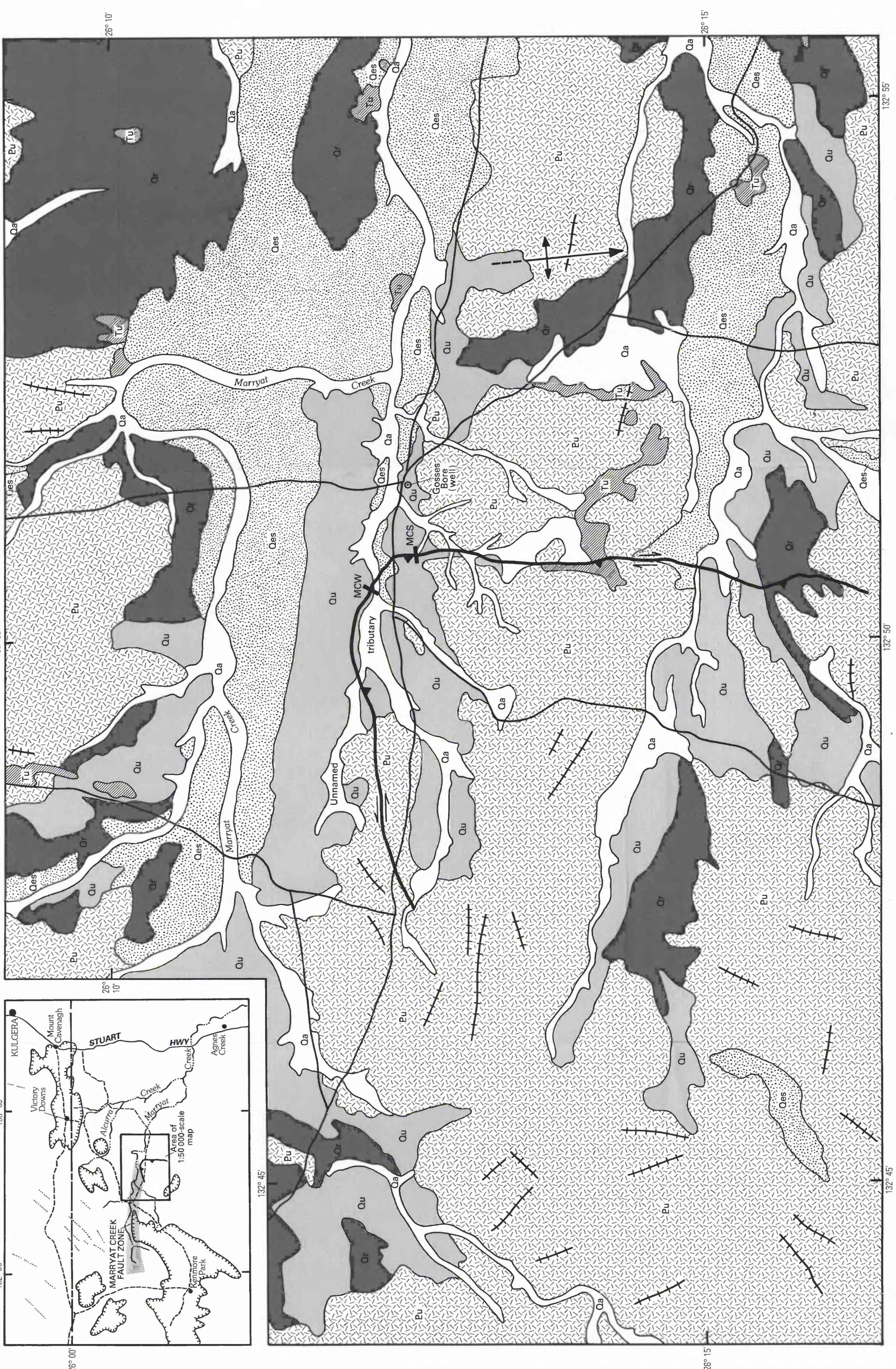
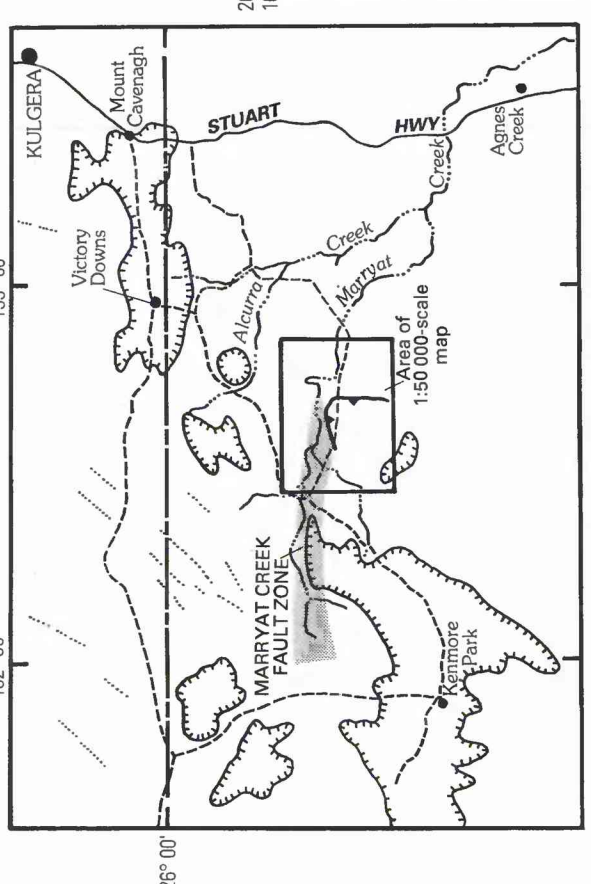
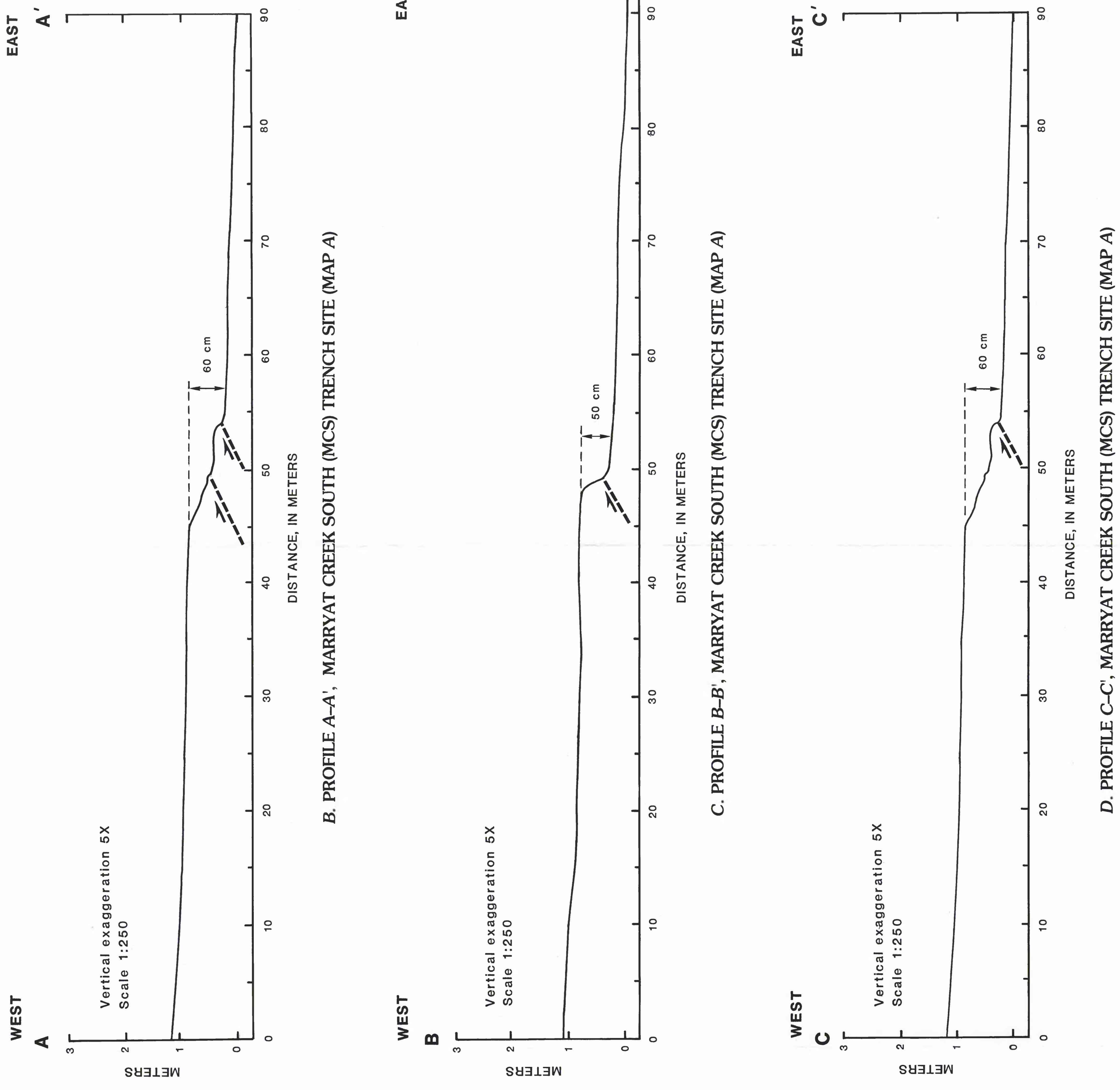


EXPLANATION [Map A-J]

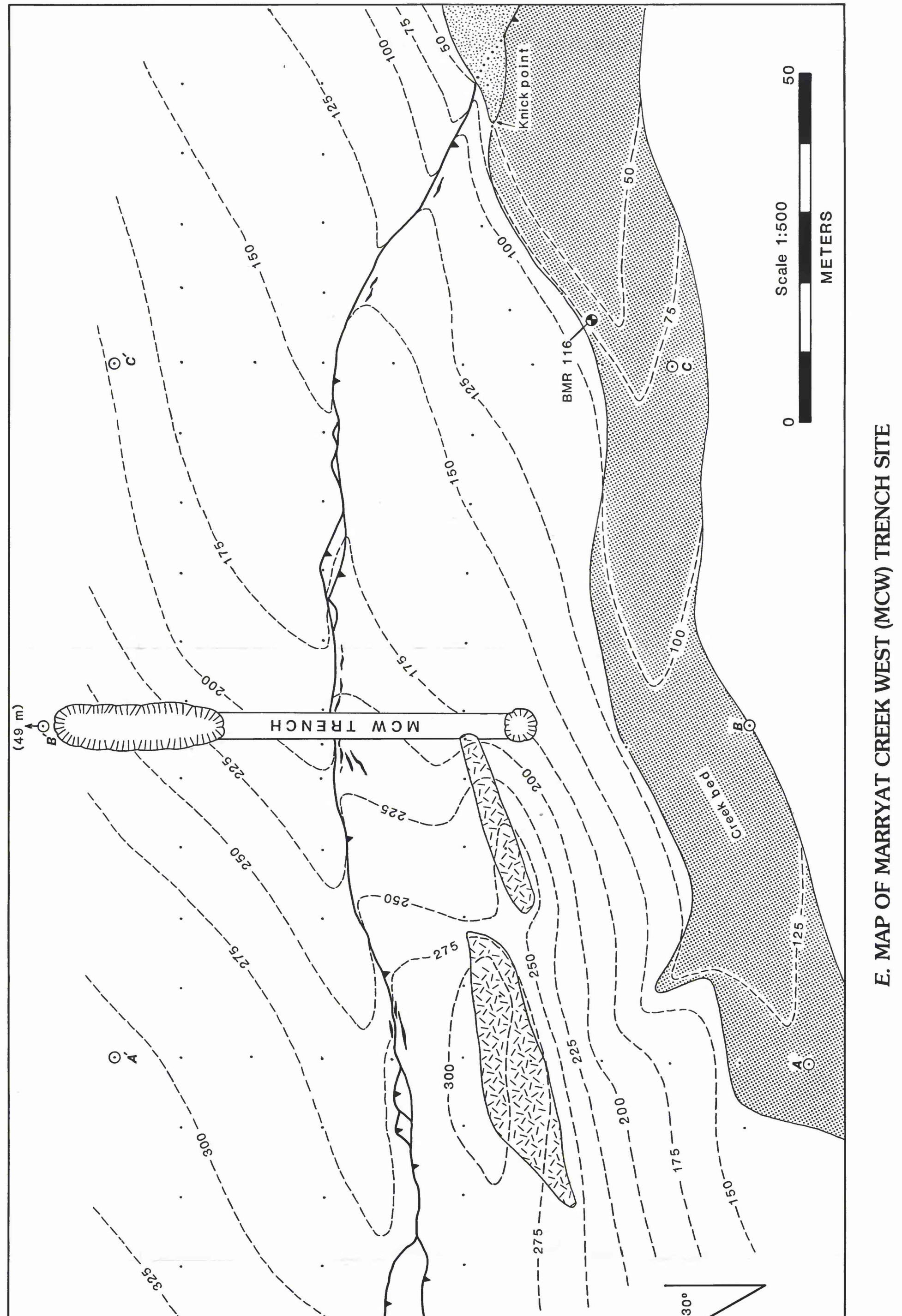
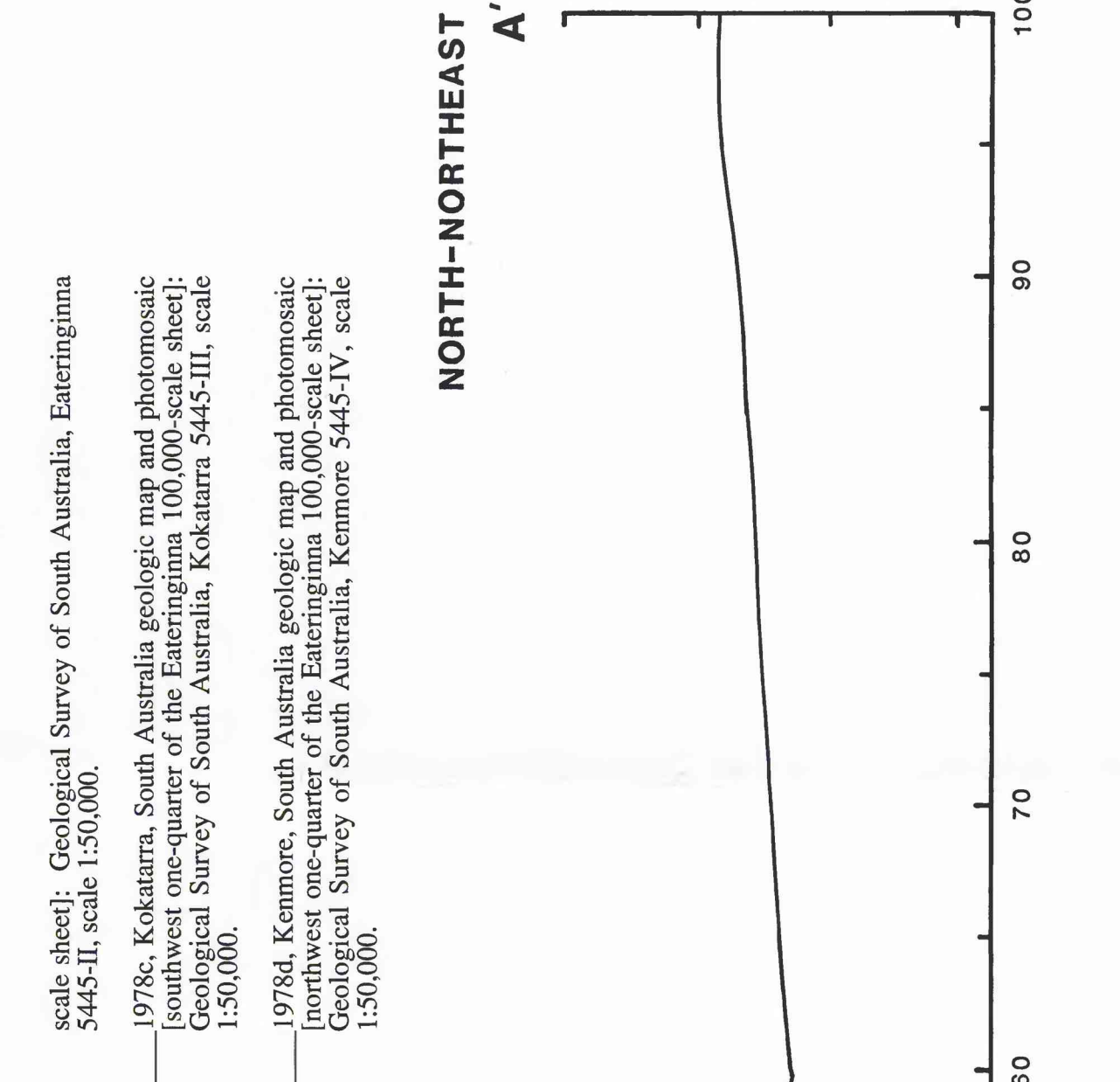
- Granite—Small ridge of granite on hanging wall of fault south of Marrayat Creek West trench (map E)
- Creek bed—Bed of small ephemeral stream south of Marrayat Creek West trench (map E)
- Induced creek bed—Bed of small ephemeral stream. Incision is about 0.3 m and occurred after 1986 earthquake
- Contact—Contact between mapped geologic units
- Thrust fault—Trace of primary surface rupturing during 1986 surface-faulting event. Teeth are on downthrown side. Arrows show predominant direction of lateral movement
- Primary fault plane—Location of primary fault plane(s) that ruptured during 1986 surface-faulting event. Arrows show direction of lateral displacement. Single arrow shows direction of displacement (obscuring) of upthrown block. Fault plane is shown as trace dip (25°-30°)
- Syncline—in vertical deposits. Shown only on map
- Old creek channel—Creek for a 0.3 m in a downthrown block. Features are common across the upthrown fault block. Shown only on map E
- Ephemeral stream channels—Channels are locally discontinuous. Features are common across the upthrown fault block. Shown only on map E
- Topographic contour—Approximate plane of equal elevation relative to lowest point in map area on maps A and E. Contour interval 25 m
- Topographic control point—Control point for spot pile from exploratory trench. Location of reference is shown on maps A and E. Arrow indicates location of spot pile from exploratory trench. Profile extends beyond the boundary of map E
- BMR survey station—(Australian) Bureau of Mineral Resources, Geology and Geophysics (BMR) survey station as indicated by star pucker (metal survey station as indicated by star pucker (metal survey station) in map A and E. Arrow indicates location of spot pile from exploratory trench. Profile extends beyond the boundary of map E
- Exploratory trench—Trenches were typically 1.5-2 m wide and 2.4 m deep (shown on maps A and E)
- Spot pile from exploratory trench—Shown on maps A and E



EXPLANATION [Map I]

- Eolian sand (Holocene)—Deposits of large to weakly finable red epifaunal sands in the region. Thickness unknown but may be as thick as 5 m where present in dune form
- Alluvium (Holocene)—Alluvial (floodplain deposits (mainly sand) and well sorted in main stream channels but may be clayey and poorly sorted in small channels. Thickness unknown
- Undifferentiated surficial deposits (Quaternary)—Consists of sand, silt, clay, and clay-rich chert fragments. Thickness variable, commonly 1-5 m
- Residual (Quaternary)—Mantle of weathered rock and thin accumulations of unconsolidated deposits (colluvium, siltan). Consists of earthy (silt- and clay-rich) clastic mantle as much as 10 m thick
- Undifferentiated older deposits (Tertiary)—Residual and former (presumably Tertiary) landscape. Locally deposits are resistant to erosion because of accumulations of siliceous or chalcite-rich limestone (calcrete) or fragments of fossil wood that suggests transport in paleocurrent channels
- Undifferentiated bedrock (Proterozoic)—Includes metamorphic of the Kulljergin granitoids. In study area, most bedrock is concealed by a mantle of weathered residuum (unit O). Rocks are mostly igneous and metamorphic rocks. Post-Kulljergin dikes are shown by separate symbol
- Contact—Contact between mapped geologic units
- Thrust fault—Trace of primary surface rupturing during 1986 surface-faulting event. Teeth are on downthrown side. Arrows show predominant direction of lateral movement. Black boxes are trench sites that are shown in greater detail on maps A and E
- Amblycline—in Proterozoic rock. Dashed where location is approximate or where feature extends beneath unconsolidated deposits. Arrow shows direction of plunge
- Dike—Proterozoic dioritic and diabasic dikes within Proterozoic granitoid (unit E). General orientation of larger dikes shown by symbol
- Aligned crest of dunes—Shown on inset index
- Upland terrace—Shore of island, typically underlain by resistant bedrock. Shown on inset index
- Drainage courses—Main streams of Marrayat Creek drainage system. Shown on inset index
- Road—Maintained dirt road. Only graded roads, which generally provide access to and between water wells are shown. On inset index map, dirt roads are dashed lines and main highway is a solid line

- REFERENCES**
- Bowman, J.R., and Barlow, B.C., 1991, Surveys of the fault escarp of the 1986 Marrayat Creek, South Australia, earthquake. [Australia] 1991/190, 12 p., 5 plates.
 - Conor, C.H.H., compiler, 1978a, South Australia geologic map and photomosaic (northwest one-quarter of the Eastertingina. Geological Survey of South Australia, Kolarum 5445-III, scale 1:50,000.
 - 1978b, Kemmore, South Australia geologic map and photomosaic (southwest one-quarter of the Eastertingina 100,000-scale sheet). Geological Survey of South Australia, Kemmore 5445-I-V, scale 1:50,000.



EXPLANATION [Map E]

- Granite—Small ridge of granite on hanging wall of fault south of Marrayat Creek West trench (map E)
- Creek bed—Bed of small ephemeral stream south of Marrayat Creek West trench (map E)
- Induced creek bed—Bed of small ephemeral stream. Incision is about 0.3 m and occurred after 1986 earthquake
- Contact—Contact between mapped geologic units
- Thrust fault—Trace of primary surface rupturing during 1986 surface-faulting event. Teeth are on downthrown side. Arrows show predominant direction of lateral movement
- Primary fault plane—Location of primary fault plane(s) that ruptured during 1986 surface-faulting event. Arrows show direction of lateral displacement. Single arrow shows direction of displacement (obscuring) of upthrown block. Fault plane is shown as trace dip (25°-30°)
- Syncline—in vertical deposits. Shown only on map
- Old creek channel—Creek for a 0.3 m in a downthrown block. Features are common across the upthrown fault block. Shown only on map E
- Ephemeral stream channels—Channels are locally discontinuous. Features are common across the upthrown fault block. Shown only on map E
- Topographic contour—Approximate plane of equal elevation relative to lowest point in map area on maps A and E. Contour interval 25 m
- Topographic control point—Control point for spot pile from exploratory trench. Location of reference is shown on maps A and E. Arrow indicates location of spot pile from exploratory trench. Profile extends beyond the boundary of map E
- BMR survey station—(Australian) Bureau of Mineral Resources, Geology and Geophysics (BMR) survey station as indicated by star pucker (metal survey station) in map A and E. Arrow indicates location of spot pile from exploratory trench. Profile extends beyond the boundary of map E
- Exploratory trench—Trenches were typically 1.5-2 m wide and 2.4 m deep (shown on maps A and E)
- Spot pile from exploratory trench—Shown on maps A and E

