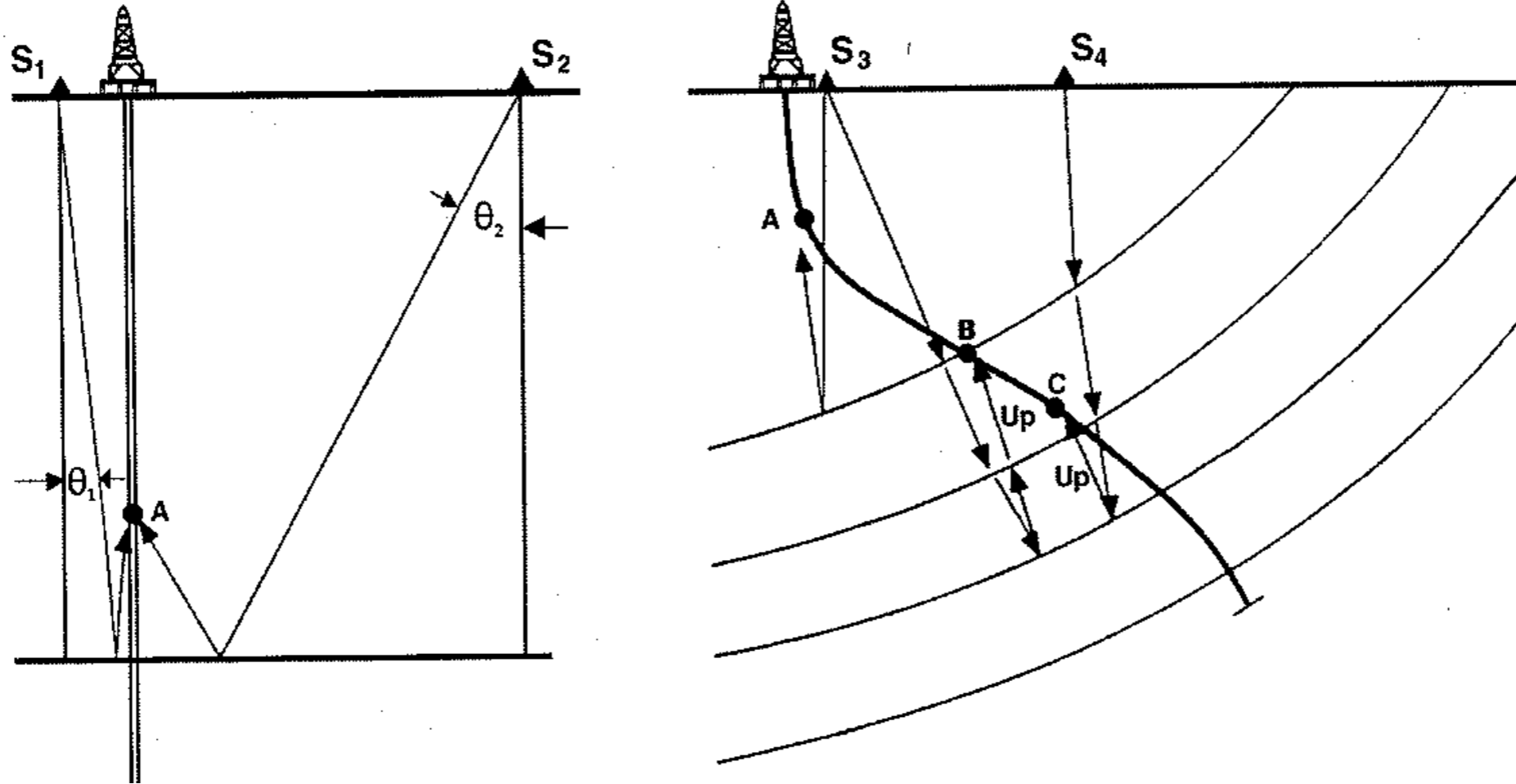


Vertical Seismic Profiling (VSP) FUNDAMENTALS

BASIC CONCEPT

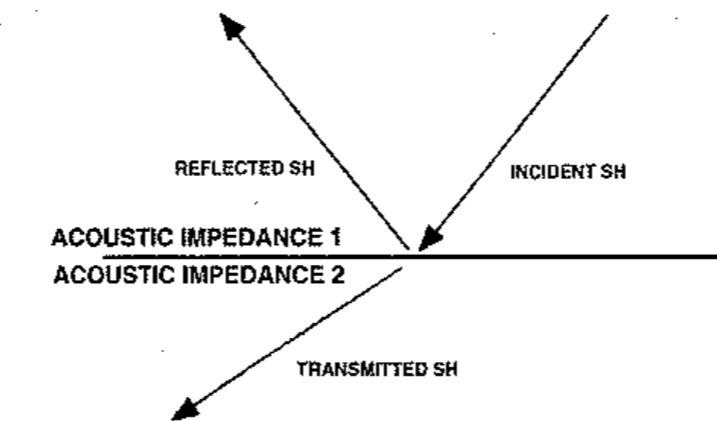
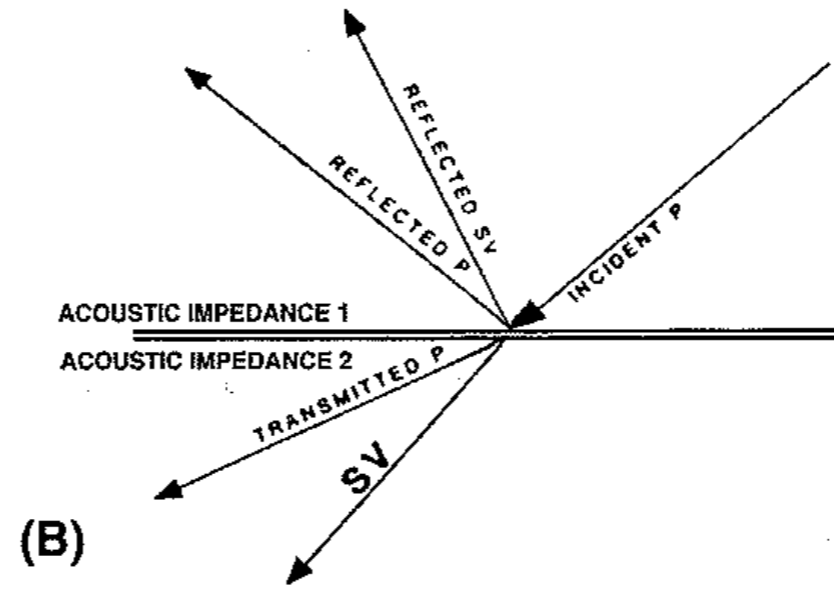
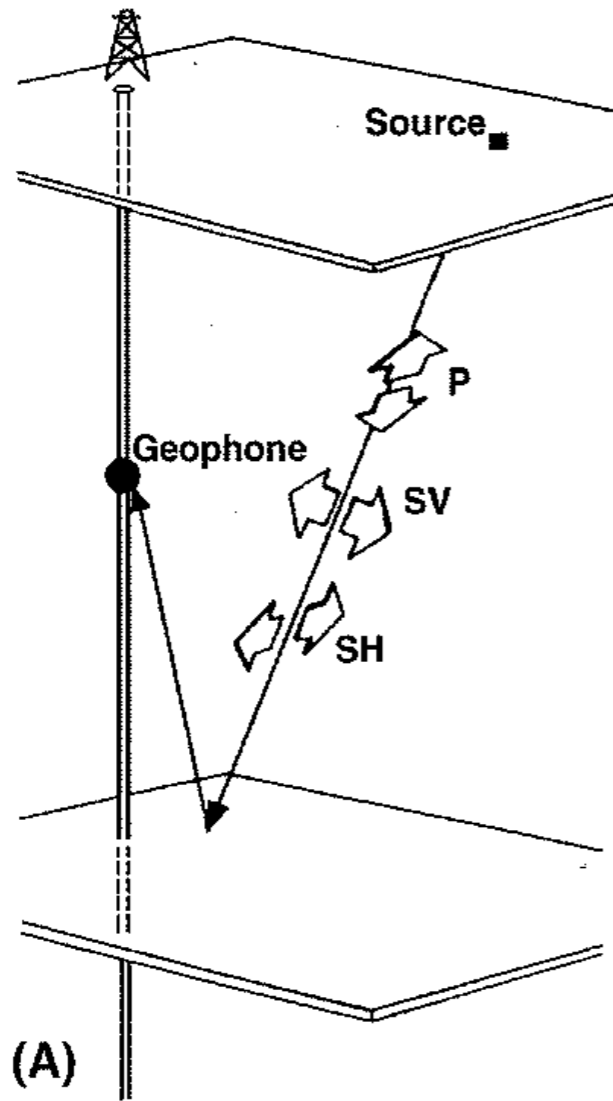
- * Surface sources
- * Borehole receivers
- * Recording of both up- and down-going wavefields
- * Multicomponent measurements (tri-axial sensors + pressure)

VSP configurations



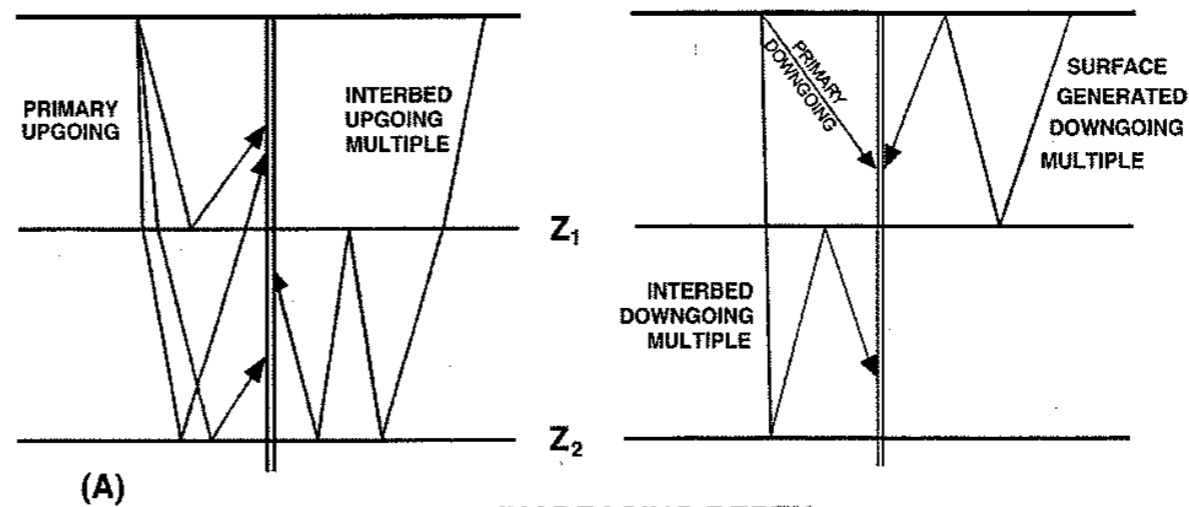
zero-, near-, far- offset VSP

Recorded wavefields

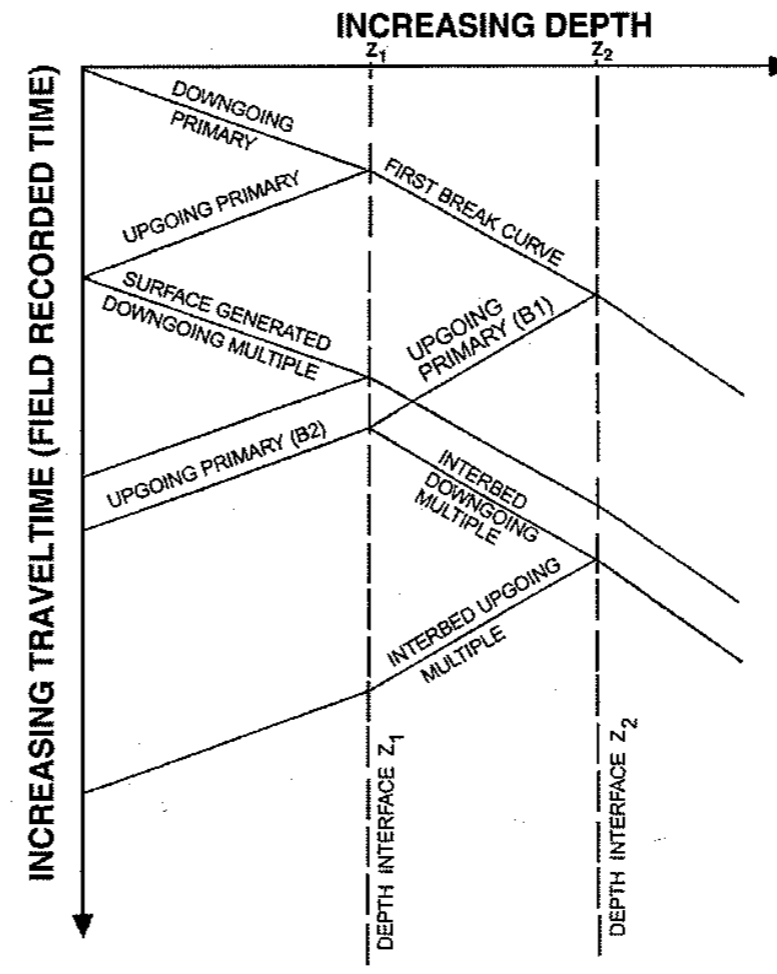


P, SV, SH

Recorded wavefields



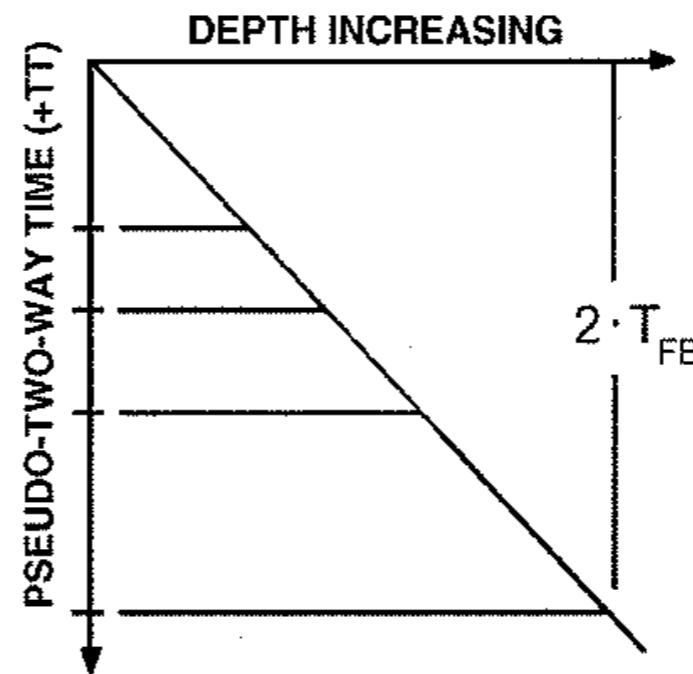
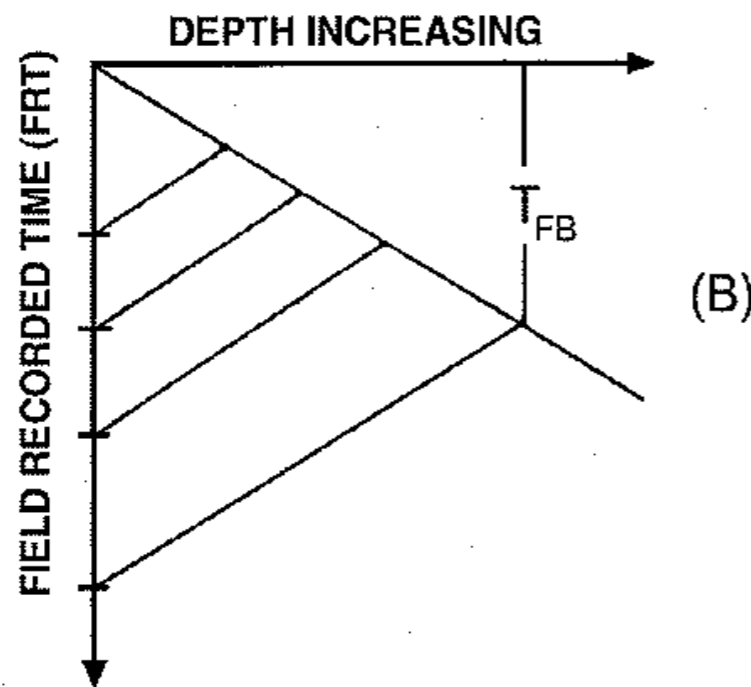
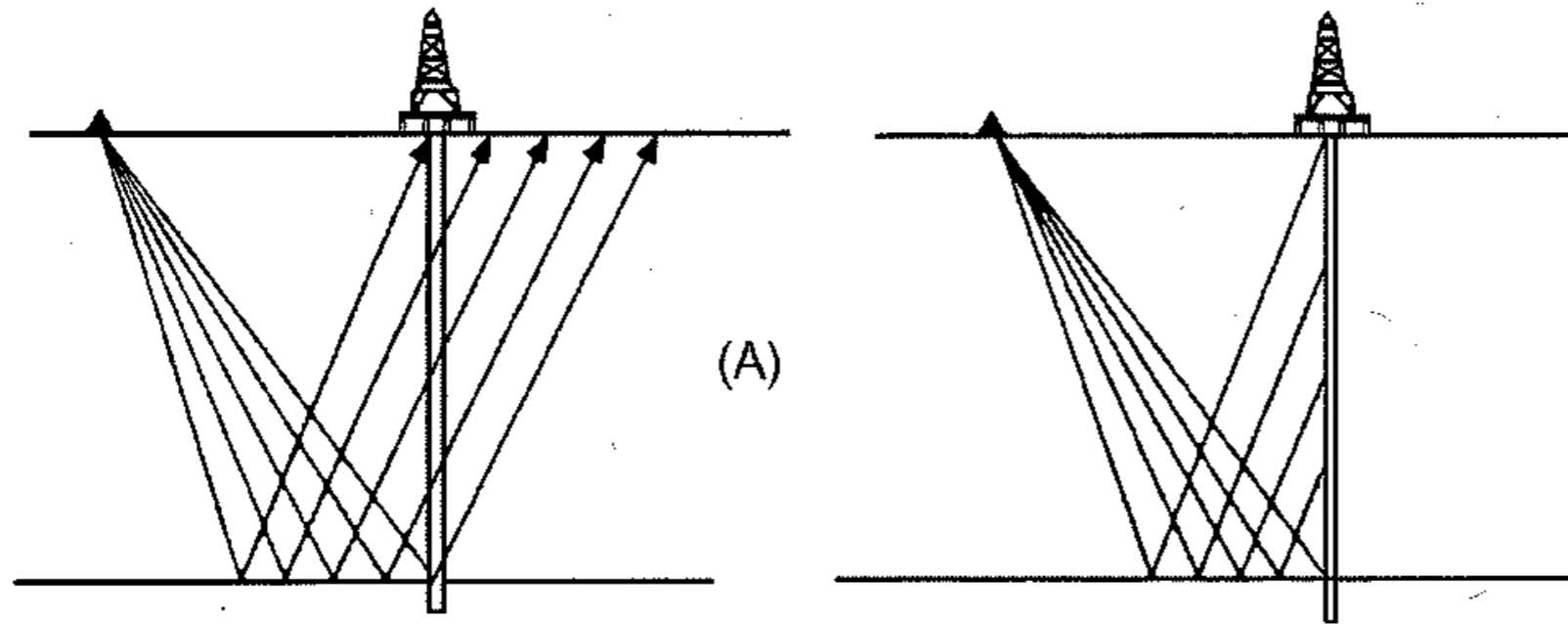
(A)



(B)

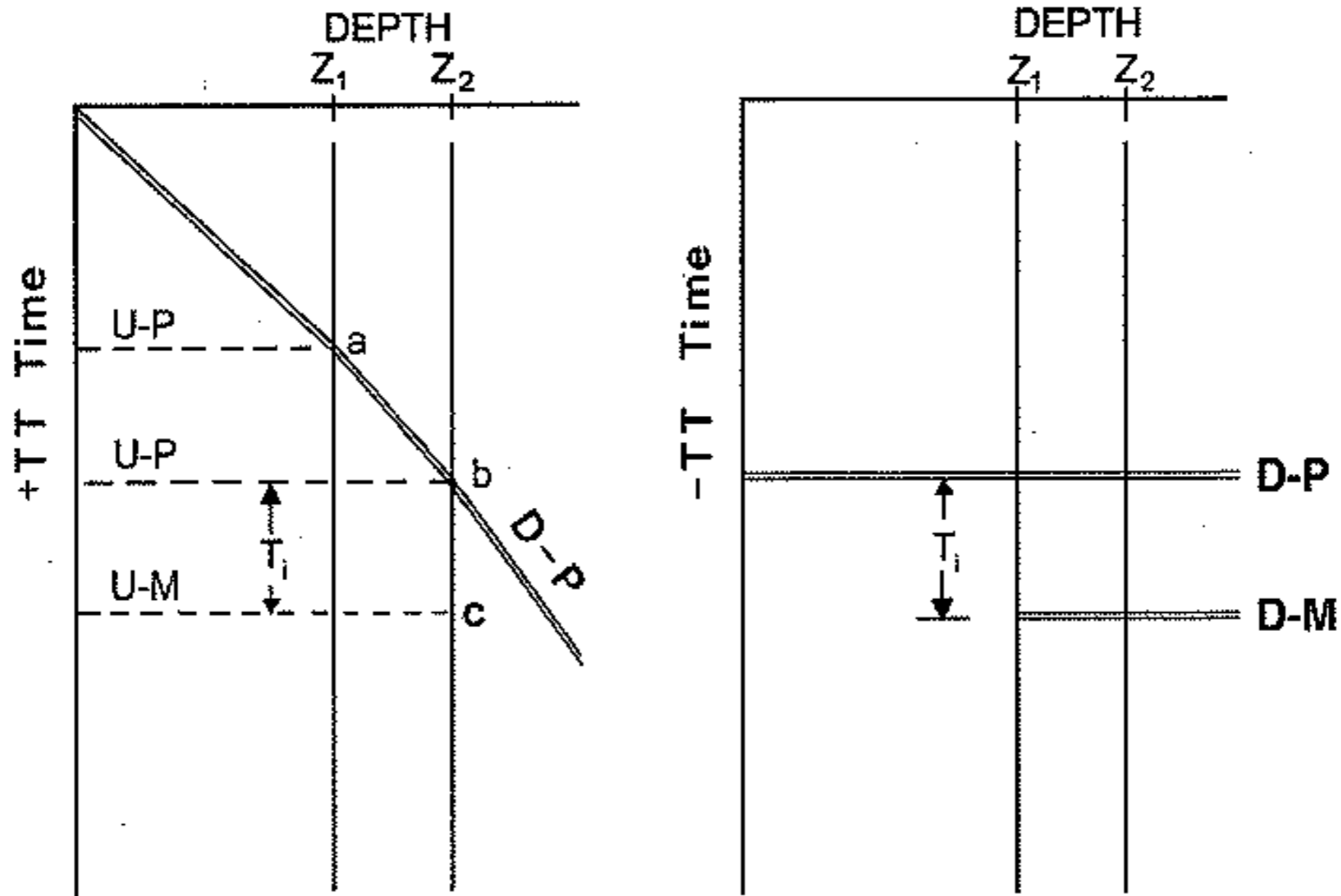
UP-, DOWN-GOING; Primary/multiple

VSP displays: traveltimes



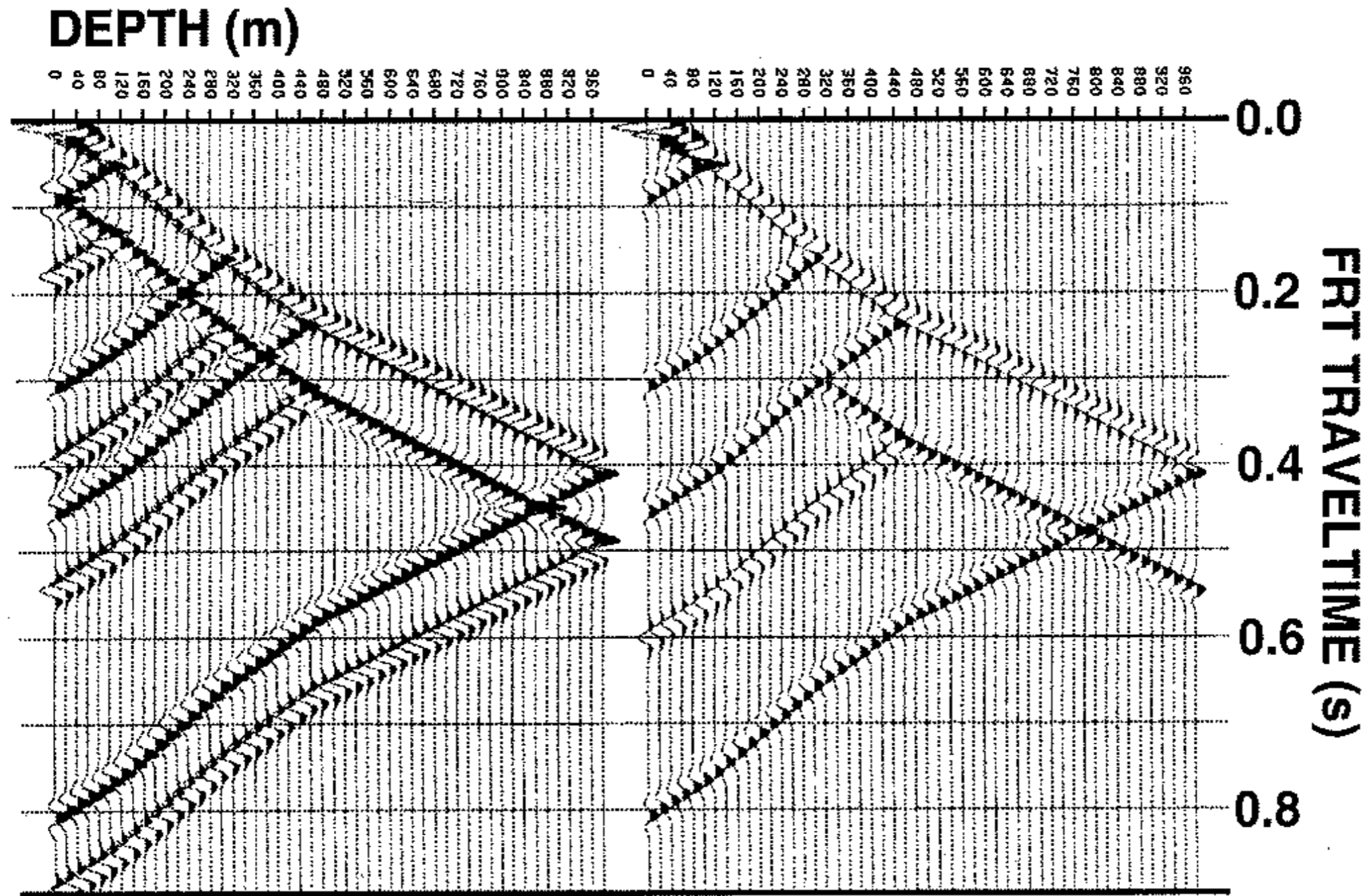
Field Recorded (FRT) and Pseudo-Two-Way (+TT)

VSP displays: multiples/primaries in +TT and -TT



DIM only below UGI - UIM only above BGI

VSP displays: synthetic example



Surface and interbed generated multiples

Thanks for Patience!