have been called turgite. Eyerman\textsuperscript{47} gives the following description and analysis.

Turgite, as a beautiful red incrustation, is found on the interior surface of limonite geodes at the Glendon, Easton, mines.

\[
\begin{align*}
\text{Fe}_2\text{O}_3 & \quad 35.41 \\
\text{MnO} & \quad 3.60 \\
\text{H}_2\text{O} & \quad 5.06
\end{align*}
\]

Lepidocrocite (\(\text{Fe}_2\text{O}_3\cdot\text{H}_2\text{O}\))

Lepidocrocite is regarded as a variety of goethite. Posnjak and Merwin\textsuperscript{48} give analyses of two specimens from (South?) Easton. The first one is described as "micaceous, orange red, on fibrous goethite" and the second "consisted of scales set edgewise and closely aggregated, on fibrous goethite."

\[
\begin{array}{ccc}
\text{Fe}_2\text{O}_3 & 85.80 & 82.67 \\
\text{FeO} & 1.47 & 1.82 \\
\text{Al}_2\text{O}_3 & \text{trace} & 0.24 \\
\text{MnO} & \text{trace} & 1.34 \\
\text{MgO} & \text{trace} & 0.13 \\
\text{SiO}_2 & 0.91 & 0.92 \\
\text{CO}_2 & 0.90 & 1.09 \\
\text{H}_2\text{O} & 11.02 & 11.68 \\
\hline
100.10 & 99.78 \\
\text{Fe}_2\text{O}_3 & 1.14 & 1.25
\end{array}
\]

It is believed that careful search will show the presence of lepidocrocite in many, if not most, of the Northampton County limonite ore deposits.

Limonite (\(\text{Fe}_2\text{O}_3\cdot\text{H}_2\text{O}\))

Hydrated iron oxides are abundant throughout the county. The term limonite is used to designate those mixtures of ferric iron minerals from which the constituents have not been identified. The principal constituents are goethite, lepidocrocite, turgite, hematite, and jarosite.\textsuperscript{49} The brown limonite was the principal constituent in the numerous brown iron ore mines once worked but now abandoned. The miners called it brown hematite. Undoubtedly much of what has been loosely called limonite is actually goethite or lepidocrocite. It occurs in many forms. The earthy variety mixed with clay is known as ocher and has been used for paint. The shelly, stalactitic and geode varieties are common. The black varnish-like botryoidal lining of geodes and other cavities reveals a fibrous structure upon fracturing. Although this has been called limonite in the past, it probably is goethite.

\textsuperscript{47} The Mineralogy of Pennsylvania, Part II, p. 22, 1811.