



Government of **Western Australia**Department of **Mines, Industry Regulation and Safety**

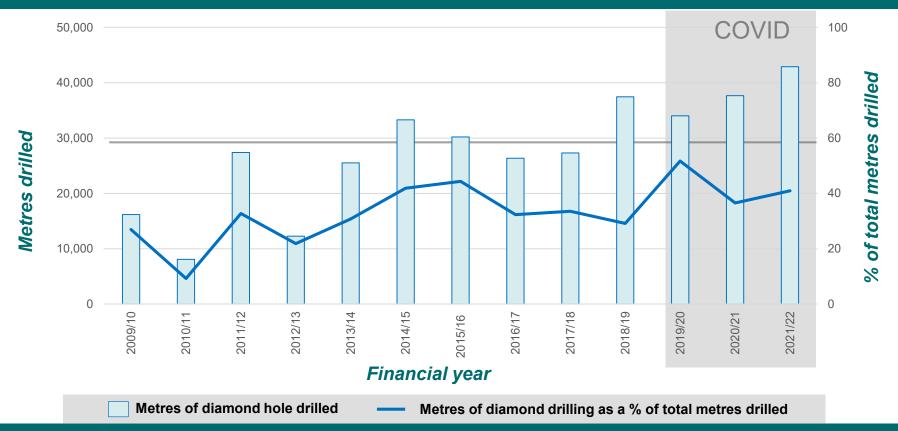




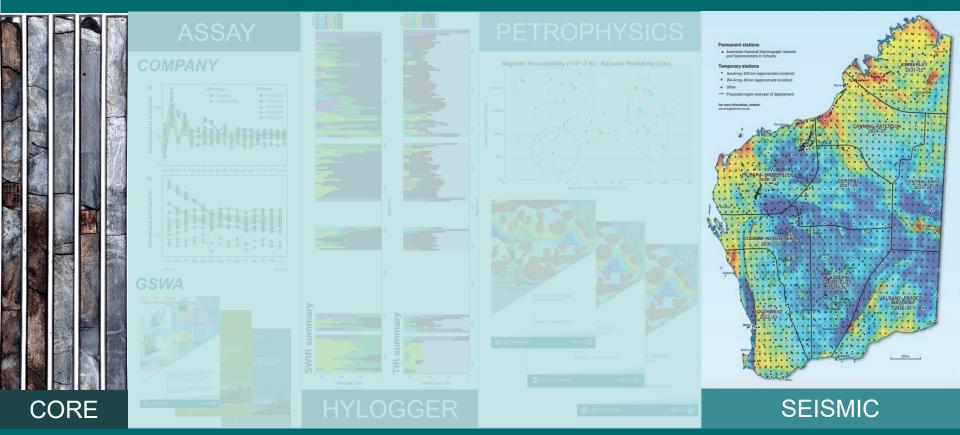
EIS - ACTIVITIES



CO-FUNDED PROGRAMS - DRILLING



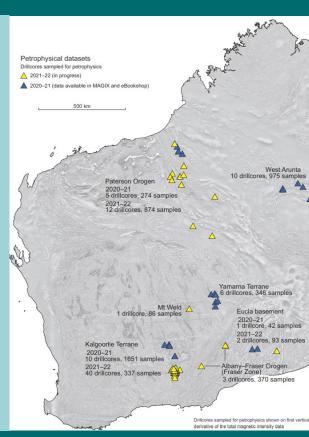
CO-FUNDED PROGRAMS - DRILLING



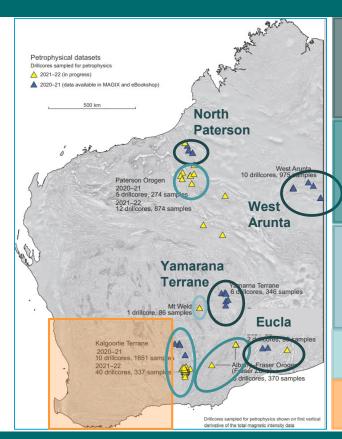
REGIONAL DATA - PETROPHYSICS

Collect high-quality petrophysical measurements, from significant drill core, to assist with the interpretation of geophysical data.

- magnetic susceptibility
- bulk density
- apparent porosity
- remnant magnetization
- P-wave velocity
- inductive conductivity
- galvanic resistivity
- induced polarization



REGIONAL DATA - PETROPHYSICS



Interpret geophysical survey data & improve targeting.

Undercover – underexplored – highly prospective

Develop a petrophysical stratigraphy

Refining existing mineral systems and prospects

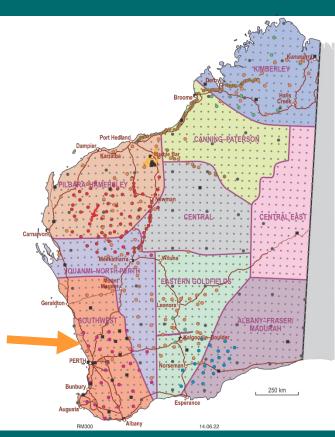
Characterise physical properties of carbonatite system

Round 22 EIS Co-funded drilling - discovery

Data available through MAGIX

South West – up next

REGIONAL DATA - SEISMIC



PASSIVE SEISMIC

Seismograph network

- State-wide, 10 year project
- Lithospheric and deep crustal imaging
- Better quantified seismic hazards
- EIS contribution seismometers
- First survey across the south west

 Australian National Seismograph network and Seismometers in Schools

Temporary stations

- AusARRAY, 200 km (planned)
- WA-Array, 40 km (planned)
- Australian National University
- Albany–Fraser experiment
- Canning Basin passive seismic array
- Capricorn Orogen passive seismic array
 Capricorn high resolution
- Eastern Goldfields
- Kimberley–Kalgoorlie base line earthquake monitoring
- Pilbara
- South West Australia Network
- Town
- Major road
- Region

REGIONAL DATA - SEISMIC

2D ACTIVE SEISMIC

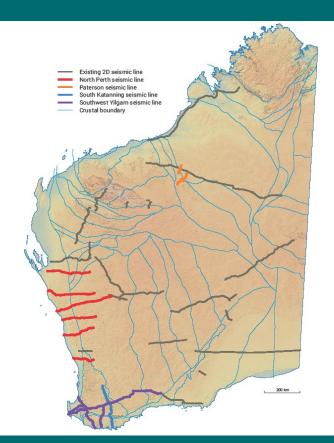
Paterson

Improved 3D subsurface definition

South west

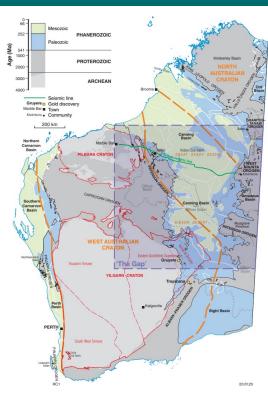
- Assess crustal architecture
- Refine interpretation of major crustal boundaries

Acquisition 2023-2024



TARGETED RESEARCH - Coil Tube Drilling





Testing future regional application

DATA ACCESS

GeoVIEW – core holes, HyLogged holes

WAMEX – report and assay data

MAGIX – petrophysical data and reports

EIS Webpage – what's coming up

THE VALUE OF EIS – LYNAS

EIS Co-funded Drilling Program R22 – Lynas Rare Earths

- 1020 m deep core drilled into fresh carbonatite below the current REE open pit mine to expand ore body knowledge of Mt Weld.
- REE mineralisation was observed confirmed along 1010 m of the hole

'The results reveal a large area of **new exploration target** in the fresh carbonatite below the zone of surficial weathering profile.'

Mining and exploration characterisation program

Collaboration with WA universities, MRIWA, CSIRO, and international investment

Support ore body knowledge for rare earth minerals and Heavy and Light rare earth elements.



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