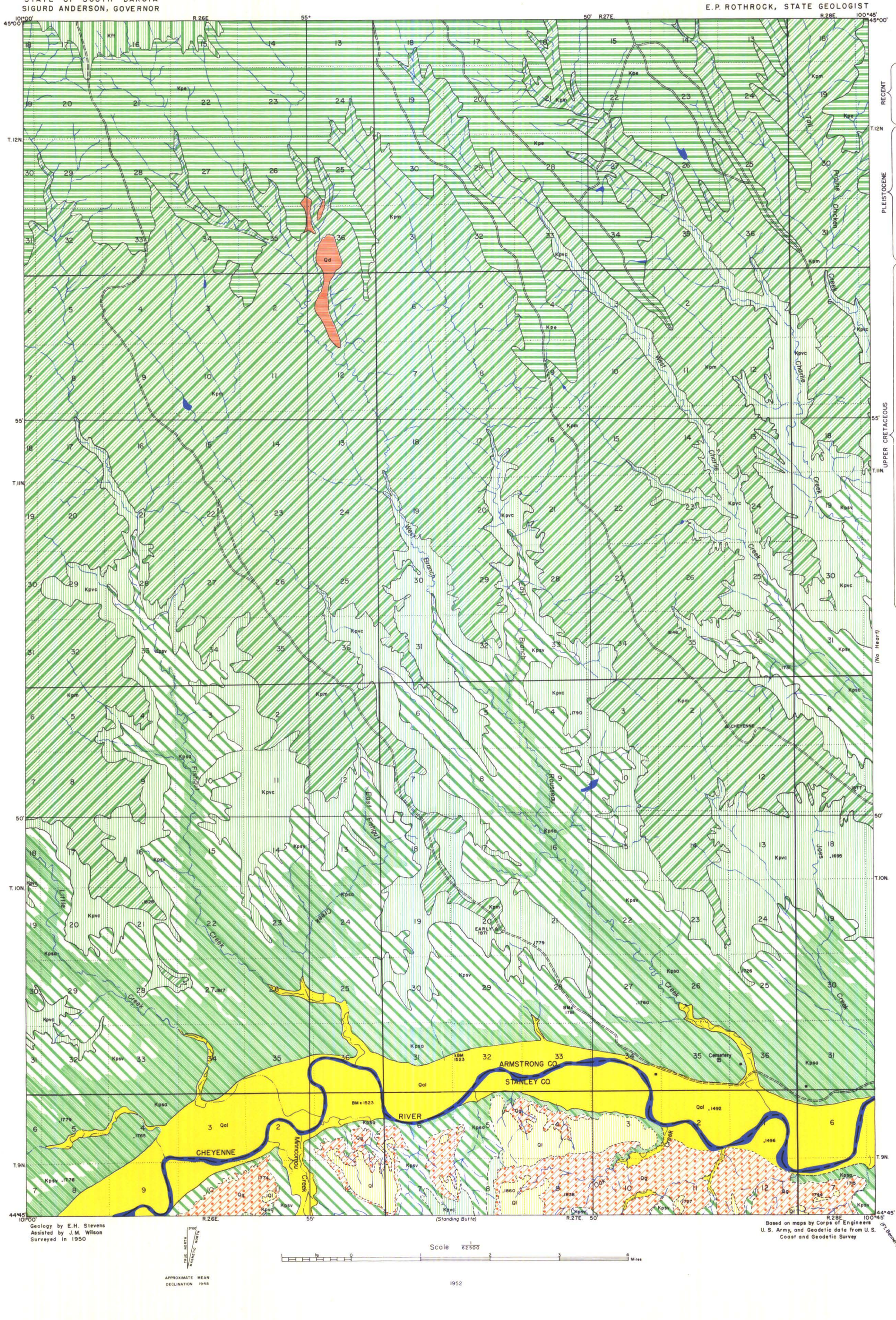
AREAL GEOLOGY

OF THE

ROUSSEAU CREEK QUADRANGLE

STATE OF SOUTH DAKOTA
SIGURD ANDERSON, GOVERNOR

STATE GEOLOGICAL SURVEY
E.P. ROTHROCK, STATE GEOLOGIST



EXPLANATION

SEDIMENTARY ROCKS

RECENT

Qal — Alluvium
(Flood plain deposits of silt, sand, and gravel in present stream valleys.)

Ql — Loess
(Wind deposited silt.)

PLEISTOCENE

Qd — Deltaic Beds
(Deltaic deposits in glacial lake.)

Qg — Gravel
(Sands and gravels of western origin, containing considerable white chert and broken agate.)

QUATERNARY

Fox Hills Formation

Kft — Trail City Member
(Brown sandy shale with sandy fossiliferous limestone concretions.)

Kpe — Elk Butte Member
(Pale grey bentonitic clay containing numerous reddish brown layers and an occasional bentonite.)

Kpm — Mobridge Member
(Buff and grey slightly calcareous clay in lower part. Numerous thin marl layers in lower-middle portion and light buff calcareous clay in upper part.)

Kpvc — Virgin Creek Member
(Dark grey fissile, siliceous shale with numerous bentonites in lower part and with numerous white limestone concretions in upper part.)

Kpsv / Kpsa — Sully Member
(Upper: Verendrye facies (Kpsv) Brown bentonitic clay with numerous ferruginous concretions. Lower Agency-Oacoma transition facies (Kpsa) Light grey bentonite bands and few Fe-Mn concretions in upper part, light grey, siliceous blocky shale in lower part.)

UPPER CRETACEOUS — **Pierre Formation** — **CRETACEOUS**

DRAINAGE

Intermittent Streams

Intermittent Lakes

CULTURE

Buildings
(House church and school)

Roads and Trails

1492
Altitudes
(In feet above sea level)

X BM 1620
Bench Marks
(Monument marking point of known altitude)

△ RENA
Triangulation Stations
(Monument marking point of exact geographic location)

Gravel Pits and Quarrys

Geology by E.H. Stevens
Assisted by J.M. Wilson
Surveyed in 1950

Based on maps by Corps of Engineers U.S. Army, and Geodetic data from U.S. Coast and Geodetic Survey

(F.L. Bennett)

APPROXIMATE MEAN DECLINATION 1948

Scale 1/62500

0 1 2 3 4 Miles

1952