diapir (b) **a** b diapir narrower at surface beds dip more gently diapir widens as megaflap limb rotates to vertical **B** Folding via Hinge Migration (a) diapir wider at surface beds dip more steeply To view Figure 19's annotated map view and diapir **(b)** block models layer and "Step 1", "Step 2", and "Step 3" layers in the PDF version of this paper, (a) open the PDF in Adobe Acrobat or Adobe Reader. To view the layers while reading the full-text version of the paper, click http://doi.org/10.1130 /GES02089.f19 to download a PDF of the figure. (b)diapir narrower at surface beds dip more gently at surface, but steepen at depth diapir widens at surface as megaflap panel passes C Radial Faults through hinge (a) diapir wider at surface radial fault radial fault beds dip more steeply diapir **6** 45° (b) diapir narrower at surface beds dip more gently Megaflap Salt Annotated Map View and Block Models Step 1 | Step 2 | Step 3

Folding via Limb Rotation

adiapir wider at surface beds dip more steeply

Figure 19. End-member models of lateral variations in megaflap geometries, modified from Escosa et al. (2018) and Rowan et al. (2016). (A) Folding of megaflap via limb rotation. In this scenario, the steeper dipping strata occur where the megaflap limb has rotated to a near-vertical position, and the diapir is wider at the surface. The gentler dipping strata occur where the megaflap has rotated to a lesser degree, with remnant salt at depth, and a narrower diapir at the surface. (B) Folding of megaflap via hinge migration. In this scenario, the steeper dipping strata occur where the megaflap limb has passed completely through the hinge to a near-vertical position, and the diapir is wider at the surface with no remnant roof. The gentler dipping strata occur where the megaflap panel hasn't fully passed through the hinge, leaving a remnant roof at the surface with gentler dips and a steeply dipping panel at depth, and a narrower diapir at the surface. (C) Steep radial faults may occur in either scenario separating different panels of strata with different dips. When radial faults do occur, they are located at the highest curvature points between the different panels. To view Figure 19's annotated map view and block models layer and "Step 1", "Step 2", and "Step 3" layers in the PDF version of this paper, open the PDF in Adobe Acrobat or Adobe Reader. To view the layers while reading the full-text version of the paper, click http:// doi.org/10.1130/GES02089.f19 to download a PDF of the figure.

End-member kinematic models

(modified from Rowan et al., 2016)

Map View Patterns