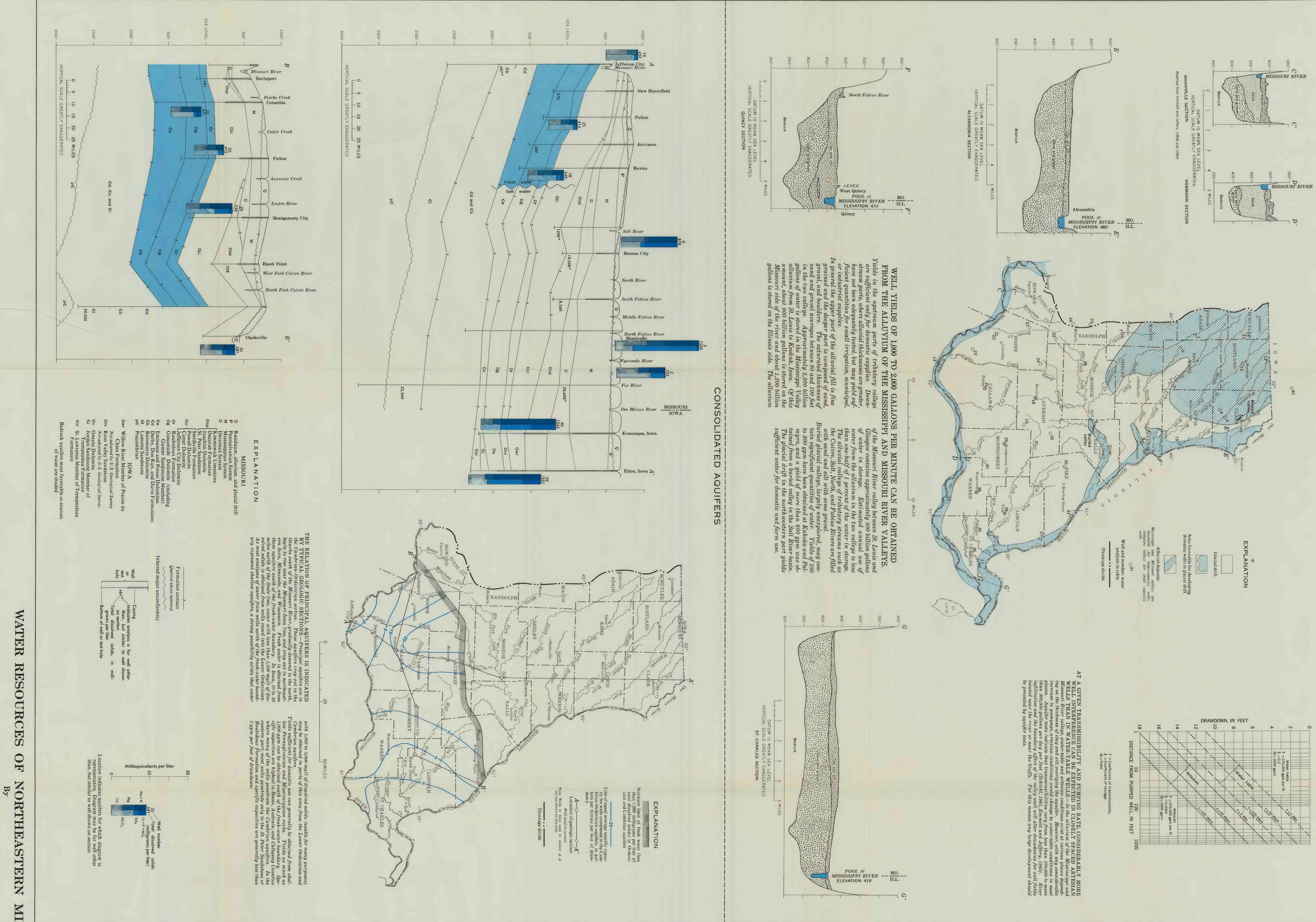


GROUND WATER AVAILABILITY AND QUALITY UNCONSOLIDATED AQUIFERS



WATER RESOURCES OF NORTHEASTERN MISSOURI

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DATA AND EVALUATION

GROUND WATER IN NORTHEASTERN MISSOURI IS VARIABLE IN BOTH CHEMICAL CHARACTER AND DISSOLVE-SOLIDS CONTENT.

Water from glacial drift aquifers generally is hard and has a high iron content. Treatment is desirable from alluvial wells in a certain horizontal type with a fairly uniform dissolved-solids content. Water from bedrock aquifers generally is a calcium-sulfate type and generally is softer than water from the fresh-water boundary generally is a calcium-sulfate type.

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Well number	Well location				Well dimensions				Water quality																		
	County	Section	Township	Range	Total depth (feet)	Depth of casing (feet)	Water-bearing material	Rate of pumping (gpm)	Specific capacity (gpm/foot of drawdown)	Date of collection	Silica (SiO ₂)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Nitrate (NO ₃)	Dissolved solids (total) as CaCO ₃	Calcium, Magnesium as CaCO ₃	Non-carbonate	pH	
1	Madison	25	18 N	18 W	100	75	Coarse sand and gravel	100	1.0	10-12-68	25	0.1	0.2	110	27	8.4	19	277	19	1.2	1.2	1.2	1.2	220	220	0	7.6
2	Madison	25	18 N	18 W	100	75	Coarse sand and gravel	100	1.0	10-12-68	25	0.1	0.2	110	27	8.4	19	277	19	1.2	1.2	1.2	1.2	220	220	0	7.6
3	Madison	25	18 N	18 W	100	75	Coarse sand and gravel	100	1.0	10-12-68	25	0.1	0.2	110	27	8.4	19	277	19	1.2	1.2	1.2	1.2	220	220	0	7.6
4	Madison	25	18 N	18 W	100	75	Coarse sand and gravel	100	1.0	10-12-68	25	0.1	0.2	110	27	8.4	19	277	19	1.2	1.2	1.2	1.2	220	220	0	7.6
5	Madison	25	18 N	18 W	100	75	Coarse sand and gravel	100	1.0	10-12-68	25	0.1	0.2	110	27	8.4	19	277	19	1.2	1.2	1.2	1.2	220	220	0	7.6

Calcium, per liter to milligrams per liter	Calcium, per liter to milligrams per liter
1.00	100.00
0.25	25.00
0.10	10.00
0.05	5.00
0.01	1.00
0.001	0.10

System	Scale	Geologic unit	Thickness (feet)	Labeling	Water-bearing properties
Quaternary	Recent	Alluvium	0-10	Coarse sand and gravel	Highly permeable
Quaternary	Recent	Clay	0-20	Clay with silt and gravel	Low permeability
Quaternary	Recent	Clay	0-20	Clay with silt and gravel	Low permeability
Missouri	Recent	Pre-Missouri	0-100	Sandstone and shale	Variable permeability
Pre-Missouri	Recent	Pre-Missouri	0-100	Sandstone and shale	Variable permeability
Missouri	Recent	Pre-Missouri	0-100	Sandstone and shale	Variable permeability
Pre-Missouri	Recent	Pre-Missouri	0-100	Sandstone and shale	Variable permeability
Missouri	Recent	Pre-Missouri	0-100	Sandstone and shale	Variable permeability
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