

ERA/THEM	SYSTEM AND SERIES	Lithostratigraphic units of Love et al. (1993) <sup>1</sup>	Hydrogeologic role/unit inferred from Berry (1955) [Cokeville area]	Hydrogeologic role/unit inferred from Robinove and Berry (1963) [Bear River valley]	Hydrogeologic divisions of Lines and Glass (1975, Sheet 1) <sup>2</sup> [Overthrust Belt]	Hydrogeologic role/unit of Ahern et al. (1981, Figure II-7, Table IV-1, and text) [Overthrust Belt and Green River Basin]	Hydrogeologic unit of Glover (1990) [Bear River valley in Cokeville and Evanston areas]	Hydrogeologic unit of TriHydro Corporation (2002) [Cokeville area]	Hydrogeologic unit of Wyoming Framework Water Plan (WWC Engineering et al., 2007, Figure 4-9) [All of Wyoming]	Hydrogeologic unit used in this report for Bear River Basin								
CENOZOIC	QUATERNARY	Holocene Pleistocene	Alluvium and terrace deposits <sup>3</sup>	Local aquifers		8 – Quaternary sand and gravel	Major aquifers – Quaternary aquifers	Alluvial aquifer	Major aquifer – alluvial	Quaternary unconsolidated-deposit aquifers								
	TERTIARY	Pliocene	Salt Lake Formation	Not discussed/not defined/not present or hydrogeologic characteristics unknown at time of study	Not discussed/not defined or hydrogeologic characteristics unknown in investigators' study area at time of study	7 – Tertiary conglomerate and tuffs	Major aquifer	Major aquifer	Not discussed or not present in investigator's study area	Major aquifer – sandstone	Salt Lake aquifer							
Miocene																		
Oligocene																		
Eocene		Intrusive igneous rocks	Fowkes Formation									Aquifer	1 – Igneous and metamorphic rocks	Not discussed	Major aquifer	Not discussed	Major aquifer – sandstone	Fowkes aquifer
Paleocene		Conglomerate of Sublette Range	Wasatch Formation <sup>2</sup>									Potential aquifer	6 – Tertiary siltstones and sandstones	Not discussed	Major aquifer	Wasatch aquifer	Not discussed	Wasatch aquifer
CRETACEOUS	Upper Cretaceous	Adaville Formation	Not discussed	Not defined in investigators' study area at time of study	5 – Cretaceous shales and sandstones	Not discussed/not defined in investigators' study area at time of study	Aquifer – Adaville aquifer <sup>4</sup>	Not discussed or not present in investigator's study area	Major aquifer – sandstone	Adaville aquifer								
		Hilliard Shale	Probable confining unit	Potential aquifer	Potential aquifer	Major aquitard	Discontinuous local aquifers or locally utilized aquifer	Major aquifer	Major aquitard	Hilliard confining unit								
		Frontier Formation	Potential aquifer	Potential aquifer	Potential aquifer	Minor aquifer – Frontier aquifer	Minor aquifer	Minor aquifer	Minor aquifer	Frontier aquifer								
		Wyoform Formation	Quealy Formation	Aspen Shale	Not defined in investigators' study area at time of study	Probable confining unit	Not discussed/not defined in investigators' study area at time of study	Minor aquifer	Not discussed or not present in investigator's study area	Major aquitard	Hydrogeologic role/unit not defined							
	Lower Cretaceous	Gannett Group	Smoot Formation	Potential aquifer	Potential aquifer	Potential aquifer	Discontinuous aquifers with local confining units	Not defined	Not discussed	Major aquifer	Hydrogeologic role/unit not defined							
			Draney Limestone	Potential aquifer	Potential aquifer	Potential aquifer	Upper Jurassic-lower Cretaceous aquifers	Not defined	Major aquifer	Hydrogeologic role/unit not defined								
			Bechler Conglomerate	Potential aquifer	Potential aquifer	Potential aquifer	Minor aquifer	Not defined	Major aquifer	Hydrogeologic role/unit not defined								
			Peterson Limestone	Potential aquifer	Potential aquifer	Potential aquifer	Minor aquifer	Not defined	Major aquifer	Hydrogeologic role/unit not defined								
	JURASSIC	Upper Jurassic	Stump Formation	Potential aquifer	Potential aquifer	4 – Jurassic and Cretaceous sandstones and limestones	Aquitard (Figure II-7)/poor aquifer (Table IV-1)	Not discussed or not present in investigator's study area	Not discussed	Major aquifer	Hydrogeologic role/unit not defined							
		Middle Jurassic	Preuss Sandstone or Redbeds	Potential aquifer	Potential aquifer	Potential aquifer	Major aquifer	Not discussed or not present in investigator's study area	Major aquifer	Major aquifer	Hydrogeologic role/unit not defined							
	TRIASSIC	Upper Triassic	Ankareh Formation	Potential aquifer	Potential aquifer	3 – Triassic and Permian siltstones and limestones	Minor aquifer/regionally confining, locally confining	Minor aquifer	Not discussed or not present in investigator's study area	Major aquifer – sandstone	Nugget aquifer							
		Lower Triassic	Thaynes Limestone	Potential aquifer	Potential aquifer	Potential aquifer	Major aquifer/regionally confining	Major aquifer	Not discussed or not present in investigator's study area	Minor aquifer	Minor aquifer							
PALEOZOIC	PERMIAN	Phosphoria Formation and related rocks	Potential aquifer/good aquifer (identified as Tensleep Sandstone)	Potential aquifer	2 – Paleozoic limestones and sandstones	Not discussed/not defined in investigators' study area at time of study	Major aquifer (identified as Tensleep Sandstone on Figure II-7 and Wells Formation in text)	Minor aquifer	Not discussed	Major aquifer (identified as Tensleep Sandstone) – limestone	Wells aquifer							
												PENNNSYLVANIAN	Upper Pennsylvanian	Wells Formation	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer
	Middle Pennsylvanian	Amsden Formation	Potential aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer								
	MISSISSIPPIAN	Upper Mississippian	Madison Limestone	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer							
		Lower Mississippian	Darby Formation	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer							
	DEVONIAN	Upper Devonian	Darby Formation	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer							
		Lower Devonian	Laketown Dolomite	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer							
	SILURIAN	Upper and Middle Silurian	Bighorn Dolomite	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer							
		Upper Ordovician	Gallatin Limestone	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer							
	ORDOVICIAN	Middle Ordovician	Gros Ventre Formation	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer							
		Lower Ordovician	Flathead Sandstone	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer							
	CAMBRIAN	Upper Cambrian	Gros Ventre Formation	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer							
Middle Cambrian		Flathead Sandstone	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer								
PRECAMBRIAN	Precambrian rocks	Precambrian rocks	Potential aquifer/good aquifer	Potential aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer	Major aquifer								
					1 – Igneous and metamorphic rocks	Minor aquifer – Precambrian aquifer	Minor aquifer	Not discussed	Major aquifer	Precambrian basal confining unit								

<sup>1</sup>Alluvium and terrace deposits of Quaternary age not included in Love et al. (1993).

<sup>2</sup>Includes main body Wasatch Formation, diamicite and sandstone, and Bulpin and Tunp Members.

<sup>3</sup>Lithostratigraphic units grouped into eight hydrogeologic divisions based on "somewhat similar origins, lithologies, and water-bearing properties" (Lines and Glass, 1975, Sheet 1).

<sup>4</sup>Adaville Formation defined as "major aquifer" in Figure II-7 and "minor aquifer" in Table IV-1 of Ahern et al. (1981).

<sup>5</sup>Predominant lithology is sandstone, and it is unknown why formation is defined as "Major aquifer – limestone" in WWC Engineering et al. (2007, Figure 4-9).

Plate 5. Relation of lithostratigraphic units to hydrogeologic units, Overthrust Belt and Fossil Basin, including Bear River Basin, Wyoming.