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Confidential report for:

Campden BRI

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Report on:

Examination of Foreign Matter Reported from Potato Skins

Work performed by Campden BRI (Chipping Campden) Limited
Report number: MI/REP/181111-0125632/1 ♦ Issue date: 28th March 2018

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[DC: R-AC-9-5-15: 09/14 (16) : R/MCE]



SAMPLE DETAILS

Initial Complaint Date: 10th February 2018
Complainant Name: A.Lowry-Hall
Complaint Reference: 52462523
Purchase Order No.: 45268888885

SAMPLE INFORMATION

Date sample(s) received : 19th March 2018
Packaging : In a plastic bag, in a sealed plastic pot
Storage conditions : Ambient temperature
Date(s) sample(s) examined : 26th March 2018

METHODS AND REFERENCES

Analyst reference : SDA
Method reference(s) : TES-AC-192 : Light Stereomicroscopy
TES-AC-193 : Compound Light Microscopy
TES-AC-198 : Scanning Electron Microscopy and X-ray
Microanalysis
Deviations from the
method reference(s) : None

RESULTS

The complaint sample consisted of three off-white coloured fragments of hard, organic matter, which were photographed as received and can be referred to in Plate 1. The fragments featured an original rounded, finely textured surface (Plate 2) and several fractured surfaces. The fragments could not fit together, however their similarities in appearance suggested they originated from a common source. Hand-cut sections of one of the fragments were examined under the compound microscope and were found to contain pore-like structures associated with bone, known as 'lacunae' (Plate 3).

Surface deposits removed from the fragments were also examined under the compound microscope. Here they were found to comprise of potato cells (Plate 4), globular structures consistent with dairy products, such as cheese (Plate 5), and muscle fibres (Plate 6).

X-ray microanalysis was performed on the complaint fragments. All produced similar spectra confirming that they originated from a common source. A representative spectrum can be referred to in Figure 1. This showed the presence of carbon, oxygen, sodium, magnesium, chlorine, potassium and large peaks for phosphorus and calcium. This is an elemental composition consistent with bone.

CONCLUSIONS

It was concluded that, based on the presence of lacunae and the high content of phosphorus and calcium, the complaint sample was three fragments of bone. It was not possible to identify the species of the bone fragments using in-house microscopy techniques. Surface deposits adhering to the bone fragments were consistent with the reported product. The additional muscle fibres in the deposits may have originated from another component of the meal or may have been associated with the bone fragments themselves.

Sample

PLATE 1 Shows the complaint sample photographed as received against a millimetre-squared background



PLATE 2 Shows the rounded, finely textured surface on one of the complaint fragments

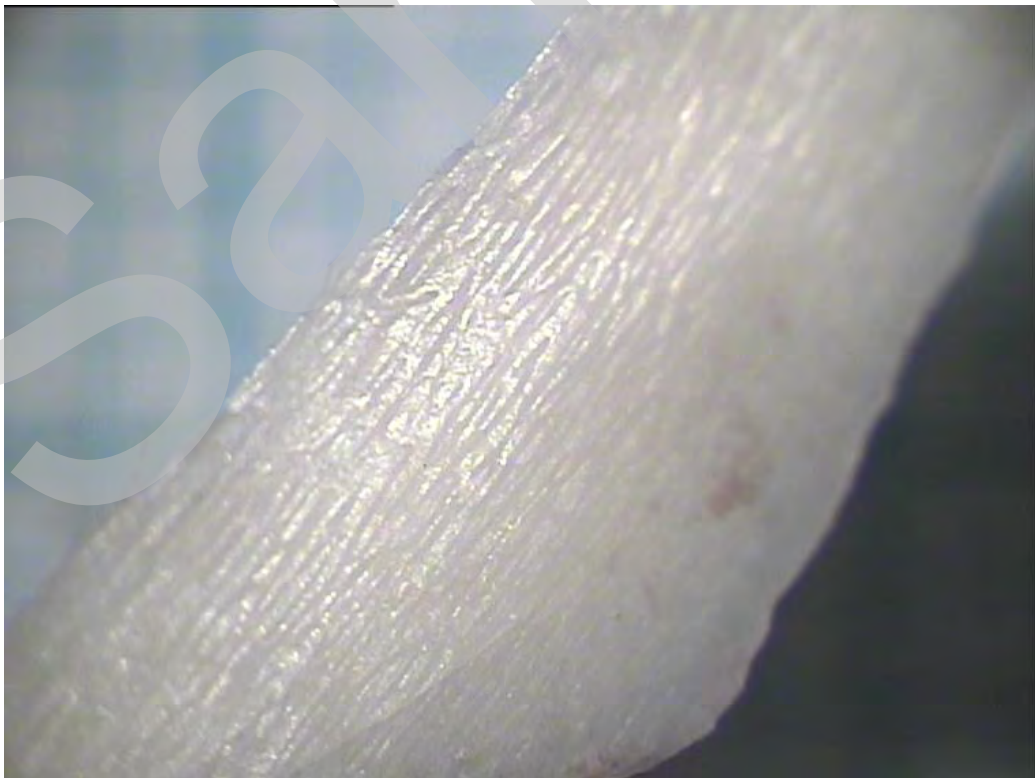


PLATE 3 Shows some of the lacunae (pore-like structures) present in a hand-cut section of one of the complaint fragments. Magnification x 365

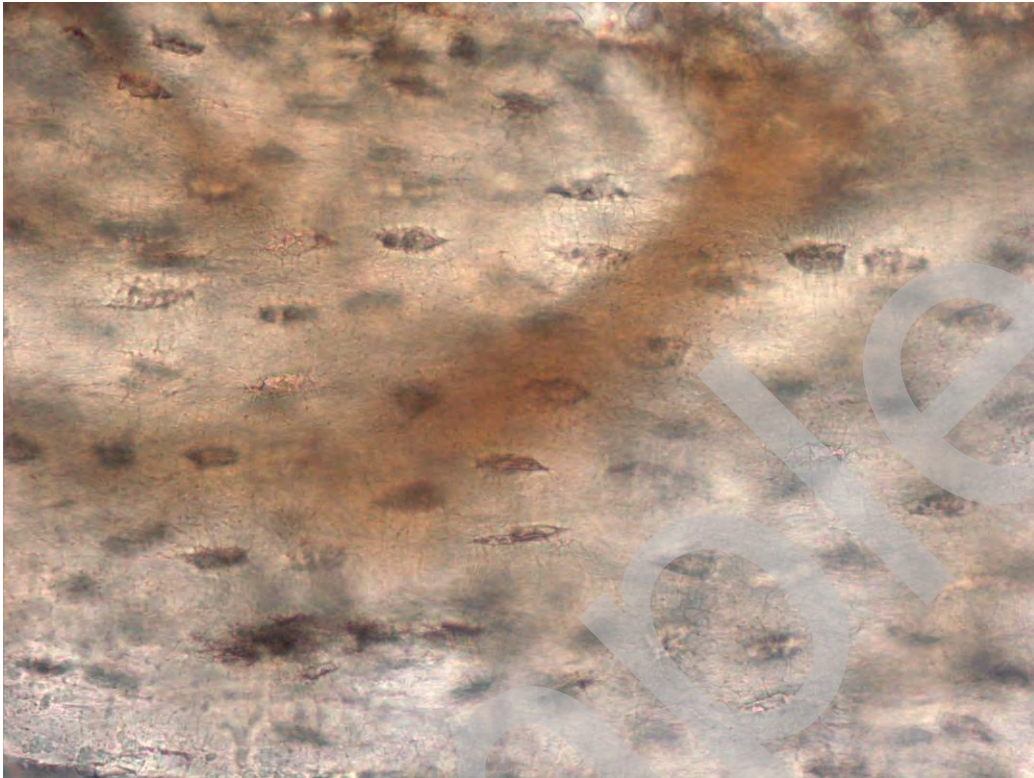


PLATE 4 Shows some of the potato cells present in the surface deposits adhered to the complaint fragments. Magnification x 220

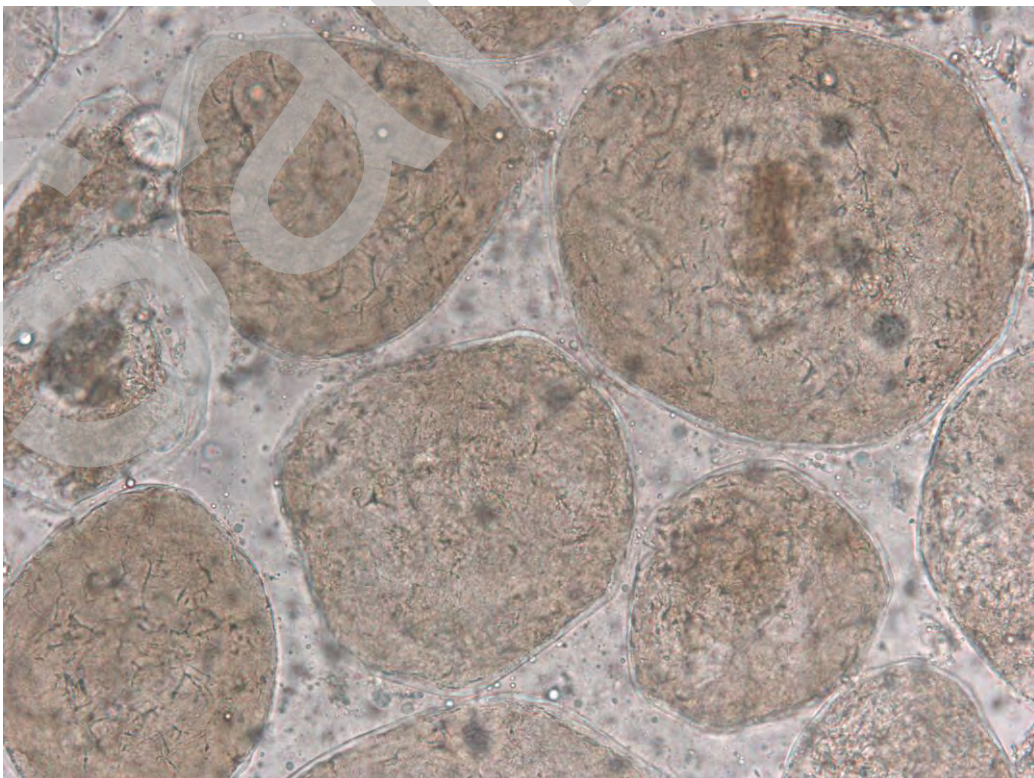


PLATE 5 Shows some of the globular structures consistent with dairy present in the surface deposits adhered to the complaint fragments. Magnification x 365

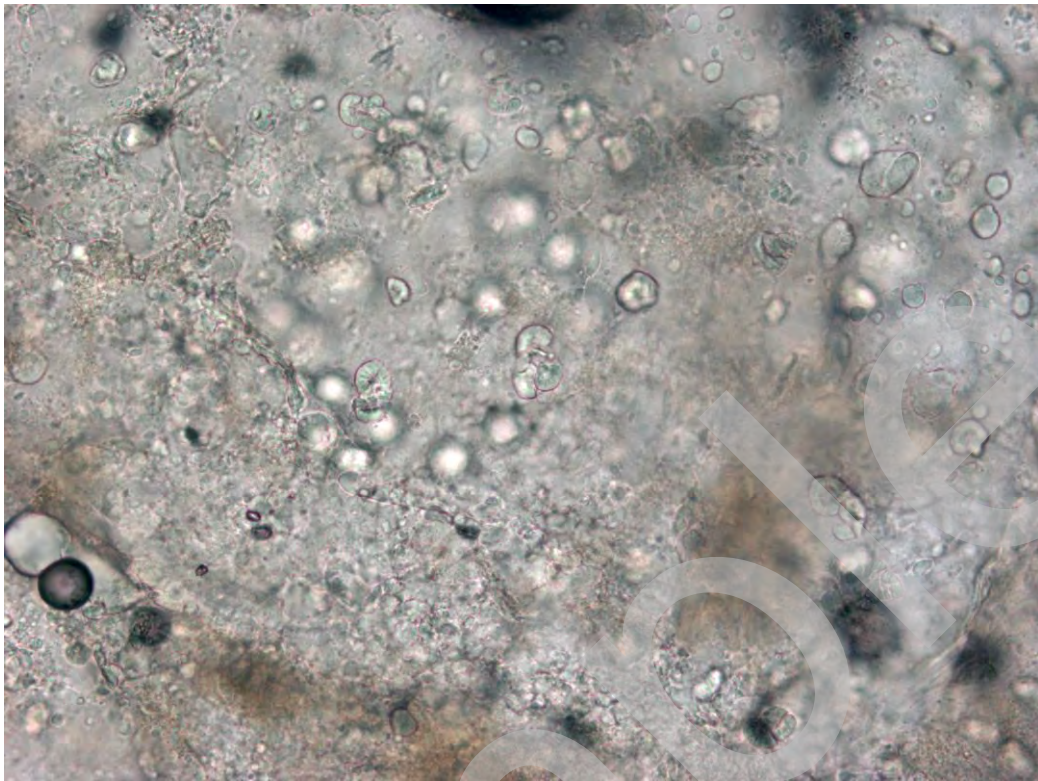
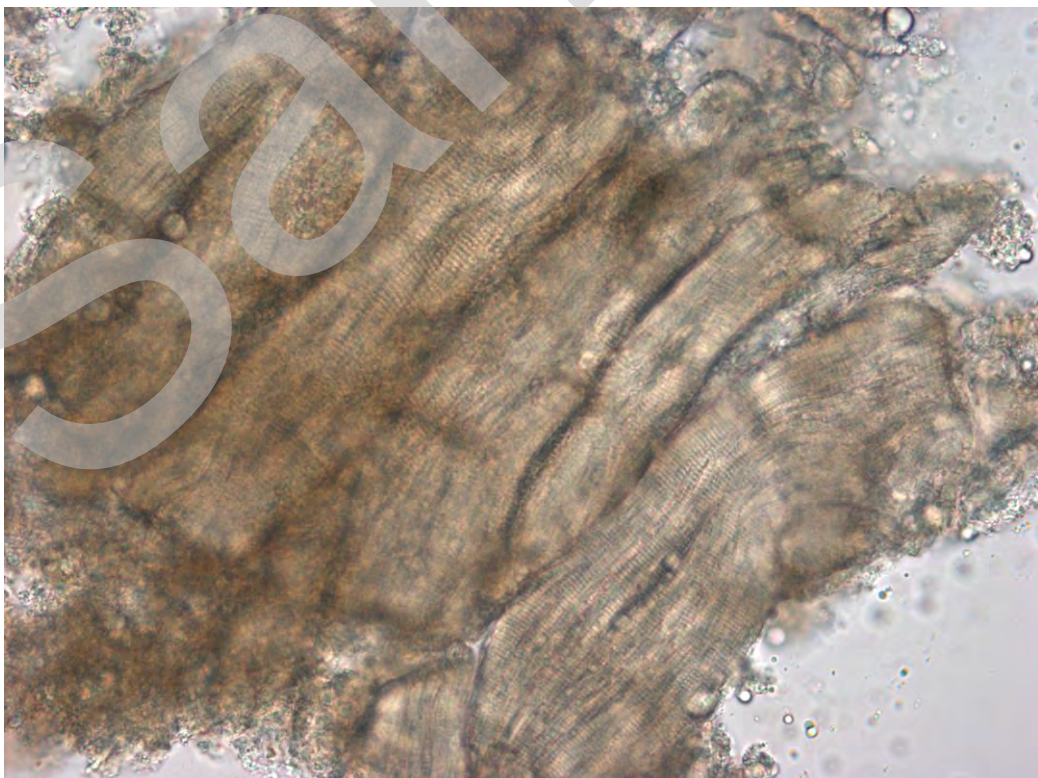


PLATE 6 Shows some of the muscle fibres present in the surface deposits adhered to the complaint fragments. Magnification x 365



Foreign Body Analysis for CampdenBRI

LIMS Project Number: 181111-0125632

