


April 5, 2022. Mining Photos Mr Rasmusen, 7th grade math



6. The sphere in this picture represents all the copper taken from the Palabora Mine in South Africa from 1964 to 2002, when they reached the “economic depth”. The highest-grade copper is 1% of the ore. I estimate it has a radius of 50 feet. What is its volume? <http://dillonmarsh.com/copper.html>, <https://www.mining-technology.com/projects/palabora/>

*The volume of a sphere is $(4/3) \pi * r^3$, which is $1.33 * 3.14 * 50 * 50 * 50 = 522,025$ cubic feet. (calc)*

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For What It's Worth
Gold

The Witwatersrand Basin is a 300km long geological formation in South Africa that holds the world's largest known gold reserves. Since its discovery in 1886, seven separate gold fields have been established along its arc. Using CGI I've represented the total amount extracted from each gold field.



Nababeep Mine - 302,500 tonnes of copper



For What It's Worth
Copper

South Africa's first ever commercial mine, the Blue Mine in Springbok, began operating in 1852. More mines opened soon after as copper deposits were discovered in the surrounding area as well as more far-flung regions of the country. This, in turn, boosted the development of small towns in relatively remote areas of the country, as workers settled nearby. By 2007, however, most of these mines had run their course and production had stopped almost completely. This presents an uncertain future for the towns and people involved.