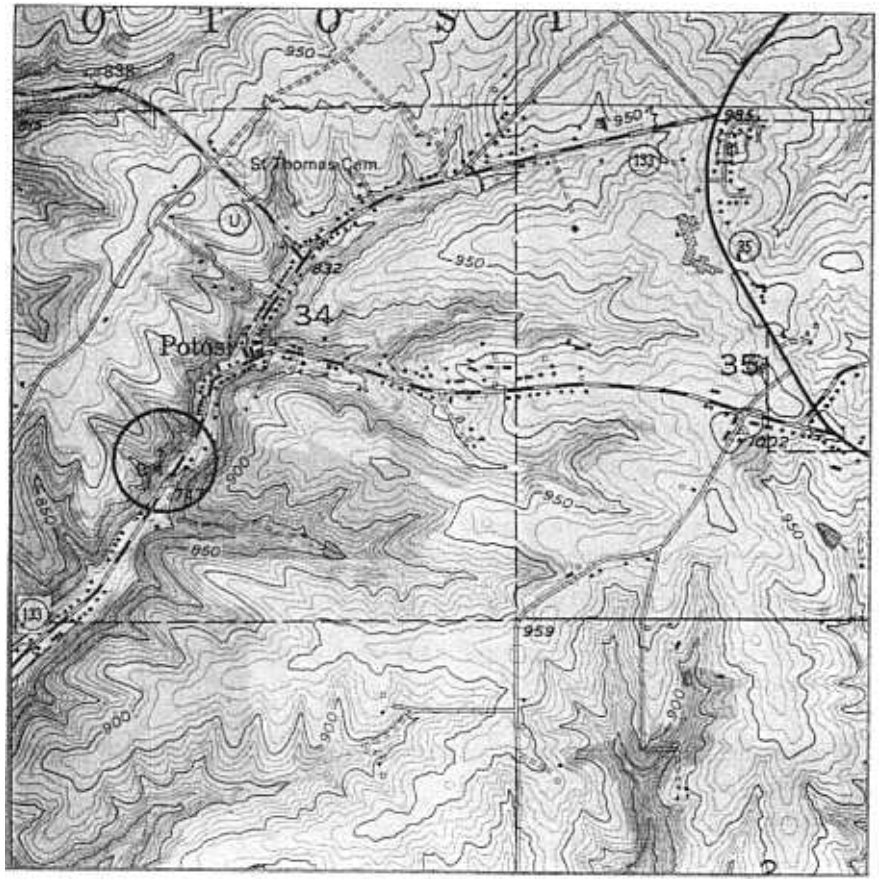
Title: St. John Mine (Snake Cave)

Location: Opening is in valley wall on the north side of State Highway 133 about 0.2 miles south of intersection of County Highway "O" and State Highway 133 in Potosi in the SW¼, NW¼, SW¼, Sec. 34, T. 3 N., R. 2 E., Grant County (Potosi 7.5-minute topographic quadrangle, 1972).



Author: M. G. Mudrey, Jr., (Modified from St. John Mine brochure, L.C. Ihm, owner, and Whitlow and West, 1966).

Description: This mine is a natural cave that was extensively exploited for lead prior to 1870. By 1843, it had yielded 250,000 pounds of lead. The Potosi sub-district produced 21,300 tons of 80 percent lead from 1862 to 1876. Galena occurs in gash veins and openings along minor joints. The vein strikes N. 65° W., and is noted for its length and continuity.

Host rock is Ordovician Galena Dolomite, with Maquoketa Shale on the ridge to the west.

The floor of the cave is in the Dunleith Member (cherty lower unit) of the Galena Dolomite. In most outcrops, it is a pale-yellowish-brown to light-olive-gray and grayish-orange fine- to medium-grained vuggy fossiliferous dolomite containing abundant chert as nodules or as nearly continuous layers. Chert in the Dunleith Member is nodular and distributed parallel to the bedding. Near mineralized zones chert is selectively mineralized and contains microscopic grains of disseminated iron sulfide that color it bluish gray and locally very dark gray.

The top of the cherty unit is marked by two discontinuous layers of chert odulesn separated from the main cherty section by 6-9 feet of non-cherty dolomite.

The roof of the cave is in the Wise Lake Member (non-cherty upper unit) of the Galena Dolomite. The strata of the non-cherty unit are pale-yellowish-brown to yellowish- and grayish-orange fine-grained porous fossiliferous dolomite.

The minerals of the zinc and lead deposits in the Potosi quadrangle are mostly simple sulfides, carbonates, and sulfates. The primary sulfide minerals are sphalerite, galena, pyrite, marcasite, chalcopyrite, and digenite. Galena is fairly stable and persists above the water table; the others are commonly altered. These include smithsonite, cerussite, limonite, melanterite, malachite, azurite, and erythrite.

History: St. John Mine, originally a natural cave, was first named LaSalle Cave, after Robert Cavelier Sieur de La Salle, an early French explorer in North America, who traveled with his company on an expedition through the upper Mississippi River Valley in 1679 and again in 1687 after King Louis XIV names him Viceroy of North America. LaSalle is the man who claimed and named Louisiana Province for the French king.

St. John Mine was worked by the Indians many years before white pioneers arrived in the 1827 "lead rush". Drifts of the old mine follow the natural crevices filled with stalactites.

The foxes who used it for dens are said to have uncovered the rich lead deposits near the entrance by digging and running in and out the natural cave crevice. The Indians mined galena for barter but it was left to the white men to extensively develop these diggings.

The first white man known to have worked St. John Mine and who gave it the name it still bears was Willis St. John, who made a small fortune from this mine between 1828 and 1870.

In the Upper Mississippi Valley, lead seems to have been discovered about 1692 by Nicholas Perrott. This metal was also noted in 1700 by LeSueur, who took lead out of a place which we believe from the description must have been Snake Hollow, now Potosi, Wisconsin. In 1766 John Carver brought to St. Louis a 500 pound hunk of lead he had received from barter with the Indians who mined a cave on the eastern Mississippi bank somewhere between the mouth of the Grant and Platte Rivers. This 500 pound piece of lead may have been taken from St. John Mine, which points to the importance St. John Mine played in bringing settlers to the lead region.

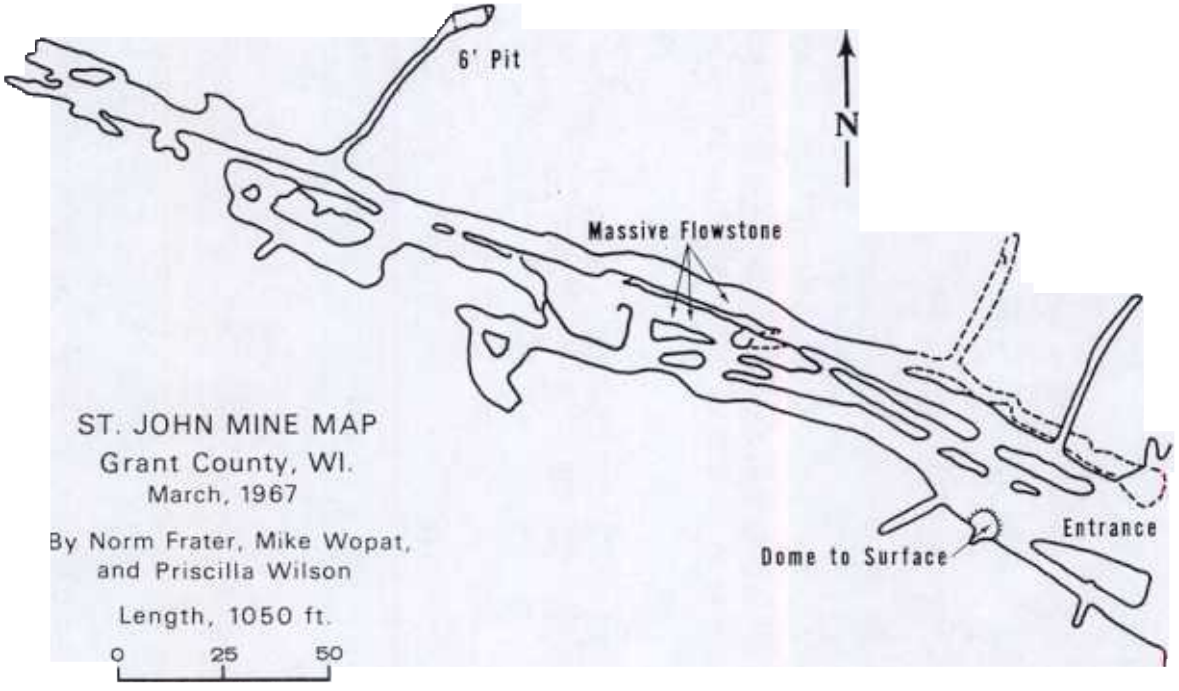
and "lead rush of 1827", the convening of the first Wisconsin Territorial Legislature in 1836, Potosi and its suburbs (La Fayette, Van Buren, Dutch Hollow British Hollow, Buena Vista, and Rockville) flourished. Potosi in 1838 was hoping to become the capital of Wisconsin; first state capitol was Belmont, but Madison won out. The Mexican War of 1847; the Gold Rush of '49 and the cholera epidemic in 1854 depleted its citizens for a few years; but by 1859 when the Civil War broke out, production of lead, and with it the growth of the village of Potosi, was on an upswing.

Well over two-thirds of all lead for the North was supplied during the Civil War by the Galena, Benton, New Diggings, Shullsburg, Mineral Point and Potosi mines. The remainder was furnished by mining towns called Platteville Hardscrabble, Yuba, and Meeker's Grove, all in the southwestern Wisconsin zinc-lead region.

References: Whitlow, J. W., and West, W. S., 1966, Geology of the Potosi quadrangle, Grant County, Wisconsin, and Dubuque County, Iowa: U.S. Geol. Survey Bull. 1123-I, p. 533-571.

Heyl, A. V., Jr., Agnew, A. F., Lyons, E. J., and Behre, C. H., Jr., 1959, The Geology of the Upper Mississippi Valley Zinc-Lead District: U.S. Geol. Survey Prof. Paper 309, 310 p.

Ihm, L. C., undated, St. John Mine Brochure, Potosi, Wisconsin



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