

The early workings on the Rudisill lode can be expected to be similar to those which can be seen at the Reed mine in Cabarrus County and other mines typical of the same mining period (personal experience). Except where thick veins have been mined out, tunnels are likely to be very narrow allowing only single file passage of a man and possibly a wheelbarrow. Commonly, low ceiling height will require a man to walk in a stooped position or even crawl. Tunnels not used for passage during the last mining may have been packed with rubble for additional wall support and to avoid the extra work required to hoist the material to the surface. Timbers placed for wall and ceiling support above the water table are very likely decayed and tunnels partially caved in. Mary Francis Barnes reports complaints of the ground settling by persons living between Pitcher Street and the Southern Railroad during a visit there in 1971 (figure 5).⁵³ Unsupported void space represented by shallow mine workings is probably extensive, and continued settling in areas over them can be expected.

The deeper more extensive mine workings somewhat paralleled advances in technology. Extending old workings required enlarging tunnels and shafts to permit the use of pumps, mine cars and other machinery. In 1907, George Price had enlarged the 250 foot level of the Rudisill mine to the northeast and southwest of the Pump shaft, and had probably enlarged the existing tunnel at the St. Catherine mine to drive a drift on the 200 foot level 462 feet southwest of the No. 7 shaft (figures 13 and 14).⁵⁴ Existing workings on the 200 foot level and south of the Pump shaft were enlarged to permit equipment in 1934.⁵⁵ Some mine openings had to be considerable size because of the ore removed. The Big ore shoot of the

Rudisill mine was 15 feet thick (figure 11).⁵⁶

Below the water table (about 30 feet at the Rudisill mine⁵⁷), the rock grades from the soft weathered material to solid rock at depth.⁵⁸ Although the rock is solid, extensive post mineralization faulting, and shearing created stabilization and water problems. Rock was packed into old workings, and stulls were used for support in stoped areas.⁵⁹ Post-and-cap timbers with lagging were used for tunnel support in the 1930's. Water flow from fractures in the mine wall rock was extensive. In 1934 pumping was continued constantly for six months before the bottom of the Rudisill mine was reached, and after the mine was in operation at least one of three pumps was kept in operation at all times.⁶⁰ George Price was using "one old cornish pump" in the St. Catherine mine in 1905 indicating a lesser water problem there.⁶¹

Present conditions of mine workings at depth are probably much as they were left after the last mining activity. Timbers submerged in water are preserved and are probably still strong. The water itself gives added buoyancy. Equipment left in the mine is probably also preserved by the water. Rapid deterioration should be expected if the mine is reopened and timbers are exposed to air.

All shafts are presently caved or filled in. Rubble is possibly blocked off near the water table by timbers wedged across the shafts. No record has been found that equipment used in either the St. Catherine or the Rudisill mines was removed and being submerged in water, if still there, may be well preserved. Old mine shafts were commonly used as trash dumps after mining stopped, therefore, in addition to mining equipment being present, there may be other artifacts of the times.