COMMISSION OF INQUIRY
INTO FORENSIC DNA TESTING IN QUEENSLAND

Court 17, Brisbane Magistrates Court
363 George Street, Brisbane

On Friday, 26 August 2022 at 9.30am

Before: The Hon Walter Sofronoff QC, Commissioner

Counsel Assisting: Mr Michael Hodge QC
Ms Laura Reece
Mr Joshua Jones
Ms Susan Hedge

THE COMMISSIONER: Mr Hodge?

MR M HODGE QC: Commissioner, I appear with Ms Reece, Mr Jones and Ms Hedge as counsel assisting.

THE COMMISSIONER: Thank you. Now, there are some applications for leave to appear. Mr Rice?

MR G R RICE QC: Thank you, Commissioner. If it please the Commission, Rice, initials G R. I appear with my learned friends Mr Dollar and Ms Dawson, instructed by the Crown Solicitor. We are seeking leave to appear at the Commission of Inquiry on behalf of the State of Queensland, acting through the applicable department, which is Queensland Health, within which, as the Commissioner would know, Forensic and Scientific Services resides administratively.

We have delivered submissions to the Commission on 19 August, as requested by the practice direction. We rely on those. Unless there is anything further, Commissioner?

THE COMMISSIONER: Thank you. You have leave.

MR RICE: Thank you.

THE COMMISSIONER: Yes. Mr Hunter?

MR J R HUNTER QC: May it please the Commission, Hunter, initials J R. I appear with my learned friend Ms Cartledge, initials S J. We are instructed by the Commissioner of Police and we seek leave to appear.

THE COMMISSIONER: You have leave, Mr Hunter.

MR M T HICKEY: May it please the Commission, Hickey, initials M T. I am instructed by McCullough Robertson. I appear for Catherine Allen, who is the managing scientist at the Queensland Health Forensic and Scientific Services, and Justin Howes, who is the team leader of the same organisation. There was an application made in writing yesterday, Commissioner, late by reference to the practice guideline. That is as a consequence, as is set out --

THE COMMISSIONER: It does not matter, Mr Hickey. You have leave. Anyone else?

Yes, Mr Hodge.

MR HODGE: Commissioner, I was just going to say something relatively brief in opening.

THE COMMISSIONER: Yes.

MR HODGE: Under your terms of reference you are tasked with determining whether the collection, testing, processing and analysis of DNA samples in Queensland has been conducted in accordance with international best practice both now and in the past, and, if it is not, or if it has not been the case, then your terms of reference require you to consider why that is so.

In Queensland, DNA testing for criminal investigations is carried out by the Forensic and Scientific Services laboratory which is part of Queensland Health. There is a close relationship between the laboratory and the Queensland Police Service: the lab is partly funded by an allocation from Queensland Health and partly funded by the QPS. The lab and the QPS share a database called the forensic register. In most cases, QPS collects the samples that are processed by the lab.

As you know, at the time of your appointment, on 10 June 2022, three issues had arisen in public within the preceding 12 months about DNA testing in Queensland.

The first issue of public concern was in relation to the DNA evidence that was used in the investigation of the murder of Shandee Blackburn in Mackay in February 2013. This issue had come to public attention last year as part of Hedley Thomas's podcast, published by The Australian. Mr Thomas had interviewed Dr Kirsty Wright, who raised questions about the processing of DNA samples by the Queensland lab in that particular case.

The second issue that has received significant attention this year is about whether a particular threshold that had been adopted in 2018 for the testing of DNA samples by the laboratory was appropriate. That issue emerged in public as part of a submission made by the QPS to the Women's Safety and Justice Taskforce.

I will say a little bit more, later, about that threshold but it was adopted in 2018 and it meant that DNA

samples with low levels of DNA, after what is referred to as initial quantitation - quantitation being the measuring of the quantity of DNA in a sample - would not be further tested by the lab unless the Queensland Police Service or a forensic scientist at the lab specifically requested it.

In addition, such samples were reported as having insufficient DNA for further processing and again I will say something more, shortly, about the process by which that threshold was introduced.

But for the moment, just in understanding the public issue, it is sufficient to say that the statistics presented by the laboratory to QPS in 2018 were that around 10 per cent of the samples with DNA at this low level would, if tested further, result in a DNA profile which could then be used to compare to a sample of a known person, but then around only 1.5 per cent of samples could, if tested further, result in the making of a previously unknown link to somebody on the national DNA database.

What happened after 2018 was that in 2021 the QPS requested retesting of many samples in this range, and in their submission to the Women's Safety and Justice Taskforce for discussion paper number 3, the QPS reported that the overall success rate of obtaining a useable profile when they requested retesting during that period was 30 per cent, and for sexual assault offences, 66 per cent.

I should pause there just to say, as I am sure the QPS would agree, that is not a random statistical sample. That is where they could obtain a profile where samples were selected by the QPS. But, unsurprisingly, this led to public concern about the thresholds used at the laboratory, and on 6 June 2022, the Premier of Queensland announced that the threshold would be abandoned.

THE COMMISSIONER: Mr Hodge, as I understand what you are saying, you are saying that it is common ground that samples within the range that you described between a low level and a higher level are samples with a quantity of DNA that are generally regarded as low, but that such samples can, either 10 per cent of the time or 30 per cent of the time, but they can a proportion of the time, provide useable DNA profiles, but they were not tested further as a matter of routine?

MR HODGE: That is right. Perhaps to put this in some sort of more specific context, the way in which the quantity of DNA in a sample is measured is as nanograms per microlitre. So a nanogram is one billionth of a gram, and the technology that is used in the laboratory is capable of detecting a quantity of DNA as low as one thousandth of one billionth of a gram, and the range that was being dealt with in this case was between .001 nanograms per microlitre - so that is one thousandth of one billionth of a gram - and .0088 nanograms per microlitre, so that is roughly nine times the bottom end of the range of one thousandth of one billionth of a gram.

Within that broad range there is no doubt that, at least in some cases - and there might be a debate about in what proportion of cases - it is possible to extract either a full or partial profile, but between 2018 and 6 June 2022, samples within that range were not routinely processed for further testing once they had been measured as being in that low level.

THE COMMISSIONER: And what kind of offences are we talking about that pertained to this class of samples that were not routinely tested?

MR HODGE: Serious offences: homicides, sexual offences.

Perhaps, then, just to tie off on that, it is perhaps important to bear in mind that with these statistics that we are talking about, we are talking about real cases. So one useable DNA profile in relation to a murder or a rape may be sufficient to solve that investigation. So statistics alone do not really tell you the full story of what the potential significance is for how that threshold might affect the investigations within the criminal justice system.

Then the third issue that arose publicly was that there were some statistics that were published last year, and published by, in effect, the Queensland Police Service, that raised a question about the performance of the Queensland lab in relation to the quantity of useable DNA profiles which the lab was obtaining from some common types of samples, including blood, saliva, semen and penile and vaginal swabs. The statistics appeared in an article written by Dr Matthew Krosch, a principal research officer

at the QPS, and the article was published in the Australian Journal of Forensic Sciences and then picked up on by Dr Wright as part of her engagement with Mr Thomas.

So these three issues that had already been raised in the public are things that we understand you will want to consider thoroughly, but in turn, they may lead to other questions that need to be considered and answered by you as part of discharging your terms of reference, and we are conscious, as we know you are, that the resolution of these issues, as well as the consideration of the wider question of whether the laboratory is currently operating in accordance with best practice, is essential to ensure public confidence in the criminal justice system in Queensland.

I want to now briefly give some sense to the public who are listening to this of the work that you and those assisting you have undertaken since your appointment on 10 June 2022.

You have issued already 111 requirements under your powers to compel the production of information, answers and documents. Amongst those requirements, you have required 36 statements from 22 people. Some of those statements are finalised, some are in draft, some are not yet due.

Already around 60,000 documents have been received in response to requirements you have issued to various agencies, departments and organisations, and more are expected in response to requirements you have already issued and, of course, your inquiry continues. And the Commission has conducted over 40 interviews.

You have indicated to us that you intend to hold public hearings, as is appropriate for the nature of the issues raised, and at present we understand your expectation is that we will commence public hearings on about 26 September 2022.

It is likely that those public hearings will be separated into a few short modules, and I will say something now about the topics that the Commission is presently examining and that may form part of the public hearings.

The first topic is the introduction and then removal

of that threshold for further processing to which I referred earlier.

The way in which the threshold was introduced in 2018 was as a result of the lab presenting an options paper to the Queensland Police Service. The QPS agreed with the option presented by the lab, and this was to cease processing those samples within that range of one thousandth of one billionth of a nanogram per microlitre up to .0088 nanograms per microlitre of DNA. The consequence of that was that when they were measured at that level, they were no longer further processed unless requested by the QPS or a scientist, and the samples would be labelled by the lab as "DNA insufficient for further processing".

So in addition to not testing the samples further, a further result of the options paper was that this label, "DNA insufficient for further processing", was used in reports to the Queensland Police Service, and similar words were used in formal witness statements prepared for scientists to give evidence in court.

As we have discussed already, it is universally accepted that samples within this range can, in certain circumstances, be processed so as to obtain a useable DNA profile. That does not mean that every sample will obtain a useable DNA profile, but it means that it is possible that some samples will, and you have been considering whether this way of reporting the results, "DNA insufficient for further processing", was accurate and understood accurately by police, prosecutors, defence counsel and juries.

I should mention that another related issue you may wish to consider is the way that the lab reports samples with even lower amounts of DNA in them - that is, less than what is the limit of detection of the technology used in the lab, which is one thousandth of one billionth of a gram. Below that threshold, the laboratory reports the results of DNA testing as "no DNA detected" to the police and in their formal witness statements, and those words, "no DNA detected", may have a different meaning to a scientist who understands the concept of a limit of detection, as compared with an ordinary person or an ordinary juror.

THE COMMISSIONER: So the description "DNA insufficient for further processing" would then appear on a report that is given to prosecutors, defence counsel and jurors, and would be communicated in that form, presumably, to some victims of sexual assaults, so that while it may be that the particular sample to which that label has been attached might give up a useable profile, a victim of crime might be told, "Although a vaginal swab has been taken and you have said that your assailant ejaculated within you, the lab reports 'insufficient DNA for further processing', so that is the end of that"?

MR HODGE: That was the end of that, yes. Yes, what you have said, Commissioner, is accurate. Perhaps one qualification is that the statement prepared by the laboratory, which one would expect would go to defence counsel and prosecutors, might not directly go to jurors, but would inform the information that is provided to jurors.

THE COMMISSIONER: Yes. The statement would not go to jurors, but it would be the basis of the oral evidence given by the scientist and, what is more, it might be the basis of the conclusion given by a police investigator to a person who has complained about a sexual assault?

MR HODGE: That is right.

Now, as I mentioned earlier, the Premier announced at a press conference in June this year that the threshold that had been introduced in 2018 would be removed. That left the question in the lab of how those samples would then be processed.

Before the 2018 options paper, such samples had been concentrated, and what that means, in essence, is that the samples were distilled to get the highest ratio of DNA per microlitre before they were then tested further, and concentration in that way can assist in obtaining a useable profile from the further testing steps.

However, a decision was made on 6 June 2022 to go straight on with further testing of samples within that range without concentration. That was not, therefore, a reversion to the process as it had existed within the lab immediately before the 2018 options paper, when samples at that low level were concentrated before they went on for

further testing.

Then a week ago, on 19 August 2022, a further decision was made by Queensland Health to concentrate the samples before further testing, and subject to some qualifications of detail that I will not go into today, that appears to have been a reversion to the process as it existed immediately before the 2018 options paper.

Against that background, what I would say is we expect that this case study will raise some specific questions as to what occurred in 2018 and in 2022 and why, but also some more general questions about the effective functioning of the lab. For example, we expect you will need to consider, amongst other things: what, as a matter of good science and practice, the laboratory ought to have done for those making decisions to be satisfied as to what processes they should adopt for samples at different levels of quantitation - that is, different measurements of DNA; and the rationale for presenting to QPS in 2018 the option of ceasing to process samples between .001 nanograms per microlitre and .0088 nanograms per microlitre and the accuracy of the information that was provided to the QPS at that time; and whether there was any fault of QPS or the lab or both in adopting the threshold for further processing; and the adequacy of the decision-making process, not only in 2018 but also the decision-making process in 2022, for first deciding not to concentrate samples automatically in June of 2022, and then, a week ago, to decide to automatically concentrate samples.

THE COMMISSIONER: Mr Hodge, are we aware yet of any reason why a decision was taken to process samples within that class, as of early June of this year, but not to concentrate the sample?

MR HODGE: Could I answer that in a general way: we are aware at a general level of the decision-making process and we are continuing to investigate that further in order to understand exactly who made the decision and what information they were provided with.

THE COMMISSIONER: Yes, all right.

MR HODGE: Did you have any other questions about that, Commissioner?

THE COMMISSIONER: No, no, go ahead.

MR HODGE: And so what we would say is, in general, we expect this case study of the 2018 options paper and the introduction of the threshold and the approach to steps taken in relation to testing samples within that threshold to be a useful case study for you to consider, Commissioner: what constitutes best practice, in terms of deciding how such samples should be processed; the process by which decisions like this are made, both in this case and in the lab more generally; and whether that process involved appropriate considerations and was done on the basis of sound scientific evidence. At present, we expect this to be the subject of the first short module as part of the modules that we anticipate will form part of your public hearings.

The second topic I want to speak about briefly is another very important topic for the Commission to consider, and that is the handling of DNA evidence in relation to the investigation of the murder of Shandee Blackburn. Ms Blackburn was 23 years old when she was killed not far from her home in Mackay in February of 2013. She was walking home after finishing work late at night. There were no eyewitnesses who could identify her killer and the forensic investigation of the scene and other sites yielded little to police to assist them in building a case against any individual.

Ultimately, in 2017 a man was tried for and acquitted of her murder. There was no DNA evidence that linked him to the murder of Ms Blackburn.

There was a subsequent coronial investigation in 2020, and in February of this year the central coroner announced that the inquest will be reopened. We are, and will remain, conscious of the need to be careful and how any public scrutiny in this inquiry might affect or overlap with other processes that are ongoing. But as I mentioned earlier, since November last year there has been considerable public interest about this case due to the podcasted reporting of Mr Thomas, and Mr Thomas's work, with the assistance of Dr Wright, has raised some questions as to the results obtained by the lab from samples collected in that investigation and the possible reasons, relating to the functioning of the lab in 2013, for the results.

Now, those questions may or may not give rise to a reason to doubt the accuracy of the results from DNA testing in that case or the adequacy of the process or processes that were in place in 2013, but we identify this as a topic we are investigating and note that it may regrettably be the case that, given the passage of time, it is no longer possible to either confirm or dispel all of the suspicions that have been raised about the DNA testing in 2013. At present, we anticipate that this will also constitute the subject matter of a short module.

The final topic that we will mention today, Commissioner, is broader and more general. It is the overall functioning of DNA collection and analysis in Queensland. There are a number of different aspects of this that we are looking at, and some of these may form part of another module examining that overall function.

I will give you, Commissioner, some examples of these issues.

First, we are looking at the current systems used for the collection of samples for processing by the lab. One part of this is the Queensland Police Service's processes for the collection of biological material for forensic DNA testing, and this involves a consideration of their policies for collection and transportation of biological material, the training materials they use and the auditing requirements for their forensic officers and their quality assurance processes. It also includes the equipment and materials used by Queensland Health staff for the collection of samples from victims of sexual assault. We understand that, in Queensland, forensic medical examinations are typically conducted by Queensland Health staff using sexual assault investigation kits, and this is a further area of collection and testing that we are examining.

Secondly, we are looking at the current operations of the laboratory to ensure that it is operating in accordance with best practice, and there are many different aspects of this. For example, matters of interest to you, Commissioner, may include the qualifications and training of staff, the division of skills and tasks between analytical and reporting scientists, the methods by which validations are conducted for new instruments, the

laboratory's quality management systems and the processing of bones.

Another area of interest might be how, when issues with processes at the laboratory have arisen within the laboratory in the past - for example, in relation to the contamination and processing of sperm samples - those issues were addressed, and that might, in turn, inform your understanding of the nature of the culture within the lab. That issue of culture might be one you wish to consider, Commissioner, as to the relationship between the management of the lab and scientific integrity of the processing and analysis of samples and then the reporting of the results from the lab.

If there are issues that you identify with the general operation of the laboratory, Commissioner, then a further question for you, we expect, will be why those issues have not been identified and addressed earlier. That might lead you to consider things such as the adequacy of data collection and evaluation at the lab or the role of NATA in accrediting the lab.

I should say, we understand that the National Association of Testing Authorities, or NATA, is recognised by the Commonwealth as the national authority for laboratory accreditation in Australia. NATA accredits the Queensland lab and the accreditation process is based on a three-year cycle and involves a full assessment every 18 months. It may be relevant for you to understand whether there are any systemic or acute issues which were or should have been identified within the lab by NATA.

Then the third and final example, Commissioner, that forms part of this broad topic, is the interrelationship between QPS and the lab. The 2018/19 Queensland Audit Office report recommended that the QPS and Queensland Health Forensic and Scientific Services implement a performance framework to measure and report on the effectiveness and efficiency of forensic services, and you may wish to consider whether effectiveness and efficiency measures have been implemented and, if not, why not. Given that QPS partly funds the operation of the lab, you may wish to consider the funding relationship and the adequacy of the funding of the lab in general for meeting the needs of Queenslanders to have confidence in the criminal justice system.

Commissioner, what I have said has been our very short overview of some of the issues that we have been investigating at your behest. As will be apparent from what I have said earlier, a substantial amount of work has already been done, but there is also a substantial amount to go.

THE COMMISSIONER: Thank you, Mr Hodge. One thing that you have raised prompts me to say this: we have published on the Commission's website a message to victim survivors of offences that have been committed, and in that message I invited such people who think errors may have been made in DNA collection or testing or analysis to make a submission to me about how the system of collection and processing of DNA samples has affected them.

I should say, and I want to emphasise, that submissions of that kind will probably not result in any different outcome for an individual case, because the task of my inquiry is not to look at particular cases with a view to seeing how they went awry and recommending that steps be taken to rectify anything that went awry, if anything did ever go awry. The task of my Commission is to investigate how the system of DNA testing in Queensland works and whether there are any problems and, if so, what they are and how they can be rectified.

So I emphasise that if you make a submission to me I will be interested in reading it, but it is unlikely that anything that I say in my report or anything that I can recommend to the government as a result of things that I have looked at will directly affect your case. However, if you think that what you have experienced would assist me in my task, then I invite you to make submissions to me.

Mr Rice, is there anything arising out of what has happened this morning?

MR RICE: Nothing at this point, Commissioner.

THE COMMISSIONER: Mr Hunter?

MR HUNTER: No, thank you.

THE COMMISSIONER: Mr Hickey?

MR HICKEY: No, thank you.

THE COMMISSIONER: Thank you. Well, we will adjourn, then. The likely hearing date, as you have heard, is that hearings will begin in all likelihood on 26 September, here. Thank you. Adjourn, please.

AT 10.06AM THE COMMISSION WAS ADJOURNED ACCORDINGLY