


From Open Pit to Wedding Ring


How Gold Is Produced

A golden wedding band, or some other piece of gold jewelry—for many people, these things are almost too valuable to put a price on. Perhaps you own such a ring yourself. But while the ring as a symbol may indeed be priceless, the gold certainly is not. Gold comes with a price—a heavy one. Gold mining costs the planet and its peoples far more than the metal itself is worth.

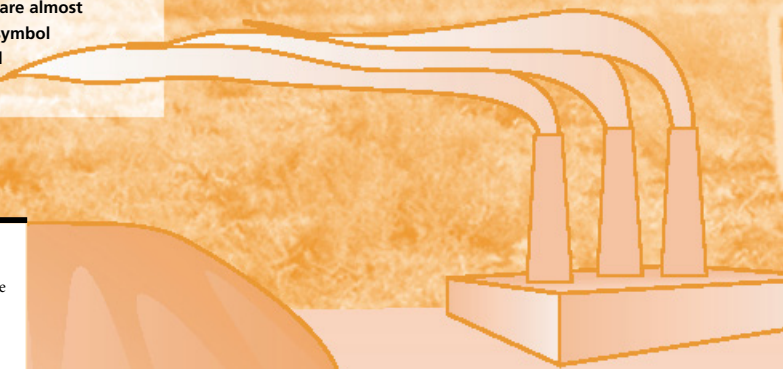


3. CYANIDE LEACHING: Once it's extracted, the ore is crushed, piled into huge heaps and sprayed with cyanide, which causes the gold to leach out of the ore. Some mines use several tons of cyanide per day. A rice-grain sized dose of cyanide can be fatal. The cyanide-contaminated waste ore is usually just abandoned. To produce enough gold for a ring, about 18 tons (20 short tons) of waste ore are created.


2. WASTE ROCK: An open pit mine generates huge piles of waste rock, which leach toxic metals and acid. Mine waste has turned groundwater thousands of times more acidic than battery acid. For more on waste rock, [see page 9](#).



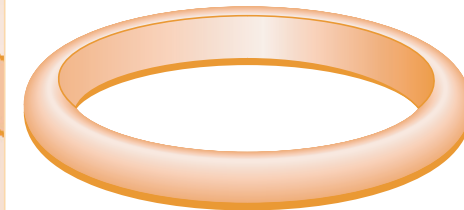
1. EXTRACTION: Of all the gold in use or in storage today, two-thirds is newly mined—it came directly from the Earth. (The other third came from scrap or recycled sources.) Of that newly mined gold, two-thirds was extracted from immense, open-pit mines. Several of these craters have grown so large that they are now visible from outer space. For more on open-pit mining, [see page 4](#).



4. SMELTING & REFINING: The separated gold is then shipped to a smelter, where remaining impurities are removed under intense heat. The metals smelting industry (of which gold is but a small part) is a major consumer of energy and a major air polluter. For more on smelting, [see pages 6 and 13](#). For energy consumption, [see page 12](#).



5. TRADE: Once the gold has been purified, it can be traded. More than 80 percent of gold is used for jewelry; most of the rest is bought by investors or used in electronics.



6. A RING MORE COSTLY THAN GOLD: Jewelry manufacturing can be a lucrative business. In the United States, a piece of gold jewelry typically sells for four or more times the value of the gold it contains. Few jewelers are likely to be able to tell you where the gold in their products came from. There is a business that has yet to hold itself accountable for the damage done in creating its merchandise. The time has come to change that, and as a consumer, you can help make that happen. Please visit our website, at www.nodirtygold.org, to learn more about what you can do.²