APPENDIX 1. Examples of detailed correlation panels, along cross-section D1 and D2 (as in Fig. 14A), Western and Central PDS respectively.

These panels supplement the isopach map (Fig. 11) and the generalized stratigraphic cross-sections in Fig. 14, in order to demonstrate the distribution of facies in the trunk palaeovalleys of the two largest PDSs. Especially in the case of the Central PDS, some of previous authors inferred drainage from the North to South, and the correlation panels demonstrate the opposite facies polarity during deposition of CEN 1–3. The boreholes were selected to trace most closely the axes of the trunk valleys, but departures from palaeovalley axis occur in both cases. The data shown contain much local detail that cannot be discussed in the text of this paper; both panels are part of a three-dimensional correlation network of Cenomanian strata in the BCB that forms the basis of a stratigraphic study currently prepared for publication elsewhere.

Correlation datum: both panels are hung on the base of CEN 4 genetic sequence in order to show both the thickness trends in the underlying, fluvial to estuarine successions of CEN 1–3, and the overlying, mostly deltaic to shoreface and offshore strata. This is a difference from the cross-sections in Fig. 14 that use the Cenomanian-Turonian boundary as datum. The base of CEN 4 had various original slopes in different parts of the basin so it certainly is not a palaeo-horizontal, but it is the most suitable surface to visualize the difference in depositional geometries between the fluvial-paralic sequences CEN 1–3 and the predominantly open-marine CEN 4–6.

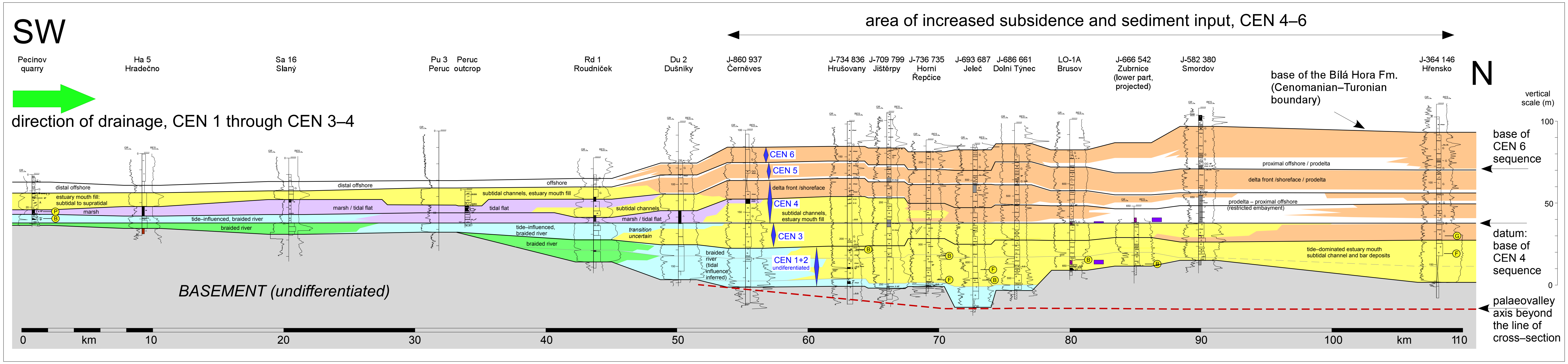
Correlation lines shown by bold lines are major transgressive surfaces (in marine and estuarine strata) or expansion surfaces *sensu* Martinsen *et al*. (1999) in fluvial strata, used to define boundaries of genetic sequences. Thin lines within some sequences show regionally important, subordinate transgressive surfaces. Regionally correlatable erosion surfaces are shown in fluvial strata in D2 only (*e.g.*, base of subunit CEN 2c). Higher resolution than shown is possible locally depending on data coverage and wireline log quality.
The correlations used all available information from wireline logs of different resolution and overall quality, archive core descriptions, examination of archive core samples, authors' own core and outcrop descriptions. Priority in correlation is given to gamma-ray (GR) logs because of common shifts of lithological boundaries in core relative to the wireline log, especially in cases of poor core recovery. For this reason there are some apparent misfits of the transgressive surface traces with respect to the core logs.

The colour coding of facies denotes the PREVAILING depositional environment interpreted in a particular sequence; small-scale facies changes that occur on the scale of high-frequency sequences (or, parasequences) are not shown and commonly cannot be resolved within sequences.

Main features of depositional geometries and lithofacies distribution are as follows:
Sequences CEN 1 though CEN 3 generally fill the palaeotopography, with no thickness trends that would imply differential subsidence along the cross-sections shown, only a modest increase toward the N-NW, more marked in the Western PDS (D1). Both correlation panels show retrogradation of paralic depositional systems into the headward parts of the palaeovalley systems. In D 1 (Western PDS), the marine deposition in the downstream part of the palaeovalley mouth is documented by marine macrofauna.This is probably why it was considered "marine Cenomanian" in earlier studies and not treated as part of a palaeovalley fill. In panel D2, the retrogradation is expressed in both lithofacies and marine indicators in fluvial strata.
Only in the Central Trunk Valley (D 2) and its tributaries the base of CEN 2 is correlated with confidence as a significant expansion surface overlain by fluvial strata showing (especially in the northern part) finer-grained overall lithology, a transition from the dominance of braided style toward meandering and, locally, an anastomosed (Špičáková 1999) one, and an upward-increasing tidal influence. Sub-unit CEN 2c is based by an interpreted erosional surface – probably a subaerial unconformity overlain subsequently by tide-influenced fluvial deposits in the South (Nehvizdy quarry, Špičáková 1999) and sediments of estuarine tidal flats and channels in the North. Sequence CEN 3 is characterized by well-developed marsh and estuarine tidal channel deposits in the South, and deeply scoured, fully subtidal channels in the North. The deep erosion at the base of CEN 3 in the northern part of the Central PDS (down to the top of CEN 1 fluvial strata in well 475720) is explained by increased energy of tidal currents (tidal ravinement) at the estuary mouth, *cf*. Zaitlin *et al*. (1994).
In the Western PDS, the two oldest sequences are correlated as one unit CEN 1+2 because of strong dominance of coarse-grained, sandy lithologies interpreted as estuary mouth fill in the axial part of the PDS and their stratigraphic amalgamation. At least two correlatable flooding surfaces exist within this unit, well defined in the Litoměřice region (borehole J-736735, J-693687) but due to the physical separation from the central PDS during this time interval, it cannot be confirmed as the base of CEN 2. CEN 3 marks a transition to fully marine conditions over the northern half of the Western PDS (north of DU-2 borehole in D1 panel), while braided river strata were deposited in the headward part of the PDS.
During the time of sequence CEN 4 (late middle Cenomanian), shallow-marine, tide- to wave-dominated, estuaries and embayments dominated the entire basin, with a gradually increasing proportion of wave-dominated strata. In the north-central part of the Western PDS and in the entire Central PDS, CEN 4 is marked by complicated facies patterns due to multiple sediment sources from adjacent highs. In panel D1, small deltaic packages are shown that filled partly closed embayments in the Litoměřice-Ústí region (D 1, north of Lo-1 borehole)

while tide-influenced conditions were established 70 to 80 km upstream in the Rynholec Palaeovalley (Pecínov section, Uličný & Špičáková 1996).
A major change in basin configuration occurred in the late Cenomanian, marked by sequences CEN 5 and 6 that correspond, respectively, to ammonite zones *Calycoceras guerangeri* and *Metoicoceras geslinianum* (possibly also part of *Neocardioceras juddii* in the topmost part of the CEN 6, *cf*. Uličný *et al*. 1997b, and condensed in the basal glauconite bed of the Bílá Hora Fm.; see Čech *et al*. 2005). Each of these two sequences represents a major step in flooding the entire basin. Between the drowning events, sandy deltas prograded into depocentres that began to subside next to new source areas uplifted along the Lužice FZ in the northwest. The subsidence as well as increased sediment input are expressed in the thickening of sequences CEN 5 and 6 to the North. In panel D1, signs of increasing subsidence to the N-NW already occur in CEN 4 (N of RD-1 Roudníček). Dark, offshore siltstones, mudstones and marly siltstones were deposited below the storm wave base over a large area in the west-central and southwestern parts of the basin.

D1 correlation panel: Western PDS, trunk palaeovalley (see Fig. 14A for location)



D2 correlation panel: Central PDS, trunk palaeovalley (see Fig. 14A for location)