

Diamond *Facts*

ADDRESSING MYTHS AND MISCONCEPTIONS ABOUT THE DIAMOND INDUSTRY

Can you detect a laboratory-grown diamond from a natural diamond?

FACTCHECK

All laboratory-grown diamonds can be detected using professional verification instruments.

Mass-produced in just a few of weeks, laboratory-grown diamonds exhibit specific growth-related features and inclusions that differ from natural diamonds which were formed over billions of years in the earth.



CVD LABORATORY-GROWN DIAMONDS, LIGHTBOX JEWELRY



How do I know whether I'm purchasing a *natural* or a *laboratory-grown* diamond?

FACTCHECK

Legal definitions and advertising guidelines exist to protect and reassure consumers about whether they are purchasing a natural or laboratory-grown diamond. Retailers obtain reports or certifications from independent organizations that can verify the nature and quality of the stones. All sellers of diamonds or diamond jewelry such as retailers or jewelers are legally required to disclose when a diamond is man-made and must use clear and approved terminology in their communication to consumers.

Grading laboratories also test and provide reports that confirm the nature of the stones.

NATURAL DIAMOND COUNCIL

Are *all* laboratory-grown diamonds *sustainable*?

FACTCHECK

Laboratory-grown diamonds may not always be as sustainable as some claim. The manufacturing process which lasts a few weeks is energy-intensive. Over 60% of laboratory-grown diamonds are mass-produced in China and India where 63% and respectively 74% of grid electricity results from coal.

It is also not possible to make a simplistic general comparison between natural diamonds and laboratory-grown diamonds.

Each category has a range of production processes, geographical locations, power sources, productivity capabilities, and sustainability practices.

It is also a misconception that laboratory-grown diamonds are mining-free. In fact, synthetic diamond processes can require graphite and metals, and the reactors in which laboratory-grown diamonds are created, are built with metals which all originate from mining. Sustainability claims about laboratory-grown diamonds should be supported by evidence on their social footprint too, especially in areas relating to tax payments, employment and human rights, as well as the support provided for their local communities.

The manufacturing of laboratory-grown diamonds can require temperatures similar to 20% of the temperature of the Sun's surface.

What is the natural diamond industry doing to *reduce its carbon footprint* and *protect biodiversity*?

FACTCHECK

The natural diamond industry has set out on its journey to decarbonize in line with global climate targets. As part of their carbon reduction strategies, Natural Diamond Council (NDC) members are developing renewable energy projects in partnership often in developing countries where it is harder to source such energy, carbon offsetting projects, as well as investing in programs to sequester carbon. Organizations like the De Beers Group are committed to becoming carbon neutral by 2030 and Rio Tinto of achieving net zero emissions by 2050.

Natural Diamond Council members are also involved in unique programs to sequester carbon, such as by using kimberlite, the rock where diamonds are found, or through various nature-based solutions. Across waste and water management as well as the preservation and rehabilitation of biodiversity, there are numerous programs that exist to restore the land throughout the mining life cycle.

The natural diamond world protects the biodiversity of an area almost 4 times the land they use, equivalent to the size of New York City, Chicago, Washington and Las Vegas combined.

99% of "waste" from diamond recovery is actually rock, which is disposed of onsite and eventually reclaimed as part of the landscape during the mine closure and rehabilitation process, and 84% of the water used in diamond recovery is recycled.

The natural diamond industry abides global environmental standards and stringent national laws. Before a single diamond is recovered, environmental permitting must be granted by governments with a legal obligation for ongoing monitoring, reporting and closure plans.

Are natural diamonds *rare*?

FACTCHECK

Natural diamonds are a finite resource. Global natural diamond recovery peaked in 2005 and has decreased by over 30% in the last 16 years. The annual recovery of 1 carat diamonds is equivalent in volume to filling an exercise ball.

The process of natural diamond formation means that as an object, they are innately rare. Formation takes place across the span of millions, sometimes billions, of years and occurs in limited zones of the earth's mantle at extreme temperatures and pressures.

NATURAL DIAMOND COUNCIL

Is the industry *stockpiling* diamonds to drive-up prices?

FACTCHECK

Unlike other industries, natural diamond recovery cannot be operated as a just-in-time production model to match supply with demand, which means inventories can fluctuate across periods of time. They can also be impacted by market demand and natural diamond supply. Bain & Company reported that inventories across the world declined by 40%

in 2021 based on data from company reports and the Kimberley Certification process that governs the rough diamond trade. Comparisons of total production and total sales data for Natural Diamond Council members shows they are in line with one another and there is no evidence of deliberate stockpiling.

From 2016 to 2022, in some cases, the price of a 1.5 carat laboratory-grown diamond has decreased by over 74%.



CVD LABORATORY-GROWN DIAMONDS,
LIGHTBOX JEWELRY

What have been the *price trends* for laboratory-grown diamonds?

FACTCHECK

In 2016, a 1.5 carat natural diamond would have cost **\$12,125** versus a 1.5 carat synthetic priced at **\$10,600**, amounting to the difference of **\$1,525**. However, early 2023, the retail price of a 1.5 carat natural diamond had increased to **\$13,625**, whilst the laboratory-grown counterpart would have decreased in price to stand at **\$2,445**, representing a substantially larger difference of **\$11,180**.

Whilst the natural diamond prices have also fluctuated, over the last 35 years, on average, they have risen by 3% per annum.

Do natural diamonds *benefit the countries* where they come from?

FACTCHECK

The natural diamond industry supports the livelihoods of 10 million people across the world. Up to 80% of rough diamond value can remain with local communities in the form of local purchasing, employment benefits, social programs, investment in infrastructure as well as the taxes, royalties and dividends paid from the industry to respective governments. For NDC members, 85% of all procurement is local. Perceptions about economic inequalities across the natural diamond supply chain are outdated and tainted by a history of power imbalances.

Now, this is no longer the case. For example, in Canada, the natural diamond industry contributes to 24% of total GDP in the Northwest Territories, \$17 billion went toward (NWT) businesses and \$7.5 billion to Indigenous-owned (NWT) businesses.

Another example, in Botswana, Africa, diamonds represent 33% of GDP in 2021. Revenue from natural diamonds contributes to a school system providing free primary education to every Botswanan child.



NATURAL DIAMOND COUNCIL

How are natural diamonds *ethically sourced?*

FACTCHECK

Ethical sourcing is a priority for the natural diamond industry.

The industry is highly regulated. Under the Kimberley Process mandated by the United Nations and the World Trade Organization, all rough diamond trade is strictly regulated to ensure it is conflict-free.

Other initiatives, such as the Responsible Jewellery Council, the world's leading sustainability standard setting organization for the jewelry and watch industry, help warrant through third party audited certifications that natural diamonds are sourced responsibly. *Be sure to ask your retailer for their ethical sourcing policy.*



What are the *working conditions* like in the diamond industry?

FACTCHECK

Members of the Natural Diamond Council ensure that working conditions related to fair pay, health and safety, employee benefits and protection of human rights are followed to the highest global standards within their mining operations. On salaries - NDC member companies on average in 2019, paid 64% more than the national average.

Diamond recovery is mostly done by large-scale companies using modern equipment and mining

practices. All NDC members have adopted the goal of zero-harm in the workplace. 99.7% of employees of NDC members are hired locally. One third of the natural diamond mining industry are women, and 30% of board members of Natural Diamond Council members are women. This surpasses the average for similar sized companies as according to OECD, only around 1 in 20 of the Top 500 multinationals have female representation above 30% at a board level.

Are natural diamonds *traceable*?

FACTCHECK

The natural diamond industry is accelerating its traceability initiatives and leveraging technology like blockchain to bring transparency to its supply chains. Historically, tracing raw materials and minerals for diamonds across the globe has been difficult, but now, the mine-to-market diamond supply chain is being realized.

Natural diamond jewelry retailers are launching their own traceability platforms and also collaborating with technology providers to ensure their supply chains meet the demands of global policies on social and environmental regulations as well as heightened sustainability expectations from their customers.

DIAMOND FACTS