Calamine is the most important ore mineral in the Friedensville zinc ores so far as mining operations have been carried on. It has been formed from sphalerite, which probably everywhere in that section underlies the calamine.

It is found in attractive small crystals or groups of crystals and in the massive form.

Eyerman (1889, p. 29) gives the following analysis of a specimen from the Ueberroth mine:

\[
\begin{align*}
\text{SiO}_2 & : 24.32 \\
\text{Fe}_2\text{O}_3 & : 2.12 \\
\text{H}_2\text{O} & : 7.86 \\
\text{ZnO} & : 65.05
\end{align*}
\]

Further data will be found in the chapter on Mineral Resources.

Epidote (complex Ca,Al,Fe silicate)

Epidote is a very common mineral in the light and dark-colored pre-Cambrian gneisses of Lehigh County. It has been formed from feldspars and hornblende. In some places, specimens of gneiss can be obtained in which approximately half the rock is epidote. It is common also in the pegmatites. Bands or streaks of almost pure epidote occur. Slickensided surfaces are commonly coated with a thin layer of epidote. In almost all cases the mineral is so fine-grained as to appear to the naked eye to be a homogeneous amorphous mass with a dull pistachio-green color, but small brilliant crystals, readily visible, have been observed, mainly along fault planes.

Sillimanite (Al₂SiO₅)

Wherry (1918) has reported abundant sillimanite in quartz-mica schists of Lehigh County. It “occurs in long slender prisms, mostly curved or bent slightly and in sub-parallel arrangement.” In one locality, one mile west of Seidersville, it constitutes 35.1 percent of the rock. It is found mainly in the Moravian Heights formation. The sillimanite rock near Seidersville was quarried at one time in the belief that it was soapstone.

Titanite (CaTiSiO₅)

Dr. Edgar F. Smith described a find of titanite within the county:

This mineral, rather rare in Pennsylvania, we have also found in Lehigh County, Lower Milford Township, about two miles distant from Hosensack Station. It occurs in the same region in which we observed an olive-colored garnet, previously described in this Journal, Vol. 5, No. 4. The titanite crystals are well defined, but not more than half an inch in length. They are associated with green pyroxene crystals. Their color is a dark brown. Specific gravity 3.15. The analysis of the above made by Mr. Knerr and myself gave:

\[
\begin{align*}
\text{SiO}_2 & : 34.87 \text{ per cent.} \\
\text{TiO}_2 & : 43.41 \\
\text{CaO} & : 21.75
\end{align*}
\]

100.03

(Smith, 1885, p. 412.)