

Report for QIS OQI as of 29/06/2022 7:26:47 AM

Report for QIS OQI - 22438 No Title Provided

OQI Details

Status	Closed Approved
Subject	DNA Analysis received a phone call from our client regarding two samples that were linked (as they had the same DNA profile). Sexual assault samples and a murder sample had been processed and one sample from each case were matching. We were asked to investigate if an adverse event had happened within the laboratory as our client had investigated their processes and found no areas of concern. I checked and found that one sample from the murder case and two samples from the sexual assault were extracted on the same batch and further processed to profiling stage together. This required further detailed investigation.
Source of OQI	Suggestion
Date Identified	12/03/2009

OQI Creator Contact Details

Creator	Cathie ALLEN
Organisational Unit/ s	DNA Analysis
Service/ s	
Site Location/ s	Coopers Plains

Investigator/ Actioner Contact Details

Actioner	Allan MCNEVIN
Organisational Unit/ s	Analytical
Service/ s	
Site Location/ s	Coopers Plains

Investigation Details

Investigation Completed	13/03/2009	Root Cause Type	Procedure/Method/Process
Investigation Details	Initially, the batches the questioned sample from the murder case was processed on, were checked against the batches samples yielding DNA profiles from the sexual assault case were processed on. There were no batches in common. Two samples from the sexual assault case had given partial DNA profiles, these were submitted after the original samples had been processed. When the audit trail in AUSLAB was checked for these additional samples, it was noted that the sample from the murder case, and the two samples from the sexual assault case had been extracted, quantified and amplified on the same batches in adjacent positions. The two sexual assault samples were then analysed using reduced peak height detection thresholds with GeneMapper-IDX software. Enough allele designations were obtained to show one sample matching other profiles obtained from the sexual assault case. The other sample showed a profile that did not match the sexual assault case, however the profile was consistent with profiles		

obtained from the murder case. The sexual assault sample and murder sample had been processed in adjacent well designations during extraction, quantification and amplification. The murder sample had been examined by the client and submitted in-tube, whereas the sexual assault sample had been examined at FSS. Therefore cross-contamination during examination could be excluded. Additionally, the murder sample had shown evidence of PCR inhibition and required pre-processing through clean-up procedures, this was consistent with the re-working procedures undertaken from the alternate sexual assault sample from the same extraction batch (i.e. the sample that was consistent with other samples from the same case). Based on this information, it appears as though there has been a juxtaposition of samples during the extraction procedure, whereby one sample has been processed under the barcode of another. This may have occurred at a stage in the process where sample is transferred from one tube to another. Both samples contained barcodes with identical terminating three digits (i.e. both barcodes were XXXXXX234).

Performed By Quality Information System

Action Details

Action Complete Title	13/03/2009	Action Fix Type	Changed Process
	<p>Action Description During the initial investigation, additional testing (COfiler) was requested to check for an adventitious match. Although later investigation determined this to be extremely unlikely, COfiler results will be checked for consistency. Re-extraction of retained portions from the juxtaposed samples will be carried out. This OQI number has been noted in the UR notes of both cases. Additionally, batch audit entries have been made for the extraction batch, and all other samples on the extraction have had specimen notes and UR notes made referring to the batch audit and OQI number. Investigation into potential improvements during the LINK process will be carried out to determine if such matches could be located in the future and further in-house investigation could be carried out prior to release of results. Our client has been advised that this Link is no longer a true match, however the Link Record needs to be updated to note that it is incorrect and sent across the interface. The sexual assault case had a statement issued on it, so an amended statement will need to be prepared, and additionally the EXR lines will be corrected. The statement for the Murder case has not yet been sent so is able to be amended, along with the appropriate amendments to its Exhibit report. The error has been raised and discussed at the Analytical team meeting (09-03-2009), with emphasis placed on checking the entire barcode at multiple stages in the extraction process.</p>		

Task Details

No Tasks found

Follow-up And Approval

Follow-up Status	Accepted
Follow-up Status Comment	<u>27/03/2009 2:57:41 PM Rhys TUIONE:</u> Communication with Justin Howes - acceptance of this OQI in Cathie Allen's absence.
Approver	Rhys TUIONE
Approval/ Rejection Date	27/03/2009

**Approval/ Rejection
Comment**

27/03/2009 3:00:02 PM Rhys TUIONE:

Communication with Justin Howes - acceptance of this OQI in Cathie Allen's absence.

Associations

No Associations found

Records

No Records found

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