

Examination of partly-smoked cigarettes submitted
by Det. Sgt. McDonald of the N.S.W. Police Department.

Three partly smoked cigarettes were submitted.
These were described as:-

"Three non-filtered cigarette butts and one part
used cigarette (Benson and Hedges Super Virginia brand)
found in ash tray in lounge room at scene of murder of
Ernest Alan Head". The description is attributed to:-

R.H. Munday,
Const. 1/c S.I.S., C.I.B.
23.6.76

The tobacco from two of the part-consumed cigarettes
was examined, and compared with that from a partly smoked
Benson and Hedges Super Virginia cigarette, manufactured
by W.D. & H.O. Wills (Australia) Limited in their Virginia
Park Manufacturing Branch, Melbourne, and smoked by me in
the laboratory to a similar butt length of that of the
submitted cigarette.

The tobacco was generally similar in appearance,
strand length; distribution and width of cut. The submitted
sample tobacco contained strands of artificially reconstituted
tobacco sheet as did the known sample of Melbourne
manufacture. This reconstituted sheet material is
manufactured by Wills in Sydney and its appearance and
composition is well known to the staff of Research and
Development Department. Tobacco blends used in the
manufacturing of cigarettes contain a proportion of this
material. Its appearance, while similar to that of
unprocessed tobacco, is nevertheless sufficiently different
to allow of it being distinguished under low power
magnification.


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A number of strands of this reconstituted tobacco sheet material were selected from the submitted partly smoked cigarettes, from the known Benson and Hedges Super Virginia of Australian manufacture and partly smoked in the laboratory, and also from an Australian made Benson and Hedges Super Virginia cigarette which had not been smoked.

Strands from the submitted sample and from the partly smoked reference Benson and Hedges Super Virginia were compared visually under a low power stereo microscope. The reconstituted strands from the submitted and reference cigarettes were:-

- (a) found to be similar in appearance. Some of these strands were photographed so as to show the similarity of both surfaces. (Photographs attached.)
- (b) Further samples of strands were selected in this case, including some from the unsmoked reference sample. These were submitted to analysis by gas liquid chromatography to determine the level of one of the components in the reconstituted sheet, viz. triethylene glycol. All three lots of strands demonstrated the presence of this ingredient but, due to the small amount available, no quantitative estimate is possible.

These facts - (a) and (b) above - are consistent with the submitted sample being cigarettes manufactured by W.D. & H.O. Wills (Australia) Limited. This Company is the only tobacco manufacturing Company in Australia to use this type of reconstituted sheet material. While it is believed that Benson and Hedges Super Virginia are manufactured overseas none have been imported into Australia for many years and in any case it is most unlikely that the reconstituted sheet present in the overseas manufactured cigarette, if in fact there is any, is similar in nature to that used by Wills in Australia.

 *for Manager Red Department AMATIL*
F.B. BARTHOLOMEW
F.B. 1978