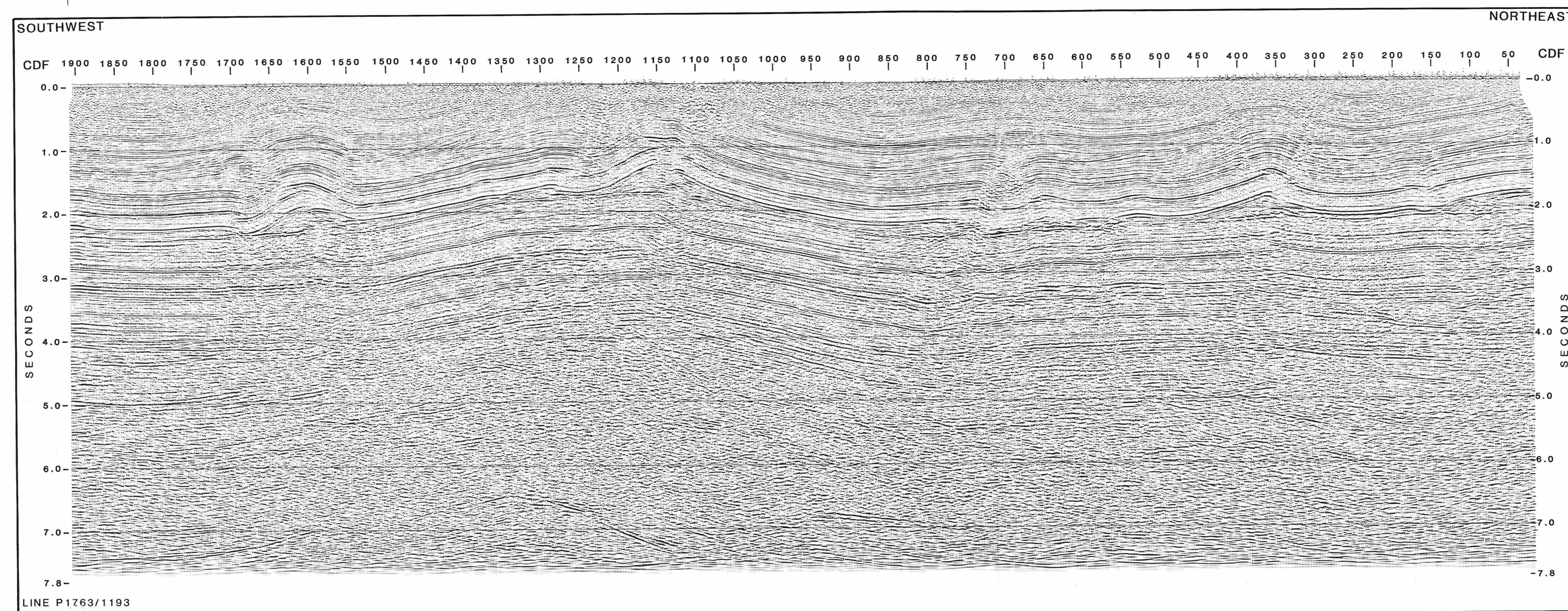
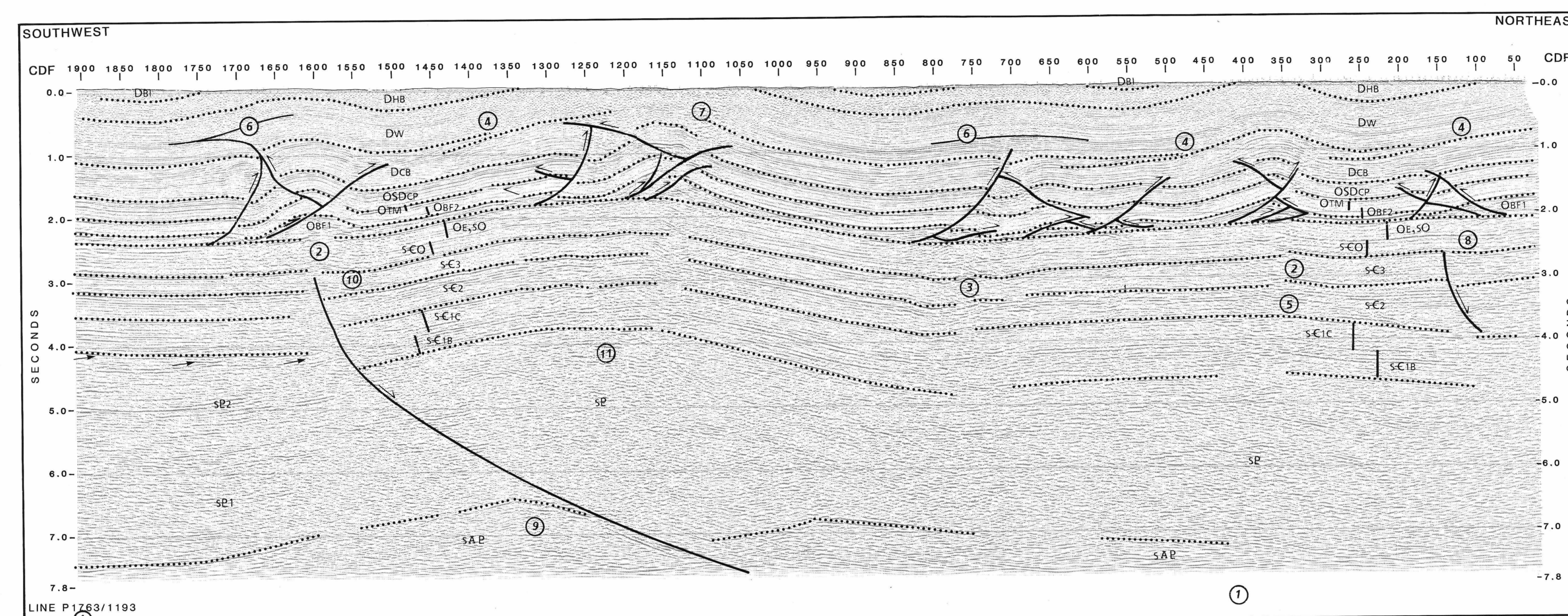


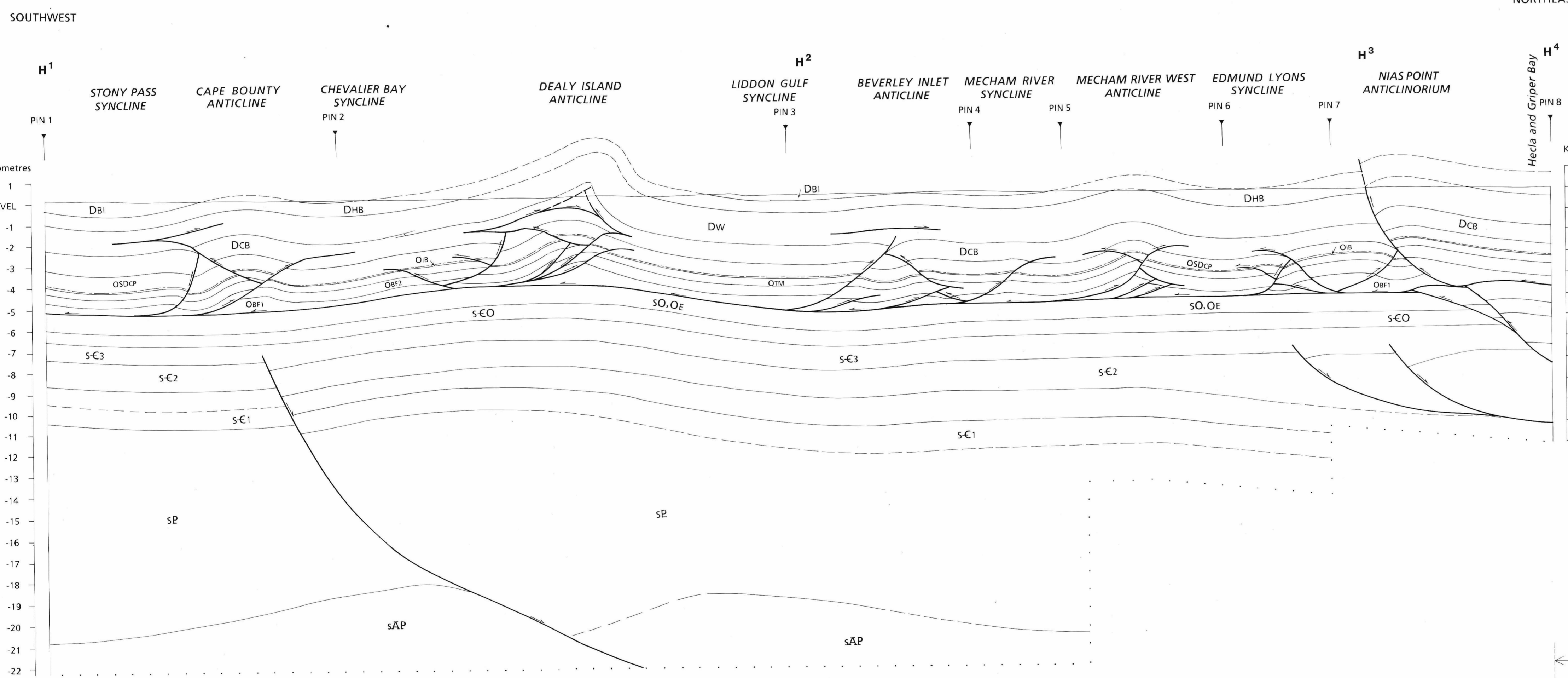
SEISMIC REFLECTION DATA



INTERPRETED SEISMIC DATA



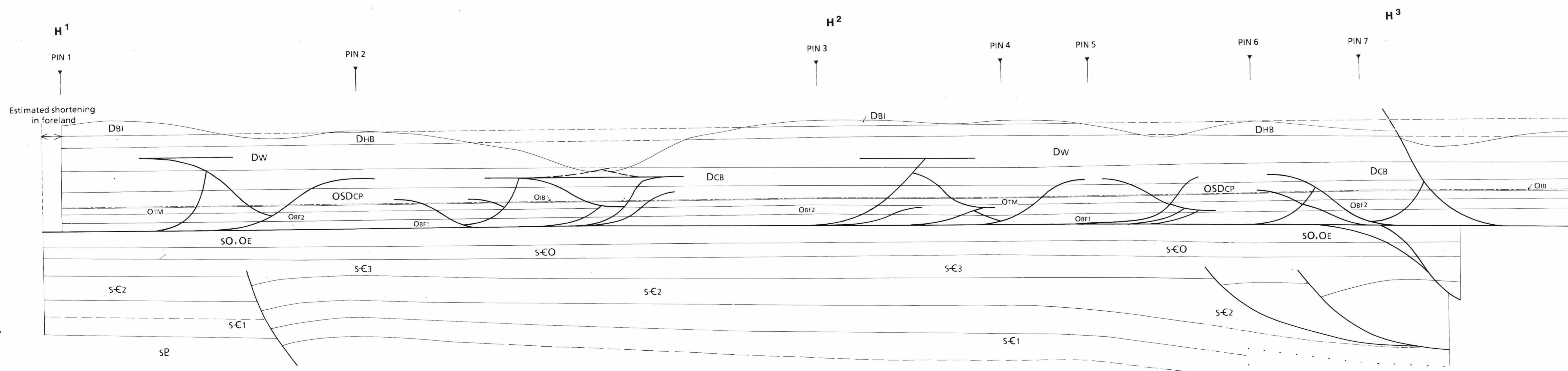
DEFORMED STATE CROSS-SECTION



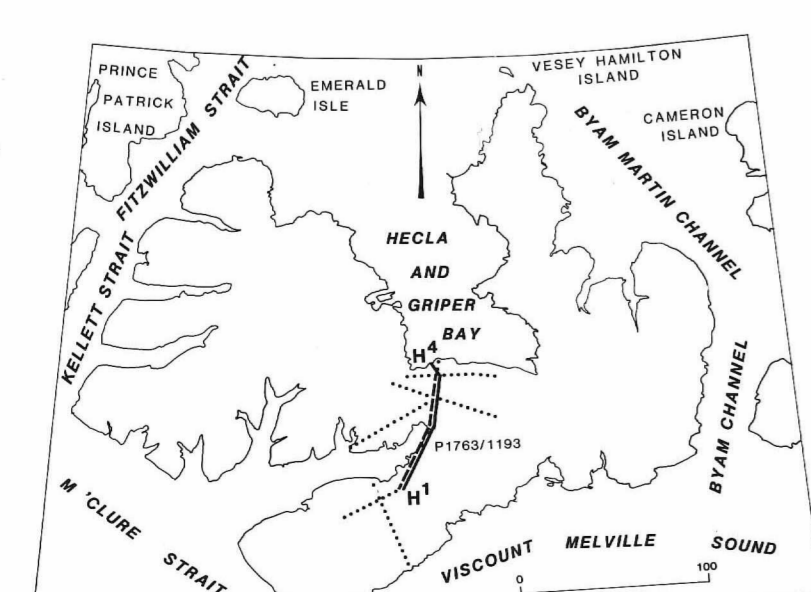
NOTES TO ACCOMPANY SECTION H
(Seismic line P1763/1193)

- Processing and Acquisition**
- Lines P1763 and P1193 have been blended after stacking and before migration. Renumbering of CDF traces was executed after blending. The blend intersection is at CDF 425.
 - Over migration hyperbolae have obscured the primary reflectors below CDF 350 and 1600.
 - Minor reflection irregularities readily observed above the sC1 and sC2 intervals (between CDF 575 and 810) are attributed to velocity anisotropy above the Eleanor River (Otr) interval.
- Seismic Stratigraphic Features**
- There are three clear examples of topset strata above the Cape De Bray (DCB) interval that can be traced southward into sigmoidal reflectors. These examples are found below CDF 175, 550 and 1375.
 - Dramatic thickening of unit sC1 occurs north of CDF 350. There appears to be some corresponding thinning from the base of underlying unit sC1.
- Structural Features**
- Downward pointing cusped features in the lower Weatherall (Dw) interval (below CDF 1675 and 720) testify to an upper detachment level located approximately 250-300 ms above the top of the Cape De Bray (DCB).
 - An excellent example of a pop-up structure occurs below CDF 1150. Two other examples of this phenomenon occur below CDF 360 and 1600.
 - A minor north-dipping extensional fault is placed beneath the sC1 unit near CDF 125. Unit thickness variation across this fault indicates that motion may have taken place during deposition of sC1 and sC2.
 - The large convex reflector at and below 6500 ms (CDF 1350) is interpreted to have been produced above a rotated block of unit sC1. Asymmetry of the block may have been caused by extensional slip on an underlying northerly-dipping listric fault.
 - A northerly-dipping extensional fault (below and north of CDF 1575), that may have moved during deposition of unit sC1, is interpreted to root into unit sC1.
 - Long wavelength folding of the basal reflection assemblage of unit sC1 and all overlying units is clear evidence that compressive deformation in this area has affected all Proterozoic to Devonian units.
- Depth Conversion**
- DBI: 3.8 km s⁻¹
 DHB: 3.9 km s⁻¹ (south) - 3.8 km s⁻¹ (north)
 DW: 4.0 km s⁻¹
 DCB: 3.8 km s⁻¹
 OSDCP: 4.5 km s⁻¹ (south) - 4.6 km s⁻¹ (north)
 Otr, Otr1: 5.8 km s⁻¹
 Otr2: 5.3 km s⁻¹
 sC1a-Otr: 5.7 km s⁻¹
 below sC1a: 6.2 km s⁻¹
- Method of Cross-section Construction and Restoration**
- Bed length measurement and balancing of the contacts above Otr1, Otr2, Otr3 and OSDCP between pairs of adjacent pin lines.
- Bed length measurement and balancing of the contacts above sC1, sC2 and Oe between pairs of adjacent pin lines.
- Bed length measurement of the contact above DHB.
- Area measurement and restoration of Otr1, DCB, DW, DHB, and DBI between pairs of adjacent pin lines. This method assumes that horizontal shortening of units Otr1 and DW-DBI is the same as that expressed by bed lengths of contacts above Otr1 - OSDCP.

RESTORED STATE CROSS-SECTION

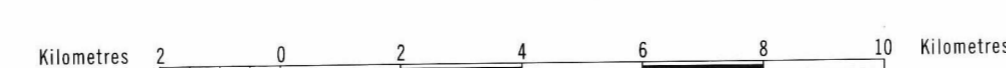


- Results**
- Section length: 72.1 km
- Bed length of Otr1 (this section): 78.6 km
 Shortening of Otr1 (this section): 78.6 - 72.1 = 6.5 km (8.3%)
 Estimated shortening in foreland*: 1.0 km
 Total shortening of Otr1 from foreland: 6.5 + 1.0 = 7.5 km (5.8%)
- Bed length of Oe (this section): 73.3 km
 Shortening of Oe (this section): 73.3 - 72.1 = 1.2 km (1.6%)
 Estimated shortening in foreland*: nil
 Total shortening of Oe from foreland: 1.2 km
- Deformed state bed length of DHB: 74.1 km
 Apparent shortening of DHB (this section): 74.1 - 72.1 = 2.0 km (2.7%)
 Estimated apparent shortening in foreland*: 0.2 km
 Total apparent shortening of DHB (from foreland): 2.0 + 0.2 = 2.2 km (1.8%)
- Range of assumed tectonic thickening of DW-DBI (approximate): 3 - 8%
- *Foreland shortening is estimated from unmigrated seismic lines of Dundas Peninsula.



SECTION H
STONY PASS NEAR LIDDON GULF TO
HECLA AND GRIPER BAY NEAR NIAS POINT,
MELVILLE ISLAND

Scale 1:125,000



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