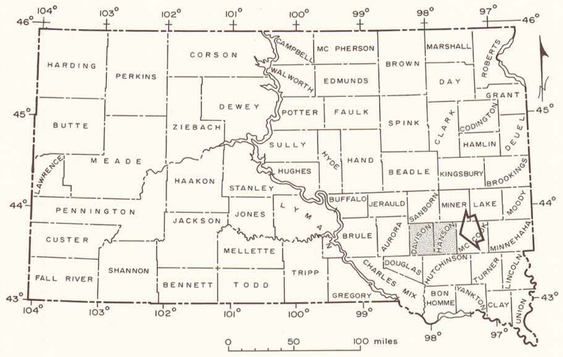
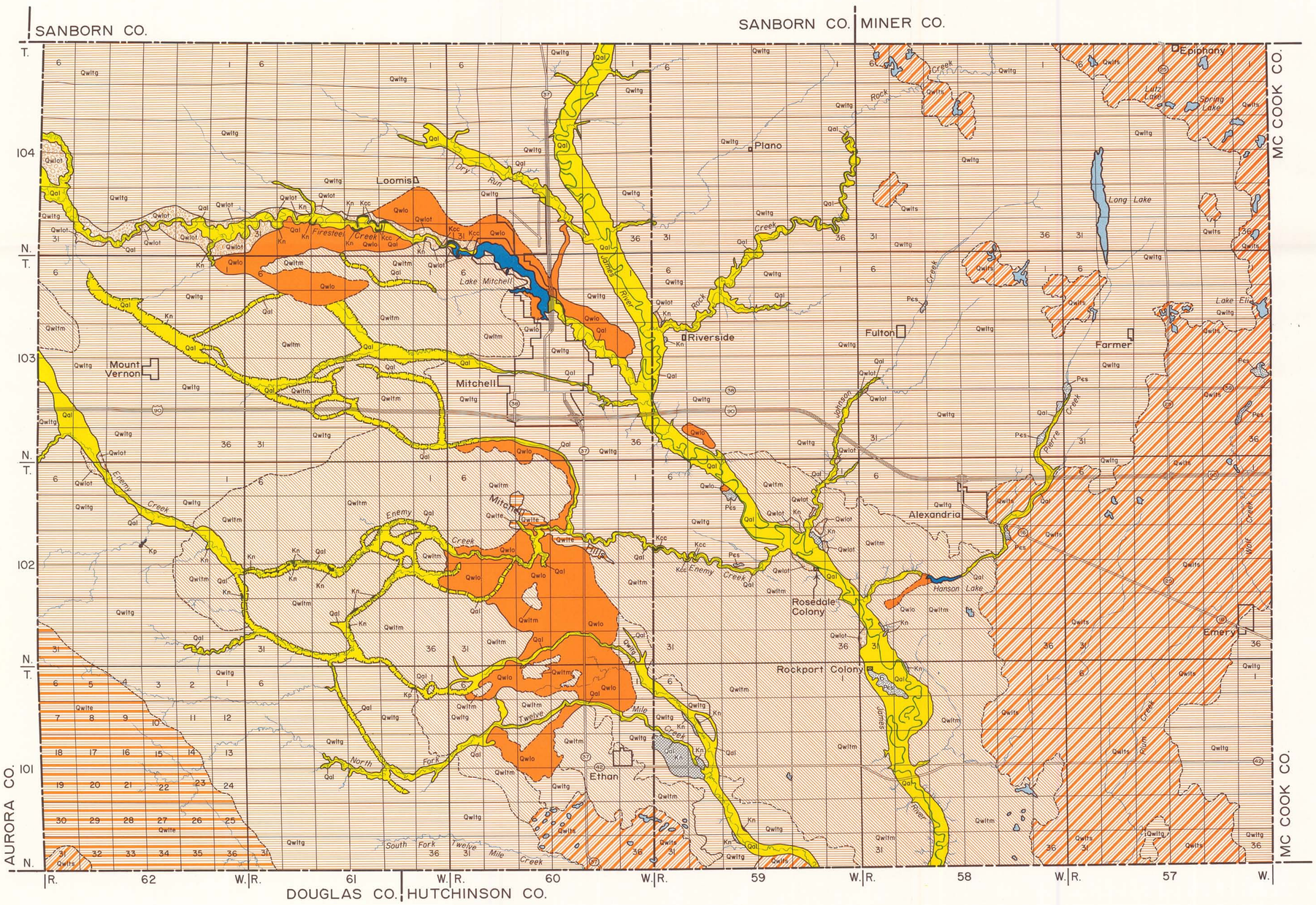
SOUTH DAKOTA GEOLOGICAL SURVEY - BULLETIN 33 - PLATE 1

GEOLOGY OF DAVISON AND HANSON COUNTIES, SOUTH DAKOTA

BY C. M. CHRISTENSEN - 1989

0 1 2 3 4 5 6 12 18 24 30 36 MILES





RECENT

Qal — ALLUVIUM – *Floodplain deposits of silt and clay; may contain sand and gravel; relatively flat surface above normal river level.*

PLEISTOCENE LATE WISCONSIN — QUATERNARY

Qwlot — TERRACE-OUTWASH DEPOSITS – *Sand and coarse gravel of glaciofluvial origin; poorly sorted; flat to smoothly sloping surface above present floodplain.*

Qwlo — OUTWASH, UNDIFFERENTIATED – *Sand and gravel of glaciofluvial origin; includes proglacial outwash and outwash lenses; flat to gently rolling surface.*

Qwlte — TILL, END MORAINE – *Heterogeneous mixture of boulders, sand, silt and clay; contains high ridges or is linear in mass.*

Qwltg — TILL, GROUND MORAINE – *Heterogeneous mixture of boulders, sand, silt and clay; smooth and level to gently rolling topography; contains many sloughs.*

Qwlts — TILL, STAGNATION MORAINE – *Heterogeneous mixture of boulders, sand, silt and clay; rugged hummocky topography; contains many sloughs.*

Qwltm — TILL, MINOR MORAINE – *Heterogeneous mixture of boulders, sand, silt and clay; abundant ridges.*

UPPER CRETACEOUS — CRETACEOUS

Kp — PIERRE SHALE – *Light gray to black marine claystone and shale; marl and chalky zones occur throughout; bentonitic.*

Kn — NIOBRARA MARL – *Light to medium blue gray marl and white to cream colored limestone; calcareous; fossiliferous; weathers white to dark yellowish-orange.*

Kc — CARLILE SHALE – *Medium to dark gray bentonitic shale; fossiliferous; weathers light gray to orange.*

Kcc — CODELL SANDSTONE MEMBER – CARLILE SHALE – *White, green, light gray to dark gray, fine-grained sandstone; interbedded with dark gray shale; some thin limestone beds; uncemented to cemented; often fossiliferous; weathers light yellow to orange.*

PRECAMBRIAN — PRECAMBRIAN

Pes — SIOUX QUARTZITE – *Pink to red; extremely hard, fine to medium grained, well rounded quartz sand, silica cemented orthoquartzite; sometimes conglomeritic and jointed.*

Geologic contact; dashed where approximately located.

Meltwater channel; color and pattern denote the major sediment presently occupying the channel.

Lake or pond — Intermittent lake or slough

Intermittent stream