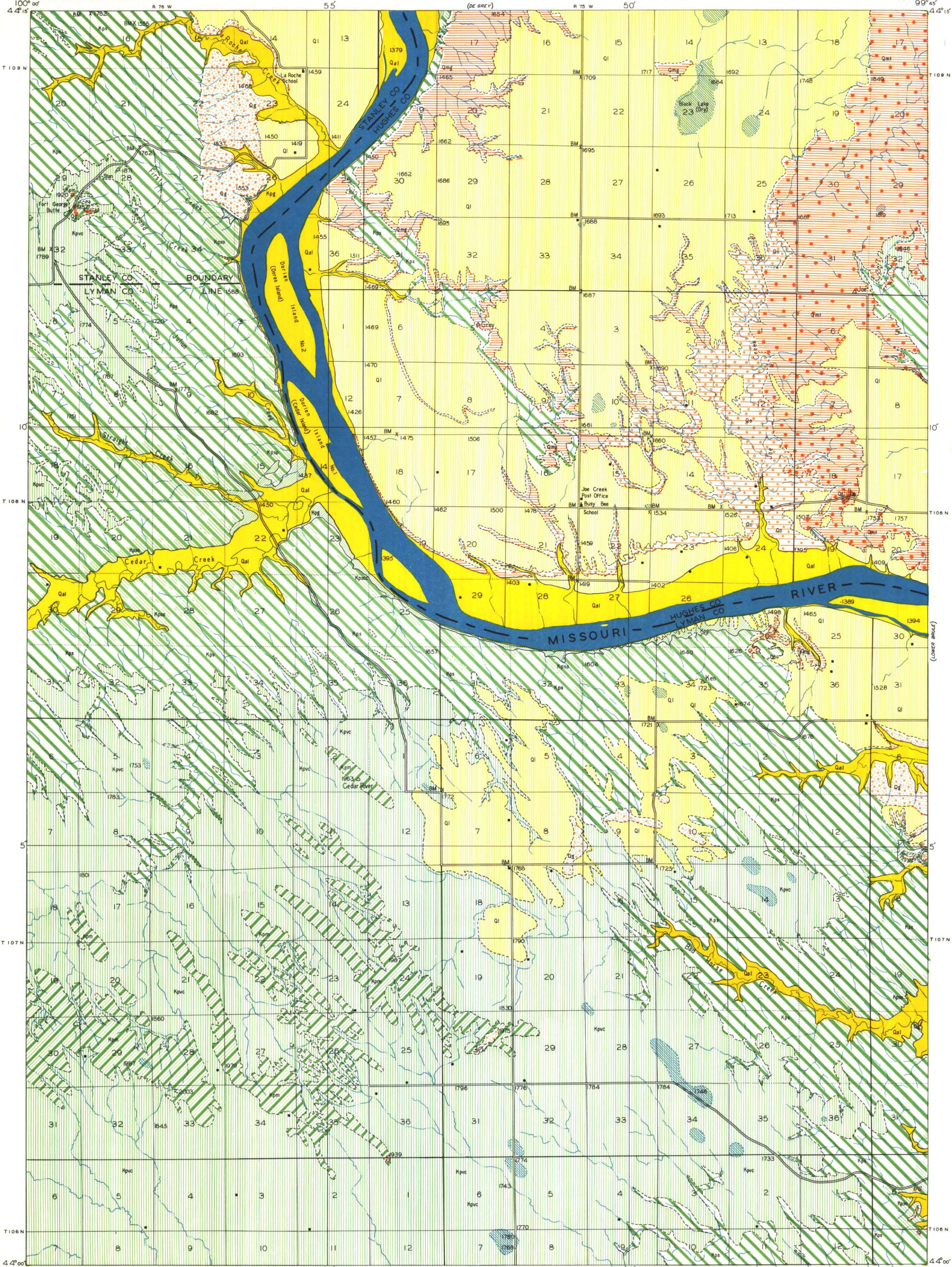


# AREAL GEOLOGY

## FORT GEORGE BUTTE QUADRANGLE

STATE OF SOUTH DAKOTA  
G.T. MICKELSON GOVERNOR

STATE GEOLOGICAL SURVEY  
E.P. ROTHROCK STATE GEOLOGIST

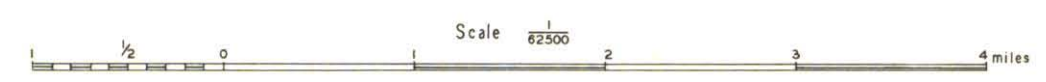


### EXPLANATION

#### SEDIMENTARY ROCKS

- |        |                  |            |  |   |
|--------|------------------|------------|--|---|
| Recent |                  | <b>Qal</b> | Alluvium<br>(in flood plain of present streams, silt, sand, and some gravel; more sandy where streams drain moraine areas)   |   |
|        |                  | <b>Ql</b>  | Loess<br>(wind blown deposit)  |   |
|        |                  | <b>Qg</b>  | Gravels<br>(fluvial and glacio-fluvial; heterogeneous materials, sand and gravel sizes)  |   |
|        |                  | <b>Qlb</b> | Lake beds<br>(lacustrine silts)  |   |
|        | Pleistocene      |            | <b>Qmg</b>   | Ground moraine<br>(boulder clay, younger drift)   |
|        |                  |            | <b>Qmt</b>   | Terminal moraine<br>(boulder clay, younger drift)   |
|        |                  |            | <b>Qd</b>  | Undifferentiated drift<br>(found beneath lake silt deposit)   |
|        |                  |            | <b>Qo</b>  | Outwash<br>(glacio-fluvial deposit, sand and gravel generally covered by loess or silt)   |
|        | Pierre formation |            | <b>Km</b>  | Mudridge member<br>(bluish gray marl and chalk, foraminiferal, weathers buff)   |
|        |                  |            | <b>Kvc</b>   | Virgin Creek member<br>(upper zone yellowish gray clay which weathers to gumbo, lower zone dark bluish gray bentonitic clay, numerous bentonite beds) |
|        |                  | <b>Kps</b> | Sully member<br>(Upper faces: Ver endyte (Kpsv) gray bentonitic clay, full selenitic concretions. Lower faces: (Kpsmg) gray bentonitic clay, net-like concretions, numerous bentonite beds. Bottom faces: Crow Creek (Kpsc) buff chalk, brown silty sandstone) |   |
|        |                  | <b>Kpg</b> | Gregory member<br>(brown, brownish gray clay, numerous brown fossiliferous concretions, impure light gray chalk)   |   |
|        |                  | <b>Qd</b>  | outline of boulder field, Quaternary undifferentiated drift  |   |

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Surveyed in 1949



Datum is mean sea level  
1950

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