The record section for lineM9B EXP. (Time Invariant
Deconvolution) compared to the normal production rec-
ord section for line M9B (Time Variant Deconvolution)
shows little significant difference in data quality.
Time variant deconvolution was selected for production
processing on the theoritical basis that whitening of
data would be more nearly optimum by using time vary-
ing deconvolution operators.

3. Near Trace Gather

A near trace gather, (trace 23 and 24 of each verti-
cally stacked input record) equivalent in coverage to
2 12-fold stacked records, was applied from shotpoint
795 to shotpoint 806 of line M6B. The water bottom
was extremely rough and steeply sloping. All
processing on the record section for line M6B experi-
mental (near trace gather) was exactly the same as for
the normal production record section of line M6B,
excepting that the near trace gathers were substituted
for 12-fold stack. A comparison of these sections
shows an improvement of data quality and continuity
on the near trace gather records. The results of this
experiment indicate that over locations of extreme
water bottom variations, the theoretical water replace-
ment statics are inadequate for an optimum stack.

4. Synthetic Seismograms and Comparative Data Traces

All-multiple and multiple-free synthetic seismograms
were generated from the constant velocity logs from
the ESSO-BHP Gippsland Shelf No. 1 (Barracouta No. 1)
and No. 4 (Marlin No. 1) wells. These synthetic seismograms
were displayed on the production mode and scale with
digital filters of 5-100 cps and 10-50 cps.

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