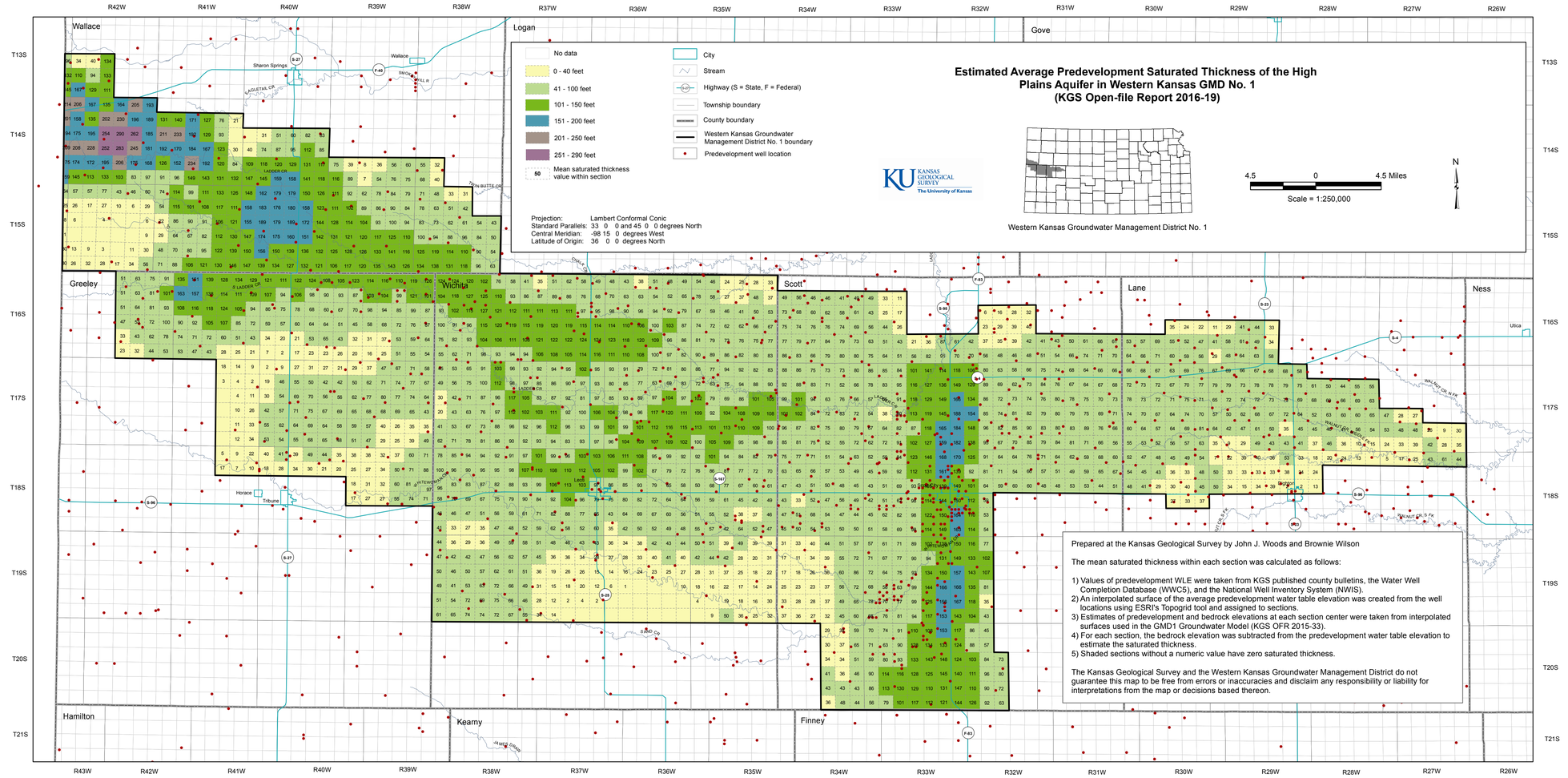


No data
0 - 40 feet
41 - 100 feet
101 - 150 feet
151 - 200 feet
201 - 250 feet
251 - 290 feet
50 Mean saturated thickness value within section

City
Stream
Highway (S = State, F = Federal)
Township boundary
County boundary
Western Kansas Groundwater Management District No. 1 boundary
Predevelopment well location

Projection: Lambert Conformal Conic
Standard Parallels: 33 0 0 and 45 0 0 degrees North
Central Meridian: -98 15 0 degrees West
Latitude of Origin: 36 0 0 degrees North

Estimated Average Predevelopment Saturated Thickness of the High Plains Aquifer in Western Kansas GMD No. 1 (KGS Open-file Report 2016-19)

KU KANSAS GEOLOGICAL SURVEY The University of Kansas

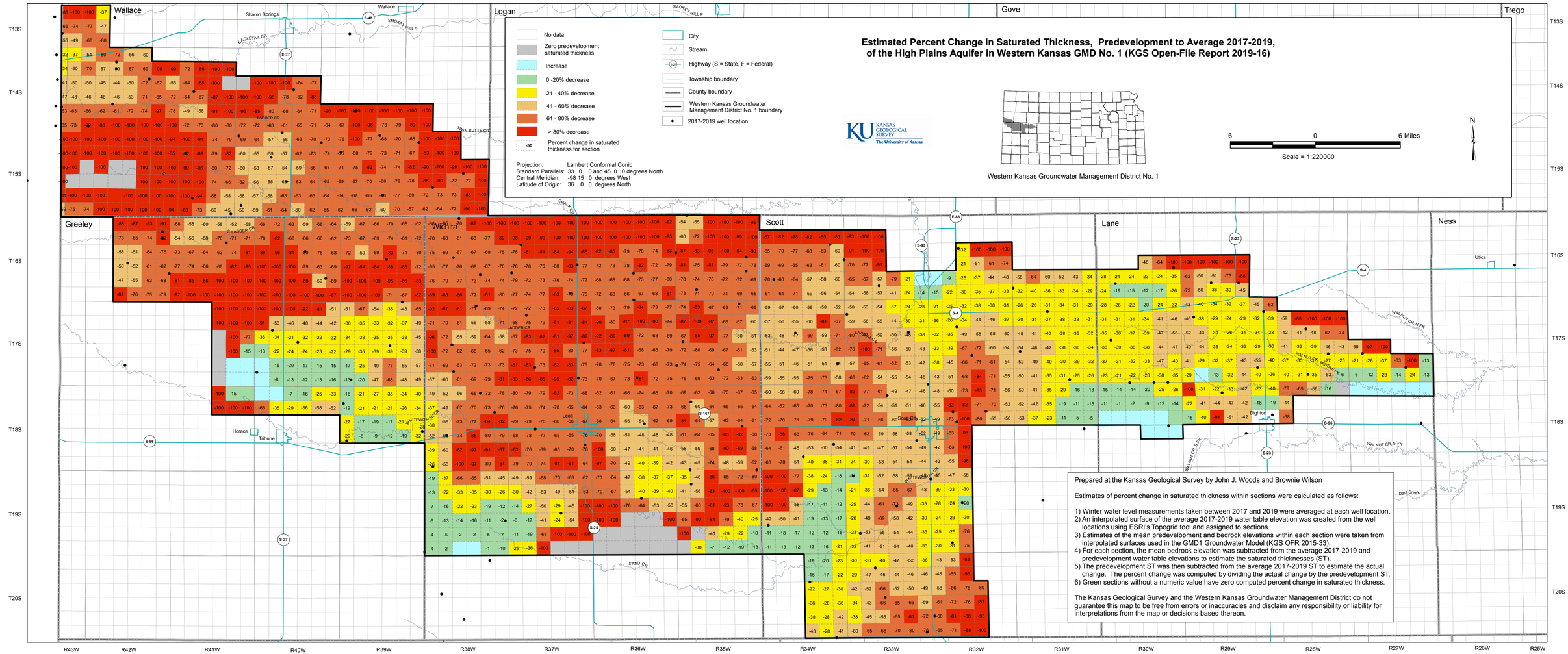
Western Kansas Groundwater Management District No. 1

Prepared at the Kansas Geological Survey by John J. Woods and Brownie Wilson

The mean saturated thickness within each section was calculated as follows:

1) Values of predevelopment WLE were taken from KGS published county bulletins, the Water Well Completion Database (WWC5), and the National Well Inventory System (NWIS).
2) An interpolated surface of the average predevelopment water table elevation was created from the well locations using ESRI's Topogrid tool and assigned to sections.
3) Estimates of predevelopment and bedrock elevations at each section center were taken from interpolated surfaces used in the GMD1 Groundwater Model (KGS OFR 2015-33).
4) For each section, the bedrock elevation was subtracted from the predevelopment water table elevation to estimate the saturated thickness.
5) Shaded sections without a numeric value have zero saturated thickness.

The Kansas Geological Survey and the Western Kansas Groundwater Management District do not guarantee this map to be free from errors or inaccuracies and disclaim any responsibility or liability for interpretations from the map or decisions based thereon.



Prepared at the Kansas Geological Survey by John J. Woods and Brownie Wilson

Estimates of percent change in saturated thickness within sections were calculated as follows:

1) Winter water level measurements taken between 2017 and 2019 were averaged at each well location.
2) An interpolated surface of the average 2017-2019 water table elevation was created from the well locations using ESRI's Topogrid tool and assigned to sections.
3) Estimates of the mean predevelopment and bedrock elevations within each section were taken from interpolated surfaces used in the GMD1 Groundwater Model (KGS OFR 2015-33).
4) For each section, the mean bedrock elevation was subtracted from the average 2017-2019 and predevelopment water table elevations to estimate the saturated thicknesses (ST).
5) The predevelopment ST was then subtracted from the average 2017-2019 ST to estimate the actual change. The percent change was computed by dividing the actual change by the predevelopment ST.
6) Green sections without a numeric value have zero computed percent change in saturated thickness.

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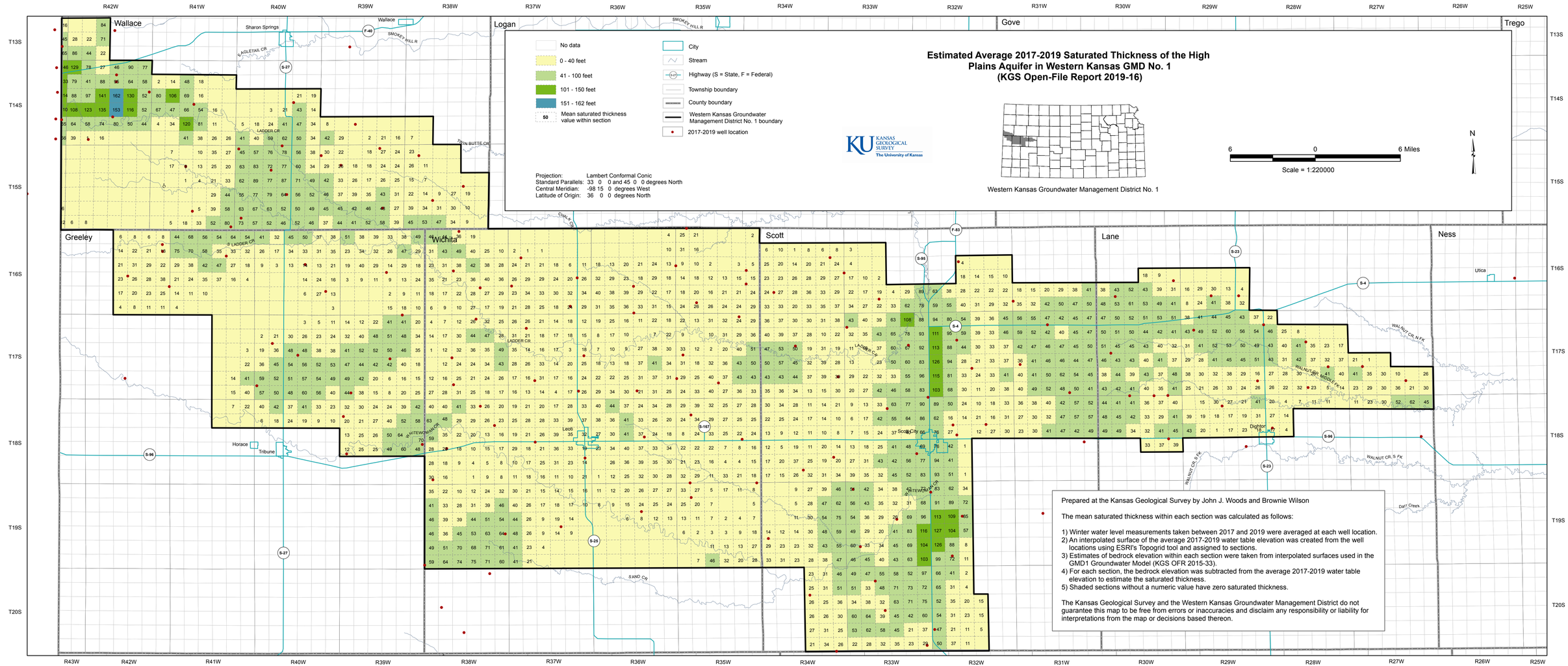

Prepared at the Kansas Geological Survey by John J. Woods and Brownie Wilson

The mean saturated thickness within each section was calculated as follows:

1) Winter water level measurements taken between 2017 and 2019 were averaged at each well location.
2) An interpolated surface of the average 2017-2019 water table elevation was created from the well locations using ESRI's Topogrid tool and assigned to sections.
3) Estimates of bedrock elevation within each section were taken from interpolated surfaces used in the GMD1 Groundwater Model (KGS OFR 2015-33).
4) For each section, the bedrock elevation was subtracted from the average 2017-2019 water table elevation to estimate the saturated thickness.
5) Shaded sections without a numeric value have zero saturated thickness.

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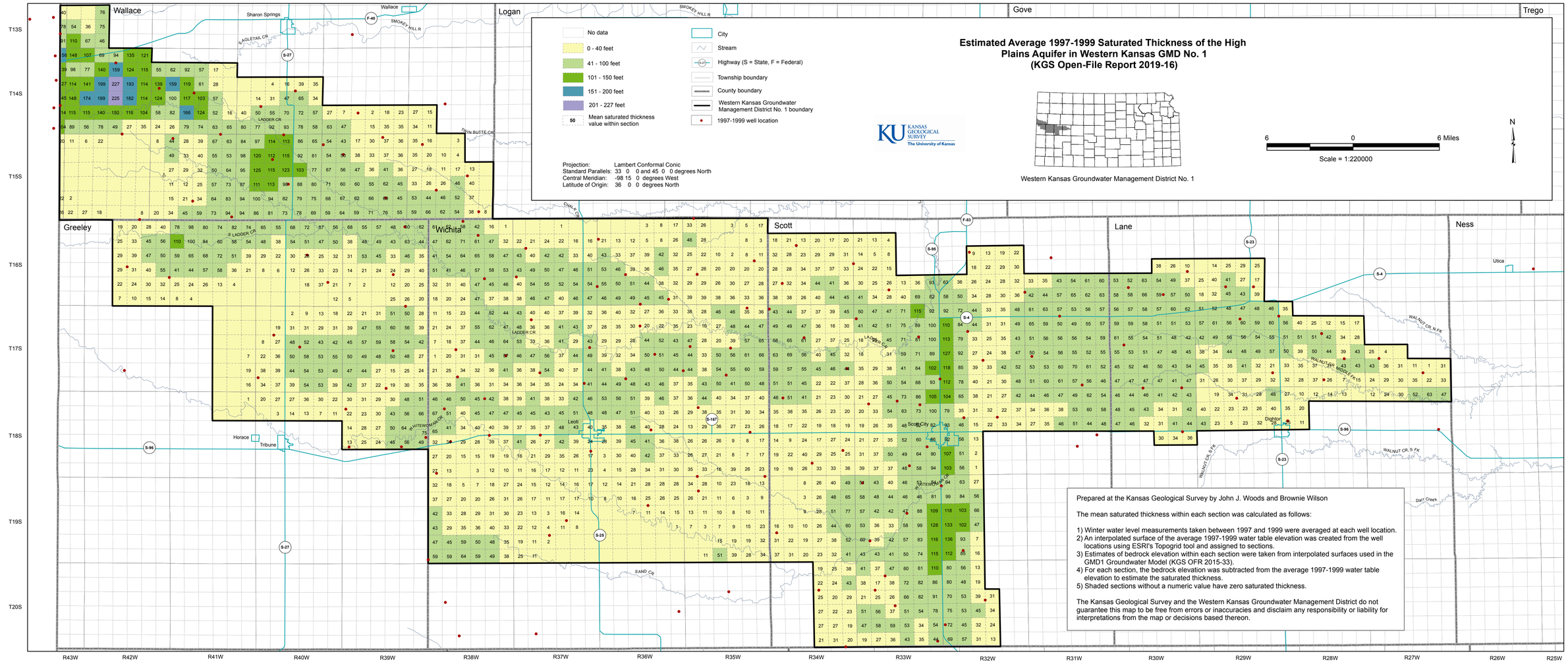

No data
0 - 40 feet
41 - 100 feet
101 - 150 feet
151 - 200 feet
201 - 227 feet
50 Mean saturated thickness value within section

City
Stream
Highway (S = State, F = Federal)
Township boundary
County boundary
Western Kansas Groundwater Management District No. 1 boundary
1997-1999 well location

Projection: Lambert Conformal Conic
Standard Parallels: 33 0 0 and 45 0 0 degrees North
Central Meridian: -98 15 0 degrees West
Latitude of Origin: 36 0 0 degrees North

KANSAS GEOLOGICAL SURVEY
The University of Kansas

Estimated Average 1997-1999 Saturated Thickness of the High Plains Aquifer in Western Kansas GMD No. 1 (KGS Open-File Report 2019-16)

Western Kansas Groundwater Management District No. 1

6 0 6 Miles

Scale = 1:220000

N

Prepared at the Kansas Geological Survey by John J. Woods and Brownie Wilson

The mean saturated thickness within each section was calculated as follows:

1) Winter water level measurements taken between 1997 and 1999 were averaged at each well location.
2) An interpolated surface of the average 1997-1999 water table elevation was created from the well locations using ESRI's Topogrid tool and assigned to sections.
3) Estimates of bedrock elevation within each section were taken from interpolated surfaces used in the GMD1 Groundwater Model (KGS OFR 2015-33).
4) For each section, the bedrock elevation was subtracted from the average 1997-1999 water table elevation to estimate the saturated thickness.
5) Shaded sections without a numeric value have zero saturated thickness.

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Estimated Change in Saturated Thickness, Predevelopment to Average 2017-2019, of the High Plains Aquifer in Western Kansas GMD No. 1 (KGS Open-File Report 2019-16)