

## Stratigraphic Sequence in the Axim-Princess Town section of the coastal Paleoproterozoic Greenstone Belt in the Birimian

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The coastal Axim-Princess Town sequence of the Paleoproterozoic Birimian Greenstone Belt contains very thick volcanoclastic and organic rich sedimentary rocks. Recent work in this area has revealed more than 5 km wide excellently preserved and continuously outcropping rocks which generally exhibit isoclinal fold with west vergence and east-ward younging lithologies of over 1000m total thickness.. Stratigraphically, the lower portion contains thick vesicular volcanoclastic rocks probably of sub-aerial origin. The middle portion is made up of well laminated alternation of volcanoclastics and black shale but the upper portion is dominated by well laminated black shale sequence. This fining upward sequence is likely indicative of shallow to deep sea depositional conditions of the rocks. Though preliminary evidence gathered suggests an oceanic island arc in shallow to deep ocean setting for the rocks, highly negative  $\delta^{13}C$  values ranging from -43 ‰ to -37 ‰ obtained from the black shale further suggests deep ocean anoxic conditions prevailed during deposition of the rocks, presumably with carbon derived from organic matter via cyanobacteria.

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