Kylie Rika

From: Kylie Rika
Sent: Monday, 25 October 2021 1:37 PM
To: Kirsten Scott
Cc: Sharon Johnstone; Paula Brisotto; Justin Howes
Subject: RE: Project Report #213 - VeriFiler™ Plus – Full Volume Amplification (Casework); Review by 5th October

Hi Kirsten,

I don't have an understanding of the STRmix findings to date, but I do know that peak height variation and inter locus balance can mess with STRmix's ability to decon.

I have signed the report.

Thanks
Kylie

From: Kirsten Scott <[redacted]
Sent: Monday, 25 October 2021 12:46 PM
To: Kylie Rika <[redacted]
Cc: Sharon Johnstone <[redacted] Paula Brisotto <[redacted]
Justin Howes <[redacted]
Subject: RE: Project Report #213 - VeriFiler™ Plus – Full Volume Amplification (Casework); Review by 5th October

Kylie,

I have a meeting with Emma, Cassie and Sharon to discuss STRmix and VF on Wednesday, I know Emma is concerned and that is why the meeting is needed.
I am not able to provide you with any formal updates as there are no written documents for me to provide to you.
I am aware that you discuss these things with Emma, so it is likely you have an understanding of findings to date.

I would like to request that if there is nothing in this full-volume report that you disagree with from a scientific perspective, that you sign the document as I have requested.

So I am asking you to either:

- accept the report and data in it (as written, covering only the aspects of work it addresses)
- or provide specific information on what data in this specific report is incorrect and requires editing. If you reject it, I will need specifics for this report to address - and not general statements about the VF project as a whole.

I am not asking for you to accept or reject the kit, only the finding of this sub-report.
We should not refuse the data as found …..in case something happens in the future.
We make calls on data we have in hand.

The STRmix and mixtures work is pending, so any concerns you have with this aspect of the work will be addressed there. Your concerns are noted.
However we have an obligation to continue with this#213 project until we have a written document to state that the kit is unsuitable for use/implementation.
We are not at that point.
Until we have STRmix/mixtures aspect of the work documented (positive or negative findings) - we move forward in good faith.

I do not know what STRmix/mixtures reports will find or say.
The kit may or may not be suitable for use.

If you are not happy to sign, I think we need to talk about it.

Kirsten

From: Kylie Rika <[redacted]
Sent: Monday, 25 October 2021 11:44 AM
To: Kirsten Scott <[redacted]
Cc: Sharon Johnstone <[redacted]
Subject: RE: Project Report #213 - VeriFiler™ Plus – Full Volume Amplification (Casework); Review by 5th October

Hi Kirsten

Thanks for addressing my feedback. I understand the concept of individual sign offs per component, however, I still can't rationalise signing off this report to say that the kits' characteristics and function in the lab is suitable (when the only way it can be suitable is if we can actually use the profiles in reporting). I know that the VFP STRmix work is ongoing but I would be interested to know how STRmix is handling the mixtures so far? Is STRmix able to deconvolute suitably? The full volume CW and interp work is too closely interwoven to be able to make a call on one of them without the other. I am worried about resource continuing to be put towards a kit/project, where there are already some red flags. If I knew that STRmix was handling the mixtures OK, I would feel a lot better about signing off the full vol. report.

Happy to discuss further/get an update on the STRmix work so far.

Thanks
Kylie

From: Kirsten Scott <[redacted]
Sent: Tuesday, 5 October 2021 8:24 AM
To: Kylie Rika <[redacted] Lisa Farrelly <[redacted]
Cc: Luke Ryan <[redacted] Megan Mathieson <[redacted]
Subject: RE: Project Report #213 - VeriFiler™ Plus – Full Volume Amplification (Casework); Review by 5th October

Kylie,

Please remember that this report constitutes 1 of 9 reports for the Verifiler program.
All 9 reports need to find Verifiler suitable, for implementation of this kit to be considered.

This Full volume report focuses on the analytical component of the kits - its characteristics and function in lab, and does not comment on interpretation.
It is the task of the STRmix and Mixture reports to evaluate if Verifiler is suitable to use for reporting purposes.
Can STRmix and Verifiler work together….is yet to come – stay tuned.
As such for this full-volume report to comment on reporting assessments would be out of the scope.

The old PCR instruments will be out of use before completion of the Verifiler program.
So we are testing Verifier on the Proflex only (not the current instruments), so it is a "whole system" validation.
The verification of the Proflex is nearly complete (ie. current PCR machines to the Proflex) to confirm them as suitable for use.

Kirsten

From: Kylie Rika <[redacted]
Sent: Friday, 24 September 2021 5:03 PM
To: Lisa Farrelly <[redacted]
Cc: Luke Ryan <[redacted] Megan Mathieson <[redacted] Kirsten Scott <[redacted]
Subject: RE: Project Report #213 - VeriFiler™ Plus – Full Volume Amplification (Casework); Review by 5th October

Hi Lisa,

First of all – wowsers – big report and lots of nice graphs!! Well done.

Obviously I am reviewing this from an interp and reporting perspective so my feedback is mainly around "what does this mean for interp and reporting".

- The abstract mentions that

This validation for full volume samples has found VeriFiler™ Plus to be a suitable replacement amplification kit for use in Forensic DNA Analysis

I don't think we can make this call yet as we don't know if this kit will be suitable wrt interp and reporting (how will STRmix handle it etc.)

- The reproducibility results are a little concerning to me given some very large peak height variations. *Variation between peak heights is expected based on the factors noted in the discussion and should be expected in a similar magnitude when implemented.* I am not sure about this statement. We expect some variation but how much are we willing to accept?
- Inter locus balance – D2S441 is very low and I am not sure we would be able to interpret with it being so low as it may be too far from the expected biological model
- Use of proflex in these experiments: I don't think proflex is validated yet? If it isn't then we need to capture its validation within these experiments (system validation) or use thermal cyclers already validated.
- *There were seven instances peaks labelling at 2.2 in Penta D, this may be evidence of a possible artefact, however there* - insert "of"
- *VeriFiler™ Plus PCR Amplification Kit be implemented for full volume amplifications using the ProFlex™ PCR System, thus replacing the PowerPlex® 21 System for amplification and the GeneAmp™ PCR System 9700 instruments.* This recommendation can't be made yet.
- *The Internal Quality Control markers to be used as a guideline on samples with sub-optimal PCR for degradation.* Are you trying to use the IQC markers in combo with DI to decide if bad amp or poor quality sample (and therefore guide RW strategy)? If yes, then re-word/expand wording around this recommendation.

I think that is it from me.

Thanks

Kylie

From: Kirsten Scott <[redacted]
Sent: Monday, 20 September 2021 12:57 PM
To: Angelina Keller <[redacted] Matthew Hunt <[redacted] Peter Culshaw <[redacted] Allan McNevin <[redacted] Allison Lloyd <[redacted] Cathie Allen <[redacted] Justin Howes <[redacted] Kirsten Scott <[redacted] Kylie Rika

< Luke Ryan < Paula Brisotto
< Sharon Johnstone < Wendy Harmer
<
Subject: Project Report #213 - VeriFiler™ Plus – Full Volume Amplification (Casework); Review by 5th October
Importance: High

Afternoon Management Team,

It is my pleasure to present you with the first "core" Verifiler report for your review.
Please review this document by 5th October

Please send feedback to Lisa, and CC: Megan, Luke and Kirsten

Kirsten

Kirsten Scott
Senior Scientist Quality and Projects

Forensic DNA Analysis, Police Services Stream
Prevention Division, Queensland Health

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Queensland Health acknowledges the Traditional Owners of the land, and pays respect to Elders past, present and emerging.