

The Paymaster Mine

by Walt Margerum

Several years ago I visited the Paymaster Mine just west of Midway Well in Imperial County. Although the mineralogy was interesting, there was nothing unusual about the mineral assemblage.

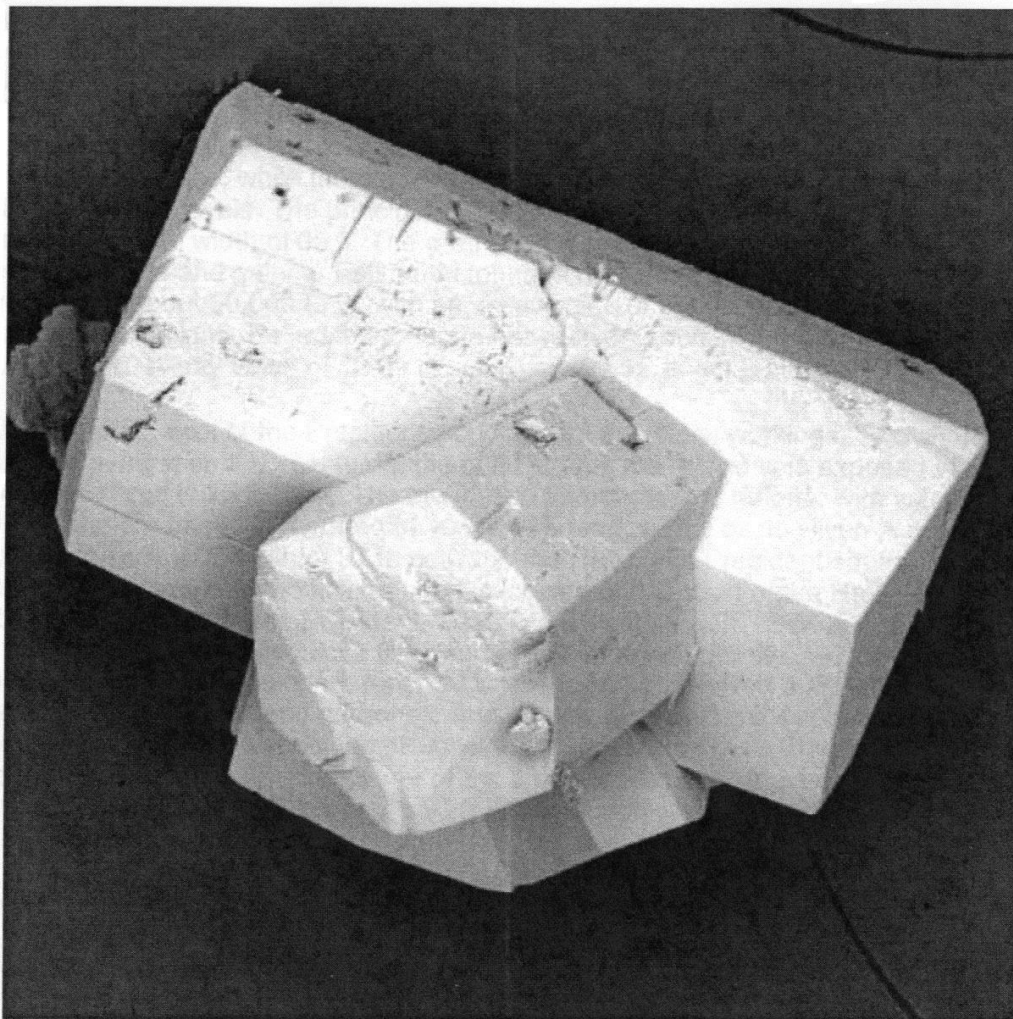
At least not until I discovered some very small, less than 1 mm, colorless hexagonal prisms. For several years I tentatively classified them as pyromorphite, based on the fact that the ores listed were galena, argentite (acanthite), chlorargyrite, sphalerite, hemimorphite, and cerussite.

Those in bold were found by me on my two expeditions to the mine. I recently gave several specimens of the hexagonal mineral to Bob Housley for identification.

Much to my surprise he identified them as willemite, see photo.

This to my knowledge is the first report of this mineral from Imperial County. It has been reported from Cerro Gordo and two locations in San Bernardino County.

Note: Non-Standard formatting of text on this page of this report due to third party correction of a repeating error, where a part of each sentence was repeated or duplicated in following sentence. Correction was done using an erase tool on scanned image. There are no changes to Author's intended content.



Willemite from Paymaster mine. SEM Photo by Bob Housley

Sampson and Tucker give the following description of the mine. The Paymaster Mine comprises 12 claims situated on the eastern slope of the Chocolate Mountains, in the Paymaster Mining District, in Sec. 19 and 30, T. 11 S., R. 20 E. and in Sec. 24 and 25, T. 11 S., R. 19 E., S. B. M., 25 miles by road northeast of Glamis and 3 miles west of Midway Well; elevation 800 ft.; owners, L. W. Jackson, Harold Jackson, Pasadena, Calif., and M. E. Stark, Beverly Hills, Calif.

The Paymaster vein strikes NW.-SE. and dips 60° to 70° NW. Width of vein varies from 15 ft. to 30 ft. The hanging wall of the vein is diorite, with granite as the footwall. Three ore shoots were developed along the vein which outcrop for a distance of 4000 ft. The ore shoots are known as Paymaster, President and Hazel. The Paymaster shaft was sunk to a depth of 385 ft. on a 70° incline, and ore stoped from 200-ft. level to the surface for a distance of 250 ft. in length. Width of ore mined was from 8 ft. to 15 ft. Two veins were worked known as Footwall and hanging Wall. Levels were driven every 100 ft., with crosscuts run to the Footwall vein on each level. On the 300-ft. level, a winze was sunk to a depth of 85 ft.

northeast of the shaft. About 1500 ft. east of the Paymaster workings is the President shaft and underground workings. The shaft was sunk on the footwall side of the vein to a depth of 452 ft. Drifts were driven on the vein on the following levels: 150, 200, 250, 300, 350 and 400-ft. The ore shoot was 250 ft. in length and 15 ft. to 35 ft. between walls. The footwall section of the vein was stoped from the 200-ft. level to the surface, while the hanging wall section of the vein was worked on the 300 and 400-ft. levels. The principal stopes are east of the shaft. The vein worked had a maximum width of 35 ft. The ore mined was silver chloride associated with lead carbonate and galena. Estimated tonnage of ore in the President Mine workings is about 80,000 tons, with an assay value of 8.2 oz. in silver; .015 oz. in gold; and 3.5% lead. Estimated tonnage between 100 and 400-ft. levels, is 35,000 tons, with an assay value of 12.09 oz. in silver; .01 oz. in gold; and 2.9% lead.

About 1800 ft. east of the President workings are the Hazel workings. Two shafts have been sunk on the vein to depths of 50 ft. and 100 ft. The vein exposed in these workings is 15 ft. wide. The ore is lead carbonate and galena, with values in silver. The ore mined is reported to assay 10% lead, with 6 oz. in silver. A new shaft has been sunk to a depth of 92 ft. between the Hazel and President shafts, developing a new ore shoot. This shaft is located 600 ft. west of the Hazel shaft and about 1100 ft. east of the President shaft. The vein strikes NE.-SW. and dips 70° NW. Width is 15 ft., with calcite filling between diorite and granite. On the footwall, there is 4 ft. of ore developed, reported to assay 10 oz. in silver; 10% lead; and .06 oz. in gold. The ore is lead carbonate and galena. Selected ore shipped ran 36% lead, with 40 oz. in silver. At the 45-ft. level a crosscut has been driven 15 ft. to the hanging wall of the vein. The owner of the property also own 40 acres of patented land located in Sec. 11 S., R. 20 E., S. B. M., on which is located a well and pumping plant.

References

Goodwin, J. Grant (1957); Lead and Zinc in California; California Journal of Mines and Geology Volume 53 Numbers 3 and 4; p 488

Morton, Paul K. (1971); Geology and Mineral Resources of Imperial County, California; California Division of Mines and Geology County Report 7; pp 92-93

Sampson, R. J. & Tucker, W. B. (1942); Mineral Resources of Imperial County; California Journal of Mines and Geology Volume 34, Number 2, pp 127-128.

Minutes of the July Meeting

The 785th meeting of the MSSC was called to order by Vice President Jim Kusely at 7:35 on July 11, 2003. The door prize drawing was held first to allow anticipated late arrivals some time before the talk began. Jim announced that the August meeting will be a mineral swap, kid rock workshop, and potluck lunch on Saturday the 9th at Rock Currier's home.

Jim then introduced our speaker, Roy Foerster who spoke about his mineral collecting adventures and philosophy. His talk emphasized collecting in China, Brazil, and Mexico with additional comments on England, Canada, and the