

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

<i>General</i>		<i>Specific</i>	
<i>Stratigraphic Unit</i>	<i>Code Range</i>	<i>Stratigraphic Unit</i>	<i>Code</i>
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 Silurian System	50-59	Unspecified	50
		Devonian System	51
		Silurian System	56
Ordovician System <i>Cincinnati Series</i> <i>Champlainian Series</i>	60-69	Unspecified	60
		Maquoketa Group	61
		Galena Group	63
		Platteville Group	65
		Ancell Group	66
		Unspecified	70
Ordovician System <i>Canadian Series</i>	70-79	Prairie du Chien Group <i>Shakopee Dolomite</i>	71
		Prairie du Chien Group <i>New Richmond Sandstone</i>	73
		Prairie du Chien Group <i>Oneota Dolomite</i>	75
		Prairie du Chien Group <i>Gunter Sandstone</i>	77
		Unspecified	80
Cambrian System <i>Galesville Sandstone and above</i>	80-89	Eminence Formation Jordan Sandstone Potosi Dolomite	81
		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
		Eau Claire Formation <i>Proviso Siltstone Member</i> <i>Lombard Dolomite Member</i>	93
		Eau Claire Formation <i>Elmhurst Sandstone Member</i> Mt. Simon Sandstone	97