There are large abandoned quarries near these old furnaces, particularly near Hellertown, Freemansburg and Glendon. The Bethlehem Steel Co. has long used local dolomitic limestones for part of their fluxing stone. In those plant operations where high-grade calcium limestones or low-silica dolomites are required, the product must be shipped from regions beyond the county. This company long operated a quarry near Redington in the Tomstown limestone and now works an extensive quarry between Bethlehem and Freemansburg on the left bank of the Lehigh River.

Besides these quarries the same company has prospected in several other places. Some properties have been thoroughly investigated by diamond drilling and the core samples analyzed. In some cases only silica has been determined.

Occasionally limestones from this county have been shipped to adjacent areas. The Parryville Iron Co. at Parryville, Carbon County, long obtained fluxing limestones from a quarry near Northampton.

Nearly all the quarries from which stone was obtained for flux were along the railroads, and spurs were built into the quarries. In many places better material might have been obtained elsewhere, but the cost of hauling the stone to the railroads was prohibitive.

Although the limestones have been and still are being used extensively for flux, some objectionable features have inconvenienced the operators, the worst of which is the presence of layers high in silica. Most of the furnace operators prefer limestones that contain strata with less than 4 percent silica, and where shaly or sandy strata are interbedded with the limestones it is necessary to separate these beds as waste rock. The presence of solution cavities filled with clay, which are common in regions where the rocks have been deformed or shattered by earth movements, is equally objectionable. Clay filling deep solution pockets in the surface is also present in places, and the removal of this overburden greatly increases the cost of quarrying.

Analyses of local limestones on a later page have been selected from hundreds made by the Bethlehem Steel Co., the Crane Iron Co., and the Thomas Iron Co., all of which have been largely dependent upon the limestones of the region. Some of the analyses are from places prospected for fluxing stone but never used for that purpose. It must be clearly borne in mind that practically every quarry shows variations in composition from bed to bed and not uncommonly in the same bed within relatively short distances.

The largest quarry now being operated in the region for limestone flux is owned by the Bethlehem Mines Corporation and is near Freemansburg, immediately across Lehigh River from the Bethlehem Steel Co. plant. The rock belongs to the Allentown formation. The quarry