

OFFICIAL



Forensic Report

Prepared by:

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Prepared on the instruction of:

Mark Diner
Kingsgate Court, 11 Kings Road
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Date: 29 November 2018

Forensic Scientist: Pamela Bauer
Lab Reference: CFS/970956/18
Date of Report: 29 November 2018



Qualifications & Experience

I hold a Bachelor of Science Degree in Biomedical Science from the University of Guelph, Ontario, Canada, and a Master of Science Degree in Forensic Science from Strathclyde University, Glasgow, United Kingdom.

I have been employed by Cellmark Forensic Services as a Forensic Scientist since August 2008. Prior to this, I was employed as a Forensic Scientist by Forensic Alliance Limited / LGC Forensics for eight years, between April 2000 and August 2008.

I am the Science Lead for Fibres, Hairs and Textile Damage at the Chorley Laboratory of Cellmark Forensic Services.

Background Information

From information provided to me, I understand that on 10 September 2018, 'Poppy', the pet hamster of Mark Diner, died following a short period of being unwell.

A post-mortem examination of the hamster was carried out at Earls Hall Veterinary Hospital, and I have been provided with the clinical notes made on Poppy from 03– 19 September 2018, and photographs from the post-mortem examination.

From this information, I understand that a hair ball / fibrous material (~1cmx2cm) was located in the large intestine. This created a total impaction of the intestine which led to the rupture of the colon and ultimately, the hamster's death.

The material found within the large intestine was recovered and retained by the Veterinary Clinic.

Instructions

At the request of Mark Diner, I was asked to examine the questioned material recovered from Poppy's large intestine and identify whether or not it is fibrous in nature. I was further asked to determine what type of fibres these are, with a view to determining whether this material could be the bedding material which was purchased and used by Mark Diner for the hamster.

On 15 October 2018, the following items were received at Cellmark Forensic Services, from Earls Hall Veterinary Hospital, in relation to this:

1. Sample of Material, Recovered from Colon of Poppy the hamster (AM-01, CELC00071905)
2. Control Sample of 'Rosewood Naturals Soft 'n' Safe Bedding' (AM-02, CELC00071904).

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Examination & Results

Control Sample of 'Rosewood Naturals Soft 'n' Safe Bedding' (AM-02, CELC00071904)

This item consists of an opened package of 'Rosewood Naturals Soft 'N' Safe Bedding'. This package contains a quantity of fibrous material, and is labelled as being made from kapok fibres. I understand that this package was opened by Mark Diner.

A sample of this fibrous material was taken from the package and examined in detail using microscopical techniques, and I have confirmed that the fibres within this material are indeed, kapok fibres.

Sample of Material, Recovered from Poppy (AM-01, CELC00071905)

This item consisted of a small, dry mass of dark-coloured material which was matted in appearance.

Given that this material was recovered from the large intestine of the hamster, the small mass was subjected to a series of sequential washes in an attempt to clean as much of the residual digestive deposits from the recovered material as possible. Once the material was cleaned, it became apparent that this material was in fact fibrous in nature, and the fibrous material was dried.

A sample of the fibrous material was removed from the washed sample for detailed examination and comparison with the control sample provided.

Comparison of Fibre Samples

Whilst there was still small amounts of debris/particulate material on the surfaces of the fibres recovered from Poppy, these fibres have the microscopic characteristics typical of what I might expect of kapok fibres.

Further, using different types of light, these fibres correspond with the kapok fibres taken from the control sample of bedding provided, exhibiting sufficient similarity in their microscopic characteristics, such that in my opinion, they are consistent with originating from the same source.

Interpretation & Conclusions

Kapok fibres were found within the material (AM-01, CELC00071905) recovered from the large intestine of Poppy, the hamster.

These fibres are indistinguishable in microscopic appearance to those recovered from within the packaging labelled 'Rosewood Naturals Soft 'N' Safe Bedding', (AM-02, CELC00071904), which was purchased by Mark Diner.

In my opinion, the findings are entirely as I might expect if Poppy the hamster had ingested the bedding material purchased and used by her owner, Mark Diner.

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Technical Information

Microscopic Examination and Comparison of Fibres

The identification of textile fibres is carried out through detailed examination using a combination of high power, brightfield microscopy and polarised light microscopy.

Textile fibres can be categorised into three generic groups or classes. Natural fibres are those which originate from plant or animal material and include cotton, wool and silk. Man-made fibres and synthetic fibres are those which are produced through a manufacturing process. Viscose, polyester and acrylic fibres are examples of man-made and synthetic fibres.

Kapok fibres are natural fibres, which come from the seed pods of the kapok tree. Under the microscope, the individual kapok fibres appear as smooth, hollow fibres with thin walls and are tubular in appearance. They are also often observed with air pockets trapped within the fibre.

This type of fibre is not commonly encountered in the general textile environment, but given its unique physical characteristics, kapok fibres tend to be used for stuffing cushions, mattresses and buoyancy aids, such as life jackets.

Comparison microscopy allows two samples to be viewed simultaneously through one pair of eyepieces, such that fibres of interest in an investigation can be compared to fibres taken from the 'known source' under a high power microscope using different lighting conditions.

In this investigation, the fibrous material has not been dyed and is in its natural state; lustrous, yellow-brown coloured fibres. The overall appearance of the fibres, and other microscopic features, including the shape and cross-section of the fibres were used for comparison purposes.



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