

STRUCTURES ASSOCIATED WITH LAVA FLOWS

I. “FIRE UNDER THE SEA” – THE FORMATION OF PILLOW BASALTS

“Fire under the Sea”, a 20 minute-long video program, is available as streaming video on the Geol 11 course website. You are to watch this video and answer the following question.

What is a pillow basalt? Write a brief (about 4 sentences!) explanation of how and where pillow basalts form.

II. THE FORMATION OF COLUMNAR JOINTS

Reread pages 267-269 in your text (pages 244-246 in the 2nd Edition) on “Lava Flows”. (You will find additional information on pillow basalts here.) Be sure to look at Figure 9.4. After doing this, answer the following question.

What is columnar jointing in basalt? Write a brief (less than 4 sentences) explanation of how columnar joints form.