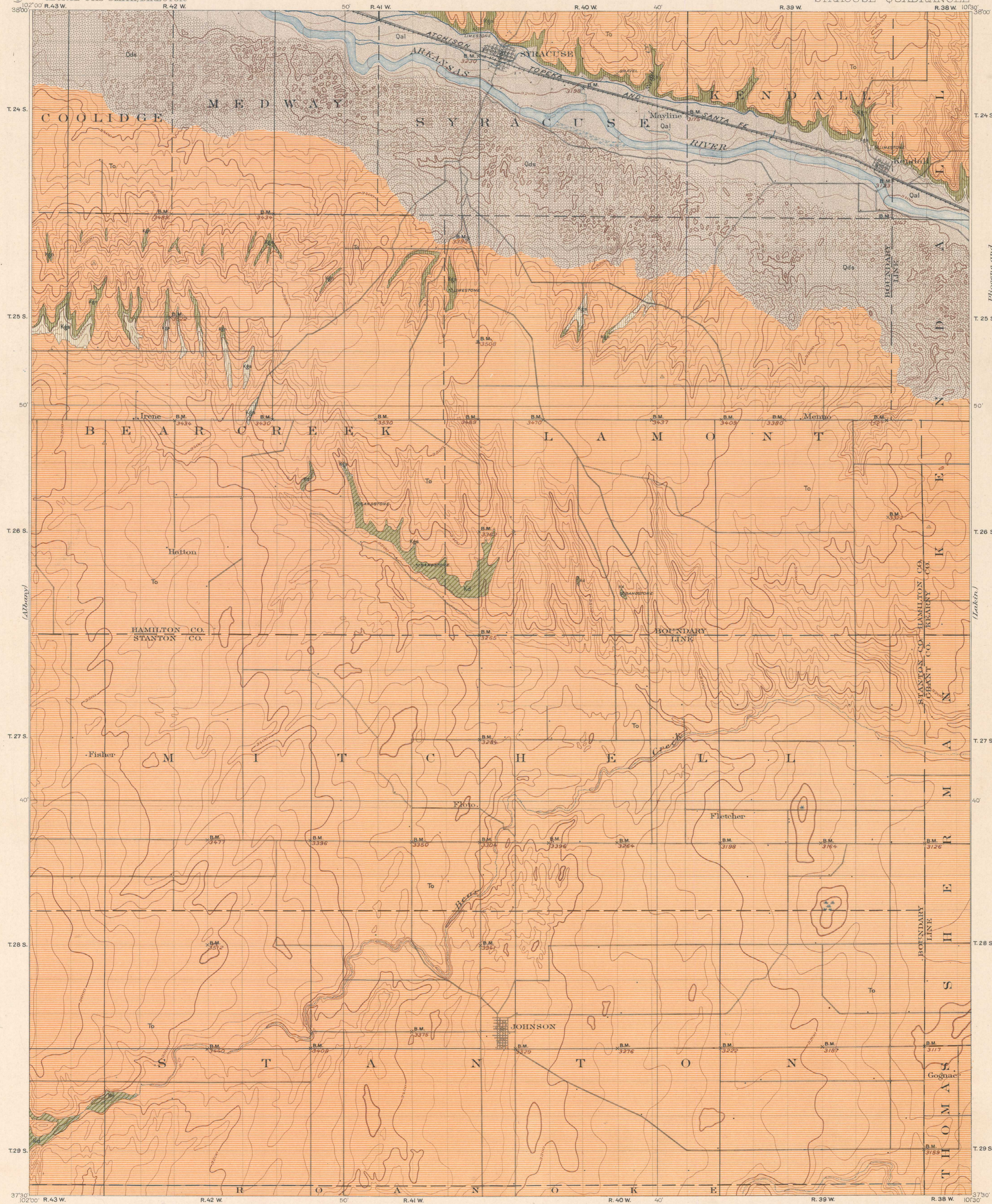


AREAL GEOLOGY

KANSAS
SYRACUSE QUADRANGLE



EXPLANATION

- SEDIMENTARY ROCKS**
(Areas of subaerial deposits are shown by patterns of dots and circles; subaqueous deposits by patterns of parallel lines)
- Recent**
 - Quaternary**
 - Qds**
Dune sand
(derived from river alluvium by prevailing northwesterly winds)
 - Qal**
Alluvium
(sand, loam, and gravel in river bottoms)
 - Pliocene and late Miocene**
 - Tertiary**
 - To**
Ogallala formation
(sand, loam, and volcanic gray covering the uplands)
 - Upper Cretaceous**
 - UNCONFORMITY**
 - Kgn**
Greenhorn limestone
(thin bedded limestone and interbedded shale)
 - Kgs**
Garnett shale
(dark shale)
 - Kd**
Dakota sandstone
(hard massive gray to buff sandstone)
- ☉ Quarries
⊗ Gravel pit
- Economic note: Sand and gravel for concrete and other uses occur in Ogallala formation, alluvium, and dune sand; impure limestone in Greenhorn limestone. Dakota sandstone is available for rough building stone. Beds and depth to underground water shown on underground-water sheet.*

Jno. H. Renshaw Geographer in charge
Triangulation by A. H. Thompson
Topography by Nat. Tyler Jr.
Surveyed in 1898.

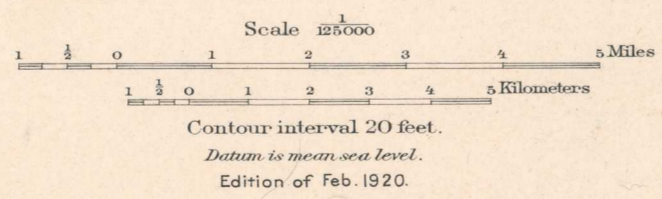


DIAGRAM OF TOWNSHIP

6 8 10 12 14
7 9 11 13 15
8 10 12 14 16
9 11 13 15 17
10 12 14 16 18
11 13 15 17 19
12 14 16 18 20

Geology by N. H. Darton.
Surveyed in 1913.