

## D Figures.

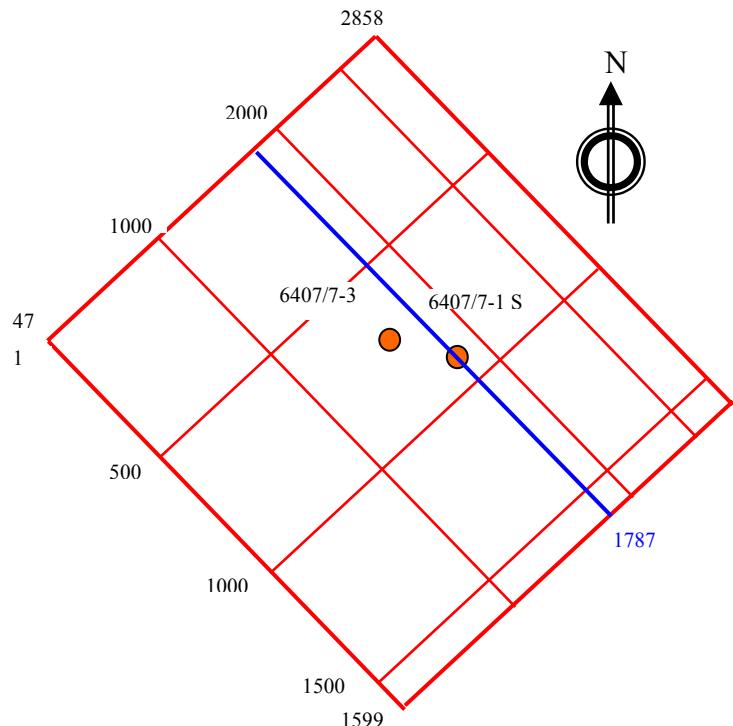


Figure 8: Base map of Njord field, North Sea area, offshore Norway.

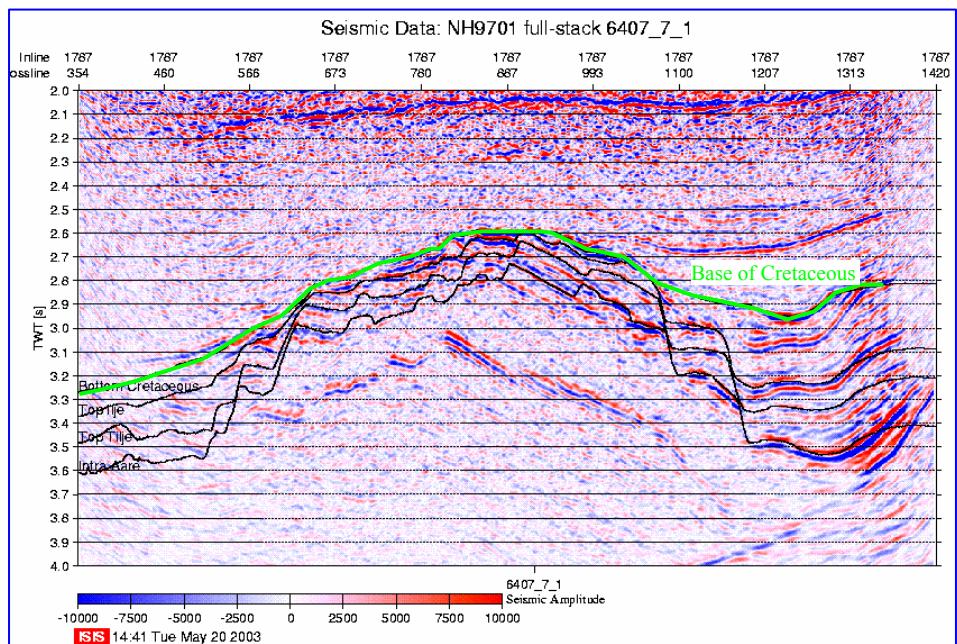
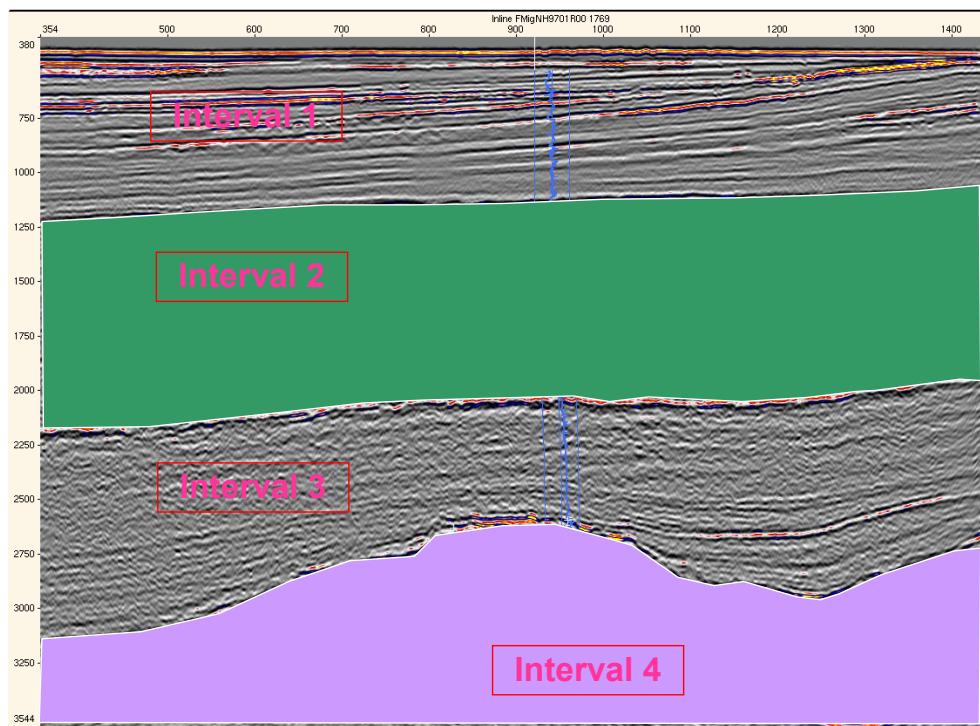
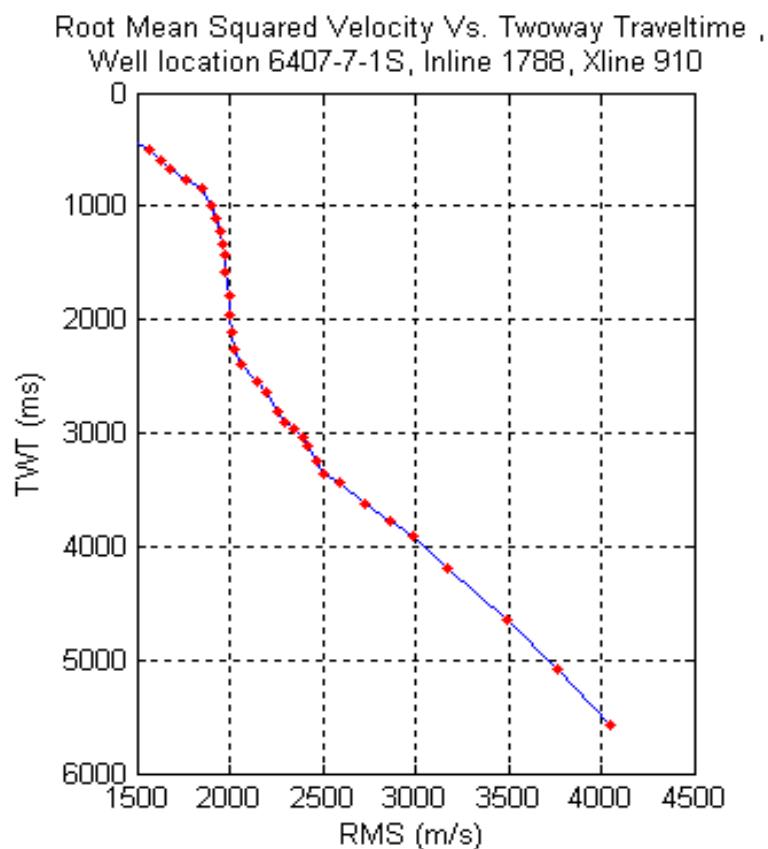


Figure 9: Inline 1787, Njord field, showing complex geological structure below base of Cretaceous.



*Figure 10: Inline 1769, Njord field, showing simple geological structure above base of Cretaceous.*



*Figure 11: Stacking velocity at well location 6407/7-1S.*

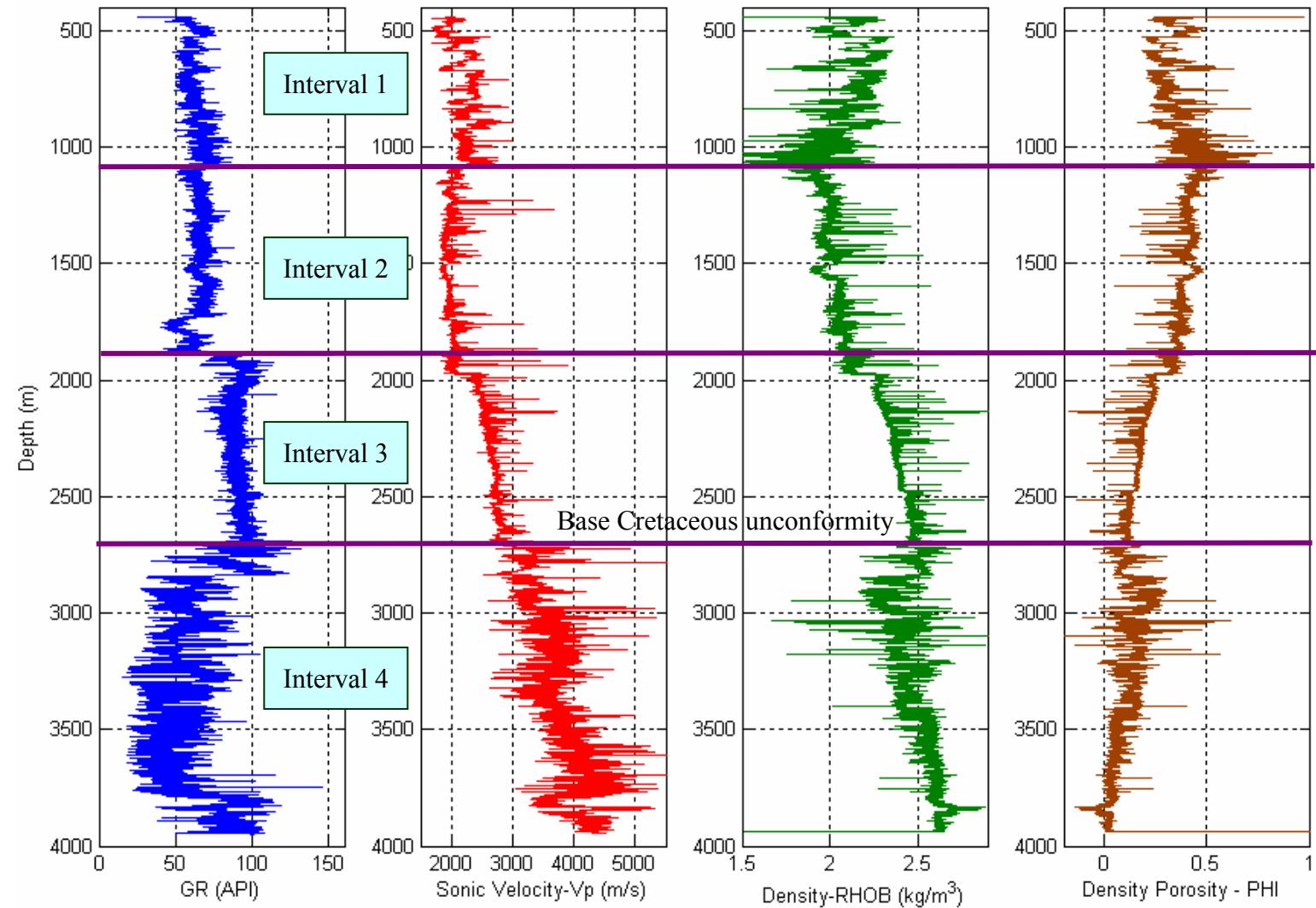


Figure 12: Logging data in well 607/7-1S.

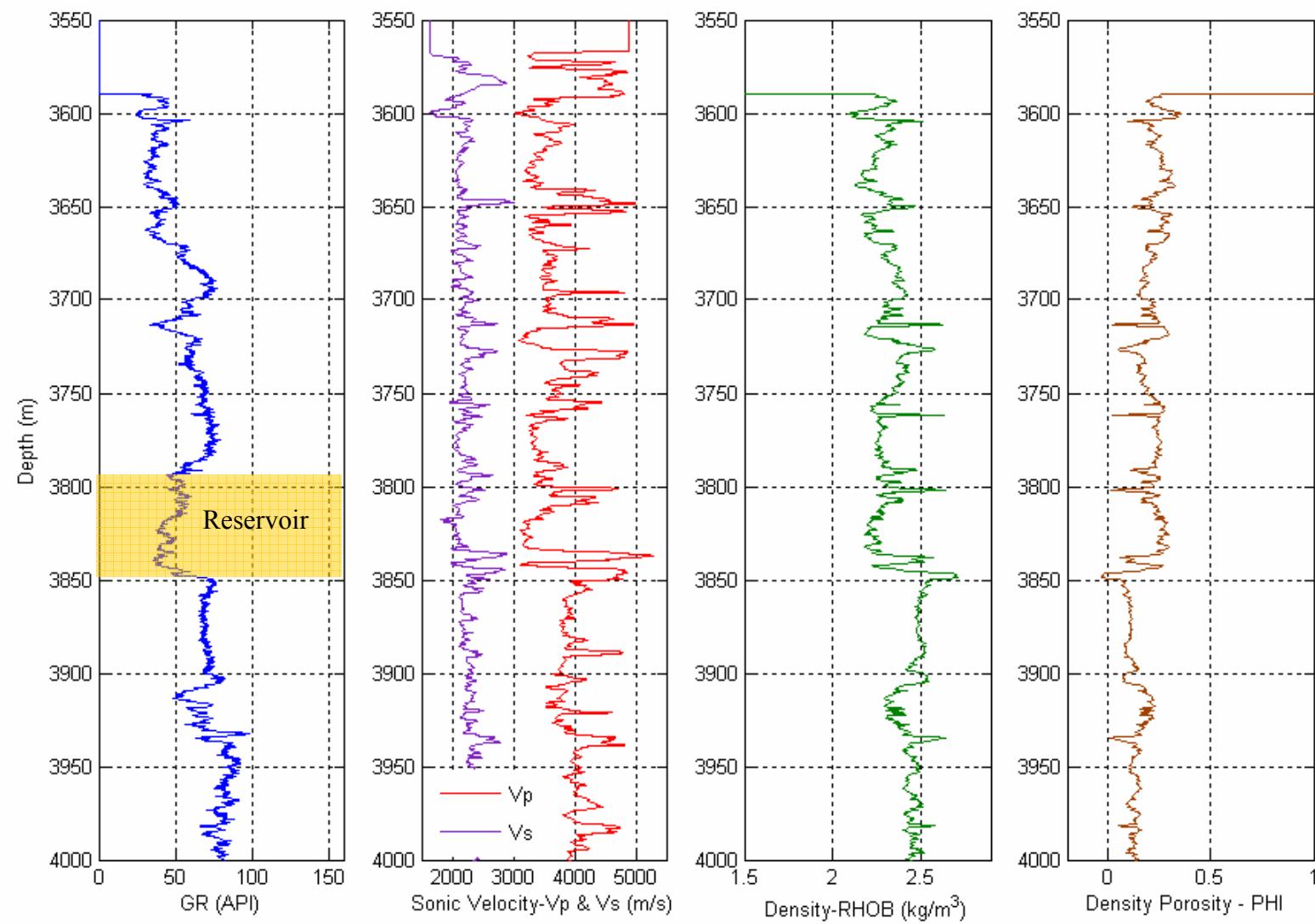


Figure 13: Logging data in well 607/7-3.

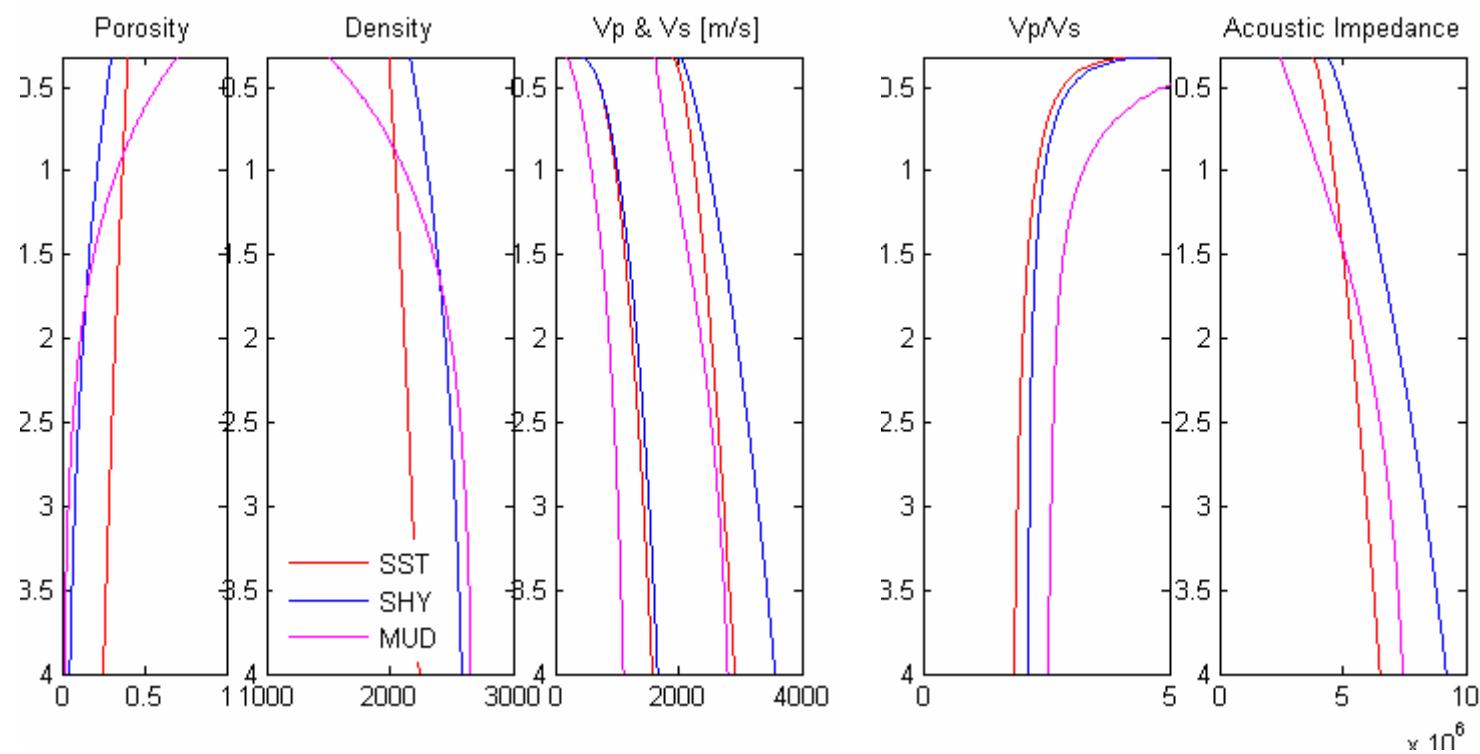


Figure 14: Normal mechanical compaction RPDTs at well location 6407/7-IS.

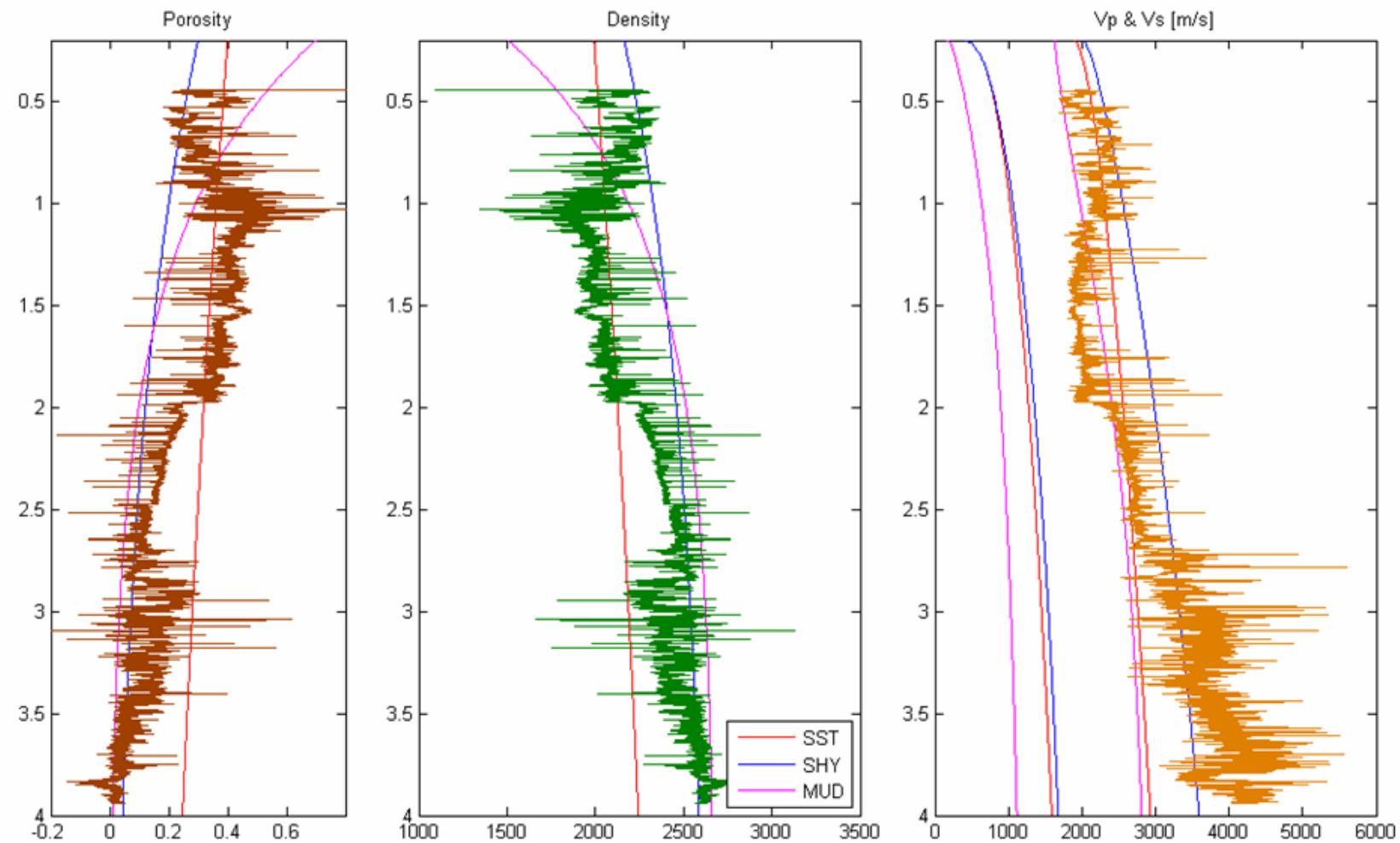
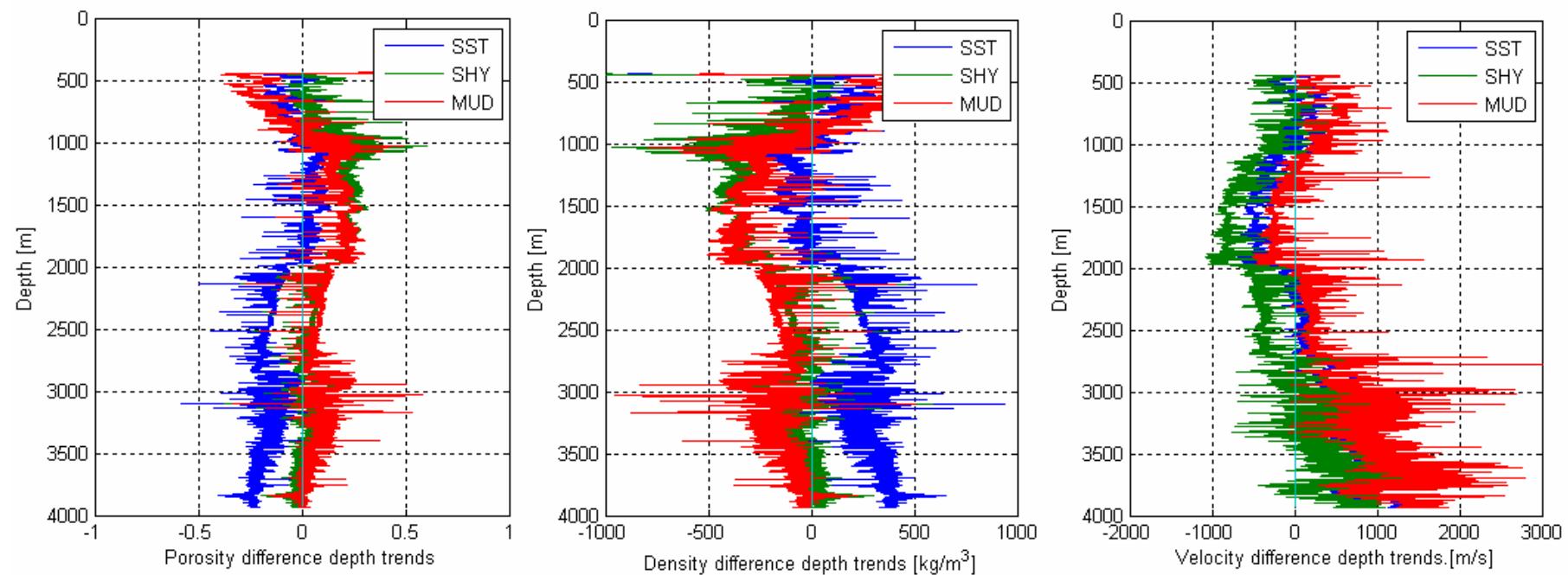
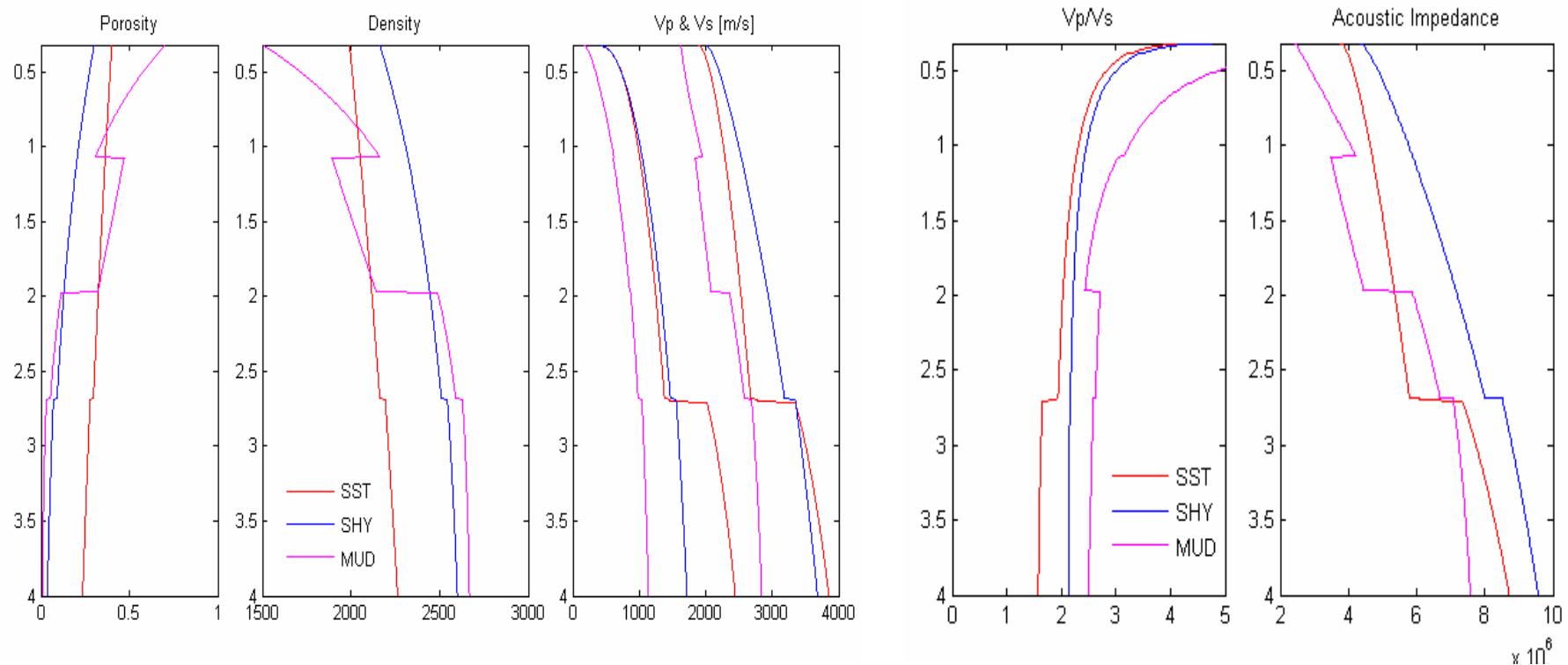


Figure 15: Normal mechanical compaction RPDTs displayed with logging data at well location 6407/7-1S.



*Figure 16: Difference attribute trends between normal mechanical compaction RPDTs and logging data at well location 6407/7-1S. Positive deviation in velocities indicates cementation while negative deviation indicates overpressure or high porosity.*



*Figure 17: Empirical RPDTs modelled for normal mechanical compaction, abnormally high porosity, uplift-erosion and late cementation effects.*

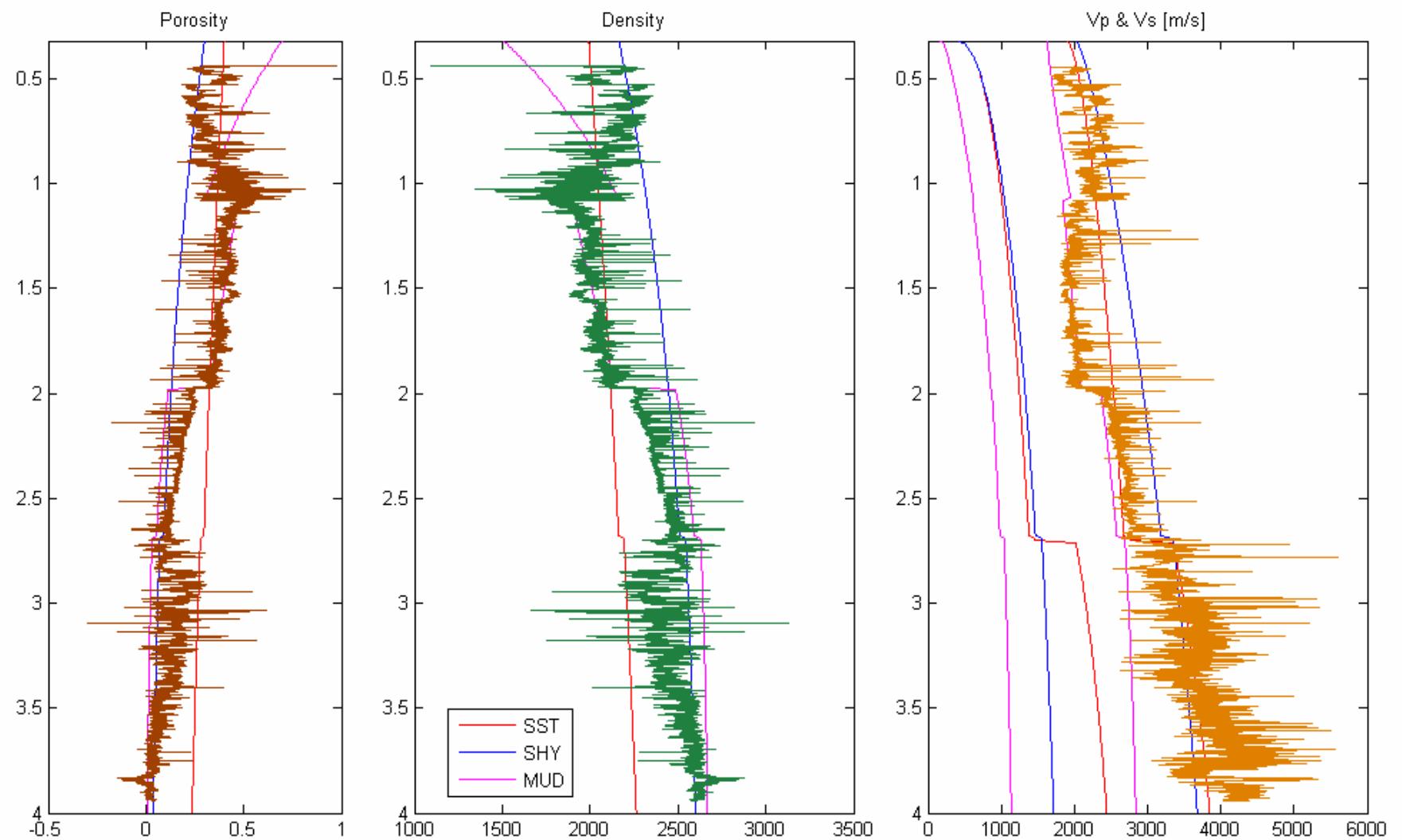
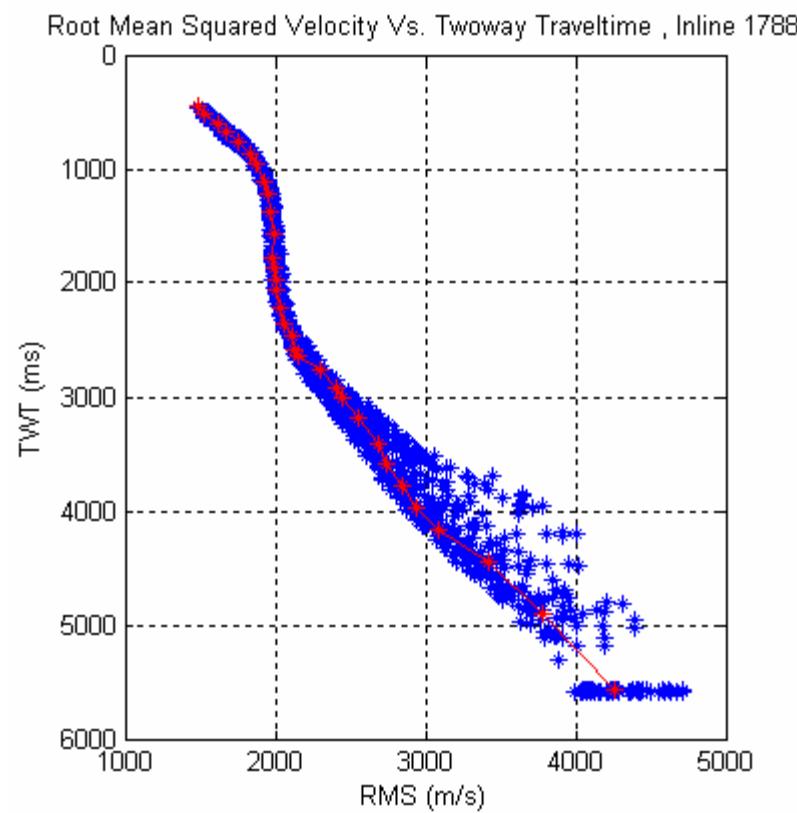
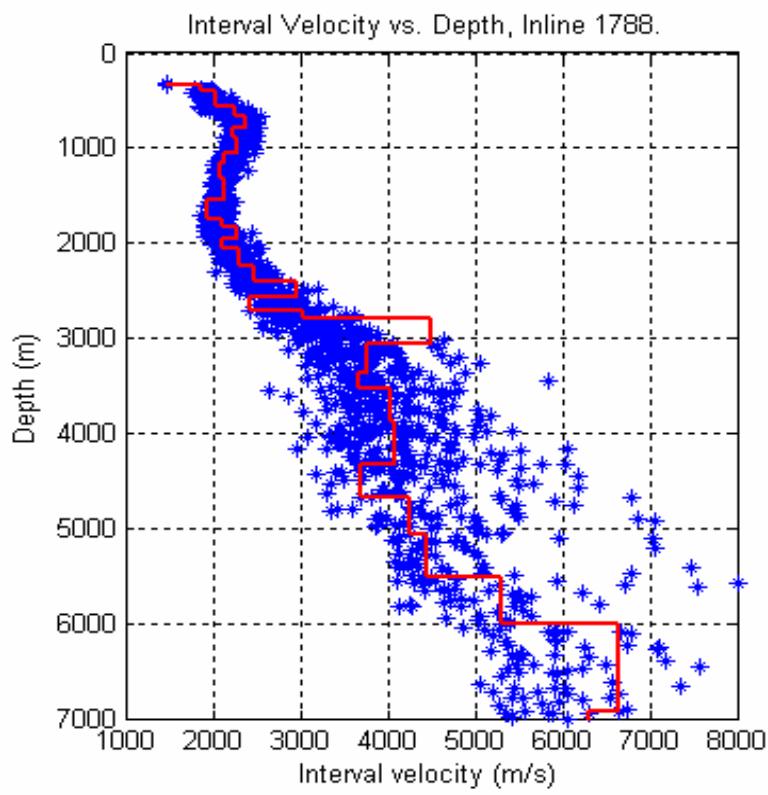


Figure 18: Comparison between empirical RPDTs modelled for all rock physic events and logging data at well location 6407/7-1S.



*Figure 19: Stacking velocity versus traveltimes (TWT),  
Inline 1788. Red curve is velocity at well location 6407/7-1S.*



*Figure 20: Interval velocity versus depth, inline 1788.  
Red curve is velocity at well location 6407/7-1S.*

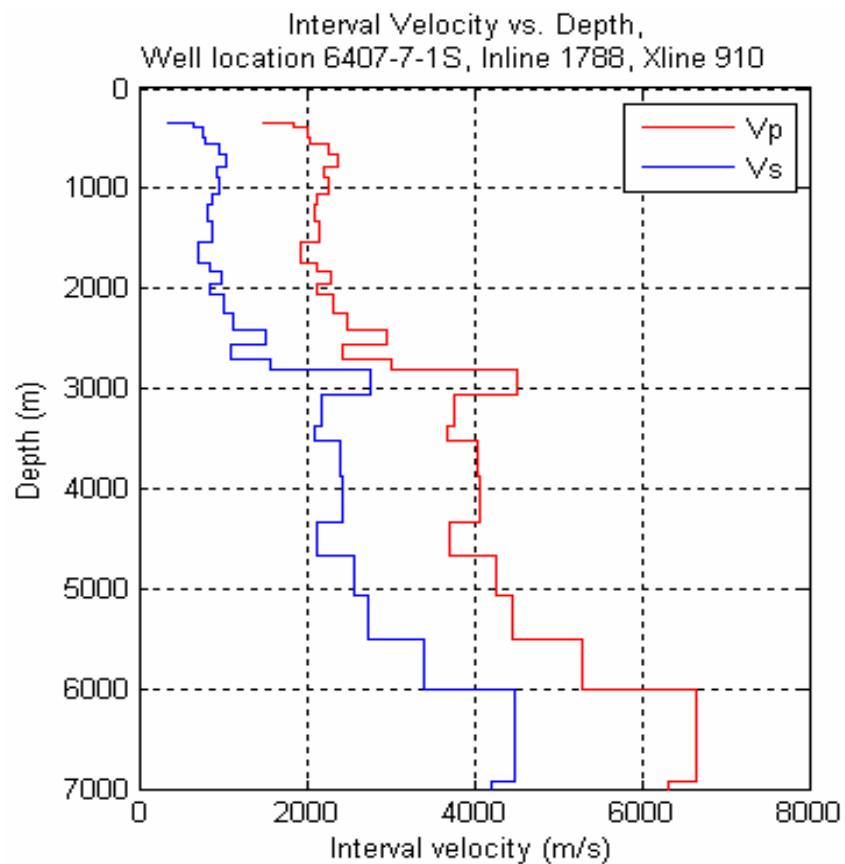
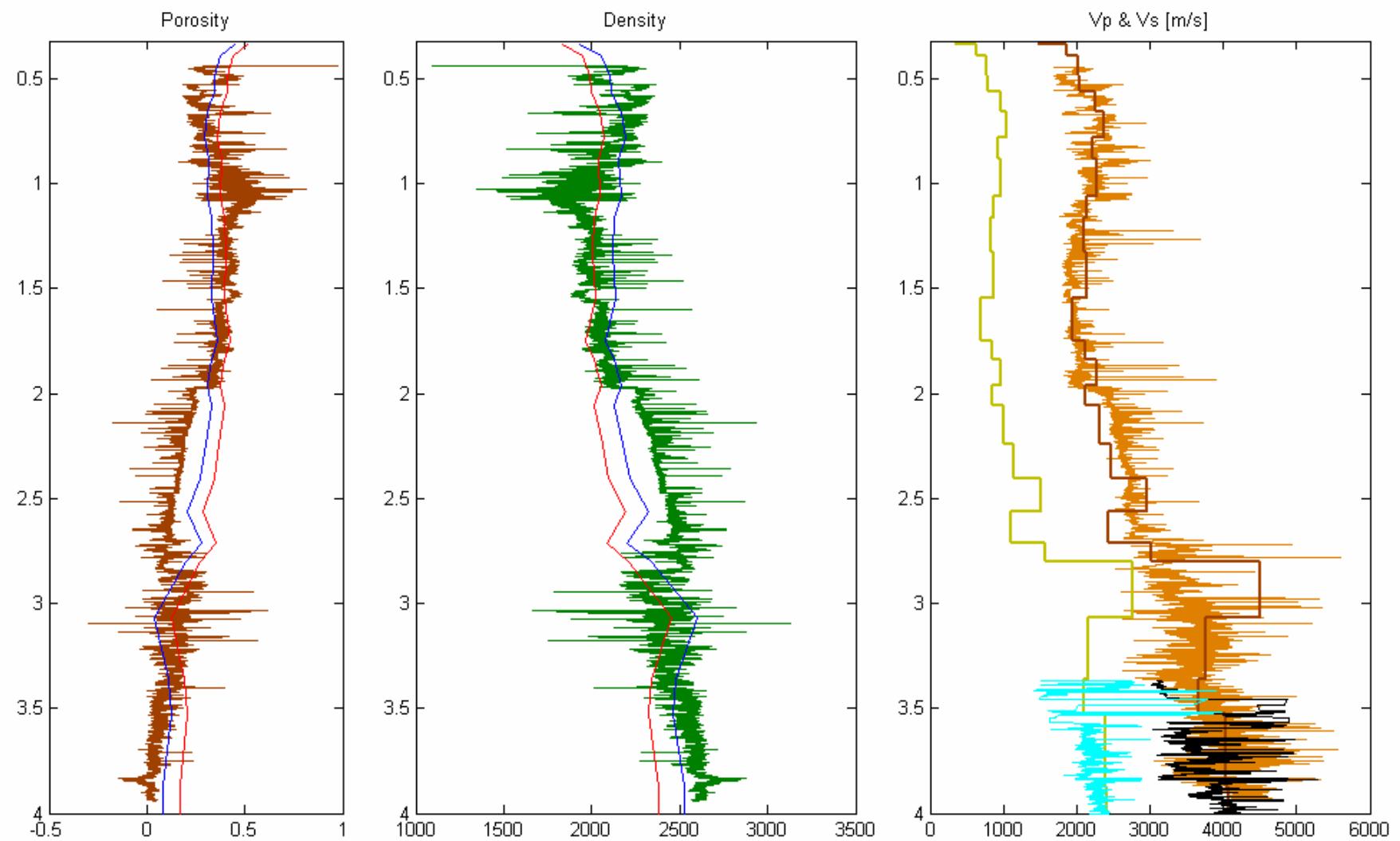


Figure 21:  $V_s$  calculated from  $V_p$  using equation 9 at well location 6407/7-1S.



*Figure 22: Seismic RPDTs compared to well log data at well location 6407/7-1S.*

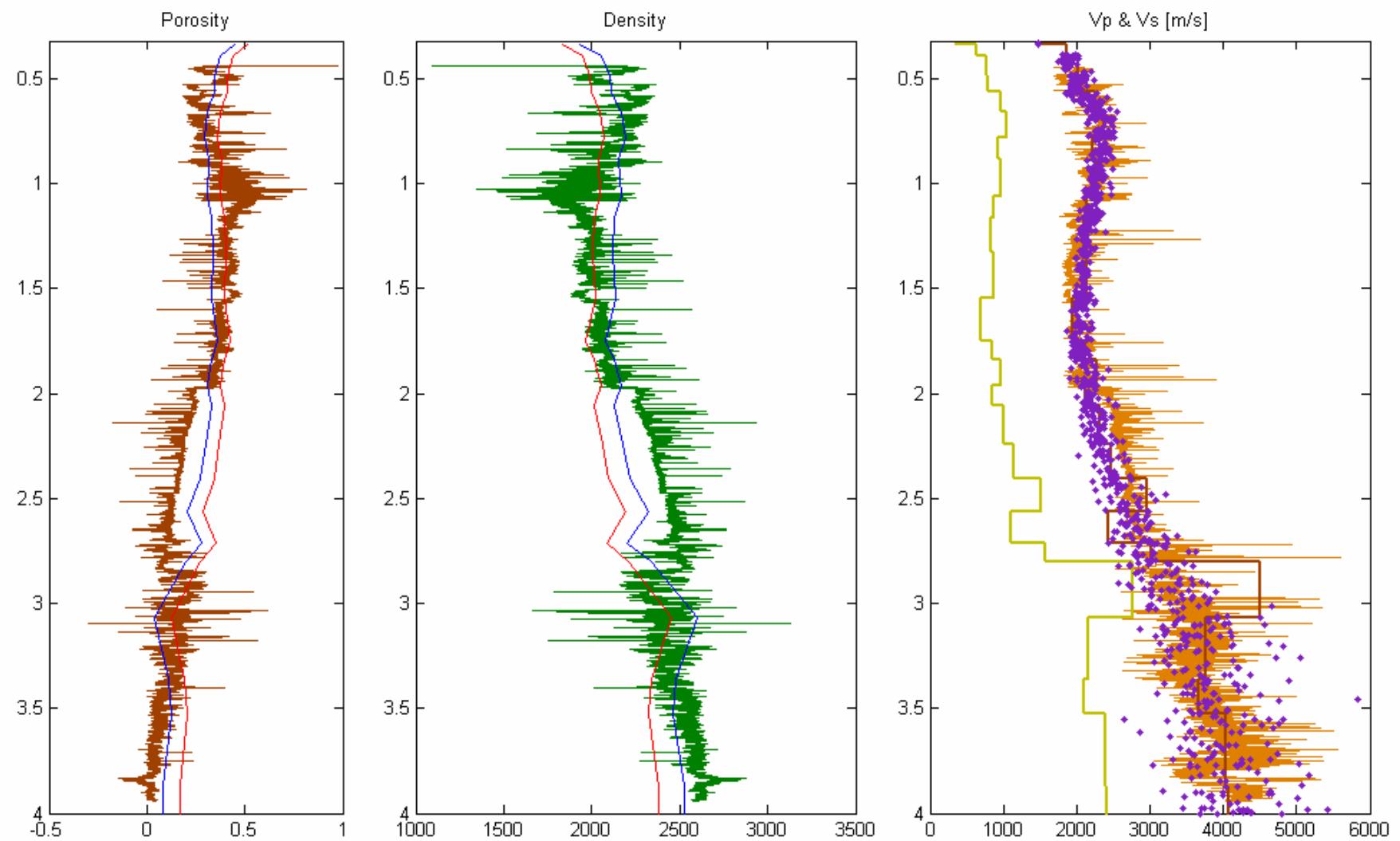


Figure 23: Seismic RPDTs along Inline 1788, compared to well log data at well location 6407/7-1S.

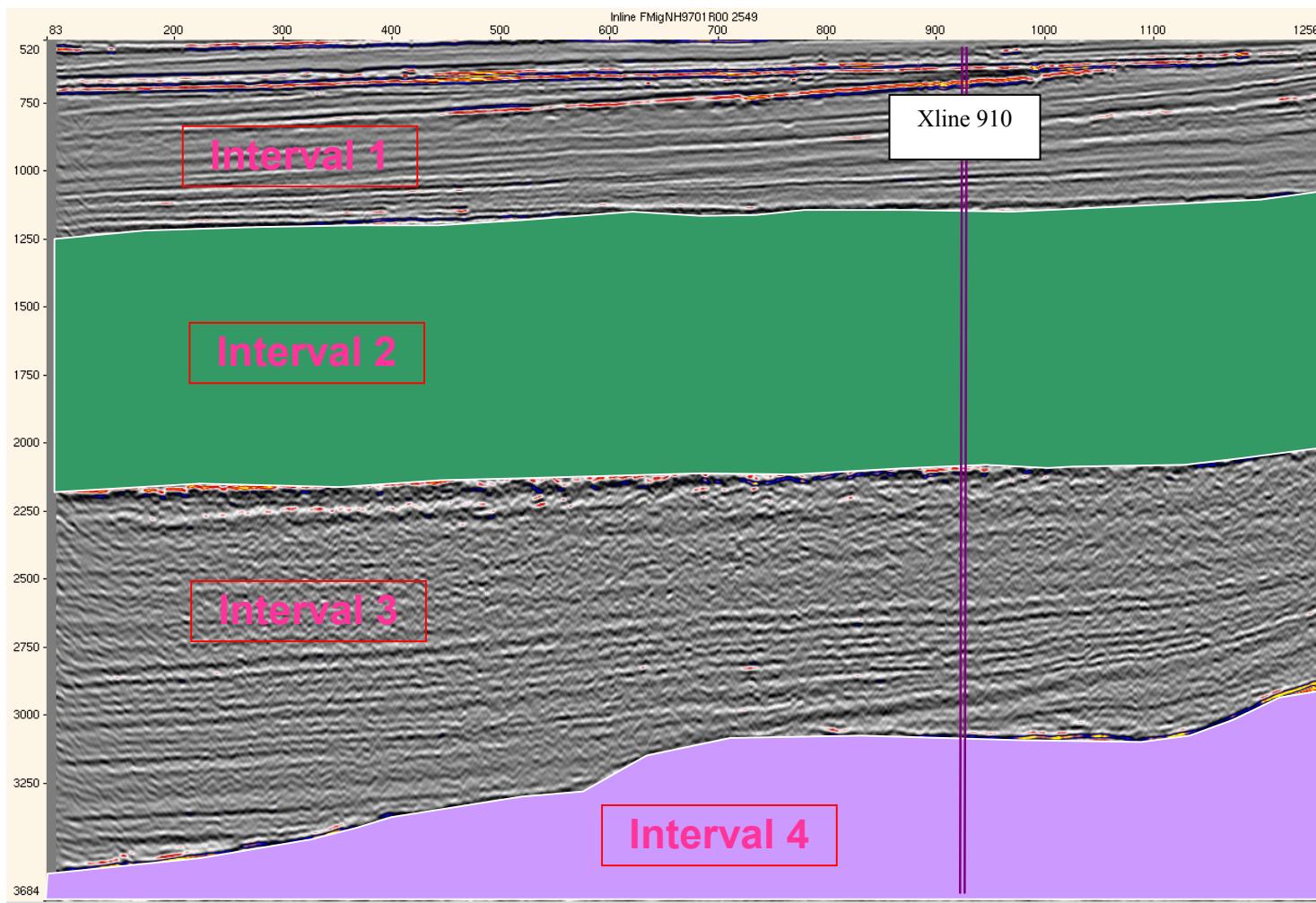


Figure 24: Seismic section, Inline 2549, Njord field.

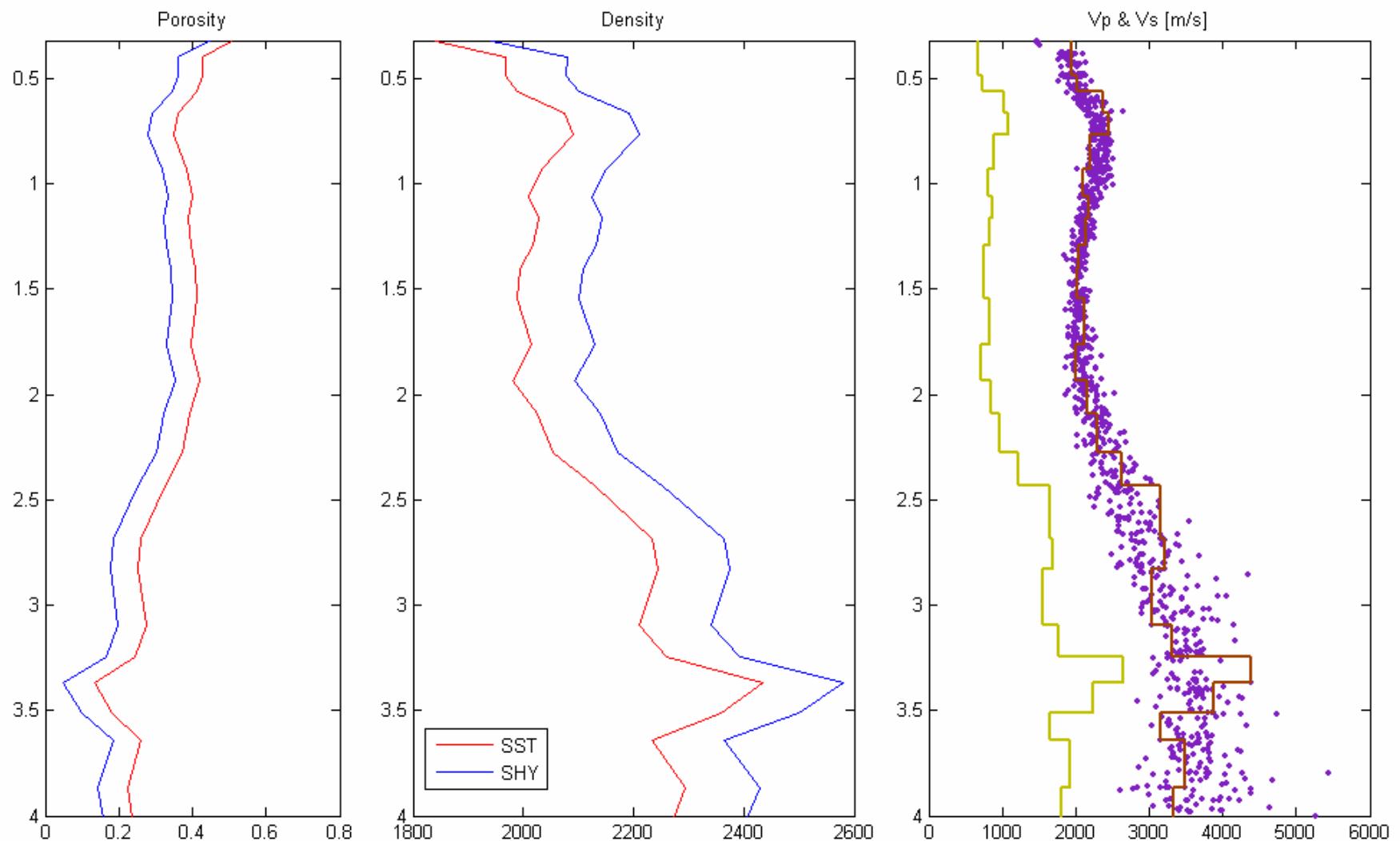
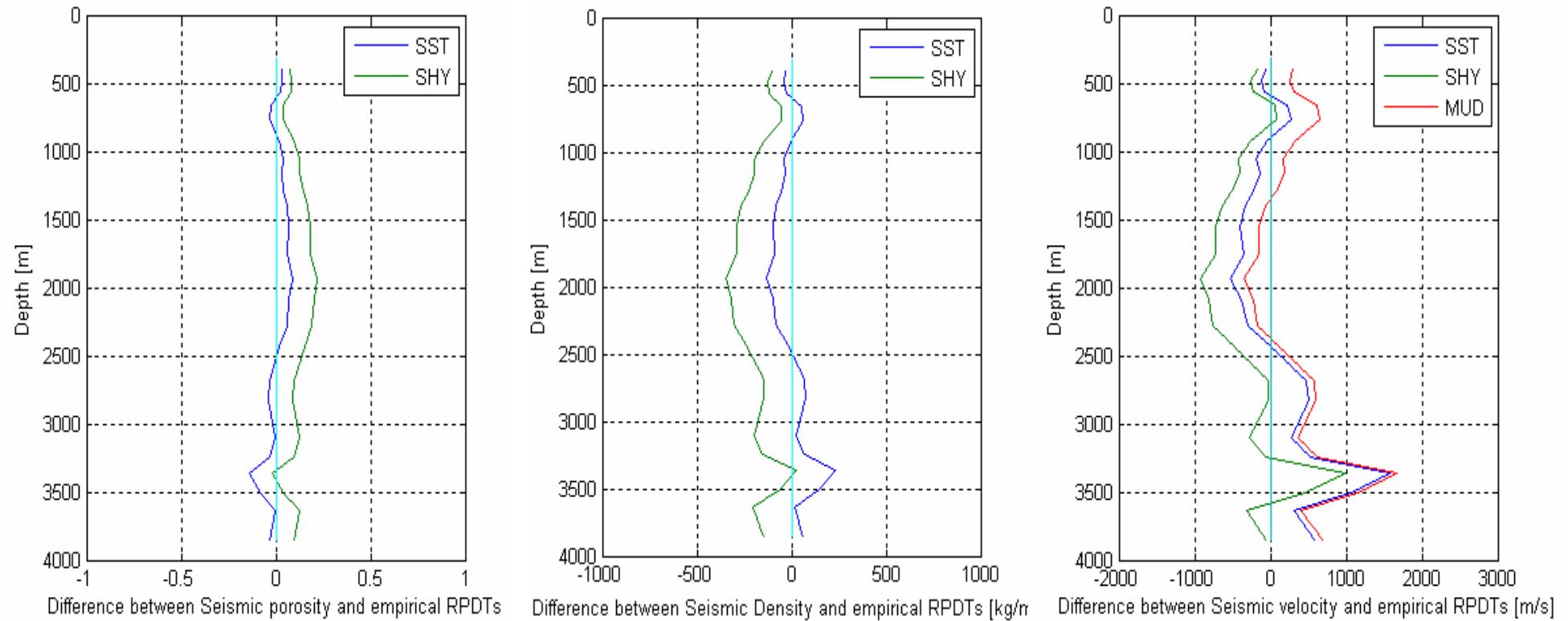
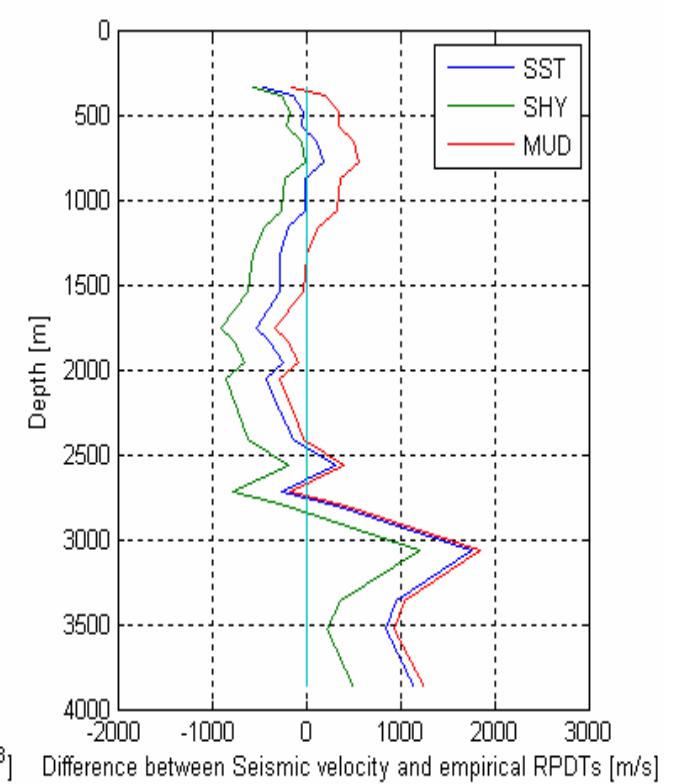
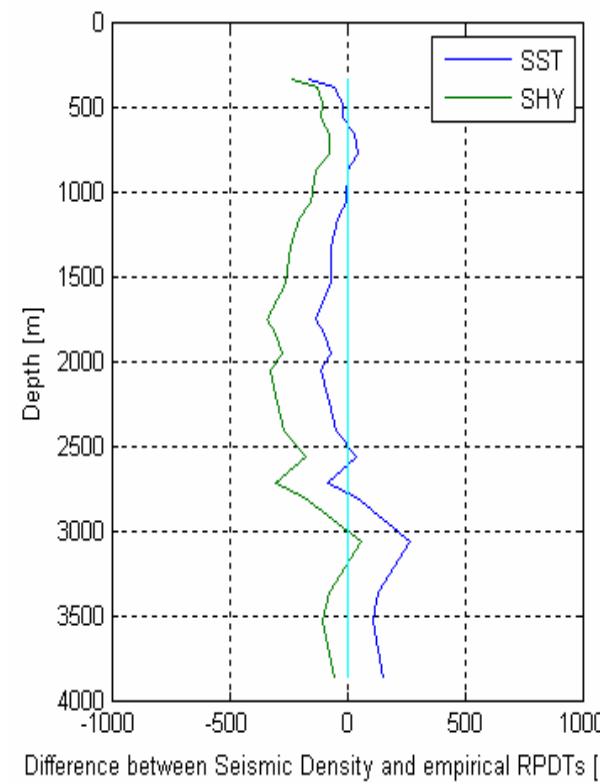
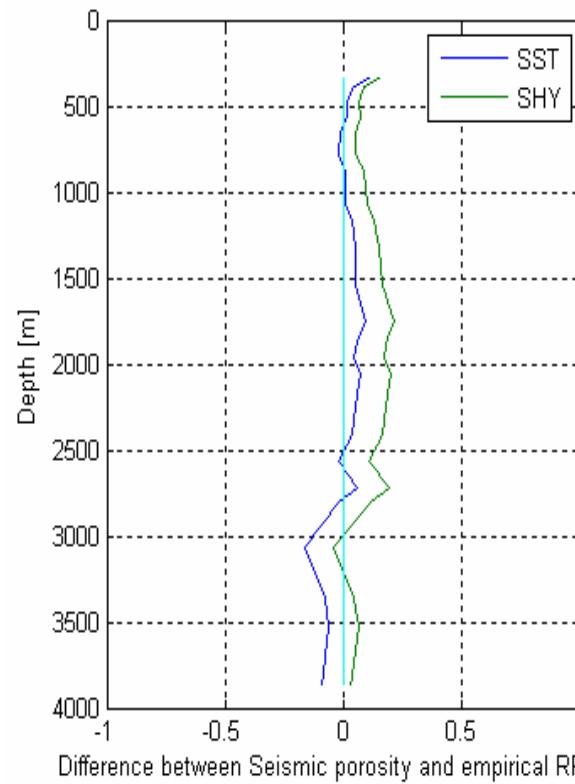


Figure 25: Seismic RPDTs at location {Inline 2502, Xline 910} plotted together with velocity along Inline 2502.



*Figure 26: Difference attribute depth trends calculated from seismic RPDTs and normal mechanical compaction RPDTs at location {Inline 2502, Xline 910}.*



*Figure 27: Difference attribute depth trends calculated from seismic RPDTs and normal mechanical compaction RPDTs at well location 6407/7-1S.*

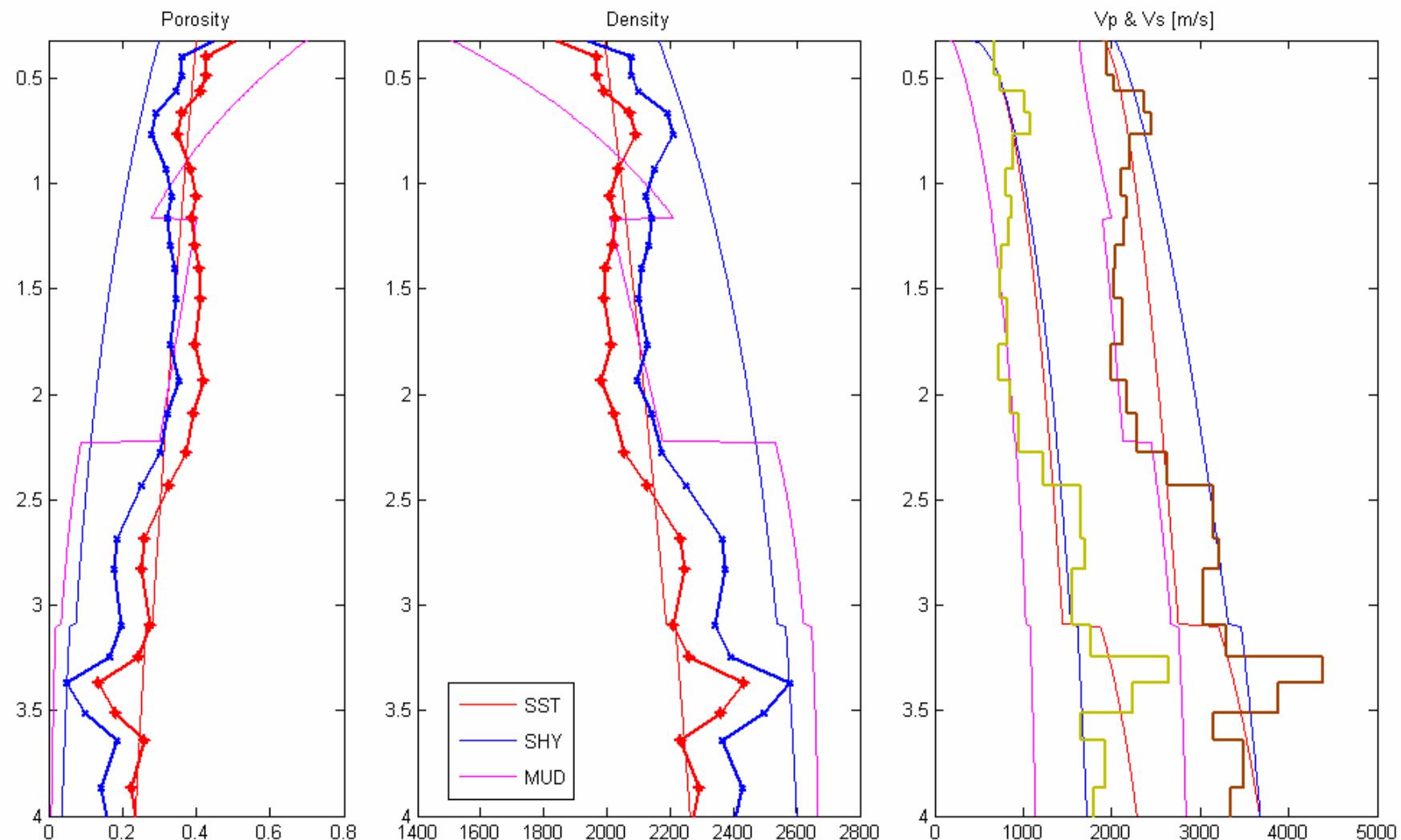


Figure 28: Seismic RPDTs and empirical RPDTs modelled for normal mechanical compaction effect and other unexpected rock physic events of abnormally high porosity, uplift-erosion and late cementation at location {Inline 2502, Xline 910}.