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OPTIMIZED USE OF POST AMPLIFICATION PURIFICATION COLUMNS

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Trace evidence samples are often difficult to process due to the limited amounts of DNA that can be collected from them. Often the amount of DNA present is of such low quantity that amplification using standard methods will not provide adequate results. However, post amplification purification columns have been used successfully to recover below threshold alleles. In this study, Orchid Cellmark Inc. will investigate the use of two commercially available post-purification columns to determine their ability to clean up the amplification product and improve the quality of the resulting DNA profile. In addition, alternate elution methods used to concentrate the amplified DNA product will be compared. Examples of the usefulness of this approach will be demonstrated using samples typically considered to be challenging to the forensic scientist.