MS THOMSON: I would like to move on to show you an email 10 11 chain with entries from other departments and from the 12 PIRC. 13 Sir, this is a new subject and I wonder if now might 14 be a convenient time for the morning break? 15 LORD BRACADALE: If this is a convenient moment, we will do that. We will take a break for 20 minutes. 16 17 (11.28 am)18 (Short Break) 19 (11.56 am)20 LORD BRACADALE: Yes, Ms Thomson. 21 MS THOMSON: Thank you, sir. Ms MacPhie, I want to ask you some questions about 22 23 an email chain that I alluded to just before the break 24 and then I have a few questions about the knife and that 25 will then complete your evidence.

I would like to show you an email chain, this is

PIRC 01983, and I wonder if we can go to the very bottom
and work our way up. So what I think is page 7 of the
chain is an email from the PIRC to -- if we scroll up
a little bit we should see who it has been sent to -- to
Shirley Chin, who is one of your colleagues within the
Chemistry department, I believe.

A. That's correct.

Q. And it is dated 16 January 2018:

"Following our short telephone call earlier this afternoon I just wanted to follow up with an email so you've got my correct contact details. As discussed it would be much appreciated if you could have a look to see if the photographs of the articles were taken and, if so, where if anywhere they were sent. COPFS are now doing a bit of case preparation and are looking for us to supply these to them.

"Also the report stated that 'VEST ... PC ... NICOLE SHORT' was forwarded to the Mark Enhancement Lab for further examination. Are you able to confirm if this was done and, if so, what the results were? Was any report prepared regarding this? If so, where was it sent?"

So this is a query from the PIRC to the Chemistry department. Can you shed any light on why the PIRC were seemingly unaware of the work that you had carried out and your conclusions and were raising that query with

1 the Chemistry department? 2 I can't. Α. 3 Q. If we move up the chain, please, to the previous page, we will see that Shirley Chin forwarded the email to 4 Kenny Laing, who I gather is perhaps head of the Mark 5 6 Enhancement Laboratory --7 Α. He, at that time was, the head, yes. Q. -- at that time. And that again was on 16 January and 8 9 if we can look a little bit further up the page, we will see that Kenny Laing replied directly to the PIRC noting 10 11 that you weren't at work that day and confirming that 12 one fingerprint was recovered from the badge area of the vest, nothing else of note was recovered: 13 14 "No statement has been prepared as this is usually 15 only instructed if the fingerprint evidence is being led." 16 17 And then stating that he hoped that you might be back by the start of February: 18 19 "... [it] could be done after [that]... short of 20 that it would [be someone else who could] provide 21 a statement. "Can you let me know?" 22 23 Again, moving up the trail, to page 5 of the PDF and 24 if you cast your eye over the next email in the chain, 25 do we see that it appears to relate to the checking of 26 fingerprints --

- 1 A. That's correct.
- Q. -- against the deceased prints and page 4 -- sorry,
- 3 a little bit further up. It is quite a lengthy exchange
- 4 here but if you cast your eye over it, if you just take
- 5 a moment to do that, please, Ms MacPhie, will you see
- 6 that this concerns the fingerprint work carried out
- 7 within the laboratory?
- 8 A. That's correct.
- 9 Q. And this is an email from the fingerprint examiner, so
- 10 this is the colleague who would have examined the lifts
- 11 that you took --
- 12 A. Yes.
- Q. -- to the PIRC. So again, the focus is very much on
- 14 fingerprints here, and if we carry on moving up, so all
- of these emails are dated January of 2018, the next
- email in the chain is some 21 months later,
- 17 16 October 2019. Do you see that?
- 18 A. Yes.
- 19 Q. And it appears on that date the thread was forwarded to
- you by the PIRC:
- 21 "Hi Laura,
- "This is the ... thread I spoke about. You will see
- that [in]... January 2018 DSI ... Taylor [of the PIRC]
- 24 was chasing this aspect up."
- 25 And there is a quote, and it is the quote that we
- 26 read earlier in relation to the vest: what work was

done? What were the results? Was a report prepared and 1 2 if so, where was it sent? and it continues: 3 "... we don't seem to have anything re the 'Darker Partial Mark' from a MEL perspective. 4 "Hope you can assist." 5 Do you see that? 6 7 A. Yes. 8 Q. And if we scroll further up the chain we saw your name 9 flash across the screen there. This appears to be a reply that you sent on 16 October 2019? 10 11 Α. Yes. 12 To the PIRC saying you received the vest into the MEL: Q. "... with all relevant biology and DNA examinations 13 14 having been carried out, and following Chemistry having 15 examined it for apparent footwear marks. "MEL Exam ..." 16 17 And you go on to detail what an examination involved: 18 19 "An examination of the item using various light 20 sources was carried out by me and gave a negative result 21 for fingerprints. "The item was examined by me using fingerprint 22 powders and the lift LM3 was recovered from the top 23 24 left-hand corner of the 'POLICE' badge on the rear of 25 the vest. This fingerprint lift was subsequently found by the Fingerprint Unit to contain insufficient detail 26

1		for comparison purposes.
2		"The item was then examined by me using powder
3		suspension reagent with a negative result. Of note here
4		I have specifically detailed in our system that I have
5		checked that all Chemistry comparison work between the
6		mark on the"
7		Would that be "outside"?
8	Α.	Yes.
9	Q.	" of the gilet and any submitted footwear had been
10		concluded prior to me treating the item with the
11		reagent. I have noted that such comparisons have been
12		inconclusive and then commenced by powder suspension
13		exam[ination]."
14		So this confirms as per your recollection earlier
15		and also it is confirmed by the joint statement that we
16		now know you prepared in January of last year, that in
17		relation to the police vest, you succeeded in lifting
18		one fingerprint, having had the benefit of using the
19		reagent as well as the light examinations and I think
20		you also said you used powders.
21		"In conclusion, none of the examinations carried out
22		in the MEL generated any further useful detail than LM3
23		from the gilet in general, or specifically from any dark
24		partial marks on it.
25		"Happy to assist"
26		So that's the email that you sent in 2019 confirming

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the extent of the work that the MEL did in relation to the vest.

Now, your email and all of the emails preceding it in this chain that we have looked at focus on fingerprints and there's no mention made in your summary of the work that you carried out the explicitly that I can see about your examination of the mark that the Chemistry department drew to your attention as being a possible footprint. Why is that not expressly recorded in this chain?

Α. I think I have referred elsewhere that I may have implied it too much, but because I would never -because I didn't generate anything positive in relation to the darker mark, it wasn't my area of work, it was Chemistry's area of work, and the additional examinations that I undertook specifically for the dark area were effectively on behalf of Chemistry, so it would be Chemistry that would report out anything that they would have -- that would have resulted from anything that might have been recovered or enhanced during any examination that I undertook. So that's -potentially I could have worded that differently to make it more explicit, but to me because all Chemistry work is complete, that implies that all of the light work that I have done on the vest is also complete and has generated nothing useful.

- 1 Q. All right.
- 2 You said earlier in your evidence when I asked you
- 3 how colleagues in other departments would know that you
- 4 had concluded your work and what your conclusions were
- 5 that this would be uploaded onto your EMS?
- 6 A. Yes.
- 7 Q. Do you have any recollection of speaking by telephone
- 8 with people in the Chemistry department to let them know
- 9 about your examination of the mark?
- 10 A. I very likely did do, but I can't remember the specifics
- 11 of it.
- 12 Q. All right. And you didn't prepare a report or
- a statement back in 2015 --
- 14 A. No.
- 15 Q. -- in connection with this work and the first report you
- 16 prepared was in January 2021 at the request of the PIRC?
- 17 A. If that's the date that's on the joint --
- 18 Q. I have had sight of it. It has not been cleared for
- 19 public disclosure so I'm afraid I can't bring it up on
- 20 the screen to show you today but it is
- 21 dated January 2021?
- 22 A. That's correct then.
- 23 Q. Let me ask you some questions about the knife now, if
- I may, before I conclude your examination.
- 25 You identified the knife earlier in your evidence,
- it was packaged up, but I think Ms Taylor-Smith has

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1 a photograph of it somewhere out of the packaging. 2 (Pause). 3 Do we have that, Ms Taylor-Smith -- sorry, if we don't have it, I can manage without it if it is not 4 readily to hand but I think it's in PIRC 1176365. There 5 6 we are. Could we scroll up a little bit, please, to 7 take it to the picture of the knife in the packaging. 8 Sorry. Probably it will be an earlier image I think. 9 (Pause). It's just the single image that we have? No, that 10 11 will suffice, thank you. 12 Please just take it from me, Ms MacPhie, that this is an image of the knife. I appreciate we don't have 13 14 the preceding images that show the packaging and the 15 label and so on, but is that familiar to you? Do you recognise that as being the knife that you examined? 16 17 Α. Yes. And again, you examined the knife for fingerprints? 18 Q. 19 Α. Yes. 20 Q. And am I right to understand that you managed to lift 21 two marks, or partial marks from the knife? 22 Α. Yes. What techniques did you require to use in order to lift 23 Q. 24 those marks? 25 The initial mark I used, as I recall, black granular Α.

powder, which is a fingerprint powder, which adheres to

- the fluid, the moisture, within the fingerprint that's
- 2 been deposited on the item and I will have labelled that
- 3 as such and photographed it, and sent that to the
- 4 fingerprint unit.
- 5 I additionally used another technique for the
- 6 recovery of a second finger mark. I do apologise,
- 7 I can't recall the technique at this point, but I will
- 8 have mentioned it, detailed it in my statement, or joint
- 9 report.
- 10 Q. All right. The precise detail of the technique that you
- 11 used may not matter, but perhaps we can look at the
- 12 fingerprint report, which is COPFS 113 and if we can
- scroll down, please. So this relates to a death
- 14 following police contact, Hayfield Road, Kirkcaldy.
- There are a number of columns here, we have lift, where
- recovered and outcome?
- 17 A. Yes.
- Q. And do we see there recorded "Lift: LM1"?
- 19 A. That's correct.
- 20 Q. And is LM simply your initials or does it stand for
- 21 something else?
- 22 A. It's a unique identifier using my initials and then a
- 23 sequential number for each of the fingerprints that are
- 24 recovered.
- 25 Q. So anything with LM preceding it would be a lift that
- you recovered?

- 1 A. That's correct.
- 2 Q. So "LM1. Where recovered ... impression on blade of
- 3 knife ([right-hand side] as held) towards top edge and
- 4 approx 3 cm from handle..."
- 5 A. Yes.
- 6 Q. Then we see in the next column "Outcome insufficient".
- 7 A. Yes.
- Q. Can you help us with what that means?
- 9 A. Similarly to the mark that was recovered from the vest,
- 10 when the fingerprint examiners have assessed this mark,
- 11 LM1, they have found there to be insufficient levels of
- 12 detail in it for them to be able to carry out
- 13 a comparison.
- 14 Q. If we scroll down to the next page, please, do we see
- 15 LM2:
- 16 "LM2 impression on blade of knife ... following
- powder suspension ... treatment."
- 18 And again the outcome is "insufficient"?
- 19 A. That's correct.
- 20 Q. And finally lift LM3 which we have talked about before.
- 21 A. Yes.
- Q. "LM3 lift from top left-hand area of 'POLICE' badge on
- rear of vest ..."
- And again "Insufficient"?
- 25 A. Yes.
- Q. Thank you. Finally, earlier in your evidence I asked

- 1 you whether you had been made aware by way of background
- 2 that it was alleged that Mr Bayoh, the man who died
- 3 following police contact, had stamped on Nicole Short's
- 4 back and you said that you were aware of that.
- 5 A. Yes.
- 6 Q. Do you recall where that information came from?
- 7 A. I do not.
- 8 Q. Would that be held anywhere within your papers, do you
- 9 know?
- 10 A. It could -- it would -- I would imagine in the
- 11 explanation areas or description areas of the incident,
- 12 I would imagine within the request form, and any backing
- information that has been sent by the PIRC in relation
- 14 to the examinations, I would surmise it would be in
- 15 there.
- 16 Q. Would you likely have received the same information as
- 17 was sent to your colleagues in Chemistry, or might you
- have received information separately?
- 19 A. This information, as I understand it, all -- will come
- in and then goes onto the system, so everybody has open
- 21 access to be able to look at the system and interrogate
- 22 what work is required and what the background is to the
- event.
- Q. We may hear evidence from your colleagues in Chemistry
- 25 that they were advised that Nicole Short had been kicked
- and punched as opposed to stamped on.

- 1 Α. Okay. 2 And I just wondered whether you were clear in your Q. 3 recollection that you were aware of the allegation of 4 stamping or could it be possible that you were aware of an allegation of kicking and punching? 5 6 I can't recall exactly, but my feeling is that because Α. there was the possibility of a footwear mark that the 7 8 possibility of stamping had been raised or mentioned 9 with me -- to me. Thank you. Can you bear with me just a moment, please. 10 Q. 11 (Pause). You said that you thought the possibility of 12 stamping had been raised with you. Do you recall who 13 14 raised that with you, or who would have raised that with 15 you? I have no idea. I have no recollection of that 16 Α. 17 whatsoever. There will have been -- because of the 18 severity of the incident, there will have been a lot of 19 input and a lot of communications going backwards and forwards between practitioners and departments and 20 I can't recall where I would have heard that from. 21 MS THOMSON: Okay. I have nothing further, thank you. 22
- 24 Any Rule 9 applications? Ms Mitchell. 25 Ms MacPhie, I wonder if you would withdraw to the 26 witness room while I hear a submission.

LORD BRACADALE: Thank you.

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1	(Pause).
2	Yes, Ms Mitchell.
3	Application by MS MITCHELL
4	MS MITCHELL: The issues, briefly, my Lord, relate to the
5	2021 report, and it's in case this is not revisited,
6	just to ask a joint statement of involvement was sought
7	from her, who was it joint with?
8	She also indicated that when she was asked about
9	collating sorry, when she was asked about how it
10	would be known to PIRC that her investigations had ended
11	she said:
12	"I would have generated various types of process
13	reports that the system generates and I would have sent
14	that information to PIRC."
15	And it is to find out whether or not the content of
16	this joint report relates to those process reports and
17	whether or not she was aware of the purpose of the
18	report.
19	LORD BRACADALE: Thank you.
20	Ms Grahame, my sense is that this is a matter that
21	the Inquiry will look at in more detail.
22	MS GRAHAME: Yes. Enquiries are already being made with
23	PIRC in relation to this document. As my learned junior
24	said during the examination, it's not yet although we
25	have a copy, it is not yet possible to have that
26	disclosed on the screen.

1 We could obtain hard copies, but this will be 2 explored in detail at a later stage. 3 Ruling LORD BRACADALE: Yes. I think on that basis, Ms Mitchell, 4 5 we will leave it at this stage. Thank you. 6 If we can have the witness back now, please. 7 (Pause). 8 Ms MacPhie, thank you very much for coming to give 9 evidence to the Inquiry. I'm going to rise briefly to 10 allow the next witness to be introduced and you will 11 then be free to go. A. Okay, thank you. 12 (12.16 pm) 13 14 (Short Break) (12.21 pm) 15 LORD BRACADALE: Now, Ms Grahame. 16 MS GRAHAME: The next witness will be Alison Marven. 17 18 LORD BRACADALE: Good afternoon, Ms Marven. Will you take 19 the oath. You raise your hand and say the words after 20 me. 21 MS ALISON MARVEN (sworn) 22 LORD BRACADALE: Ms Grahame. Questions from MS GRAHAME 23 24 MS GRAHAME: Thank you. 25 Good afternoon. 26 A. Good afternoon.

- 1 Q. You are Alison Marven?
- 2 A. I am.
- 3 Q. What age are you, Ms Marven?
- 4 A. I'm 47.
- 5 Q. And we have all your contact details available to us, so
- 6 I'm not going to ask you to give those details.
- 7 You work at the Scottish Police Authority forensic
- 8 services laboratory.
- 9 A. Yes, that's correct.
- 10 Q. And that's known as the SPA?
- 11 A. Yes, it is.
- 12 Q. And you have a BSC Honours in Forensic and Analytical
- 13 Chemistry?
- 14 A. Yes, that's right.
- Q. And you're working as a forensic scientist with the SPA
- and you have done that since 2002?
- 17 A. Yes.
- 18 Q. And you work in the chemistry and documents team?
- 19 A. That's correct.
- 20 Q. And we have heard brief mention of the chemistry
- 21 department, or the chemistry and documents team. That's
- 22 where you work?
- 23 A. That's where I work.
- Q. Now, I understand you have not watched other evidence in
- 25 the Inquiry, but there's a black folder sitting in front
- of you and please, feel free to look inside. We want to

make sure you've got everything that you might need as

we go through your evidence, so you will see that some

documents are contained there and you can please feel

free to look through any of those documents. Now, when

I bring up a statement, or a paragraph, it will come up

on the screen in front of you.

7 A. Okay.

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- Q. But it will only be the one paragraph or maybe two that
 you can see, so if there's other paragraphs you think
 are important as we go through your evidence today, you
 can please direct me to them and we will bring them up
 on the screen as well.
- 13 A. Okay.
- Q. All right. So let's look at the first one, SBPI 123.

 This is a statement given by you to the Inquiry team and so you should see the hard copy in front of you in the folder and then you will see the first page up on the screen now, and this is a witness statement taken from you by one of the members of the Inquiry team on

 Thursday 7 April this year.
- 21 A. Yes, that's correct.
- Q. Do you see that? And let's look at the last page, paragraph 82, and you will see this paragraph says:
- "I believe the facts stated in this witness

 statement are true. I understand that this statement

 may form part of the evidence before the Inquiry and be

- 1 published on the Inquiry's website."
- 2 And in response to that you have signed every page
- 4 A. Yes, I have.
- 5 Q. Now, you will see on the screen your signature has been
- 6 redacted?
- 7 A. Yes.
- 8 Q. But the hard copy that you have in your black folder
- 9 actually has your signature on it?
- 10 A. Yes, that's correct.
- 11 Q. And that was signed on 18 May this year?
- 12 A. Yes.
- 13 Q. And you were doing your best, as you say there in the
- 14 final paragraph, to tell the truth about your
- involvement with the -- well, the events, if you like,
- of 3 May 2015, and you were involved with the forensic
- analysis of certain items after that event.
- 18 A. Yes, that's correct.
- 19 Q. Thank you. Now, as I understand the position, unlike
- 20 some other witnesses we have had, there's no
- 21 statement -- no PIRC statement, so no statement given by
- 22 you at the request of PIRC; is that correct?
- 23 A. That's correct.
- Q. I just want to check that was right.
- 25 A. Yes. We produced our reports and provided those, but we
- didn't give any other statements as such.

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- Q. Right. So the first statement that you have given about this really is to the Inquiry this year?
- A. It's the first document to be referred to as

 a statement. Like I say, we have produced reports, but

this will be the first statement.

- 6 Thank you. Right. Can I begin by looking at your Q. 7 Inquiry statement. We will come to your report in 8 a moment, but let's begin with your Inquiry statement, 9 paragraph 5, so back to the beginning, please, and we see here -- and you will see it on the screen -- that 10 11 your role in the SPA includes cases which may involve examination of footwear, marks or impressions and does 12 that sum up part of what your role is? 13
 - A. Yes, that's part of my role.
 - Q. And then let's look at paragraph 7 and you say:

"In a marks comparison we're looking at any mark that could be transferred from another item. If a vest or an item of clothing had a footwear or tyre mark on it then those examinations would be included in that description. You're looking at marks, you're looking to see if there is a pattern that you can see, and you're looking to see if it there's anything recognisable on the garment that you could use to do a comparison with something."

So it's a comparison between marks on an item and something else that could have potentially made that

- 1 mark?
- 2 A. Yes, that's correct.
- Q. And that's the comparison work that you're doing?
- 4 A. Yes, it is.
- 5 Q. Thank you. Can we look, please, now at paragraph 13 and
- I think there you just explain that you are involved in
- 7 preparing reports as part of your role and they can be
- 8 prepared by you in combination with different people.
- 9 A. Yes, that's correct.
- 10 Q. So we might hear that you have -- hopefully we will hear
- 11 that you have prepared a report with Shirley Chin who is
- 12 a colleague in the SPA.
- 13 A. Yes.
- 14 Q. Yes, SPA. And you have also prepared a report with
- a Ruth Ramage --
- 16 A. Yes, that's correct.
- Q. -- as well. Can you explain to the people listening why
- there's always two of you?
- 19 A. It's corroboration, so it's independent checks and
- 20 examinations by both people, you come to your own
- 21 decision and conclusion, and we will discuss and see if
- 22 we're in agreement and then it will be reported.
- 23 Q. What if there's disagreement between you and
- 24 a colleague?
- 25 A. We can have -- another member of our team can be asked
- 26 to look at the items and do a sort of third person

- 1 check, then depending on what they said there would be
- 2 a discussion between the three people and you may go
- 3 back to look at the items and you would come to
- 4 an agreement with how it was going to be reported.
- 5 Q. And that might be that subsequent investigation and
- 6 discussion results in complete agreement between the
- 7 three of you, or could it mean that one of you still
- 8 takes a different view?
- 9 A. It's possible that somebody might still take a different
- 10 view, but yes, the people generally would come to
- an agreement. It might be something else is pointed out
- 12 that they have maybe missed the first time, or we would
- take something else into account, but yes, it wouldn't
- 14 be reported unless there was two people in agreement
- with each other.
- 16 Q. But you remain openminded in case there is that
- 17 disagreement?
- 18 A. Yes. It's -- you make up your own mind. It's an
- 19 independent decision and then you discuss it once you
- have agreed it.
- 21 Q. Thank you. And in fact in this case there were only two
- 22 people involved with each report that you are party to?
- 23 A. Yes.
- Q. There wasn't a third person involved?
- 25 A. No, there was no disagreement over the results that we
- 26 wanted to report.

Thank you. Can we look at background information please, so this is paragraphs 14 to 17 of your Inquiry statement. Now, we won't get all of these on the screen in front of you, but please feel free to look at your hard copy. So you talk about being involved -- you were asked to look at a car -- a locus in a car yard and to examine a vehicle, and then you say at 15 you were given some background information at the time:

"... I was given information at the scene ..."

A "quick breakdown". And you mention Sheku Bayoh there and then at 16 you say that you were told there had been an arrest in Hayfield Road and again, you mention the car, and then 17 you say:

"As things progressed, there would have been more information coming through, and that's why we had been asked to look at the vest because I think there was questions over how the arrest had taken place and what procedures were used, but we wouldn't know what an arrest procedure normally was."

And I just wanted to ask you some general questions about that. Where do you get your information from?

A. So the information that we have is provided by the police officers, or whoever is asking us to attend the locus or the scene, so in this instance I was given information -- a phone call came or an email came into the lab to ask for somebody to go and examine a vehicle.

- I was asked to go and examine the vehicle and I was
- 2 given the very vaque information to start with so I know
- 3 what I was going to look at from members of my team and
- 4 then when I attended at the locus the police officers
- 5 there would have given me more information.
- 6 Q. So was that quite soon after 3 May 2015 that you
- 7 personally became involved?
- 8 A. I think I was told on 6 May in the -- late in the
- 9 afternoon that I was to attend on 7 May at the garage,
- so a few days later.
- 11 Q. Thank you. It appears that initially you were asked to
- 12 look at a car, but then you mention, in paragraph 17,
- you were later asked to look at a vest?
- 14 A. Yes, that's correct.
- 15 Q. And do you remember how long after you were asked to
- look at the vest?
- 17 A. I'm not entirely sure. I think it was maybe about
- 18 15 May items started coming into the laboratory, but
- 19 I would have to check back our notes and submission
- forms.
- 21 Q. We will look at these things in a moment.
- 22 So let's look, please, at a report that I understand
- 23 was sent to PIRC on 24 August 2015 and this should be
- COPFS 1114. And if we just move down we will see the
- 25 first page and do you see it is headed "Forensic
- 26 Services. Scottish Police Authority", and the date is

1		24 August 2015, and it is addressed to the officer in
2		charge at PIRC, and it is marked for the attention of
3		DSI William Little, who we understand is one of their
4		investigators?
5	A.	Yes. I don't see the 24th date, but I can see it was
6		received on 31 August
7	Q.	Do you see just under the Forensic
8	A.	Sorry, at the last page, yes.
9	Q.	Do you see just under the "Forensic Services" band, the
10		black band, it says "Date", and it is written
11	Α.	Oh, yes, sorry, yes.
12	Q.	Good, good. So that seems to be the date of this report
13		and then it says:
14		"Dear Sir/Madam,
15		"Examination of articles"
16		And if we move down the page we see:
17		"With reference to the above, I have to inform you
18		that the requested examination has now been completed
19		and I enclose herewith two copies of the report(s)
20		submitted by the Forensic Scientist/s concerned.
21		"Both of these copies are to accompany the police
22		report when it is submitted to the Procurator Fiscal."
23		And then that's been signed by the chemistry and
24		documents team manager. We heard evidence earlier that
25		that was a Kenny Laing, although I see his signature is
26		redacted

- 1 A. No, Kenny Laing wasn't the head --
- Q. Oh, sorry, that's my mistake. He is in MEL, the Mark
- 3 Enhancement --
- 4 A. Yes, he is in the Mark Enhancement Lab. At that time
- 5 the chemistry and documents manager would have been
- 6 a Ruth Ramage, so she may have signed it, obviously it
- is redacted here, but other people who are technically
- 8 competent in those areas can also check the content of
- 9 the report and sign them off.
- 10 Q. And Ruth Ramage is actually one of your colleagues who
- 11 did a report with you?
- 12 A. Yes, that's correct.
- Q. Thank you. And let's just go down a little. We can
- skip over that next page. Then we see here that this is
- a report prepared by Shirley Chin and yourself and you
- 16 give background information at that time:
- 17 "We were informed that on 3 May 2015 an incident
- 18 occurred in Hayfield Road, Kirkcaldy which resulted in
- 19 the death of Sheku Bayoh whilst in police custody.
- 20 A female police officer was also injured during the
- 21 incident. Articles in relation to this incident had
- 22 been submitted to the lab for further examination."
- 23 And so this is the start of the body of your report
- 24 with Shirley Chin?
- 25 A. Yes, that's correct.
- Q. Thank you. Now before we go into that detail can I also

look at paragraph 19 of your Inquiry statement. Now, as 1 2 I go through this, Ms Marven, I plan to look at your 3 statement but also we will look at your report, so we 4 will flip backwards and forwards on the screen between the two, but if I've got the wrong one on the screen at 5 6 any time, please tell me. 7 Α. Okay. 8 So let's look first of all at paragraph 19: Q. 9 "In our report we've just put that a female ... officer was injured during the incident and we were 10 11 asked to examine items in relation to the incident. On 12 page 6 of the report [of] 24 August 2015 ...: 'a female Police Officer was also injured during the incident. 13 14 Articles in relation to this ... have been submitted to 15 the [lab]...'." 16 And that's the point at which we join both the 17 report you have mentioned but that you do go through this in detail in your Inquiry statement as well. 18 19 Α. Yes. 20 Q. Thank you. Can I look at page 6 of your report, please, 21 which is the one we looked at just a moment ago. Sorry, it was PDF 6 rather than the -- thank you. And we 22 23 looked at background information there and can I look at 24 "Examination and results", and you say there: 25 "On 14 May 2015 ... the following articles ... 26 relating to [a particular crime number] were received

from PIRC." 1 2 And you mention: 3 "Knife labelled 'Grass verge - Hayfield Road at its junction with Hendry Road at 07.25 hours 4 5 on [3 May 2015]." 6 Yes, that's correct. Α. And would you look for me, please, at a knife which is 7 Q. 8 in a plastic container and tell me if you recognise that 9 item? Yes, I do. I can see my signature on the label. 10 Α. 11 Q. So that's the knife that you examined for the purposes 12 of this report? 13 Α. Yes. 14 Q. Thank you. And do we see there on your report you say: "The above article was a metal knife with a metal 15 handle, with manufacturer's markings 'House & Home' on 16 17 the blade. The tip of the blade was noted to be broken 18 off and missing. A very small fragment of white 19 material was noted on the blade surface. This was removed for further examination." 20 21 And then did you compare that knife with other knives that were supplied to you? 22 Yes, I did. 23 Α. 24 Q. And I wonder if we could look at those. Again, these 25 should be in plastic containers. 26 (Pause).

- 1 A. Yes.
- 2 Q. Thank you. And were these knives that you used in
- 3 comparison with the other -- the first knife we looked
- 4 at?
- 5 A. Yes, so we were asked to compare these three knives with
- 6 the first knife.
- 7 Q. And these knives were recovered on 4 May 2015 from an
- 8 address in Kirkcaldy?
- 9 A. Yes. They came from an address in Arran Crescent in
- 10 Kirkcaldy.
- 11 Q. Thank you. And you say that the first knife had
- 12 a marking on it "House & Home", and in fact, do those
- 13 knives that you compared it with also have a marking
- "House & Home"?
- 15 A. Yes, that's correct.
- 16 Q. And in fact if we look at a photograph of the first
- 17 knife, PIRC 01176, will we see that marking on the
- 18 blade? And we can see there on the blade the words
- "House & Home"?
- 20 A. Yes.
- 21 Q. That's the marking that you were referring to?
- 22 A. Yes.
- 23 Q. Thank you. And then can I ask you to look at page 8 of
- your report. As I said, sorry, I'm going to be moving
- 25 about different things. We will just give
- Ms Taylor-Smith an opportunity to get onto page 8 of the

- 1 PDF. Of the PDF. Keep going up please, that's it. Do
- 2 we see there at page 8 of the PDF which I see is page 3
- 3 of the actual report --
- 4 A. Yes.
- 5 Q. -- that you were also asked to look at a right boot
- 6 labelled "Side room, A&E, Victoria Hospital Kirkcaldy on
- 7 3rd May 2015 2210 hours", and you were also asked to
- 8 look at a left boot labelled again "Side room, A&E,
- 9 Victoria Hospital Kirkcaldy on 3rd May 2015 at
- 10 2210 hours."
- 11 A. Yes.
- 12 Q. And these are described as "brown Urban Logik boots"?
- 13 A. Yes, that's correct.
- 14 Q. And I wonder if I could -- well, first of all it says:
- "The above two articles were found to form an
- 16 apparent pair and the general characteristics of both
- boots were noted.
- 18 A. Yes.
- 19 Q. But they were kept separate in separate bags?
- A. Yes, that's correct.
- 21 Q. And could you look, please, at the boots -- these boots
- and tell me if you recognise them, please.
- 23 (Pause).
- A. Yes, I can see my signature on the labels.
- 25 Q. So what you see in front of you are the brown boots,
- 26 Urban Logik, that you examined as part of your work.

- 1 A. Yes, that's correct.
- 2 Q. Thank you. And then I also look down page 3 of the
- 3 report, page 8 of the PDF, and we can see that you were
- 4 also asked to look at a vest from PC Nicole Short
- 5 labelled "2.2.3 Kirkcaldy Police Office at
- 6 1808-1812 hours."
- 7 On 3 May 2015 and we have heard evidence that this
- 8 vest was recovered from PC Short between the hours of
- 9 1808 and 1812 that day.
- 10 A. Okay.
- 11 Q. So can I ask you to look at that vest, please. And
- again, tell me if you recognise that.
- 13 A. I can see my signature on the label. It's hard to see
- it through the bag, but yes.
- Q. So what's in that bag is the vest that you examined?
- 16 A. Yes.
- Q. And then can I also ask you to look at another vest,
- 18 this is a demonstration model that we have, in the same
- 19 size, and it might be easier as we go through your
- 20 evidence to use this because you can touch this, it's
- 21 not contained within the bag, so ... and does that look
- 22 like the type of vest that is contained in that bag we
- just looked at?
- A. Yes, it's a black padded vest with a hi-vis piece over
- 25 the top.
- Q. Thank you. And in fact, do you say on -- looking again

1 at your report which is on the screen, do we see that: 2 "The above article was a black padded police vest ..." 3 We have heard it described by some witnesses as body 4 5 armour. 6 Α. Okay. 7 "... with an outer high visibility vest attached." Q. 8 Can you tell us how is it attached? 9 There's Velcro straps over the top and it's zipped up, Α. so -- yes, it might be when we had it that the Velcro 10 11 was adhering to the black vest underneath. 12 Thank you: Q. "Areas of discolouration or light markings were 13 14 noted on the black padded vest, particularly on the 15 front left pocket, front right pocket and near the neck line." 16 17 Now, I'm interested, would you be able to show us, using the demonstration model, where those areas of 18 19 discolouration or light markings were noted and feel 20 free to unzip the hi-vis because this says "Areas of 21 discolouration or light markings were noted on the black padded vest". So front left pocket? 22 So this would be the front left pocket, it would be 23 Α. 24 around this area (indicating). 25 So that would be the left of someone who was wearing the Q. 26 vest?

- 1 A. Yes.
- Q. Rather than as I look at it now?
- 3 A. Yes.
- 4 Q. Thank you. And do you remember where those marks were,
- 5 or --
- A. No, not off the top of my head, I just know they were in
- 7 that area. We could see them before we opened the
- 8 pocket, I think, so they were obviously on the exterior
- 9 part of the black vest.
- 10 Q. And then you said front right pocket?
- 11 A. So it would be this vest (inaudible overspeaking)
- 12 (indicating) --
- 13 Q. Again, right as someone is wearing it?
- 14 A. Yes.
- Q. And near the neck line?
- 16 A. So that would be up -- sorry, it's -- it would be up
- 17 round this area (indicating), round here.
- 18 Q. Right. So again as someone is wearing that, round the
- 19 front of the area closest to their neck?
- 20 A. Yes.
- 21 Q. Thank you. And then "a darker partial mark was also
- 22 noted on the high visibility vest before the police
- 23 marking", and again, using the demonstration vest you
- have in your hands, can you show us where the darker
- 25 partial mark was?
- A. So it's on the rear of the vest.

- Q. And that's the high visibility vest?
- 2 A. The high visibility vest.
- 3 Q. Below the police marking?
- 4 A. Yes, so anything here would be below the police marking
- 5 for us, so it was in this area because there was part on
- 6 the different materials of the hi-vis stripes.
- 7 Q. So just looking at that vest now at the rear, as we look
- 8 at it, there's the police badge in the centre --
- 9 A. Yes.
- 10 Q. -- then there appear to be two horizontal maybe
- 11 fluorescent strips, silver-coloured?
- 12 A. Yes.
- 13 Q. One underneath the armpits and one more closer to the
- 14 waist area?
- 15 A. Yes.
- Q. So the first strip is under the armpits and the second
- 17 closer to the waist area?
- 18 A. Yes.
- 19 Q. And then in addition to that there are two sort of
- 20 semi-vertical strips at a slight angle and the police
- 21 badge is over those.
- 22 A. Yes.
- Q. Thank you. And the mark was on the back of the yellow
- 24 vest?
- 25 A. Yes, it was on the back of the yellow vest.
- 26 Q. Thank you. And perhaps we could look at a photograph of

- this just to confirm the mark. Sorry, Ms Smith, I think
- 2 it's ... it is PIRC 1176 and I think it's 48 or 50 --
- 3 here we are. Is that photograph 48?
- 4 So can we see a picture? Would this have been the
- 5 picture of the vest you actually examined?
- A. Yes, that's the vest we actually examined.
- 7 Q. And can you see the label on the left-hand side of this
- 8 picture saying it is a vest and it mentions Nicole Short
- 9 and Kirkcaldy Police Office and gives the time,
- 10 1808-1812, and the date, 3 May 2015?
- 11 A. Yes, I can.
- 12 Q. And is that mark that we see below the police badge, to
- 13 the right maybe near the right arm hole, that's the mark
- that you examined?
- 15 A. Yes. Yes. All the mark that would be in this area, the
- darker part towards here, but the whole -- the whole
- mark.
- 18 Q. Thank you very much. Lovely.
- 19 Can we go back to your report please, sorry, which
- 20 was page 3 or page 8 of the PDF. Sorry, I think this is
- 21 the wrong one, it's COPFS 00114. And we will look at
- page 3 of the report. That's lovely. Sorry, can you go
- up slightly. That's page 2. So can we go down to
- page 3, that's perfect, lovely, and just at the very end
- of that page we mentioned a moment -- keep going,
- 26 please. Thank you. So we're looking at the vest that

- we have just discussed and then it says there: 1 2 "The padded vest and high visibility vest were 3 examined under different lighting conditions, however, no further details were noted." 4 5 So you have spoken there of the padded vest, the 6 black vest, and the high visibility vest. What did 7 you -- what did you do with the different lighting 8 conditions? Can you tell us a little bit more about 9 that? So we have a piece of equipment called the VSC which is 10 Α. 11 the visual spectral comparator and it has different 12 light sources available to us. You can put items within the chamber and subject them to different forms of 13 14 light, so there would be UV light and infrared light and 15 you can change the wavelengths that you look at. Sometimes it helps people see the marks that are there 16 17 but it just changes the contrast between the mark and the background, so it depends on the material it's on 18 whether you get a better result or not. 19 20 Q. So it can enhance what can be seen by the naked eye, 21 which may have limitations? Yes, it can do. 22 Α. Thank you. And those examinations -- that examination 23 Q. 24 and those different lighting techniques were used by you 25 as part of your work?
 - Α.

Yes.

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1 Q. Thank you. And then you say:

2 "The partial mark on the high visibility vest was 3 found to have insufficient detail for a meaningful comparison to be carried out."

> And I'm interested in what you mean by this, so let's look at the different phrases "partial mark", first of all; can you explain to those listening what you mean by that?

So because we're looking for a footwear mark, or a mark Α. that may have been made by the sole of a shoe, or part of a shoe, we are looking for the pattern, an overall pattern that would look like a footwear mark to us. If we don't have a full footwear mark then it would be described as a partial mark. It can also be that the pattern elements within the sole pattern are not full, so, for example, I think later on I have mentioned that there's a possible triangle shape on it, but when you have something like fabric it can be -- it's moveable, so you can have contact between an item and the vest and it might look like a square, but once the mark has -the vest has been opened up, for example, you have a gap down the middle, so you can't be sure that it's definitely that. It might be that there's poorly defined edges and you don't know whether the shape is really a full square and you have only got part of the

element that's there so --

- 1 Q. And that's because material can move, it could fold or
- 2 crinkle or --
- 3 A. Yes, that's part of it, yes.
- 4 Q. Thank you. And you say there:
- 5 "This article was forwarded to the Mark Enhancement
- 6 Laboratory for further examination."
- 7 And we have heard that they are called MEL?
- 8 A. Yes, MEL, we would refer to them, but Mark Enhancement
- 9 Lab.
- 10 Q. Thank you and we have heard from a Laura MacPhie who
- 11 works at the Mark Enhancement Lab; is that someone
- 12 you're familiar with?
- 13 A. Yes, it is.
- Q. Do you liaise with the Mark Enhancement Lab in relation
- to certain items that you're examining?
- 16 A. Yes. We work closely with various different sections of
- 17 the laboratory and the Mark Enhancement Lab is one of
- 18 the people that we would send items down to be looked at
- and we may get them back again.
- 20 Q. So the SPA has a number of different departments under
- 21 the umbrella of SPA and you would liaise with different
- departments in it?
- 23 A. Yes, depending on what examination types and what the
- case type was.
- 25 Q. And depending -- you will send some items to different
- departments, depending on what's most appropriate for

- 1 further tests?
- 2 A. Yes, that's right.
- 3 Q. Thank you. Can I ask you -- we have spoken about you
- 4 looking at some boots a moment ago.
- 5 A. Yes.
- Q. Can I ask you to look at two boots, please -- did I ask
- 7 you to do that earlier? No. They're still there.
- 8 Great, thank you. Can I ask you to look at your
- 9 conclusion now. So this is on page 4 of the report and
- 10 it says:
- "The knife ... was examined and compared with the
- 12 knives in 'knife 1' [2 and 3] ... when they were found
- 13 to be similar in general appearance and similar markings
- 14 to each other. In our opinion, the knife [that's knife
- 15 1] could have come from the same set as the knives [the
- three knives] ... or any other set of knives with
- 17 similar appearance and markings."
- 18 And when you say that, is that the House & Home
- markings that you mentioned earlier?
- 20 A. Yes, it is.
- 21 Q. That's the particular markings?
- 22 A. Yes.
- Q. So it's the manufacturer's marking?
- 24 A. Yes.
- 25 Q. And you found that on all of those knives?
- A. We did.

- 1 Q. And that was the knife found in Hayfield Road and the
- 2 knives taken from the address in Arran Crescent in
- 3 Kirkcaldy?
- 4 A. Correct.
- 5 Q. Thank you. And why were you only able to say it could
- 6 have come from the same set of knives, or any other set
- 7 of knives with similar appearance and markings, and why
- 8 don't you just say they are the same knives?
- 9 A. Because there will be more than one set of knives
- 10 available in the world that will have those markings on
- 11 them and we don't know how many of those sets of knives
- 12 there are, so it could have come from that set because
- they were all different sizes and shapes of blade, but
- 14 similar general appearance, that they looked like they
- 15 could be a set, but there's no guarantee that they have
- 16 come from the same actual set.
- 17 Q. So in your job is it important not to leap to
- 18 conclusions when other knives and sets like that could
- 19 exist elsewhere?
- 20 A. Yes.
- Q. And why is that important?
- 22 A. It's important because you don't want to give evidence
- that's misleading, or information that's misleading. It
- 24 might put an inquiry going in a completely wrong
- 25 direction and it's possible that the knife came from
- 26 that set, but it's also possible that it could have come

1 from somewhere else.

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Q. So is it something you want to be careful about in your job, not going too far and drawing conclusions that

might be later proved wrong?

- I think we would always be careful with our wording when 5 Α. 6 we choose to report it, to try and put across what our 7 actual findings are because sometimes when it's written 8 it's -- it can be interpreted slightly differently if 9 people have read it, so we try to avoid all that and we 10 try to be as open and honest as we can be and we're not 11 biased in any way, so it could have come from there, but 12 it could also have come from somewhere else so we would give the options that were available. We don't make one 13 14 decision and close it off if there's another option 15 that's there.
- Q. So it would be a matter for someone else to draw any

 conclusions about whether that knife found in

 Hayfield Road was actually part of the set taken from

 Arran Crescent?
- A. Yes. There might be other departments that could look
 at DNA or fingerprints, for example, that might help add
 in with the information that we can provide, so it's not
 just for us to decide.
- Q. Thank you. And then you do mention looking at the paint sample, but I'm not going to go over any of that with you today.

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Can I also look at page 16 of your Inquiry 1 2 statement, so that's 123, page -- sorry, paragraph 31, 3 and you refer there to: "Shirley's written the first lot of notes and then 4 I've added bits in, which is just my own observations, 5 6 and I think that's because there wasn't an awful lot there but I wanted to record what was seen." 7 8 Yes. Α. 9 And can I ask you to look at page 16, PDF page 16, so it Q. will be at the end of the report, COPFS 114. 10 11 (Pause). 12 There we are. I thought I had got the wrong number. 13 It's been known. 14 We see some handwritten notes there, and we see the 15 names Shirley Chin and Alison Marven and it says "Chemist" or chemistry perhaps? 16 "Chemists", I think. 17 Α. And whose writing is this? 18 Q. I don't know. I don't recognise that writing. 19 Α. 20 Q. Oh, right, you don't. It's not your writing then? No, it's not mine and actually my name is not spelled 21 Α. correctly, so it's definitely not my writing. 22 Right. Could it be Shirley Chin's writing? 23 Q. 24 Α. I have seen Shirley Chin's writing and that doesn't look 25 like Shirley Chin's writing to me. I'm not an expert in

handwriting but I have worked with Shirley quite a lot

- 1 and that, to me, doesn't look like her writing.
- 2 Q. So this is perhaps not either of your notes then if it's
- 3 not your writing. Do you know whose notes these are?
- A. No, I don't. That doesn't look like notes I have ever
- 5 seen before.
- 6 Q. Right, okay. Well, we will just remove that from the
- 7 screen.
- 8 Let's go back to paragraph 31 of your Inquiry
- 9 statement and we were just talking there about Shirley
- 10 writing the first lot of notes and you adding in your
- own observations. Tell us just about the notes and how
- they are prepared?
- 13 A. Okay. When we're in the laboratory examining an item we
- take the general label details down and we will write
- what the packaging is and all the sort of markings that
- 16 are on the labels, so that we can identify the item.
- We will then open the item and we will take general
- 18 notes on the actual item, so say it's the vest, we would
- 19 take notes on the vest and if one person might be
- 20 writing them, sometimes we look at things together,
- 21 sometimes we do it separately, one person will write the
- 22 notes, the second person will maybe check the garment
- and then check the notes and see if there's anything
- additional they want to add. For example, when we
- looked at the vest and in relation to this paragraph,
- that's because it was the GER, which is the general

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examination form, the general examination record, that 1 2 Shirley has written the first part of the general notes 3 and then when we have gone on to do the additional work under the other light sources that I have just added 4 little bits in because I wanted to remind myself of what 5 6 I had seen. 7 Q. So it's a joint effort to combine those notes as you go 8 through the process of working and examining items? 9 Yes. Both people have to be happy with the notes that Α. are on the record because we're both signing them and 10 11 both writing the report afterwards. 12 MS GRAHAME: Thank you. Now, I'm going to move on, but I notice that it's nearly lunchtime. 13 14 LORD BRACADALE: We will stop for lunch and sit again at 2 o'clock. 15 16 (1.01 pm)17 (The luncheon adjournment) 18 (2.01 pm)LORD BRACADALE: Yes, Ms Grahame. 19 20 MS GRAHAME: Thank you. Can we look again at your Inquiry 21 statement, please. I'm going to look at two paragraphs. 22 We will just put them on the screen briefly. One is 23 paragraph 18 and one is paragraph 81, so let's look at 24 18, first of all, and you knew that a police officer had 25 been injured and part of your instruction mentioned

Nicole Short's body armour to be examined for a possible

- 1 footprint, and the footprint was to be compared with the
- 2 deceased's footwear which was seized at Victoria Royal
- 3 Infirmary in Kirkcaldy at the time of the recovery of
- 4 the body, and that's the boots that we looked at before
- 5 lunch.
- 6 A. Yes.
- 7 Q. And then paragraph 81, do we see you say:
- 8 "To clarify I can see in the background information
- 9 that we had, there was something about punching. 'Bayoh
- 10 allegedly punched and kicked one of the officers ... on
- 11 the head and body. A struggle then ensued between
- 12 police officers and Sheku Bayoh'. We're looking to see
- if there was anything from her clothing and his shoes to
- 14 show that his shoes had made contact with her vest."
- So that's really the aim of what you're trying to
- 16 do?
- 17 A. Yes.
- 18 Q. And the background information that you had at that
- 19 time, when you carried out your examination, was of
- a kick not a stamp?
- 21 A. Yes, that's the information there's come directly from
- the submission form that we had.
- 23 Q. So -- and who prepares that submission form?
- A. That was a PIRC submission form.
- 25 Q. So PIRC prepare a submission form, that comes into your
- 26 system, is it -- is it on the system?

- 1 A. Yes, it's submitted to the laboratory with the
- 2 productions or the items that they want looked at, so
- 3 they have to bring a submission form with the items.
- 4 Q. And does that give you the background, or the background
- 5 that you're provided with --
- 6 A. Yes.
- 7 Q. -- to assist you with your examination?
- 8 A. Yes.
- 9 Q. You didn't have any other additional information, did
- 10 you, about the circumstances at the time you did your
- 11 examination?
- 12 A. I had the information that I had been provided with at
- the vehicle, that I had been to examine, and then
- 14 basically we're going from the submission forms that we
- had. I think one of my other colleagues had attended
- 16 a strategy meeting early on where it was discussed what
- 17 items were to come in, but that would just have the same
- information as we were provided with.
- 19 Q. And that was my fault, I should have been clear: the
- 20 information you had, but that was in relation to the
- 21 vest?
- 22 A. Yes.
- 23 Q. Rather than other information about a vehicle?
- 24 A. Yes.
- 25 Q. Can we look at paragraph 20 please of your Inquiry
- 26 statement. I think you talk about receiving an

- instruction from DSI William Little from PIRC and it is
- 2 PIRC paperwork that we have and that's submitted on
- 3 14 May 2015. I think before lunch you said you thought
- 4 it was about the 14th?
- 5 A. Yes, 14th or 15th.
- 6 Q. And you were given a number of items and you have listed
- 7 them there in paragraph 20 for the Chair to consider,
- 8 and again, you detail there that the information you
- 9 have was -- you will see sort of halfway down -- just
- 10 below halfway down the screen that:
- "... Bayoh allegedly punched and kicked one of the
- officers ... on the head and body."
- 13 A. Yes.
- 14 Q. Thank you. And again, there's no mention in that set of
- instructions about a stamp being alleged?
- 16 A. No.
- 17 Q. If you had been told, when you were doing your
- 18 examination in May, that a stamp was alleged, or more
- 19 than one stamp had allegedly occurred, would that have
- 20 made any difference to the work that you were doing?
- 21 A. No, we were looking at the vest to look and see if there
- 22 was any footwear marks on it, so if they have been there
- from being kicked or being stood on or being stamped on,
- if we had seen a footwear mark there we would have
- examined it.
- Q. Can we look at paragraph 23, please. And I think you

- say here that prior to your examination the item, the
- 2 vest, had gone to Biology. Is that a separate
- 3 department in the SPA?
- 4 A. Yes, it is.
- 5 Q. And why did it go there first?
- A. I don't know. I'm assuming that they're looking for DNA
- 7 or biological material. Maybe it was blood pattern
- 8 examination. We don't particularly look at what they're
- 9 asked to do, we just know that they had the vest first.
- 10 Q. And can we look at PIRC 01176, please. Now, I think
- 11 this is photographs that were taken. Am I right in
- 12 saying that these photographs were actually taken by the
- biology lab, or by -- as part of their examination, or
- am I wrong in that?
- 15 A. I don't see any photographs just now so ...
- 16 Q. Sorry. If we can start with photograph 18. You will
- 17 see that ... yes, so some of these contain the knives
- 18 that we have looked at earlier and some contain the
- 19 boots. We will go through these in a moment. And some
- 20 contain photographs of the vest. If we can go to 18.
- Is it just doing it automatically? 18, please, of this.
- 22 If it's not working, it's fine, we will leave it. It
- seems to be glitching for some reason.
- 24 A. Okay.
- 25 Q. So there were photographs taken. There are 55
- 26 photographs in this item and some of them contain

photographs?

- photographs of the boots and some of them contain

 photographs of the knives and some of them contain

 photographs of the vest. You maybe saw some of them

 scrolling past very quickly there. Who took those
- A. Well, very quickly as it scrolled past I saw the

 initials "RES" which is Robert Smith, which is a scene

 examiner for SPA, and I know that we did have him take

 photos of some of the items. Whether those are all his

 photos or not, I don't know, but Robert Smith certainly
- Q. We will maybe try again and see if we can get it to work this time. If not, we will leave that.

photographed some items for us.

- So in the absence of those photos, can I ask you

 I have looked through those photos and there don't

 appear to be any photographs of the soles of the boots

 that we looked at before lunch.
- 18 A. Okay.

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- Q. And I know that you examined the soles of the boots.

 Was there a reason there was no photograph taken of the soles?
- A. No, I don't think so. I think these photographs were

 potentially taken before we had the items because I saw

 a radio or something there, which we didn't have

 submitted to the lab, so if all these photos were taken

 at the one time, that's before we saw them. But we take

- lifts from the soles of the shoes, so we're actually
 doing a comparison with the lift that we take directly
 from the shoe soles ourselves.
- 4 Q. Rather than photographs?
- 5 A. Rather than photographs.

- Q. So if we look at paragraph 41 of your Inquiry statement, and this actually explains to the Chair that you do take lifts from the soles of the shoes that you were examining and you took copies of those and put them onto acetate sheets:
- "... so that they're see-through but the pattern's there, and we would overlay that acetate onto a mark."
- 13 And if you're doing a comparison:
- "... we might have a photograph or a gel lift on an item of clothing, and we would use that acetate to compare against any mark that we saw on those items."
 - Would you explain to the Chair what you mean by the process that you're describing?
 - A. Okay. So when we have the shoe soles we dust them with powder and then we have a sticky piece of plastic, an acetate sheet, that we put against the sole of the shoe, and when we peel it off it's left with the pattern that's present on the sole of the shoe.
 - We then put another piece of acetate sheet over the top of it to cover up the sticky surface which means we are able to touch both sides of the lift from the

- 1 pattern of the soles and we can use that by -- if we
- 2 have a mark here, for example, we can overlay it and we
- 3 can manipulate the acetate sheet round to see if we can
- 4 have any correlation between the shoe pattern and the
- 5 mark on the item.
- 6 Q. Thank you. And would you look for me, please, at some
- 7 acetates. SPA 24 and 25, please.
- 8 This is SPA 24, it says "Right boot acetate", so is
- 9 this the acetate that you took from the right boot that
- we looked at before lunch?
- 11 A. Yes, this is the acetate from the right boot.
- 12 Q. And then SPA 25 should be the acetate that we looked --
- 13 the acetate that you took from the left boot?
- 14 A. Yes, this is the one that was taken from the left boot.
- 15 Q. Can we go back to the right boot, please, 24. Now, if
- 16 we scroll down the page we can see the full mark from
- 17 the sole of the boot.
- 18 A. Yes.
- 19 Q. And I wonder if you could just describe to the Chair
- 20 what markings or areas that you can identify yourself
- 21 and describe those for us?
- 22 A. We have different shape blocks on the sole of the shoe.
- 23 We have at the centre of the sole and in the centre of
- 24 the heel you have what we would describe as double
- 25 triangles, it's two triangle shapes with the bases
- towards each other, and round the edges there are just

- 1 various shaped blocks that we would be looking at and in
- 2 the recess between the sole and the heel you can just
- 3 make it out that it says "Urban Logik".
- 4 Q. In the centre?
- 5 A. Yes, in the centre.
- 6 Q. And can we look at the other, number 25. And, again, if
- 7 we can see that. And actually, do we see the "Urban
- 8 Logik" a little more clearly?
- 9 A. It's a little more clear in this image.
- 10 Q. It's reversed?
- 11 A. Yes.
- 12 Q. So if someone was leaving a mark on an item it would
- 13 come out the correct way round, presumably, if you were
- standing on earth or something soft?
- 15 A. Yes, you would see it, yes.
- 16 Q. You would see the actual --
- 17 A. You would see it the way -- the shape of the foot -- so
- 18 yes, if the item was stood on by a left foot, that is
- 19 the shape that we would see there, as if you're looking
- through the sole of your foot.
- 21 Q. Right, thank you. And again, do we see these double
- 22 triangle -- triangular shapes on that sole?
- 23 A. Yes, we do.
- Q. Thank you. And then can we look at SPA 23, 00023, and
- if we can look at the top of that, do we see this is
- 26 headed "Footwear examination record", and the

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description of the item is given as "Right boot", and
taken from Victoria Hospital, and then if we go down and
it says "Upper general condition", "Good", "Damage to
upper", "None", "Dirty" it says and general description
of right boot is there. When it says "None - dirty" can

you explain what that meant?

trapped stones, small cuts."

- A. Yes, so I have noted that the boot was dirty, so there
 would be dirt or soil potentially on the surface, they
 don't look clean, freshly polished, but there was no
 damage to them like cuts or big scuffs or holes in them,
 for example.
- 12 Q. Thank you. Then "sole/heel unit. Damage":
 13 "Very worn in places, original pattern in others,

What does that mean?

16 So when we look at the sole of the shoe, the blocks Α. 17 had -- the edge blocks had -- some parts of it looked quite smooth and some part looked almost stippled so the 18 19 stippling would be what we would say would be the 20 original pattern and the other part has been worn flat. 21 There's obviously little bits of stone trapped within the tread elements and the small cuts are -- when we're 22 23 doing a footwear comparison you can look at the pattern 24 and the size and the layout of the pattern elements on 25 the shoe and depending on the surface that you're 26 looking at, for example, if it was on this wooden bench,

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you might have fine detail which would be the small, 1 2 unique damage features or small features of damage 3 within that. Generally you don't see those on fabric 4 because of the texture and the background substrate. And if you had found dirt or mud or earth of some 5 Q. 6 description on the sole, is that the area of the report 7 you would have noted it? 8 We would have written that in the heel damage unit area, Α. 9 yes. So in the absence of anything like that can we -- can 10 Q. 11 the Chair assume that you did not find dirt or mud or 12 earth? 13 Yes. If we would have found big sort of pieces of mud Α. trapped in then that would have been noted at that 14 15 point, yes. 16 And of equally -- although I'm talking about dirt, if Q. 17 there was another substance present on the sole is that 18 the area where you would have noted that, if it had 19 existed? 20 Α. Yes. 21 Thank you. Can we go down, please, and you say: Q. "Sole/heel unit. Pattern description." 22 23 And you mention the double triangles and the 24 Urban Logik logo and carry on, please, and then we see:

"Bag contains one brown boot and a plastic bag

containing a piece of folded brown paper (from

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1 biology/DNA exam)." 2 And then can we go down on to the next page and we 3 see this is the left boot that's been examined? 4 Yes. Α. And again, if we go further down, we see the "upper 5 Q. 6 general condition": 7 "Damage to upper: none. dirty." 8 So the same as the right boot? 9 Α. Yes. And then the "sole/heel unit. Damage": 10 Q. 11 "Very worn in places. Original pattern in others. Trapped stones, small cuts." 12 13 Again, that seems to be the same as the previous --14 the other boot? 15 Yes, that's correct. Α. 16 And does the position -- the position will be the same Q. 17 regarding anything else? If you had found it on the sole, you would have noted it there? 18 19 Yes. Α. 20 Q. And is this your writing? 21 It is my writing, yes. Α. So these are your notes? 22 Q. 23 Α. Yes. 24 Q. Good. Then can we go down, please, further, stop 25 please. On the left-hand side it says "Sole/heel unit

wear", and it says "Heavy". "Wear distribution: ball,

- outer, subsole ..." 2 I'm not sure what the next word says? It says "Viewable", sorry.
- 4 "Viewable at one point"? Q.
- 5 Α. Yes.

Α.

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- Thank you. And is that an area that could have been 6 Q. 7 noticeable if a mark had been made?
- 8 Yes, or you would see the wear, potentially, on the item Α. that a footwear mark had transferred onto. 9
- So you're looking for all these areas which might be 10 Q. 11 unique features on these soles?
- 12 Yes, and we're looking at the overall pattern as well, Α. but part of what we're looking for is features within 13 14 that specific shoe.
- 15 Thank you. Then carry on, please, going further down, Q. 16 and then we see again reference to the bag that it came 17 within and then go further down, please, and the date is 14 August -- is that 2015 and then -- sorry, "Examined 18 19 by" and it is redacted, 14 August, and then another 20 "Examined by" and that's 19 August, so is that when you and Ms Chin examined these items? 21
- That is when we have signed off our final notes for that 22 Α. 23 page. The examination will have taken part -- place 24 between when the items were submitted and all the way 25 through and that's when we have done our final sign off 26 of all the sheets.

Thank you very much. I wonder if we could look at 1 2 paragraphs 37 and 38 of your Inquiry statement, please. 3 And you have said here, we're back to thinking about the vest here: 4 "We don't have a photo of the mark in the file. 5 6 Looking at the soles of the shoe, there's different 7 pattern elements within that. There are small triangles 8 and there's slightly different shaped blocks." 9 Was that the areas around the outside of the sole? 10 Α. Yes. 11 And can we look at SPA 28, please? And if we go to the Q. 12 top, please, it says "General examination record", and this relates to Nicole Short's vest, is that correct? 13 14 Yes, that's correct. Α. 15 Whose writing is this? Q. 16 This is Shirley Chin's writing. Α. 17 Q. This is her writing. And this relates to the vest and if we could go down, please, there's mention of the vest 18 and then you will see it says: 19 20 "Front left black pocket of vest has light coloured markings on surface - could be dirt rubbed on surface? 21 Or part of a mark? Pocket contained latex gloves. 22 23 "Front right black vest pocket has similar 24 discolouration/staining on surface. Empty pocket. 25 "Light coloured staining noted near neck 26 line/shoulder area of vest - possibly make up?

- Transcript of the Sheku Bayoh Inquiry "Areas of dark staining noted on the back of the 1 2 hi vis [something] ..."? 3 Α. "Layer", sorry, that's Shirley's writing, it's "Layer". "Police badge". And then it's a different pen, is this 4 Q. 5 your writing then? 6 Yes, this is my writing now. Α. And you described before lunch how you combine --7 Q. 8 sometimes Ms Chin will write things in the notes and 9 sometimes you, depending on what you see? 10 Α. Yes. 11 So this is an example of something you wrote to Q. 12 yourself? Yes. 13 Α. 14 Q. And it says: 15 "Marks on the jacket possibly included a triangle.
- "Marks on the jacket possibly included a triangle.

 Possible that this is one of the elements from the shoes

 of the deceased but there is really insufficient

 detail/resolution of marks for any meaningful

19 comparison."

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Can I ask you what did you mean when you wrote that?

A. When I looked at the vest, there was the darker area of staining. Because there was nothing identifiable as a full footwear mark, I'm just trying to give myself an indication of what I'm seeing on the vest, and there was one area that I considered that could potentially have been a triangle. We know that there was triangles on

- 1 the sole of the shoe because we have the shoes and it
- 2 was to say that -- to show that we have considered that
- 3 there are potentially a triangle on the vest,
- 4 potentially triangles on the shoes and whether those
- 5 triangles on the shoes could have been responsible for
- 6 the one on the vest, so we're just showing that we
- 7 looked at it and it's to indicate sometimes that marks
- 8 on an item, they're quite nondescript and you can't
- 9 really put a proper description of what their shape is.
- This one, it was a potential triangle, and it was just
- 11 to show that we had actually considered all the pieces
- 12 that we could see.
- 13 Q. So possibly included a triangle and you have referred to
- triangles on the soles of the boots?
- 15 A. Yes.
- 16 Q. So you have considered that as a possibility?
- 17 A. We did.
- 18 Q. But having considered that as a possibility, you have
- 19 said there was insufficient detail or resolution to --
- of the marks for any meaningful comparison?
- 21 A. Yes.
- Q. What's a meaningful comparison?
- 23 A. So for one pattern element, just a triangle, it's not
- 24 a unique shape. To say that the triangle was from
- a certain item, if you have only got one pattern
- 26 element, that would be quite misleading if you haven't

1 got any of the other pattern elements round about.

There's obviously differences in the substrate with

how a mark will be made onto an item, it might be curved

it, it might be flat, the different textures of the

material, so for a meaningful comparison there's nothing

more meaningful other than one has a triangle and the

other one also has a triangle. You're not saying --

- 8 it's not a specific, unique shape.
- 9 Q. If you were looking for a meaningful comparison --
- 10 A. Yes.
- 11 Q. -- how much additional information would you be looking
 12 for?
- 13 It really depends on the substrate that the mark is on Α. 14 and what the pattern of the shoes are. It's very 15 case-specific, but you would need to have more than just 16 one pattern element, unless you had lots of very fine 17 detail within it that made it unique to that shoe, but even still, I think you wouldn't want to say that it was 18 from that shoe with just one pattern -- one pattern 19 20 element, and obviously with this one, the resolution and 21 detail within that mark wasn't brilliant itself so we couldn't even say whether the mark on the vest had been 22 a triangle to start with, or whether -- like I explained 23 24 earlier -- the folds in the material, we didn't know we 25 were definitely seeing all the edges, so we wouldn't 26 have linked that.

- 1 Q. All right, thank you. Can we look -- I wonder if we can
- 2 look at some photos of the vest again if that's going to
- 3 be possible. So they were 1176, photos 47 to 50, but
- 4 let's see if we can get those to come up on the screen.
- 5 Lovely. And they would be right at the very end, 47 to
- 6 50. That's lovely, that's great, thank you.
- 7 Let's stick with that. Would you be able to explain
- 8 to the Chair, when you said "Possible triangle", what
- 9 area of the mark you're referring to?
- 10 A. On this image with the two horizontal stripes on the
- 11 vest running vertically, it would be the area to the
- 12 right of that, so closer towards the police badge, but
- 13 the very sort of end mark -- there's three very quite
- 14 dark marks down at the bottom.
- 15 Q. Let me just check, we do have a facility for some of the
- 16 things that we show on the screen to circle things with
- 17 a red circle, but I don't know if that's something
- 18 that's going to be possible -- right. We have
- 19 a facility on the screen --
- 20 A. Okay.
- 21 Q. -- you can touch the screen and a red circle will appear
- 22 and if you want to move it around you can put your
- finger in it and move it, so try that now and then if it
- doesn't work we can take it away and you can try again.
- 25 A. Sort of here (indicating).
- Q. Okay. So maybe we could have a bigger circle, I think,

- 1 because the "1" sort of covers quite a large part of the
- 2 circle. Let's take those away and let's try and get
- 3 a bigger red circle, if that's possible.
- 4 A. How do I make it bigger?
- 5 Q. If you don't touch it for the minute, we will wait for
- 6 Ms Smith to set that up --
- 7 A. Oh, sorry.
- Q. -- and then we will get the nod from her. Right, let's
- 9 try this. It should give you a bigger circle now.
- 10 Lovely. So that's the dark marks where you thought
- 11 possible triangle?
- 12 A. Yes, it's the bit closest to the centre that would be
- the possible triangle shape.
- 14 Q. Is that the sort of larger of the marks that we see
- there, if I could describe it that way?
- 16 A. Yes, the kind of bit that's pointier towards the top.
- 17 Q. So that is the part that is the possible triangle?
- 18 A. Yes.
- 19 Q. And can we go back and look at the acetate, please,
- 20 which was 00024, SPA 00024. This would be the acetate
- 21 from the right boot and that's the triangles that we see
- on -- from the acetate.
- 23 A. Yes.
- Q. And again, can we go back just very briefly to that last
- 25 photograph and that was 1176, and it would be
- 26 photograph -- perhaps photograph 48. So that's the mark

- 1 on the vest --
- 2 A. Yes.
- 3 Q. -- which was a possible triangle. And your view was
- 4 that there was insufficient to connect the sole or the
- 5 shoe -- or the shoes, and the mark on the vest?
- 6 A. Yes. If you look at the part that I have described as
- 7 the possible triangle shape, you will see that there's
- 8 two sides, but the base part isn't a fully straight
- 9 line, so that's why we couldn't even be sure that it was
- definitely a triangle to start with and that's why it's
- 11 a possible triangle shape and that there was
- insufficient for a comparison with an item.
- Q. So the triangles on the soles of the boots from the
- acetate have a definite, defined line at the bottom?
- 15 A. Yes, they do.
- 16 Q. And that does not have a defined line at the bottom?
- 17 A. Yes.
- 18 Q. Thank you. Looking at that photograph, can I ask you
- 19 about something else: do you see if someone was wearing
- 20 that vest where the right arm would be, so we see just
- 21 lying on the table there, we see inside the hem, if you
- 22 like, inside the right arm area --
- 23 A. Yes.
- 24 Q. -- and it appears from this photograph that there are
- some darker marks there, do you see those?
- 26 A. I do see some small markings there, yes.

- 1 Q. Did you examine inside the vest as well as outside?
- 2 A. Yes, because we had to unzip it to put it in our VSC
- 3 equipment, so we would have had it and looked at both
- 4 sides.
- 5 Q. Was there anything inside the vest, or inside that area
- in the right arm area, that was of any significance?
- 7 A. Not to my memory, no.
- 8 Q. Could you tell if it was the same type of mark inside as
- 9 well as outside?
- 10 A. I don't remember, sorry.
- 11 Q. Could you form any view about whether the substance of
- 12 the mark, so the composition of the mark was the same
- inside as out?
- 14 A. I'm sorry, I don't really remember the mark inside,
- other than I can see a little bit of it there but
- 16 because we were looking for footwear marks and patterns,
- that's what we were mainly looking for.
- 18 Q. Thank you. And can you perhaps use the demonstration
- 19 model of the vest to show us the area on the vest where
- 20 that mark, or those marks appear to be inside, so it
- appears to be on the right-hand side.
- 22 A. So here would be where the possible triangle shape would
- 23 be and the darker marks that are showing in the
- 24 photograph look like they're a little bit perhaps on the
- inside of here, this bit.
- Q. The sort of seamed hem area?

- 1 A. The seamed hem area. And maybe a little bit on this
- 2 (indicating).
- 3 Q. You have described earlier -- sorry, you can put that
- 4 down please.
- 5 You described earlier how you would take your
- 6 acetate, you could touch both sides of it --
- 7 A. Yes.
- 8 Q. -- and you would match it up when you were doing your
- 9 comparison?
- 10 A. Yes, we would overlay it.
- 11 Q. You would overlay it, and you would match up and see if
- 12 the acetate marks matched up with the marks you could
- see on the vest?
- 14 A. Yes, we would --
- 15 Q. And did you carry out that comparison process?
- 16 A. Yes.
- 17 Q. And did the acetate marks that you -- or the marks you
- 18 could see on the acetate from the soles match the marks
- that could be seen on the vest?
- 20 A. No. We found that there was insufficient detail there
- 21 for us to orientate the footwear mark from the soles of
- 22 the shoe with the marks that we were finding on there
- and that's why there was insufficient for a meaningful
- comparison. We couldn't orientate it in any way.
- Q. Thank you. Can we look at your Inquiry statement again
- please, just for a moment, paragraphs 48 to 51. So we

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will start with 48. You were shown some photographs of 1 2 the vest by the Inquiry team and you say: "... there's a curved bit towards the armhole area, 3 and slightly towards the most right-hand side of that." 4 And you talk about a possible triangle, and then you 5 6 say at 49: 7 "There are three dark patches in a row, and then there are two lines. The left one's a line, the middle 8 9 one's a top to bottom line, and the third one looks like a capital A." 10 11 Is that the area that you have just pointed out to 12 us on the photographs? Yes, it was quite difficult to describe over -- the way 13 Α. 14 the statement was taken when -- in different locations 15 and people couldn't point to things very easily, but 16 yes. 17 Q. No, that's fine. But the area we just looked at in the 18 photographs, where we were talking about a possible 19 triangle --20 Α. Yes. 21 -- would that be the capital A area? Q. Yes, that's right. 22 Α. Thank you. And then paragraphs 50 and 51, you 23 Q. 24 mention -- sorry, 50, first of all, you mention the 25 triangle:

"... a tiny little bit of a mark on the reflective

- 1 strip. You've kind of got the triangle 'A' shape. Then
- 2 just to the left, there's a line. Then there's a line
- 3 that's almost down to the right. It's, kind of, in a
- 4 curve of the armhole. Not quite parallel but it almost
- 5 follows that shape."
- 6 And then at 51 you say:
- 7 "That's why we would have put it under different
- 8 light sources to see if we could see anything else
- 9 coming up, because it's on the different fabric type.
- 10 So we'd have looked at different things, but we didn't
- get any extra marks coming up. I mean, that could be
- 12 oil or from anything. Somebody could've lent against an
- oily hinge or an oily pool, or it's just dirty dark
- 14 marks."
- And so you did go to the effort of putting it under
- different light sources to see if you could get any more
- 17 detail from it?
- 18 A. Yes, we did.
- 19 Q. But none of that was successful?
- 20 A. No, we didn't see any more detail coming up when we
- 21 looked at the vest under the different light sources.
- 22 Q. So really what can be seen on the vest by the naked eye
- is really what can be seen on the vest?
- 24 A. Yes.
- 25 Q. There's nothing hidden from the naked eye?
- 26 A. Not with the light sources that we looked at and that's

- 1 why we forwarded the vest to the Mark Enhancement Lab
- 2 because they have different techniques that they can
- 3 use.
- 4 Q. And we have heard about some of those different
- 5 techniques earlier today and is it your understanding
- 6 that the Mark Enhancement Lab carried out some further
- 7 tests?
- 8 A. Yes, it is.
- 9 Q. And did you receive a phone call at some stage for them
- 10 to confirm that those had been done and nothing further
- 11 to help you was found?
- 12 A. Yes. I think there was a phone call between Chemistry
- and the Mark Enhancement Lab and I believe there's
- 14 actually an email where it's confirmed with Laura asking
- if we needed the vest back, or could it be put out and
- they were finished with the vest because nothing else
- 17 had shown up.
- 18 Q. And although there's no more in your report about the
- 19 work done by MEL, is that because nothing was found?
- 20 A. That's because that would be up to MEL to report their
- 21 own work and their own examinations. If something had
- shown up then the mark would have been photographed to
- scale and we could have used that photograph to do
- further comparison work with, but we wouldn't report on
- 25 their activities doon there, we would be doing the
- 26 comparison with the mark that was generated -- the

- photograph that would be generated after their
 examination.
- Q. So if MEL had come up with something, found something in addition, a different process would have been followed, but in the end, nothing was found and that was the end of your examination?
- A. Yes. If MEL had found any additional markings, it would have been photographed to scale and we would have had the photograph to do a comparison with the shoes that we had.
 - Q. And that would have been further work done by you?
- 12 A. That would have been by myself and Shirley, yes.
- Q. Thank you. Can I look at paragraph 30 of your Inquiry statement, please, and you say there:

"It's a little bit difficult to describe the comparison process using this case because there was no obvious footwear mark that needed a comparison done between it and the footwear. Although there wasn't really any obvious comparison to take place we would both have still looked at the vest to see if we thought there was anything there."

And we have heard evidence, obviously, in this

Inquiry from some witnesses who thought the mark was
a footwear mark and you have obviously said here there
was no obvious footwear mark. Can you explain to us,
from your perspective what does an obvious footwear mark

- 1 look like?
- 2 A. So an obvious footwear mark could be one where you could
- 3 maybe see the shape of the shoe, the obvious sort of
- 4 right or left, or you would be able to see a pattern
- 5 that you could see the footwear pattern elements within
- 6 them.
- 7 Q. So like we see on the acetate?
- 8 A. Yes, like you see on the acetate.
- 9 Q. Right. Thank you. Can I ask you about paragraphs 37
- and 38 of your Inquiry statement, please. This covers
- 11 the shape of the mark and you talk there about the
- 12 triangles. 38:
- "When we have looked at the outer layer of the vest,
- there's obviously been a slightly darker mark, which may
- or may not have been a triangle shape, so a possible
- 16 triangle shape. Sometimes if it's just one element or
- 17 shape on its own, from what I'm reading there, 'possibly
- 18 included a triangle'. Sometimes you get marks on an
- 19 item of clothing that's flexible material because
- there's folds in the fabric when the mark has been made.
- 21 So there might be a scuff, but when it's straightened
- 22 out, you see it straightened out, you get a gap down the
- 23 middle between the edges of it. It might look like
- a triangle at that shape but it wasn't a triangle when
- 25 the mark was made."
- 26 Can I ask you about some of the things you say here.

- 1 You have talked about material being flexible.
- 2 A. Yes.
- 3 Q. Can you tell us what your views are about the type of
- 4 material that the vest is made from. Is that what you
- 5 would call flexible material?
- A. Yes, it's quite easy to manipulate and change the
- 7 direction that the fabric is sitting in.
- 8 Q. And does that have an impact on the marks that could be
- 9 left if something is transferred onto it?
- 10 A. Yes, because some of the material could be bunched up
- 11 when an item comes in contact with it, so if we then get
- the vest to look at where the fabric is straightened
- out, you don't -- it's not always easy to see that it's
- 14 a footwear mark because it's changed from the original
- orientation and layout of how the fabric was.
- 16 Q. So the movement of the material can impact on the way
- a shape transfers onto that item?
- 18 A. Yes, it can, or how it is viewed afterwards certainly.
- 19 Q. How it is viewed after. And you mention a scuff. Now,
- 20 obviously I have asked you about a stamp and I have
- asked you about a kick; what's a scuff?
- 22 A. Just a sort of glancing mark if two items come into
- 23 contact with each other, sort of briefly, then you might
- 24 be left with a scuff. If you scuff your shoe, or --
- 25 you know, you've got a slight transfer there.
- 26 Q. And if it's a scuff does that make it harder to see

- 1 a defined shape, or a defined area?
- 2 A. Yes, because it's not the same as looking at the sole
- 3 pattern where you've got distinctive pattern elements.
- It would depend very much on what shape the item that
- 5 has come into contact to leave that transfer behind is.
- Q. And when you're thinking about a stamp, a kick or
- 7 a scuff, does one of those mechanisms provide better
- 8 quality footprint marks?
- 9 A. It very much depends on the surface that the mark is
- going to be made on, but anything with a sort of full
- 11 contact with the sole pattern, whether -- as I say, it
- depends on what your fabric that you're going onto is,
- whether it's a wood or whether it's a glass --
- 14 Q. Assume it's a vest like that.
- 15 A. -- a vest like this, it would depend on how dirty the
- soles were and -- yes, you might -- you might get better
- 17 transfer from a scuff because it's from a different part
- 18 of a shoe potentially, but then it's not as easy to do
- 19 a comparison with because you have not got the shape
- 20 that you're looking for, so we're looking for contact of
- 21 the footwear with -- it might be a mark you sometimes
- see from the sides of the shoe, so you could get the
- 23 profile of the sole and you might be able to take a lift
- from the side of the shoe to compare against that, but
- 25 we didn't see anything in this case that we could link
- anything back to.

- 1 Q. If we have heard -- well, we have heard evidence about
- 2 a stamp or more than one stamp onto the back of the
- 3 officer who was wearing a vest like that, that's a demo
- 4 vest, in the lower back or the kidney area --
- 5 A. Okay.
- 6 Q. -- and you -- you gestured there with your hands and
- 7 I don't know if the Chair was able to see that because
- 8 you've got a screen in front of you.
- 9 A. Sorry.
- 10 Q. But you had your hand flat out and then you moved your
- 11 hand flat on top, so if there was a stamp by a person
- 12 wearing a shoe onto the back of that vest, is that the
- 13 type of mechanism that could provide a mark -- a
- 14 footprint mark onto that vest if the shoe or sole was
- dirty or had some substance on it?
- 16 A. Yes, that's a possible way that a footwear mark could be
- 17 transferred onto a vest from a shoe.
- 18 Q. Thank you. If there was no substance on the sole, no
- 19 dirt or oil or anything of that nature on the sole,
- 20 could that shoe still transfer a dirty mark, or a mark
- like the one we saw on the vest?
- 22 A. You would have -- if you had contact between the sole of
- 23 the shoe and the vest, obviously there could be slight
- 24 residue from the rubber or whatever the sole is made
- 25 from onto the vest, but it might not leave a visible
- 26 mark, and I wouldn't expect a dark mark to be visible on

- 1 the item of clothing if there had been nothing dark on
- 2 the surface that's coming into contact with it, so if
- 3 the shoe soles had been quite clean and there was no
- dirty dark marks on it, I wouldn't expect a dirty dark
- 5 mark to be left on the vest from the soles.
- Q. Now, we looked at your notes of the soles of the Urban
- 7 Logik boots.
- 8 A. Yes.
- 9 Q. And we looked at the area and I had said to you at the
- 10 time is that where you would note dirt or earth or
- another type of substance and there wasn't anything like
- that in your notes?
- 13 A. No.
- 14 Q. We discussed that. So if we assume boots in the
- 15 condition that you saw them, like the Urban Logik boots,
- would you expect anything to be transferred onto a vest
- 17 like that?
- 18 A. From the soles of the shoe, as we saw them, I didn't see
- 19 anything that I thought would necessarily have made
- 20 a dark mark on the vest, but obviously things may have
- 21 been removed from the soles of the shoe before we got
- them and that's why we are using the different lighting
- 23 techniques as well to see if there's any other marks
- there that isn't visible to the naked eye and we would
- use the different light sources for that.
- Q. And you wouldn't be in a position to speak to whether

- things had been removed from the soles; you're talking
 about the examination and the state they are when you
- 3 see them yourself in your laboratory?
- 4 A. Yes.
- 5 Q. Right. Is there -- can I look at paragraph 40, please.
- 6 And you say:
- 7 "In our notes we haven't noted the size ..."
- 8 But I had noted in your report UK size 10?
- 9 A. Yes, so when we were talking in the statement -- when we
- 10 were talking about the size here, we're talking about
- 11 the size of the triangle as opposed to the size of the
- shoe.
- 13 Q. Oh, I see. Right, sorry:
- "But we have just said there's really insufficient
- detail to even know that it is a mark from the shoes.
- 16 It's just that there's a possibility of a triangle
- 17 that's there, but we would have looked with the overlay
- 18 at the time but because there wasn't enough to do
- 19 a proper comparison with, because there's insufficient
- 20 detail in there, we wouldn't be able to relate that
- definitively back to the shoe."
- 22 Apart from the triangle, were there any other
- 23 similarities that you identified between the shoes that
- you had to look at and the vest?
- 25 A. No, the only mark that we saw that was a possibility was
- the triangle and that's why we noted it in our

- examination notes, but it wasn't put into the report
- 2 because we felt that would be misleading to say that
- 3 there was a possible shape there. That's really just
- for our own detail that it's there. It's an
- 5 insufficient mark for comparison purposes.
- 6 Q. So it didn't make its way into your final report that we
- 7 looked at earlier?
- 8 A. No.
- 9 Q. And were there any inconsistencies between the soles of
- 10 the shoes that you examined and the mark that you
- 11 examined on the vest?
- 12 A. Other than we didn't really think there was a mark there
- that was worthy of doing a comparison with, so you have
- 14 obviously mentioned that the dark marks on the vest,
- that we didn't see anything particularly dark on the
- surface of the shoes, but, yes, we're -- it's easier to
- 17 look at a link between a shoe and a mark than to show
- 18 that there's not a link -- if you know what I mean --
- 19 between a shoe and a random mark, a non-definitive mark.
- 20 Q. Easier to identify the one area where there was the
- 21 possible triangle --
- 22 A. Yes.
- 23 Q. -- rather than look at all the other --
- 24 A. Yes, but we didn't see anything where we thought that we
- 25 could try and get a correlation between the shoe sole
- and the mark.

Q. Thank you. Can I ask you to look at paragraph 43,
 please. You talk about the footwear mark and you say:

"... if a full footwear sole has been in contact with a surface it could be unusual to get to only get one pattern element present. We've got a possible triangle but there was nothing else of the pattern of

7 the shoe soles roundabout it."

And then at -- so that's 43, the word "Unusual" appears, and then in 44 you talk about:

"So it's just a kind of random bit that may or may not have been a triangle ..."

And I wonder if you could just explain to the Chair what you mean when you say "Unusual" and "A kind of random bit", to give us a -- sort of in context.

A. Okay, so when we're looking for a footwear mark -- and this was part of -- although it's under the section on the shape of the mark, some of the comments within it are to do with a general examination of marks and items and not just specifically the mark on this vest, so when we're looking for a transfer between a shoe sole and an item, if there has been a full contact -- contact with the full sole against the item, depending on what the substance the item is made of is, it may be unusual to only get one pattern element and not have anything else show up. If somebody, for example, stood on this table and the table was dusted, I wouldn't expect to only see

- 1 one part -- if the full sole has come into contact with
- 2 the table, I wouldn't only expect to see one part of the
- 3 mark, or one pattern element there. I would maybe
- 4 expect to see more. You might not have the full mark,
- 5 but you would expect to see more than just one piece.
- 6 Obviously it depends on the shape, if there's
- 7 a curvature of the item that's been touched, maybe only
- 8 part of the item does come into contact with the sole of
- 9 the shoe, but for full sole contact it -- you might
- 10 expect to see more than one, but again, it might depend
- on what's on the sole of the shoe, or if there's been
- something on the vest that's -- initially that's reacted
- 13 with something that the sole has come into contact with.
- 14 Q. And when you're saying a full sole contact, again,
- 15 you're talking about the surface of the table and you're
- moving your hand flat down onto the table?
- 17 A. Yes.
- 18 Q. So is that akin to a stamp?
- 19 A. That could be considered similar, or a step, it depends
- 20 how much force is put onto it whether it would be
- 21 a stamp or a step but --
- 22 Q. And would it -- if there was more force used, would that
- 23 make it more likely to see more of the full sole, or the
- full footprint?
- 25 A. I think it would depend on what your surface you were
- looking at was, but yes, I would expect if there was

- a greater force and stronger contact between them,
- 2 there's -- potentially you might see more of a mark left
- from the item that's been in contact.
- 4 Q. Thank you. Can I ask you -- you have told us about
- 5 receiving the information from PIRC.
- 6 A. Yes.
- 7 Q. Were you ever asked whether you could do further tests
- 8 on this mark, on the composition of the material -- the
- 9 composition of the substance that the mark -- the dark
- 10 mark was made from?
- 11 A. No, we weren't asked specifically about that. I think
- in one of the submission forms -- and I think it's
- mentioned in the statement somewhere, that they were
- 14 looking for a forensic link between the footwear and the
- vest if there was one, but for us, that question that
- 16 they were asking at that point was really to look at the
- footwear mark comparison.
- 18 Q. So that's not something that you did to look at the
- 19 substance?
- 20 A. No, that's not something that we did.
- 21 Q. Were you ever asked by the Crown to look at the
- 22 substance of the mark?
- 23 A. No, the only submission forms we had came from PIRC.
- Q. And that was to look at the footprint or the possible
- 25 footprint?
- 26 A. Yes.

process, you say:

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- And can I ask you, have you any views -- if we look at 1 2 paragraph 53, first of all. You're talking about 3 accelerants analysis, so this is a different part of the
- "... it would have needed to have been in a knotted 5 nylon bag ..." 6

7 Now, you told us already it was a brown bag:

> "... but I don't think that would necessarily have even helped anyway, because, if it had been oil, you might have just got a hydrocarbon mixture and we would have needed something to compare against. We didn't have a comparison item of dark staining to make that. But no, I think we were just asked to look to see if the boots could have made that mark. We were looking at the footwear comparison part of it."

So you didn't find oil on the soles of the boots?

- Α. No, we didn't notice any oil on the soles of the boots.
- So there was no question of you doing that accelerants Q. analysis part, or examination? 19
 - Α. No, and for the accelerants analysis, the items need to have been within knotted nylon bags because you're looking at the atmosphere within the bag. You're looking at the hydrocarbon ranges that are within the bag, so they have to be airtight and items that are packaged in brown paper bags are not suitable for examination of that type.

- 1 Q. Do you have any views yourself, from your own
- 2 experience, of what made that mark, what type of
- 3 substance it was?
- A. To me it just looked like a dark, potentially oily
- 5 stain, dark grease perhaps, but we didn't particularly
- 6 look far into it. It didn't look like soil to me, it
- just looked like a dark, dirty mark.
- 8 Q. Thank you. And some witnesses suggested they thought it
- 9 might be dirt. Can I ask you to look at paragraph 55,
- 10 which is at the bottom of this screen and you said:
- "I have been asked if I could take samples from the
- sole of the boot and compare it against the mark on the
- vest."
- 14 I think you were asked that by the Inquiry team?
- 15 A. Yes.
- Q. "We don't do soil examination or comparison here within
- 17 SPA, so that would have to be somebody else if they were
- 18 looking at soil comparison. The mark on the vest didn't
- 19 look like soil to us. It looks darker than the soil
- that we're seeing on the footwear there in the
- 21 photograph."
- What did you mean by that?
- 23 A. So at this point of the discussion I was shown
- 24 a photograph of the pair of shoes in the -- by the
- 25 Inquiry team, and you could see what looked like, as
- described previously, dirty on the uppers of the shoes,

- 1 you could see some kind of what looked like soil there
- 2 and it looked completely different in colour from the
- 3 mark that we could see on the vest.
- 4 Q. I wonder if it would be possible to see some photographs
- of the boots from 1176.
- 6 (Pause).
- 7 While we wait to see if we can get those photographs
- 8 can I ask, we have been talking exclusively about the
- 9 boots that were taken from Mr Bayoh in
- 10 Victoria Hospital?
- 11 A. Yes.
- 12 Q. Were you given any other shoes or boots or footwear from
- officers who had been at Hayfield Road?
- A. No, we weren't.
- Q. So there's -- can I just clarify, have you ever carried
- 16 out a comparison between those items of footwear and the
- 17 vest?
- 18 A. No, we haven't. We only had the boots from Mr Bayoh
- 19 submitted, so no boots from anywhere else, or sole
- patterns.
- 21 Q. Thank you. Just like magic, we have some photographs
- 22 here of boots from 1176. Let's go through those and see
- if we can find the one that you were referring to in
- 24 paragraph 55 of your statement. So we see some of these
- 25 Urban Logik logo-ed boots and perhaps if we stick to
- this photograph, we can see some marks on the upper --

- 1 leather upper area of the boot?
- 2 A. Yes.
- 3 Q. Is that the type of mark that you were referring to?
- A. Yes. It was quite light coloured looking dirt, totally
- 5 different from the dark colour that we thought we could
- see -- well, we could see on the vest.
- 7 Q. On the vest. And then we may -- if we look through some
- 8 of the others ... I think that's another photograph of
- 9 the same upper, but I may be wrong, but again, the marks
- 10 we see there on the leather upper area, is that the type
- of dirty mark that you had noted in your report --
- 12 A. Yes.
- 13 Q. -- in your handwritten notes. And again, would you say
- 14 they were lighter than the mark you could see on your
- 15 vest?
- 16 A. Yes, I would.
- 17 Q. Thank you. Can I ask you to -- can I ask to go back to
- 18 your Inquiry statement, please, and 56 and 57. This
- 19 relates to the conclusions in your report. So:
- 20 "Shirley has put in the notes that there were areas
- of dark staining noted on the back ..."
- This is about the vest and then:
- "... when we have been looking at the vest, when we
- have had it back out to look [at it] under the VSC,
- 25 Shirley's maybe been doing the manipulation of the
- garment so I have added to the notes."

- 1 That's the notes where there became the blue pen and
- that was your handwriting?
- 3 A. That's correct, yes.
- 4 Q. And you both signed those notes:
- 5 "If Shirley didn't agree that there was possible shapes there then she wouldn't have signed the notes."
- A. Yes, she would have written a comment beneath what I had written and she would have signed it at that point.
- 9 Q. So if there had been any disagreement or dispute between
 10 you and Ms Chin, that would have been noted in the
 11 notes?
- 12 A. Yes.
- Q. Thank you. And it's not there?
- 14 A. It's not there.
- 15 Q. Thank you. And then 57, please:
- "Basically, in the notes, we have said that there's 16 17 a possible triangle. Possible it could be an element from the shoes, but there's really insufficient detail 18 19 or resolution of the mark for a meaningful comparison. 20 So, because we deemed that there was not enough for 21 a meaningful comparison, we thought it would be misleading to say that there is a triangle there because 22 it may or may not be a triangle and it's not a complete 23 24 triangle. So that's why we wouldn't have added that in. 25 But that's not unusual. In other footwear cases, we 26 might see fragmentary marks or little bits here and

- there, but if it's not enough to do a comparison with,
- we would say there was insufficient for a meaningful
- 3 comparison."
- 4 And really this is confirming why it didn't appear
- 5 in your report?
- 6 A. Yes.
- 7 Q. Thank you. Can I also confirm you have mentioned --
- I won't go through all the paragraphs -- you have
- 9 mentioned the items that went to MEL?
- 10 A. Yes.
- 11 Q. And that included the knives?
- 12 A. Yes, I believe so.
- Q. And the vest?
- 14 A. Yes.
- Q. But the boots didn't go to MEL?
- 16 A. No, no. MEL wouldn't have required the boots because
- 17 they were looking at the vest under different lighting
- 18 conditions with their equipment to see if they could
- 19 visualise any other part of the mark. They wouldn't be
- 20 involved in the comparison aspect, so they wouldn't need
- 21 the boots. They're looking at the vest and what they
- 22 can actually see with their different light sources.
- 23 Q. Thank you. Can I ask you -- before I move on to the
- 24 knives, can I ask you to look at Ms Chin's Inquiry
- 25 statement which is SBPI 00122. I know you haven't seen
- 26 this before and it's not in your folder.

- 1 A. Okay.
- 2 Q. It's just one paragraph, paragraph 41, and I would just
- 3 like to ask you something about that. So this is
- 4 Ms Chin's Inquiry statement and it is paragraph 41 that
- 5 I'm keen to look at, please, and I will just read this
- 6 out, it says:
- 7 "With regards to the mark on the vest, no meaningful
- 8 comparison could be made between the partial mark and
- 9 the boots. Since the mark noted was partial, which
- 10 possibly comprised of two sides in a 'triangular shape',
- and it was on its own (as a standalone, single entity)
- 12 with no other pattern elements in its vicinity, no
- 13 meaningful comparison could be carried out. The mark
- 14 could have been made by anything."
- Do you understand what's being said there by
- 16 Ms Chin?
- 17 A. Yes.
- 18 Q. And is that consistent actually with what you said
- 19 earlier about the different shapes?
- 20 A. Yes, I think so. She is saying there that there's the
- 21 triangle shape, but there isn't very much information
- 22 roundabout it to help us with identifying whether it
- 23 came from the sole of the shoe and it could actually
- have been made by anything, or in any way.
- 25 Q. When it says the mark could have been made by anything,
- does that mean it could have also been made by these

- 1 boots?
- 2 A. Yes. I mean that's a possibility, that it could have
- 3 been made by those boots but we didn't have enough to do
- 4 a proper comparison to link it or not.
- 5 Q. So it could have been made by anything including
- 6 somebody else's boots?
- 7 A. Yes, that's a possibility.
- 8 Q. Thank you. Can I move on to the knives, please. We
- 9 looked at the knives earlier --
- 10 A. Yes.
- 11 Q. -- and I showed you those and could we look briefly at
- 12 the report you prepared with Ms Ramage, which is
- 13 COPFS 113. This says "Fingerprint case examination
- 14 results", and if you could go further down, please --
- 15 A. This is not something that Ruth and I did. This looks
- like Laura MacPhie's.
- 17 Q. I can see that. Well, let me just ask you, you did
- 18 prepare a report with Ms Ramage about the knives?
- 19 A. I did, yes.
- 20 Q. And we have spoken about those earlier today before
- 21 lunch.
- 22 A. Yes.
- 23 Q. And I think you commented on the House & Home marked on
- the blade and we've got some references in your Inquiry
- 25 statement to that.
- 26 A. Yes. So the comparison of the knives with each other

1		was in a report by myself and Shirley Chin. Ruth Ramage
2		and myself looked at casts from the vehicle, alongside
3		the knife, so there's a different report for that.
4	Q.	Right. I don't need to go into that with you today.
5		Finally, can I just return to your Inquiry statement
6		please, PIRC request 71 to 73, paragraphs 71 to 73, and
7		you will see PIRC requests are mentioned here:
8		"I have been asked if I have been contacted by PIRC
9		or the Crown for a statement in this case.
10		Certainly not recently. We were asked to do work for
11		them I think in 2015 because I think that's who our
12		reports went to.
13		"And then we had an email either during the pandemic
14		or just before telling us anything in emails or any
15		digital files that we had, that we weren't to delete
16		anything and it was all to be kept. But we haven't been
17		asked, I don't think, for a statement from them other
18		than the reports that we produced. We usually do a NSS,
19		which is a National Standard Statement, but that's
20		basically just the one that's attached onto the emails
21		that you send with the reports.
22		"The NSS statement is just basically saying 'we were
23		asked to do these things and we have done a report, it's
24		got this lab number on it and it was signed with
25		whoever'."
26		And I just wanted to confirm with you that you have

- done your report and provided that to PIRC or
- 2 the Crown --
- 3 A. Yes.
- $\mathsf{Q}.$ -- but no one ever came back and asked you for a more
- 5 detailed statement?
- 6 A. No, the statement that I was asked to do for this
- 7 Inquiry, by the Inquiry team, was the first time we have
- been asked for a statement. That's -- I have not been
- 9 involved with a public inquiry before, but for the
- 10 normal work that we do where we do comparison work and
- 11 produce reports for the requesting body, whether it
- 12 would be the police or PIRC, then we would provide the
- reports to them, but I don't think we have ever been
- 14 asked for anything other than those reports.
- Q. So it's not out of the norm, it's not unusual not to be
- asked for a statement?
- 17 A. No, in fact I would say it's more the other way, that it
- 18 would be more unusual to be asked for a statement than
- 19 not asked for a statement.
- 20 MS GRAHAME: Could you just give me a moment, please?
- 21 A. Yes.
- 22 (Pause).
- 23 MS GRAHAME: Thank you, that completes my examination.
- LORD BRACADALE: Any Rule 9 applications? No.
- 25 Ms Marven, thank you very much for coming to give
- evidence to the Inquiry. I shall be rising in a moment

1	and then you will be free to go.
2	A. Thank you.
3	LORD BRACADALE: Now, Ms Grahame, is there any further
4	evidence today?
5	MS GRAHAME: No, there will be no further evidence today.
6	LORD BRACADALE: Thank you. Very well, we will rise now and
7	sit again on Tuesday morning at 10 o'clock.
8	(3.07 pm)
9	(The Inquiry adjourned until 10.00 am on
10	Tuesday, 21 June 2022)
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