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USED AIRCRAFT FILTER ANALYSIS – DETERMINING SAP PRESENCE/ABSENCE

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The Aviation Industry has expressed concern over shortened aircraft filter life. They are interested in determining 1) the composition of the material plugging the filter and 2) if SAP (Super Absorbent Polymer) has migrated from the filter monitor and contributed to the debris causing filter plugging. Work was recently undertaken to assess the materials present on commercial aircraft filters and what role, if any, SAP has in the plugging (media migration). This paper describes the techniques used to determine presence/absence of SAP on aircraft filters through laboratory and analytical methods. A detailed compositional analysis of discrete particles in the filter debris was also investigated.