

3. The diagram below shows a subsidence curve (elevation over time) of a hypothetical drill site in the equatorial Pacific seafloor. Given the following: change in depth over time, change in latitude over time, change in position of the CCD over time, your knowledge of pelagic sedimentation and the average rates of deposition of pelagic sediments (given below), please draw a stratigraphic column that shows the thickness and composition of sediments that most likely accumulated at the site over the last 42 million years. Use the stratigraphic column provided. Extra credit for correctly identifying the geological epoch during which the *oldest* sediments were deposited! Show your work for full credit.

Average rates of pelagic sedimentation:

Calcareous ooze – 3 cm/1000 years or 3 m/million years

Siliceous ooze – 1 cm/1000 years or 1 m/million years

Red/brown clay – 0.1 cm/1000 years or 0.1 m/million years

