

Green Metals and the Gonneville Project



About the Gonneville Project

« Chalice Mining discovered the Gonneville Deposit in early 2020 - a significant mineral deposit containing:













- « The Gonneville Project is ~70km NE of Perth and ~25km west of Toodyay on Chalice-owned farmland.
- « It hosts a rare mix of critical green metals required to decarbonise and address climate change.
- « The Gonneville Project is currently in the studies stage, and is not yet a mine. Proposed mining is targeted for the end of the decade.
- « Gonneville has the potential to become a lowcarbon, long-life, green metals mine that could deliver substantial economic and regional social benefits.
- « Chalice is a Western Australian company with a track record of responsible mineral exploration, and a commitment to the highest social, corporate and environmental standards.

What are green metals?

- « Green metals are essential to everyday modern life - used in technologies like lithium-ion batteries, energy storage, electric vehicles and catalytic convertors.
- « These metals are required in large quantities to decarbonise and address climate change, however significant shortages are predicted.

A future green metals source

- « The Gonneville Project has the potential to be a future source of green metals.
- « Large deposits of these metals are rare and Gonneville is one of the largest and most significant discoveries in recent history.
- « The supply of these metals is currently dominated by areas with poor sustainability standards, such as Russia, China, Indonesia and South Africa.
- « As the world pledges to meet greenhouse gas emission targets, demand for these metals is forecast to increase over the coming years.

The International Energy Agency forecasts that mineral demand from clean energy technologies is set to quadruple by 2050 in both the Announced Pledges and Net Zero Scenarios¹.



Chalice is taking a responsible and balanced development approach that maximises production of critical green metals but also recognises the potential impacts to the environment and local communities.

To learn more about Chalice's community and environmental commitments visit www.chalicemining.com/sustainability

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Green Metals

Applications and Uses





Platinum and Palladium

Primarily used in catalytic converters – a pollution control device in every petrol, diesel or hybrid vehicle. Palladium reduces greenhouse gas emissions from exhaust streams, including nitrogen oxides which are 300x more potent than CO₂ as a greenhouse gas.² These metals also have a role to play in future green hydrogen production, storage, transportation, and are used in hydrogen fuel cells. Platinum and palladium are the most common Platinum Group Elements (PGEs).

Internal combustion engine



Catalytic convertor



Hydrogen







Nickel and Cobalt

Nickel and cobalt are key materials required in lithium-ion batteries for electric vehicles (EVs) and other high-powered battery applications. Nickel is also used in everyday electronics including smart phones, laptops and digital cameras alongside home appliances and medical equipment.

Electric vehicles



Electronics



Energy storage





Copper

Copper is used extensively in solar, wind, hydro and geothermal energy technologies, as well as in mass electrification technologies including EVs and batteries. It is also used in everyday consumer electronics such as smart phones, and in all aspects of the electricity system.

Solar panels



Wind power



Smart phone



Get in Touch

For more information or to ask a question, get in touch with one of the Chalice community team:







www.chalicemining.com/community

1: Source: International Energy Agency - World Energy Outlook 2022 Report. 2: Johnson Matthey PGM Market Report 2021

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