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Lab Report No.: Date of Report: July 14, 2017

Two "No-Hide" Dog Bones for Examination

Introduction: The two dog bones were received by Priority Mail Delivery on Saturday, July 8th, 2017. The samples were submitted

The samples arrived in a regular plastic (bubble type) envelope with the samples still sealed (un-opened) in commercial package (plastic bag). A number of photographs were included in the package to document prior testing. Prior to sample arrival **control** request that the samples be examined to extend information already discovered from other analytical work.

Examination: The two hard, dry chew "bones" were white, rolled material with a brownish pasty material dried onto the outer surface. Each roll was right at 6 inches long and just over 1 inch in diameter. When soaked in water overnight, the material softened and could be unrolled. The resulting white sheet was 6 inches wide, 10 inches long and just over ¹/₄ inch thick. The sheet was strong (could not be torn or broken by hand), intact (one continuous sheet), and very similar in feel, color, and shape to numerous other dog "bone" chews made from dried hide pieces that were soaked and treated at the same time.

Visual examination of the white sheet of wet material revealed that it was fibrous with natural structural features of hide material. Cross-sections of the thickness of the material confirmed under the microscope that the material had blood vessels, flesh residual and a lack of grain layer tissue (typical hide split material commonly used in dog "bone" chews). However, the glassy appearance of the raw material (typical) made identification of the structures slightly difficult. Therefore samples were delimed, pickled and tanned with chrome to add color and definition to the physical structures. Again, the cross-sections were examined with the microscope. Now corium fibers, flesh fibers and blood vessel passages were dramatically clear and distinctly identified. These structures were intact and natural, definitely not composite products made from paste or ground collagen. Photographs of the cross-sections from several stages in the soaking, deliming, pickling and tanning of the material are enclosed with the mailed copy of this report.

<u>Conclusion:</u> Given the size, thickness and physical structure of the "bone" material in this "No-Hide" product, the material is absolutely rawhide split material. Such a material of this size with this size fibers and this thickness could only come from a large animal skin. With the grain split off, the means of identifying the type of animal from physical characteristics has been removed. However, only a cow, horse, or similar large animal hide could possibly produce such a large, thick piece of split. From the clear physical fiber structure, this was definitely not a synthetic or reconstituted collagen product, nor was it a non-hide type collagen structure such as organ or skeletal element.

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