

Minnesota Geographic Metadata Guidelines

Metadata Entry Template

Version 1.0.4 - July 1, 1997

A State Version of the FGDC Content Standards for Geospatial Metadata

Description of data that was created for

Minnesota Ground Water Provinces

by

DNR Waters, Ground Water and Climatology Section

Data Set Name: **Minnesota Ground Water Provinces -
Generalized Cross Sections**

Metadata Entered By: **Jim Berg and Mike Tronrud**

Date: **9/6/01**

Minnesota State Element Name

Section 1		Identification Information	
Originator	Jim Berg		
Title	Minnesota Ground Water Provinces - Generalized Cross Sections		
Minnesota Clearinghouse ID			
Abstract	The cross sections were created using pre-existing cross sections, information, and professional judgement to depict regional aquifer characteristics and relationships in cross-sectional view.		
Purpose	General reference		
Time Period of Content	1978 - 2001		
Date			
Currentness Reference			
Progress	Complete		
Maintenance and Update Frequency	None planned		
Spatial Extent of Data	State of Minnesota		
West Bounding Coordinate			
East Bounding Coordinate			
North Bounding Coordinate			
South Bounding Coordinate			
Place Keywords	Minnesota		
Theme Keywords	Bedrock aquifers, unconsolidated aquifers, and aquifer characteristics		
Theme Keyword Thesaurus			
Access Constraints	None		
Use Constraints	None		
Contact Person	Jim Berg		
Contact Organization	Minnesota Department of National Resources		
Contact Person Position	Hydrogeologist		
Contact Address	500 Lafayette Road		
Contact City	St. Paul		
Contact State or Province	Minnesota		
Contact Postal Code	55155 - 4032		
Contact Voice Phone	(651) 297-4605		
Contact Fax Phone	(651) 296-0445		

Minnesota State Element Name	
Contact E-mail Address	jim.berg@dnr.state.mn.us
Browse Graphic File Name	
Browse Graphic File Description	
Associated Data Sets	

Section 2	Data Quality Information
Attribute Accuracy	
Logical Consistency	
Completeness	Complete
Horizontal Positional Accuracy	N.A.
Vertical Positional Accuracy	N.A.

Lineage	<p>The state-wide geologic cross sections from the Minnesota Hydrogeology Map (Kanivetsky, R., 1978, Hydrogeologic Map of Minnesota, Bedrock Hydrogeology: Minnesota Geological Survey State Map Series S-2, scale 1:500,000) were scanned. Jim Berg then digitized the basic formation boundary lines in Arcview. Deeper geologic formation boundaries were missing from the cross sections published in 1978. This information was added to the cross section vector files from Mossler, 1983 (Mossler, John H., 1983, Paleozoic Lithostratigraphy of Southeastern Minnesota. Minnesota Geological Survey, Miscellaneous Map series M-51).</p> <p>The lithostratigraphy of Mossler, 1983 and Kanivetsky, 1978 was modified in the southeast part of Minnesota where sedimentary Paleozoic bedrock is present according to Runkel and others, 2001 (Runkel, A.C. and others, 2001, Hydrogeology of the Paleozoic Bedrock in Southeastern Minnesota, Minnesota Geological Survey, in progress) to reflect more current hydrostratigraphic understanding. One of the key concepts in Runkel and others, 2001 is the distinction between shallow bedrock conditions with abundant secondary porosity, which may enhance aquifer hydraulic properties, and deeper bedrock conditions where primary intergranular porosity dominates. Shallow bedrock conditions can be important to depths as much as 200 feet below the top of the sedimentary bedrock. A 200-foot thick cross hatch pattern extending from the top of the sedimentary bedrock section was created using the buffer function in Arcview to indicate a zone where increased secondary porosity may occur.</p>
Source Scale Denominator	

Section 3	Spatial Data Organization Information
Native Data Set Environment	ArcView
Geographic Reference for Tabular Data	N.A.
Spatial Object Type	Vector
Vendor Specific Object Types	Point, Line, Polygon
Tiling Scheme	

Section 4	Spatial Reference Information
Horizontal Coordinate Scheme	
Ellipsoid	N.A.
Horizontal Datum	N.A.
Horizontal Units	N.A.
Altitude Datum	N.A.

Altitude Units	N.A.
Depth Datum	N.A.
Depth Units	N.A.
Cell Width	N.A.
Cell Height	N.A.
If UTM	
UTM Zone Number	N.A.
Coordinate Offsets or Adjustments	none
Distance Resolution	

Section 5		Entity and Attribute Information			
Entity and Attribute Overview					
Entity and Attribute Detailed Citation					
Table Name	Field Name	Begin Column	Definition	Valid Values	Description

Section 6		Distribution Information			
Publisher	Minnesota Department of Natural Resources				
Publication Date	2001				
Online Linkage					
Distributor Contact Person					
Distributor Organization	Waters Division				
Distributor Position	Ground Water and Climatology Section				
Distributor Address	500 Lafayette Road				
Distributor City	St. Paul				
Distributor State or Province	MN				
Distributor Postal Code	55155-4032				
Distributor Voice Phone	651-296-4800				
Distributor Fax Phone	651-296-0445				

Distributor	
E-mail Address	
Distributor's Data Set Identifier	
Distribution Liability	These cross sections were prepared from publicly available information only. Every reasonable effort has been made to ensure the accuracy of the factual data on which this map is based. However, the Department of Natural Resources does not warrant the accuracy, completeness, or any implied uses of these data. Users may wish to verify critical information; sources include both the references here and information on file in the offices of the Minnesota Geological Survey and the Department of Natural Resources. Every effort has been made to ensure the interpretation shown conforms to sound geologic and cartographic principles. This map should not be used to establish legal title, boundaries, or locations of improvements.
Transfer Format Name	Shapefile
Transfer Format Version Number	
Transfer Size	
Ordering Instructions	

Section 7 Metadata Reference Information	
Metadata Date	September 2001
Metadata Contact Person	Mike Tronrud
Metadata Contact Organization	Minnesota Department of Natural Resources
Metadata Contact Position	GIS Specialist
Metadata Contact Address	500 Lafayette Road
Metadata Contact City	St. Paul
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Metadata Standard Name	Minnesota geographic Metadata Guidelines
Metadata Standard Version	1.0.4

Metadata Standard Online
Linkage