STATEMENT OF CATHERINE ALLEN

- I, Catherine Allen, care of Queensland Health Forensic and Scientific Service, Managing Scientist, of 39 Kessels Road, Coopers Plains, Queensland, do solemnly and sincerely declare that:
- 1. I am employed by Queensland Health Forensic and Scientific Service ('QHFSS').
- 2. I hold the position of Managing Scientist at QHFSS at Coopers Plains.
- 3. I hold a Bachelor of Science from University of Queensland, 1994, a Master of Science (Forensic Science) from Griffith University, 2002, and a Certificate IV in Project Management (2008).
- 4. On 2 August 2022, I was requested to provide a statement as to whether I agree or disagree with a number of matters set out in paragraphs A to G contained within Notice 2022/00065 "Statement of possible findings by the Commission" ('the statement'). If I disagree to any extent with any of the matters, I have been requested to state the nature of my disagreement and to explain in detail the reasons for such disagreement.
- I have also been asked to make a submission concerning any recommendation that, in my view, ought be made in the event the Commissioner Sofronoff QC, concludes that the matters set out in Paragraphs A to G are substantially correct, including in particular a recommendation as follows:
 - (a) That FSS immediately withdraws any and all statements issued by it since 2018 that have stated that a sample contained "insufficient DNA for further processing" and that fresh statements be issued in all such cases reporting the actual facts referable to such samples.
- 6. As part of my response, I have read the following:
 - (a) The statement;
 - (b) A document entitled: "A review of the automatic concentration of DNA extracts using Microcon Centrifugal Filter Devices: Options for OPS consideration dated January 2018 and submitted under the names of Justin Howes and Cathie Allen"; and



(c) A document entitled: "Report" by Professor Linzi Wilson-Wilde OAM PhD dated 31 July 2022.

Responses to paragraphs A to G

Paragraph A

Immediately before early 2018, FSS would process samples submitted for Major Crime Casework that returned a quantitation value between 0.001 $ng/\mu L$ and 0.0088 $ng/\mu L$ by submitting them automatically to micro-concentration (referred to within FSS as 'automicrocon'), amplification, capillary electrophoresis and profiling.

Paragraph B

In early 2018, FSS began to process such samples in accordance with "option 2" referred to in paragraph 8 on page 9 of A review of the automatic concentration of DNA extracts using Microcon Centrifugal Filter Devices: Options for OPS consideration dated January 2018 and submitted under the names of Justin Howes and Cathie Allen. Attached hereto is a copy of that document

Paragraph C

Option 2 provided as follows: Cease the 'auto-microcon' process for Priority 2 (Major Crime) casework and report the exhibit result of DNA insufficient for further processing' based on Quantification result.

7. I agree with statements made in paragraphs A, B and C.

Paragraph D

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The result of the adoption of this process was that samples for Priority 2 Casework that returned a quantitation value in the range between 0.001 ng/ μ L and 0.0088 ng/ μ L would:

- i. Not be processed further (unless expressly requested by QPS); and,
- ii. Would be reported by a Reporting Scientist in his or her Witness Statement signed under section 110A(6C)(c) of the Justices Acts 1886 for any court proceedings as containing "DNA insufficient for further processing" or words to similar effect.

Witness ATTOR

8. A review of the automatic concentration of DNA extracts using Microcon Centrifugal Filter Devices: Options for QPS Consideration was provided to the Queensland Police

Service for their review. Superintendent Dale Frieberg advised by email that approval was given for the workflow change. Please see attached exhibit CA-01.

- 9. With respect to D(i), I would add that staff members deemed competent in DNA profile interpretation are also able to request additional work be undertaken on a sample. Below are the Standard Operating Procedures that outline this:
 - a. Standard Operating Procedure called 'Procedure for Case Management' outlines in 'Section 6.3.6 Rework DNA Extract if necessary' which allows for a Forensic DNA Analysis staff member to request additional work to be undertaken on a sample, including a sample that may have been deemed 'DNA Insufficient for further processing'. This Standard Operating Procedure detailed steps for cases that were undertaken with AUSLAB. Please see attached exhibit CA-02.
 - b. Standard Operating Procedure called 'Procedure for Profile Data Analysis using the Forensic Register, 33773v1' outlines in 'Section 11.2 Ordering reworks' the steps to take to ensure a sample is reworked (including Microcon). This Standard Operating Procedure detailed steps for cases that were undertaken with the Forensic Register. Please see attached exhibit CA-03.
 - c. Standard Operating Procedure called 'Procedure for the Release of Results using the Forensic Register, 34006v1' outlines in 'Section 4.4.7 Further Processing of the DNA Profile' which allows for a Forensic DNA Analysis staff member to request additional work to be undertaken on a sample. This Standard Operating Procedure detailed steps for cases that were undertaken with the Forensic Register. Please see attached exhibit CA 04.
 - d. Standard Operating Procedure called 'Explanation of Exhibit Results for Forensic Register, 34229v1' outlines in 'Section 4.1 PowerPlex 21 and STRmix Exhibit Result lines' the wording that is used for DNA profiles within the laboratory. The two categories used for the PowerPlex 21 kit and STRmix is Single Source DNA profile or Mixed DNA profile. The terms 'partial DNA profile' and 'full DNA profile' were used for the Profiler Plus profiling kit. This



Standard Operating Procedure detailed steps for cases that were undertaken with the Forensic Register. Please see attached exhibit CA-05.

- 10. Staff members deemed competent to issue Statement of Witness documents access the below Standard Operating Procedure to prepare the document:
 - a. Standard Operating Procedure called 'Procedure for the Release of Results using the Forensic Register, 34006v1' outlines in 'Section 5 Statement of Witness' which allows for a Forensic DNA Analysis staff member to prepare a document summarising the results obtained. This Standard Operating Procedure detailed steps for cases that were undertaken with the Forensic Register. Please see attached exhibit CA-04.
 - b. An updated Standard Operating Procedure called 'Explanation of Exhibit Results for Forensic Register, 34229v2' outlines the paragraph that is available for Queensland Police Services officers on their corporate system once a result of 'DNA insufficient for further processing' is released from the laboratory. This is detailed on page 36 of the Standard Operating Procedure. Please see attached exhibit CA 06.
- 11. Staff members are able to use suggested wording from the Standard Operating Procedure called 'Explanation of Exhibit Results for Forensic Register, 34229v2' in their Statement of Witness document. Staff may devise wording that is similar to the suggested wording in the Standard Operating Procedures and the wording used is accepted during the peer review process.
- 12. Staff members deemed competent to technically or administratively review Statement of Witness documents would access the below Standard Operating Procedure to undertake this task:
 - a. Standard Operating Procedure called 'Technical and Administrative Review of Records Created in the Forensic Register, 34322v1' details the process undertaken to ensure that peer review is undertaken of results and case records. This Standard Operating Procedure detailed steps for cases that were undertaken with the Forensic Register. Please see attached exhibit CA - 07.



- b. Standard Operating Procedure called 'Procedure for the Release of Results using the Forensic Register, 34006v1' outlines in 'Section 5.5 Statement Peer Review' details the process undertaken to ensure that peer review is undertaken of results and case records. This Standard Operating Procedure detailed steps for cases that were undertaken with the Forensic Register. Please see attached exhibit CA 04.
- 13. To statistically evaluate a DNA profile, an assessment needs to be undertaken to determine the possible number of people who may have contributed DNA to the DNA profile. This is undertaken based on the information observed within the DNA profile. If the number of contributors can be assessed, then this profile may be statistically evaluated with STRmix. A DNA profile may be considered to be unsuitable for interpretation due to the number of contributors not able to be determined, which means that the profile may not be suitable for statistical evaluation.

Paragraph E

In fact, the possibility of obtaining a profile from such samples cannot be excluded because, although such samples might contain insufficient DNA to develop a DNA profile, such samples may contain:

- i. Sufficient DNA to obtain a partial DNA profile; or,
- ii. Sufficient DNA to obtain a full DNA profile.
- It cannot be excluded that there is a possibility of obtaining a profile from samples within the laboratory's category of 'DNA insufficient for further processing'. The laboratory's experience is this category of samples may obtain a DNA profile after additional work has been conducted (eg Microcon concentration). The resultant profile may not be suitable for interpretation due to, but not limited to, the low level of DNA within the sample limits any interpretation that can be made, the number of contributors to the profile may be unable to be determined, and the profile may exhibit stochastic effects which impedes the ability to interpret it. The data generated within the laboratory suggests that whilst possible, it is unlikely to provide a suitable DNA profile for interpretation ('A review of the automatic concentration of DNA extracts using

Microcon Centrifugal Filter Devices: Options for OPS Consideration').

Reg.No.: 100186

Catherine Allen

Witness

15. Standard Operating Procedure called 'Explanation of Exhibit Results for Forensic Register, 34229v1' outlines in 'Section 4.1 PowerPlex 21 and STRmix Exhibit Result lines' the wording that is used for DNA profiles within the laboratory. The two categories used for the PowerPlex 21 kit and STRmix is Single Source DNA profile or Mixed DNA profile. The terms 'partial DNA profile' and 'full DNA profile' were used for the Profiler Plus profiling kit, and not for PowerPlex 21 profiling kit. This Standard Operating Procedure detailed steps for cases that were undertaken with the Forensic Register, and this highlights the workflow used by the laboratory, which may be different to other jurisdictions. Please see attached exhibit CA – 05.

Paragraph F

In the premises, a report in a Witness Statements that a sample contained "DNA insufficient for further processing", or words to a similar effect, was not true in the case of every sample so reported.

- 16. The laboratory has maintained NATA accreditation since it was first gained in 1998. NATA assessed the laboratory in November 2018 and December 2020 after the implementation of the new workflow in early 2018 and no observations were made during these assessments regarding reporting summaries within Statement of Witness documents that were reviewed. In the most recent NATA assessment, an observation was made regarding an improvement that could be made to the use of suggested wording used within the Statement of Witness documents. The observation was 'The laboratory may consider reviewing risks to its impartiality on an on-going basis, for example, the use of 'insufficient DNA was detected during the initial processing of this samples and was not examined further' in their reports. It is recommended that the laboratory clarifies this statement to ensure that its intent is clearly understood.'
- 17. The Interim Report on Assessment from NATA was made available to the laboratory on 9 August 2022. I agree with the observation put forward by NATA regarding clarification of the intent and it being clearly understood. Please see attached exhibit CA-08.



- 18. Mr Shaun Drummond, Acting Director-General, Queensland Health issued a Memorandum on the 5th of August 2022 regarding the urgent amendment of the Standard Operating Procedure required. Please see attached exhibit CA-09. I provided no input on information that may have been provided to the Acting Director-General which may have formed the basis of the Memorandum. I agree with the contents of the Memorandum and that the wording may convey the impression that further processing or analysis is not possible, and that there is benefit in providing an expanded explanation for this category of samples. The expanded explanation put forward in the Memorandum is in line with the wording in the electronic result that is issued to the QPS, as detailed in the updated Standard Operating Procedure called 'Explanation of Exhibit Results for Forensic Register, 34229v2'. Please see attached exhibit CA 06.
- 19. With respect to paragraph F, I would not adopt the words 'was not true', but accept that further explanation or clarification is required as to the intent behind 'DNA insufficient for further processing'.

Paragraph G

Any Witness Statement expressing that opinion about samples within the said range of quantitation, merely because the samples were within that range, have, to that extent, been untrue

- 20. With respect to paragraph G, I would not adopt the word 'untrue' but accept that further explanation or clarification is required as to the intent behind 'DNA insufficient for further processing'.
- 21. Electronic reports briefly detailing the results obtained have been issued to QPS with an expanded paragraph regarding the laboratory's category of these samples. An updated Standard Operating Procedure called 'Explanation of Exhibit Results for Forensic Register, 34229v2' outlines the paragraph that is available for QPS officers on their corporate system (QPRIME) once a result of 'DNA insufficient for further processing' is released from the laboratory. This is detailed on page 36 of the

Standard Operating Procedure. Please see attached exhibit CA -06.

- 22. QPS or staff within Forensic DNA Analysis are able to request additional processing on the laboratory's category of these samples.
- 23. I agree with the Observation made by NATA and the contents of the Memorandum from the Director-General that the wording may convey the impression that further processing or analysis is not possible, and that there is benefit in providing an expanded explanation for this category of samples. Please see attached exhibits CA- 8 and CA-09.

Submissions on recommendations

If I conclude that the matters stated above are substantially correct, I may decide that I should make recommendations to the government about steps that ought to be taken as a result of the occurrence of such matters or some of them. One recommendation that I might consider making is that FSS immediately withdraws any and all statements issued by it since 2018 that have stated that a sample contained 'insufficient DNA for further processing' and that fresh statements be issued in all such cases reporting the actual facts referable to such samples.

24. I accept the above statement.

Make any submission you wish concerning the nature of any recommendation that, in your view, I should make in the event that I conclude that the matters set out in paragraphs A to G are correct or are substantially correct.

25. I have no submission on recommendations.

All the facts and circumstances declared in my statement, are within my own knowledge and belief, except for the facts and circumstances declared from information only, and where applicable, my means of knowledge and sources of information are contained in this statement.

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the *Oaths Act 1867*.

TAKEN AND DECLARED before me at Brisbane in the State of Queensland this 12th day of August 2022



Attachments Index

- CA-01 Options Paper for Microcons Supt Approval Email 20180202
- CA-02 17117V20 Procedure for Case Management
- CA-03 Procedure for Profile Data Analysis using the Forensic Register, 33773v1
- CA-04 Procedure for the Release of Results using the Forensic Register, 34006v1
- CA-05 Explanation of Exhibit Results for Forensic Register, 34229v1
- CA-06 34229V2 Explanations of Exhibit Results for Forensic Register
- CA-07 Technical and Administrative Review of Records Created in the Forensic Register, 34322v1
- CA-08 NATA Interim Report 00041 14171 82214 roaint
- CA-09 DG Memo Urgent Amendment to Standard Operating Procedure required

