

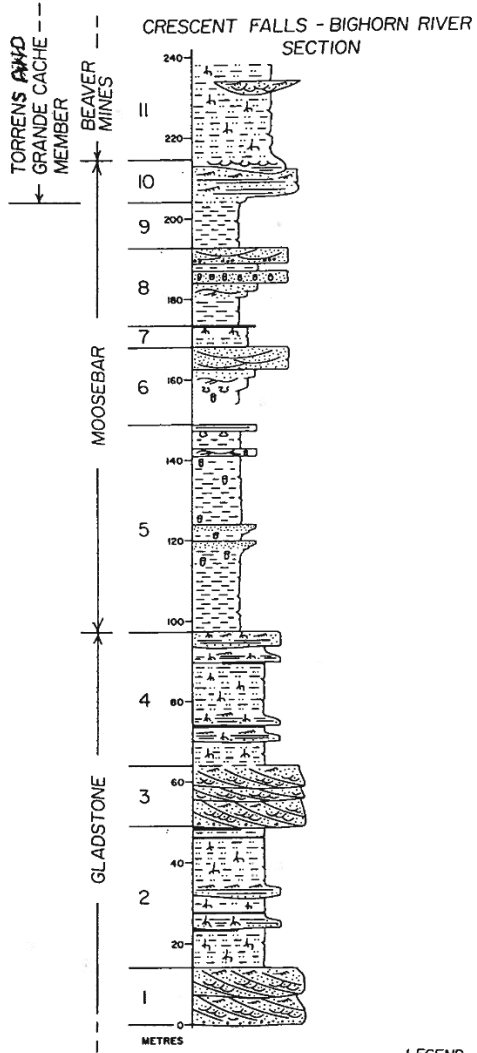
**EART120: Coastal facies interim practice**

Name: \_\_\_\_\_

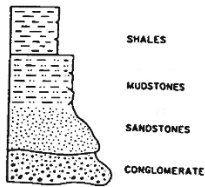
The stratigraphic section below is a real section of Cretaceous units from Alberta. You can view the upper part of the section here (<http://www.gigapan.com/gigapans/155617>) – the upper waterfall is located at the top of unit 6 and the lower waterfall is at the top of unit 4. You can see the top bedding surface of unit 6 here (<https://buntymcc.files.wordpress.com/2016/11/crescent-falls-bighorn-river-4.jpg>), and a different overview here (<https://s3.amazonaws.com/storage.filemobile.com/storage/8625545/1551>).












Divide the stratigraphic sections into coastal (offshore, offshore-transition, shoreface, beach, or tidal flat) and fluvial (braided or meandering) environments, and try to reconstruct the sequence stratigraphy (or at least the pattern of base level change).

There will be parts of the succession where the idealized sequence stratigraphic model (LST-TST-HST) can't easily be applied. Perhaps subsidence was rapid enough that base level never fell, so it just switched between transgression and normal regression. Perhaps base level fell but the section was in more offshore facies so we can't tell; without a subaerial unconformity or regressive surface of marine erosion it's generally not possible to recognize base level fall in outcrop. Regardless of the reason, it's still possible to recognize transgression and regression, so mark those when you can't apply the systems tracts. In these intervals, the transgressive part could be called TST and the regressive part HST, so you would have TST-HST-TST-HST...



LEGEND



-  SHELL LAYERS
-  BIOTURBATION
-  GUTTER CASTS
-  HUMMOCKY CROSS-STRAT.
-  SWALEY CROSS-STRAT.
-  ROOTS
-  RIPPLE CROSS-LAMINATION
-  TROUGH CROSS-BEDDING
-  PLANE LAM.
-  LATERAL ACCRETION SURFACES
-  MUD CLASTS