

Appendix F. ISWS Aquifer Code System

The ISWS characterizes the source interval of a well with a four-character aquifer code denoting the uppermost and lowermost stratigraphic unit to which the well is open (Table F-1). The first two digits of the code represent the uppermost stratigraphic unit open to the well, and the last two digits represent the lowest unit open to the well. For example, a well that is open to all units from the Galena Group (63) downward to the bottom of the Galesville Sandstone (87)—the source interval common to many wells open to the Cambrian and Ordovician aquifers of northern Illinois—is assigned the aquifer code 6387. A well that is open to the Silurian dolomite, and no other stratigraphic units, is assigned the aquifer code 5656. Since it is uncommon for the source interval of a well to be known in great lithostratigraphic detail, many assigned aquifer codes make use of two-character strings denoting unspecified lithostratigraphic units within a larger, more general unit. For example, a well that is open to a Quaternary sand-and-gravel aquifer in an unspecified stratigraphic unit is assigned the aquifer code 0101. A well that is open to an interval from the Silurian downward through an unspecified unit in the Champlainian Series is assigned the aquifer code 5660.

Table F-1. Two-Character Codes Employed in ISWS Aquifer Codes

General		Specific	
Stratigraphic Unit	Code Range	Stratigraphic Unit	Code
Quaternary System	01-14	Unspecified	01
		Cahokia Alluvium Parkland Sand	02
		Mason Group <i>Equality Formation</i>	03
		Mason Group <i>Henry Formation</i>	04
		Wedron Group	05
		Mason Group <i>Henry Formation (Ashmore Tongue)</i>	06
		Winnebago Formation	07
		Glasford Formation	09
		Pearl Formation	10
		Banner Formation (undifferentiated)	11
		Banner Formation <i>Mahomet Sand</i>	12
		Banner Formation <i>Sankoty Sand</i>	13
		Pre-Kansan	14
		Unspecified	15
Tertiary System Cretaceous System	15-19		
Pennsylvanian System	20-29	Unspecified	20
	30-39	Unspecified	30
Mississippian System <i>Chesterian Series</i>	40-49	Unspecified	40
		Unspecified	
Mississippian System <i>Valmeyeran Series</i> <i>Kinderhookian Series</i>			

**Table F-1. Two-Character Codes Employed in ISWS Aquifer Codes
(Continued)**

<i>General</i>		<i>Specific</i>	
<i>Stratigraphic Unit</i>	<i>Code Range</i>	<i>Stratigraphic Unit</i>	<i>Code</i>
Devonian System	50-59	Unspecified	50
Silurian System		Devonian System	51
		Silurian System	56
Ordovician System	60-69	Unspecified	60
<i>Cincinnati Series</i>		Maquoketa Group	61
<i>Champlainian Series</i>		Galena Group	63
		Platteville Group	65
		Ancell Group	66
Ordovician System	70-79	Unspecified	70
<i>Canadian Series</i>		Prairie du Chien Group	71
		<i>Shakopee Dolomite</i>	
		Prairie du Chien Group	73
		<i>New Richmond Sandstone</i>	
		Prairie du Chien Group	75
		<i>Oneota Dolomite</i>	
	Prairie du Chien Group	77	
		<i>Gunter Sandstone</i>	
Cambrian System	80-89	Unspecified	80
<i>Galesville Sandstone and above</i>		Eminence Formation	81
		Jordan Sandstone	
		Potosi Dolomite	
		Franconia Formation	83
		Ironton Sandstone	87
		Galesville Sandstone	

**Table F-1. Two-Character Codes Employed in ISWS Aquifer Codes
(Concluded)**

<i>General</i>		<i>Specific</i>	
<i>Stratigraphic Unit</i>	<i>Code Range</i>	<i>Stratigraphic Unit</i>	<i>Code</i>
Cambrian System <i>Eau Claire Formation</i> <i>Mt. Simon Sandstone</i>	90-99	Unspecified	90
		<i>Eau Claire Formation</i> <i>Proviso Siltstone Member</i> <i>Lombard Dolomite Member</i>	93
		<i>Eau Claire Formation</i> <i>Elmhurst Sandstone Member</i> <i>Mt. Simon Sandstone</i>	97