

STATEMENT OF KYLIE DALE RIKA

I, **Kylie Dale Rika**, care of Queensland Health Forensic and Scientific Services, Forensic DNA Analysis, do solemnly and sincerely declare that

1. I am employed by Queensland Health Forensic and Scientific Service ('QHFSS')
2. I hold the position of Senior Scientist, Forensic DNA Analysis at QHFSS at Coopers Plains.
3. I hold a Bachelor of Science (Molecular Biology) from Massey University and a Post Graduate Diploma in Forensic Science from University of Auckland. I also hold a Diploma in Management (Public Sector) from TAFE, Brisbane.
4. On 2 August I was requested to provide a statement as to whether I agreed or disagreed with a number of matters as set out in paragraphs A to G contained within Notice 2022/00067 "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.
5. I have also been asked to make a submission concerning any recommendation that, in my view, ought to be made in the event that 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

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

My Scientific Opinion in response to the "Notice 2022/00067 Statement of possible findings by the Commission"

Responses to paragraphs A to G

Paragraph A

7. I agree that immediately before early 2018, QFSS would process samples submitted for Major Crime Casework that returned a quantitation value between 0.001ng/μL and 0.0088ng/μL by submitting them automatically to micro-concentration (referred to within FSS as 'auto-microcon'), amplification, capillary electrophoresis and profiling.

Paragraph B

8. I agree that in early 2018, QFSS 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 QPS consideration* dated January 2018 and submitted under the names of Justin Howes and Cathie Allen. It is my understanding that the contents of this options paper were based on the internal project #184 *Evaluation of the Efficacy of a Post-Extraction Concentration Step Using the Microcon® Centrifugal Filter Devices in Yielding DNA Profile Intelligence*. As part of the Management Team at the time, I was asked to review and provide feedback on this project and its report. My feedback remains within the project #184 folder located in our local network I drive. My feedback is at odds with the information contained within both the options paper and the internal project #184 report, as my feedback is summarised by concluding that setting the cut-off for no processing at 0.0088ng/μL is probably too high. Other feedback leading to this conclusion includes, but is not limited to;

"Conclusions drawn from percentage values derived from non-normalized data cannot be trusted as the data is clearly skewed towards very low-level quants"

"Not confident about removing a test that we know does have some value"

"No one ever really knows what result will be obtained from a particular sample"

"it has to be tested for the 'true' result to be revealed"

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“Note that there seems to be urgency around this proposal being implemented, which might not allow time for full consideration of all potential risks/impacts. For this reason, is it possible to just implement for P3 samples, and revisit in 3 months for viability of extension to P2 samples?”

9. It is my understanding that the internal project #184 report was superseded by the options paper presented to QPS. I was not asked to review the options paper. It is my understanding that the options paper was written by Justin Howes and Cathie Allen and reviewed by Luke Ryan and Paula Brisotto.
10. Since the implementation of the *DNA Insufficient for Further Processing* process in February 2018, I have continued to raise concerns as follows:
 - Email to Justin Howes on 09 February 2018. Attached and marked “**KDR-1**” is a copy of that email.
 - Recommendation made to Management Team in the *Implementation Plan for 3500xL PowerPlex®21 Casework (project #230)* to evaluate whether the quant range still holds for defining *DNA Insufficient for Further Processing*. Attached and marked “**KDR-2**” is a copy of that recommendation.
 - Item raised under ‘Other Business’ in the Forensic DNA Analysis Management Team Operational Focus Meeting on 11 November 2021 regarding the *DNA Insufficient for Further Processing* process. I notified the Management Team that I was collecting examples of samples that were originally reported as *DNA Insufficient for Further Processing*, but later processed with the Microcon concentration step to produce good DNA profiling results, including DNA profiles uploaded to the National Criminal Investigation DNA Database (NCIDD). Attached and marked “**KDR-3**” is a copy of the minutes.
 - Email to Justin Howes on 10 February 2022. Attached and marked “**KDR-4**” is a copy of that email.
 - Email to Paula Brisotto on 28 April 2022. Attached and marked “**KDR-5**” is a copy of that email.

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- Email to Paula Brisotto on 24 June 2022. Attached and marked “**KDR-6**” is a copy of that email.

Paragraph C

11. I agree that Option 2 was 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.

Paragraph D

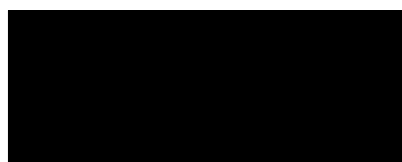
12. I agree that the result of the adoption of this process was that samples for Priority 2 Casework that returned a quantitation value in the range between 0.001ng/μL and 0.0088ng/μL would:

- i. Not be processed further (unless expressly requested by QPS) – see pages 11 and 18 of the Standard Operating Procedure QIS 17117V20; 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 – see page 119 of the Standard Operating Procedure QIS 34006V4.


Paragraph E

13. I agree that 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; or,
- iii. Sufficient DNA to obtain a mixed DNA profile suitable for interpretation.



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Paragraph F

14. I agree that in the premises, a report in a Witness Statement 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.

Paragraph G

15. I agree that 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.

Submissions on recommendations to consider given my preceding scientific opinions that the matters set out in paragraphs A to G are substantially correct

16. Every sample that was reported as “DNA insufficient for further processing” due to its quantitation value falling between 0.001ng/μL and 0.0088ng/μL needs to be re-processed.
17. The above-mentioned re-processing needs to be based on a full and proper case management assessment, including considerations such as, but not limited to; the actual quantitation value, results of any previous body fluid testing (such as the observation of spermatozoa), further information available (such as presumptive blood test positive results) and whether to microcon to 35μL or to full etc.
18. A strategy needs to be devised to manage samples that fall into the low-level DNA range (0.001ng/μL – 0.0088ng/μL) moving forward based on the individual merits of those samples.
19. All of the Statements of Witness that have been issued that contain samples reported as “DNA insufficient for further processing” or words to a similar effect, need to be identified and replacement Statements of Witness issued after the re-processing mentioned in point 1 above.

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20. A re-assessment of the triaging system used for reporting *No DNA Detected* needs to occur as it is my opinion that if spermatozoa are observed for example, the sample should be processed fully.
21. A new validation of Quant trio needs to occur by a scientist or team of scientists with the appropriate expertise including the areas of experimental design and biostatistics.
22. Any samples that had a quant within the range and were amplified at 15µL, and were reported without a microcon (or other suitable rework), need to be re-assessed to ensure the true DNA profiling result is obtained.

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 ninth day of August 2022

[Redacted Signature]

Kylie Dale Rika

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