Minerals of the Torpedo–Bennett fault zone Organ Mountains, Doña Ana County, New Mexico

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The Organ Mountains in Southern New Mexico are host to a rich assemblage of minerals and many metallic ore deposits. A particularly rich trend of mineralization occurs in the northern part of the range along a series of faults called the Torpedo-Bennett fault zone. Copper porphyry-type deposits at the Torpedo mine in the northern reaches of the fault zone generated copper-zinc skarns immediately adjacent to the porphyry system (Lueth and McLemore 1998). One such skarn was mined for Cu at the Memphis Mine, just adjacent to the Torpedo. An outward trend continues along the faults from the porphyry and skarn, followed by Pb-Zn-Ag replacement deposits (Lueth and McLemore 1998). The Stevenson-Bennett mine is a historically significant mine probably most famous for its exceptional wulfenite specimens, and is an example of this type of Pb-Zn-Ag replacement mineralization within the fault zone. Both the ore minerals and gangue minerals will be described in depth from each of the three deposits, the Torpedo, the Memphis, and the Stevenson–Bennett.

A doubly terminated hemimorphite crystal; Stevenson-Bennett Mine FOV about 8.5mm.

List of minerals from the Torpedo Mine	
Acanthite	Hemimorphite
Azurite	Kaolinite
Brochantite	Malachite
Chalcocite	Pyrite
Chalcopyrite	Quartz
Chrysocolla	Rosasite
Copper	Smithsonite
Cuprite	Turquoise
Gypsum	

The next two tables are on the following page.

List of minerals from the Memphis Mine			
Adamite	Chalcopyrite	Galenobismutite	Rosasite
Andradite	Chrysocolla	Goethite	Scheelite
Aragonite	Conichalcite	Hematite	Smithsonite
Aurichalcite	Copper	Hemimorphite	Sphalerite
Azurite	Covellite	Hetaerolite	Sulphur
Baryte	Cuprite	Jarosite	Tetradymite
Bismuthinite	Diopside	Limonite	Vanadinite
Bismutite	Dolomite	Linarite	Willemite
Brochantite	Dyscrasite?	Malachite	Wollastonite
Calcite	Epidote	Massicot	Wulfenite
Cerussite	Fluorite	Pyrite	
Chalcocite	Galena	Quartz	

List of minerals from the Stevenson–Bennett Mine	
Adamite	Hydroniumjarosite
Anglesite	Jarosite
Aragonite	Limonite
Aurichalcite	Linarite
Beudantite Group	Malachite
Brochantite	Mimetite
Calcite	Mottramite
Caledonite	Phosgenite
Cerussite	Plumbojarosite
Cesarolite	Pyrite
Chlorargyrite	Pyromorphite
Chrysocolla	Quartz
Descloizite	Rosasite
Dolomite	Siderite
Duftite	Silver
Fluorite	Smithsonite
Galena	Sphalerite
Goethite	Stengite
Gypsum	Vanadinite
Hematite	Willemite
Hemimorphite	Wulfenite