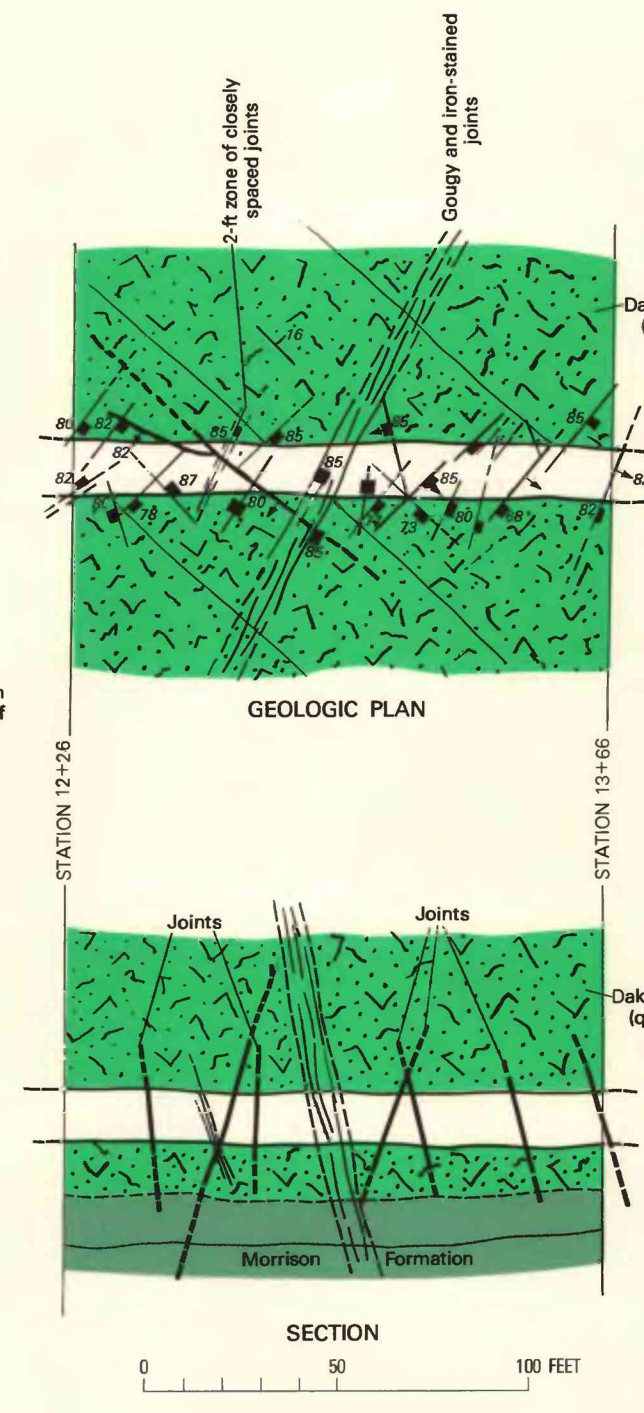
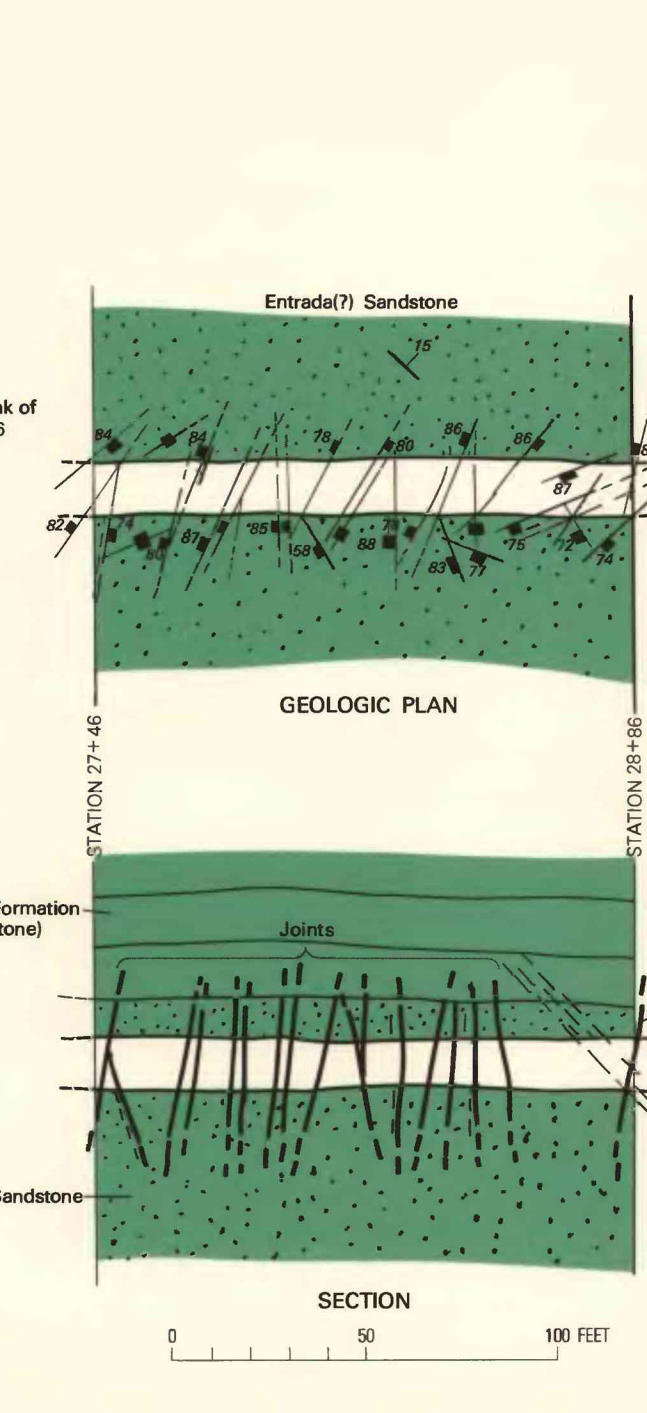


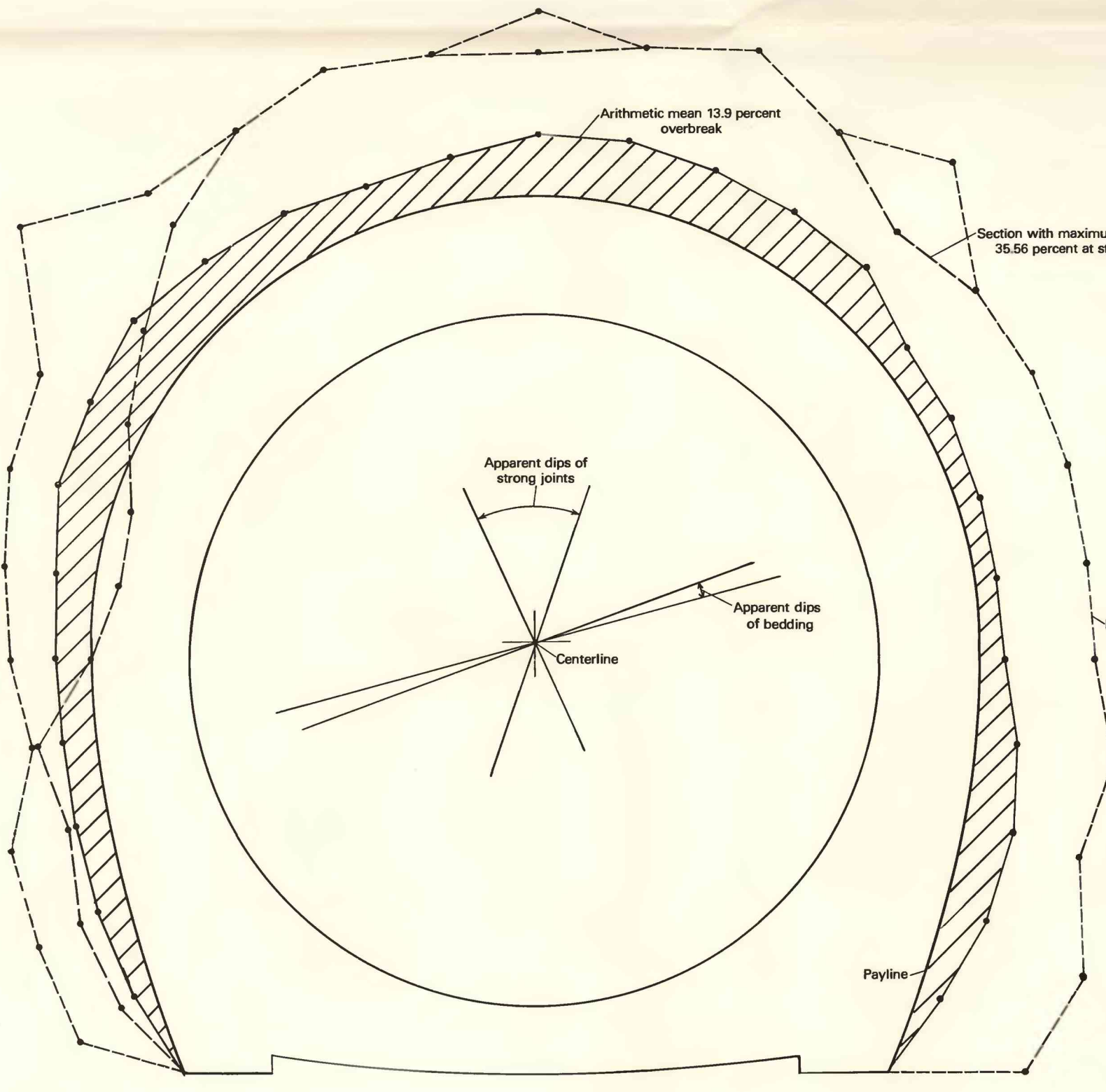
A.—OVERBREAK IN MASSIVE QUARTZITE OF THE DAKOTA GROUP, STATIONS 12+26 TO 13+66  
15 sections, unsupported



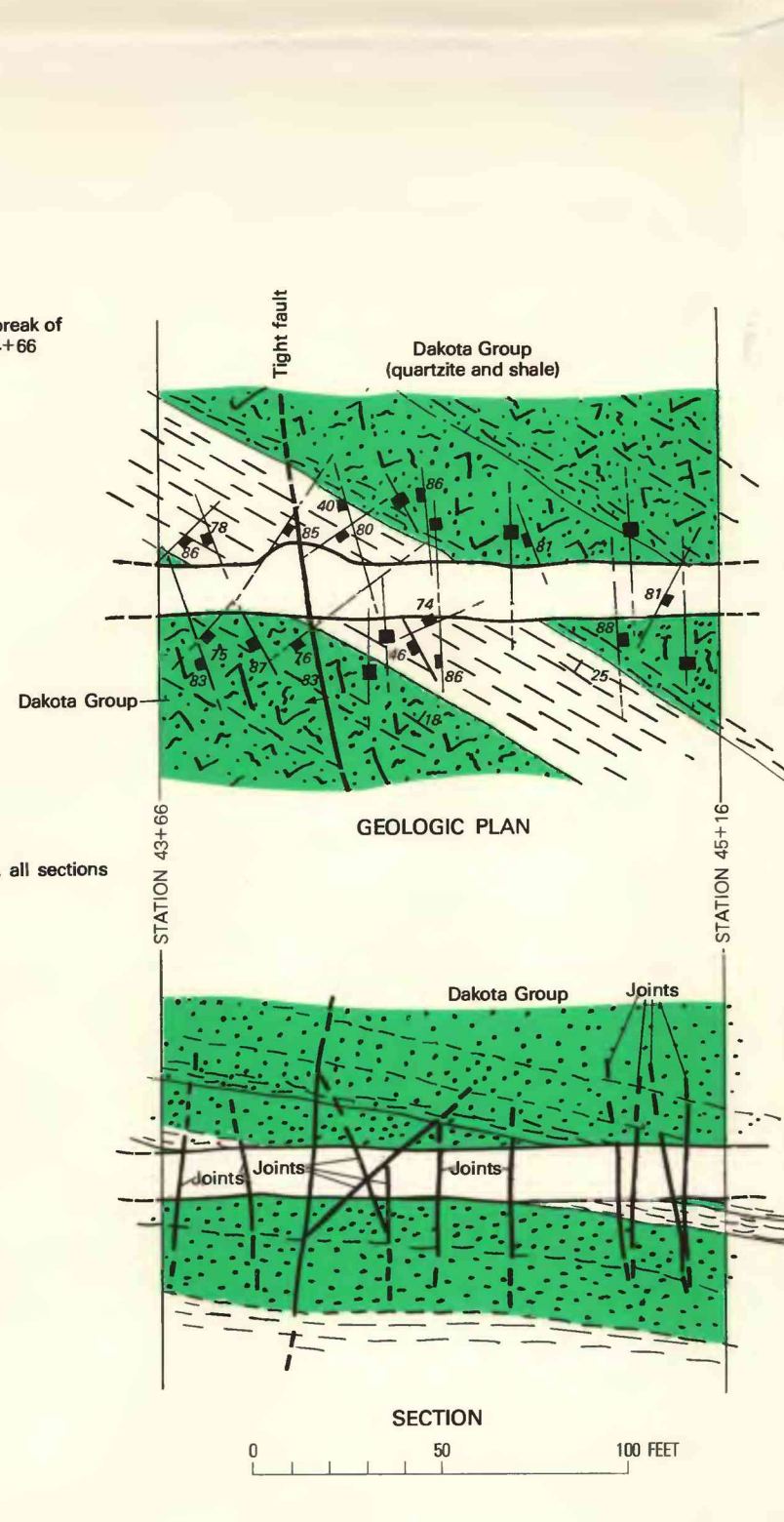
B.—OVERBREAK IN CROSSBEDDED FRIABLE ENTRADA(?) SANDSTONE, STATIONS 27+46 TO 28+86  
15 sections, steel supports on 5-foot centers



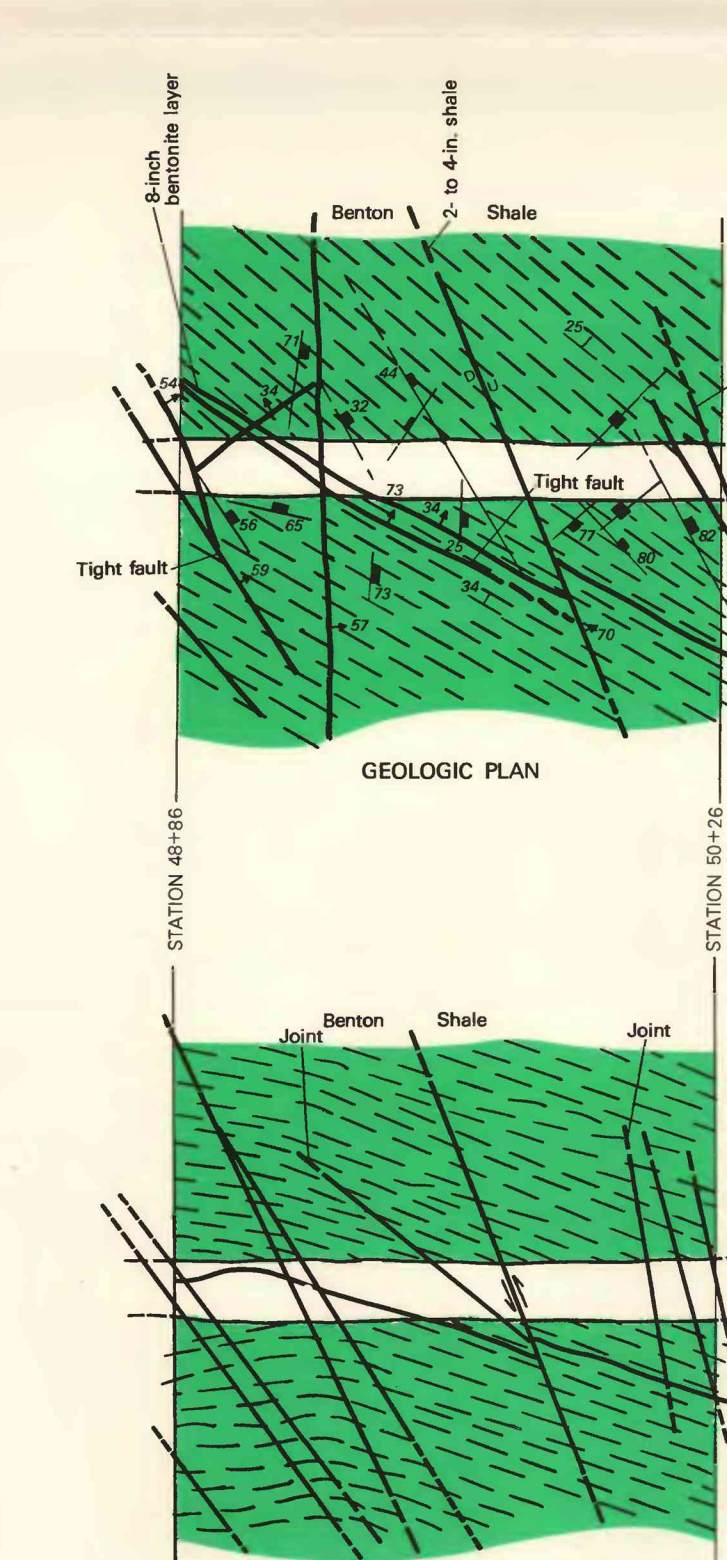
C.—OVERBREAK IN MUDSTONE OF THE MORRISON FORMATION, STATIONS 34+46 TO 35+96  
15 sections, steel supports on 5-foot centers



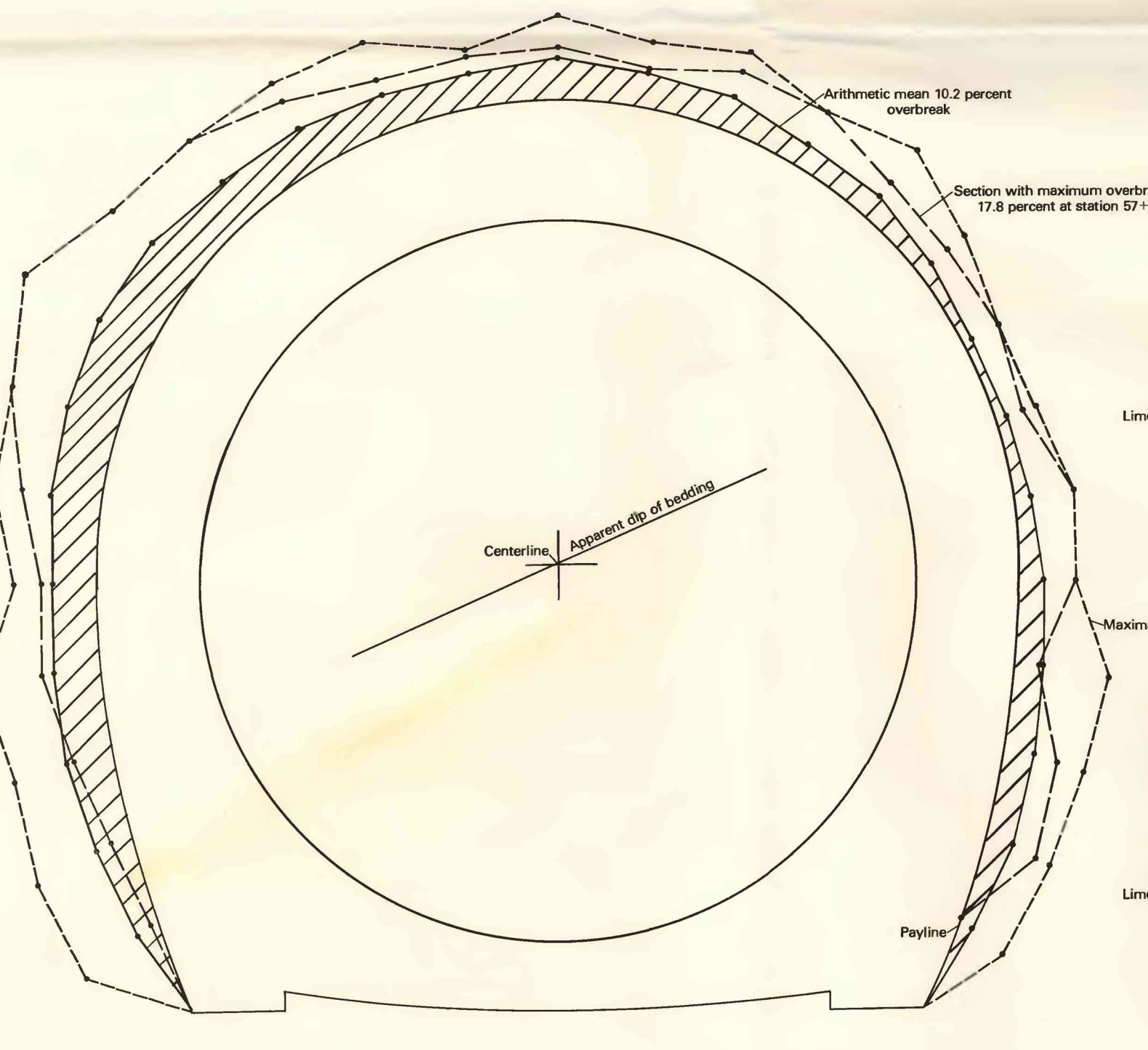
D.—OVERBREAK IN QUARTZITE AND SHALE OF THE DAKOTA GROUP, STATIONS 43+66 TO 45+16  
15 sections, steel supports on 2.5-, 3-, and 5-foot centers



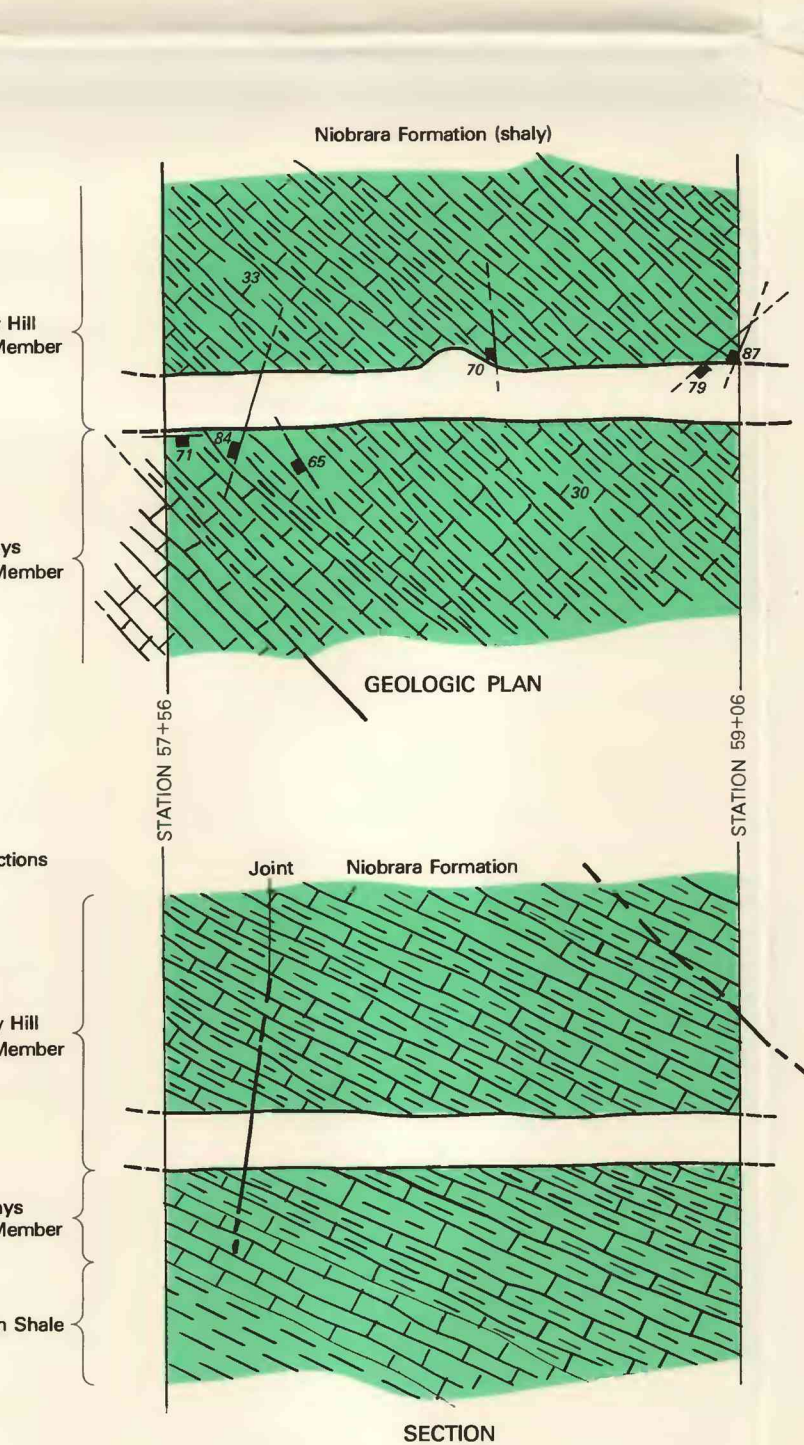
E.—OVERBREAK IN BENTON SHALE, STATIONS 48+86 TO 50+26  
15 sections, steel supports on 4-foot centers



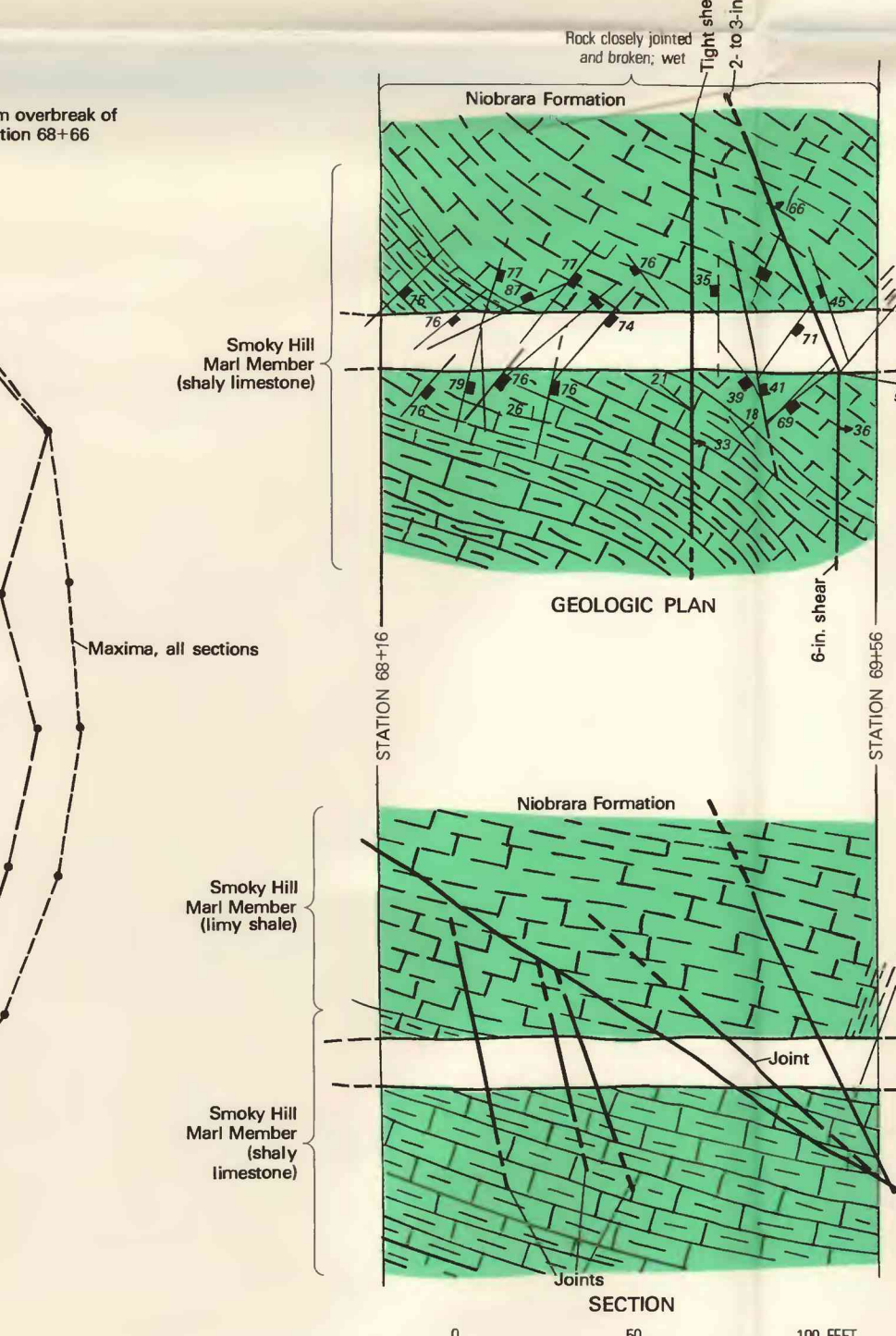
F.—OVERBREAK IN LIMY BENTON SHALE, STATIONS 52+86 TO 54+26  
15 sections, steel supports on 2.5- and 3-foot centers



G.—OVERBREAK IN SHALY LIMESTONE, NIOBRARA FORMATION, STATIONS 57+56 TO 59+06  
15 sections, steel supports on 4-foot centers



H.—OVERBREAK IN BROKEN FISSILE WATER-BEARING SHALY LIMESTONE AND LIMY SHALE OF THE NIOBRARA FORMATION, STATIONS 68+16 TO 69+56  
15 sections, steel supports on 2.5- and 5-foot centers



EXPLANATION

NIOBRARA FORMATION  
Smoky Hill Marl Member (limy shale, shaly limestone)  
Fort Hays Limestone Member

BENTON SHALE

DAKOTA GROUP (quartzite and shale)

MORRISON FORMATION

ENTRADA SANDSTONE

CONTACT—Dashed where projected

FAULT—Showing dip. Dashed where projected. U, upthrown side; D, downthrown side. Arrows indicate direction of relative movement.

STRIKE AND DIP OF BEDS

STRIKE AND DIP OF JOINTS—Dashed where projected  
Inclined  
Vertical

ZONE OF CLOSELY SPACED JOINTS—Showing dip

12+26 TUNNEL STATION

Geology by V. G. Horvath, 1958

NOTE—All composite tunnel sections viewed looking southeast; tunnel heading S. 88°03' E.