



GSNSW - 2020 highlights

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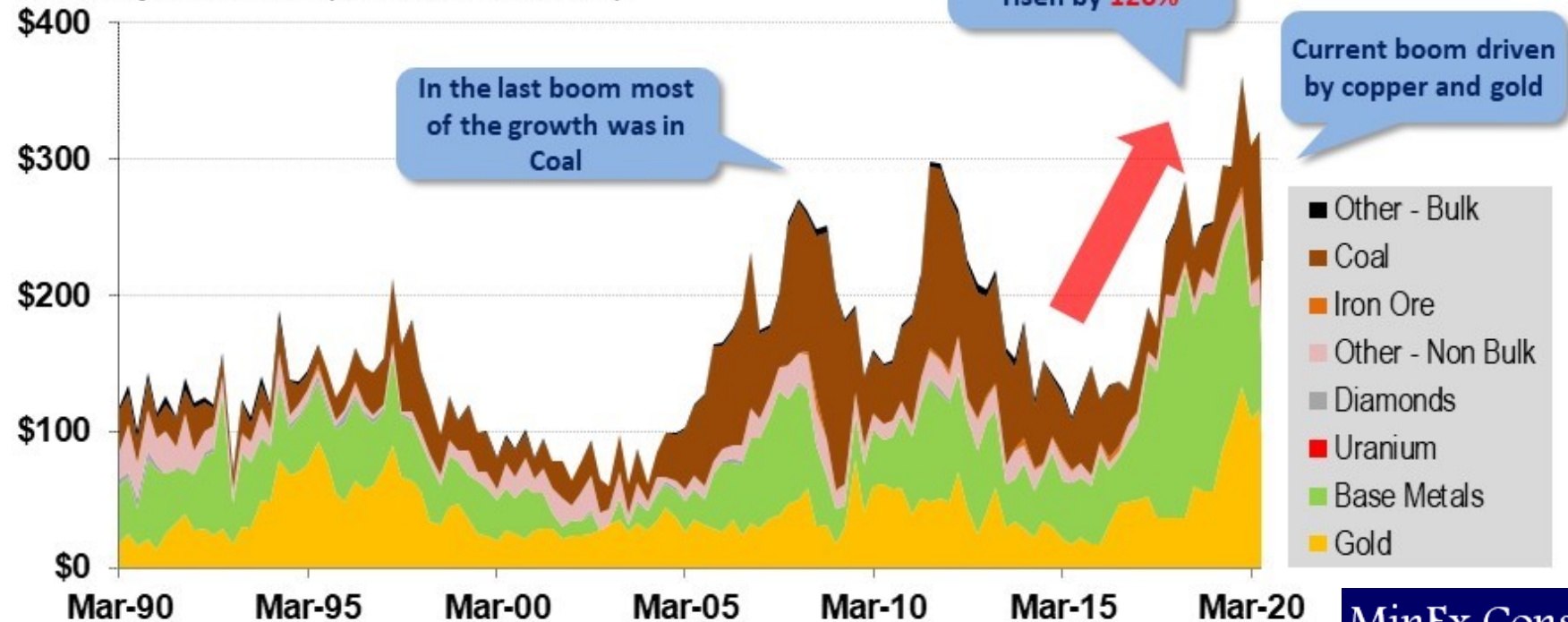
Exploration in NSW is going up

Exploration expenditure

Exploration expenditures in **NSW** by Commodity

March 1990 to June 2020

Total Expenditures (June 2020 A\$ million)

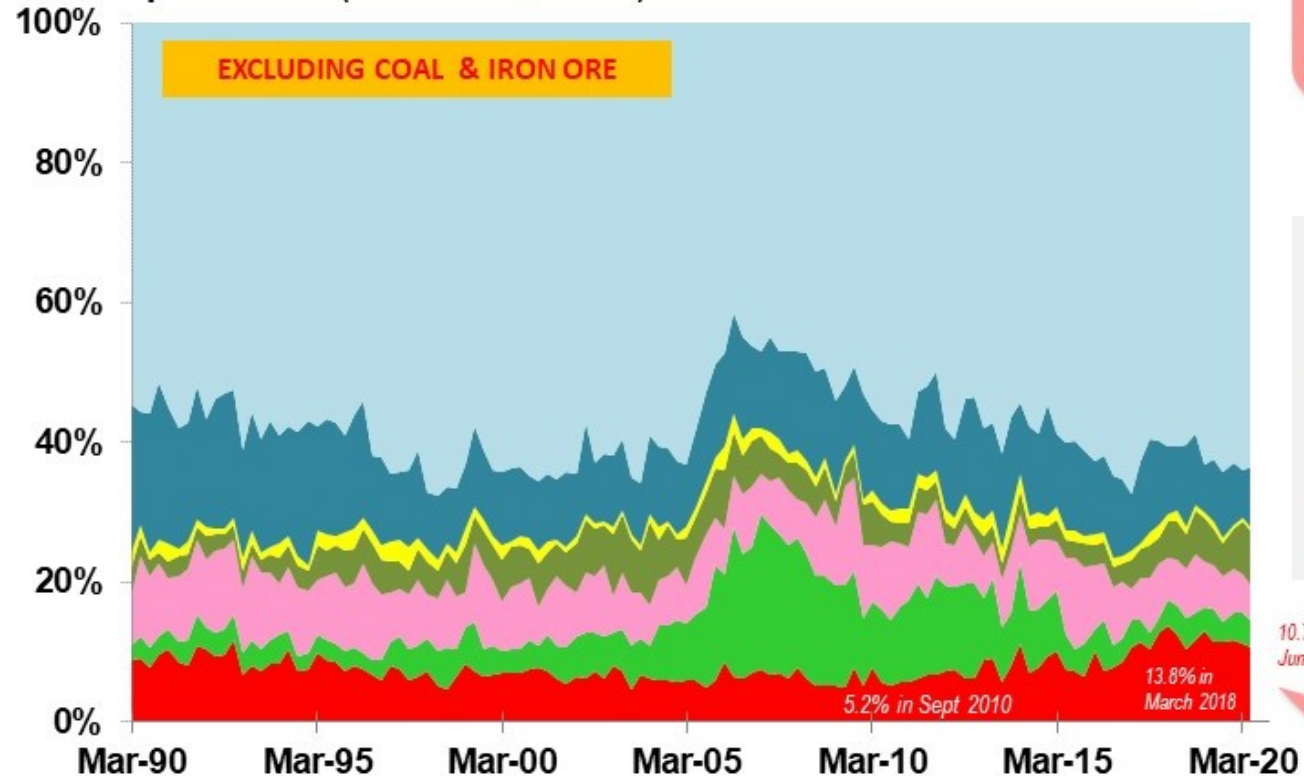


Exploration expenditure

Total exploration spend in Australia by State

March 1990- June 2020

Total Expenditures (June 2020 A\$ million)



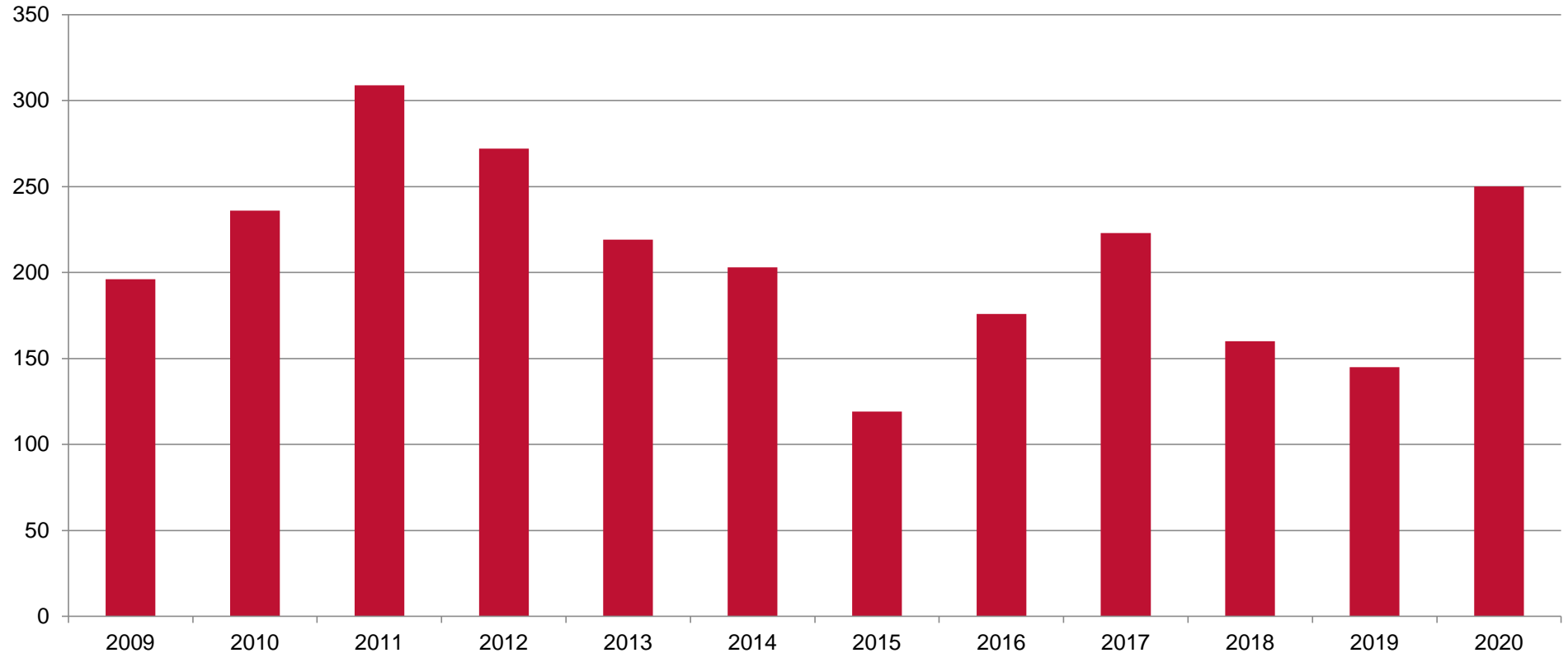
Over the last decade (2010-2019) NSW accounted for 10.8% of total spend

7.6% if include Coal and Iron Ore

NSW's share has doubled over the last 4 years

Exploration applications

Exploration Applications



New discoveries

Recent announcements

Federation (Aurelia)

Maiden indicated & inferred resource:

2.6 Mt @ 7.7% Pb, 13.5% Zn, 9 g/t Ag, 0.8 g/t Au

Recent drilling: 21.6 m @ 18% Pb, 26.8% Zn, 31.9 g/t Au, 23 g/t Ag, 1.6% Cu

Wagga Tank/Southern Nights (Peel)

Indicated & inferred resource:

4.950 Mt @ 5% Zn, 2% Pb, 78 g/t Ag, 0.3% Cu, 0.4 g/t Au

Recent drilling: 40.4 m @ 7.25% Zn, 3.34% Pb, 95 g/t Ag, 0.87 g/t Au, 0.89% Cu

Cowal underground (Evolution)

Indicated & inferred resource: 264.6 Mt @ 1.06 g/t Au

Roswell–San Antonio (Alkane)

Maiden inferred resource:

San Antonio: 7.92 Mt @ 1.78 g/t Au

Roswell: 7.02 Mt @ 1.97 g/t Au

Recent drilling: 69 m @ 9.12 g/t Au

Boda (Alkane)

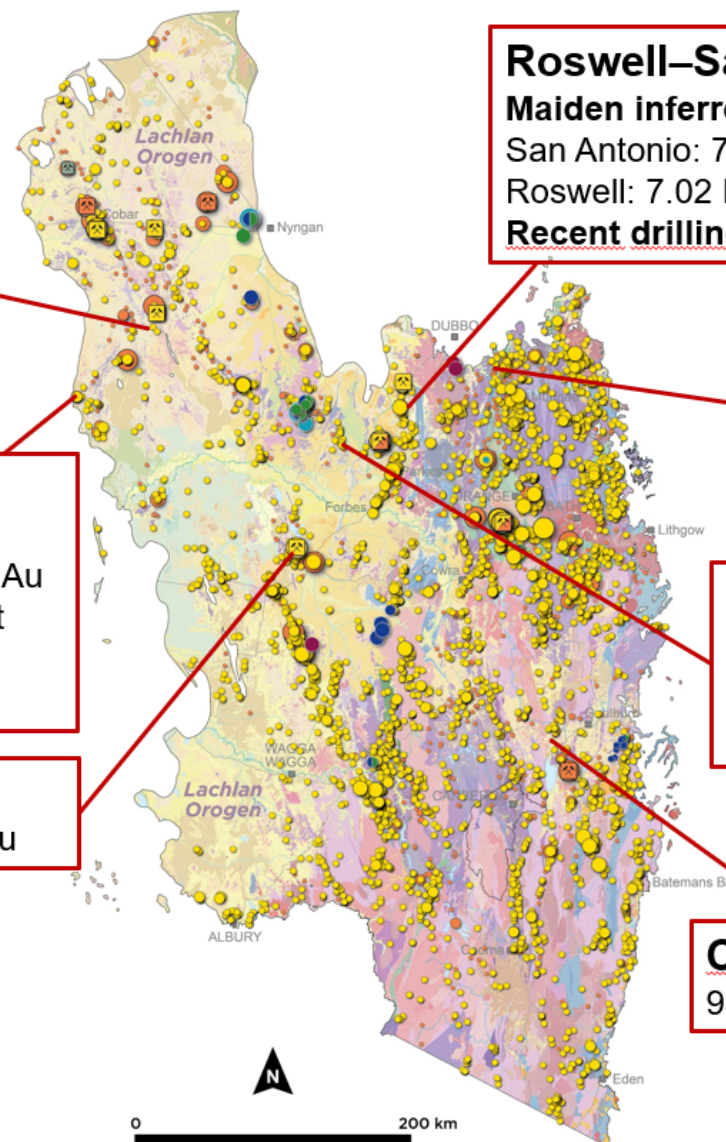
1,167 m @ 0.55 g/t Au,
0.25% Cu

Trundle Park (Kincora – RareX)

51m @ 1.17 g/t Au,
0.54% Cu

Cullarin (Sky Metals)

93 m @ 4.24 g/t Au



Importance of Resources to NSW

Petroleum and Coal



John Barilaro
Deputy Premier
Minister for Regional NSW
Minister for Industry and Trade

MEDIA RELEASE

Tuesday, 24 November 2020

GAS POWERS NARRABRI PRECINCT INVESTIGATION

The NSW Government has today released a strategic statement outlining its ongoing support for the domestic gas industry, as a driver of new jobs and industry opportunities in regional NSW.

The release of the *Strategic Opportunities for Gas in Regional NSW* statement coincides with the government's commitment to investigate a potential Narrabri Special Activation Precinct (SAP), which would streamline planning processes, create new jobs and fuel regional economic development.



John Barilaro
Deputy Premier
Minister for Regional NSW
Minister for Industry and Trade

MEDIA RELEASE

Wednesday, 24 June 2020

NSW GOVERNMENT'S FUTURE OF COAL PROVIDES JOBS AND SECURITY FOR REGIONAL NSW

Regional communities that rely on coal mining for employment and economic prosperity have been given greater certainty and clarity about the future, with the NSW Government today outlining its plans for the coal mining industry.

The NSW Government's Future of Coal statement released today, recognises that even as global economies transition to new energy sources, demand for coal in our part of the world will remain strong, and NSW is well placed to take advantage of this.

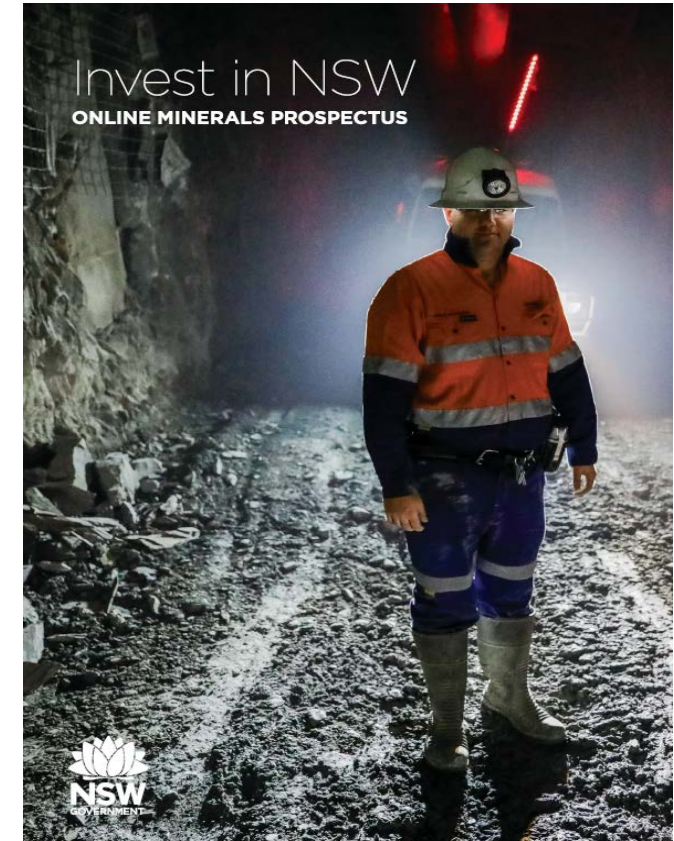
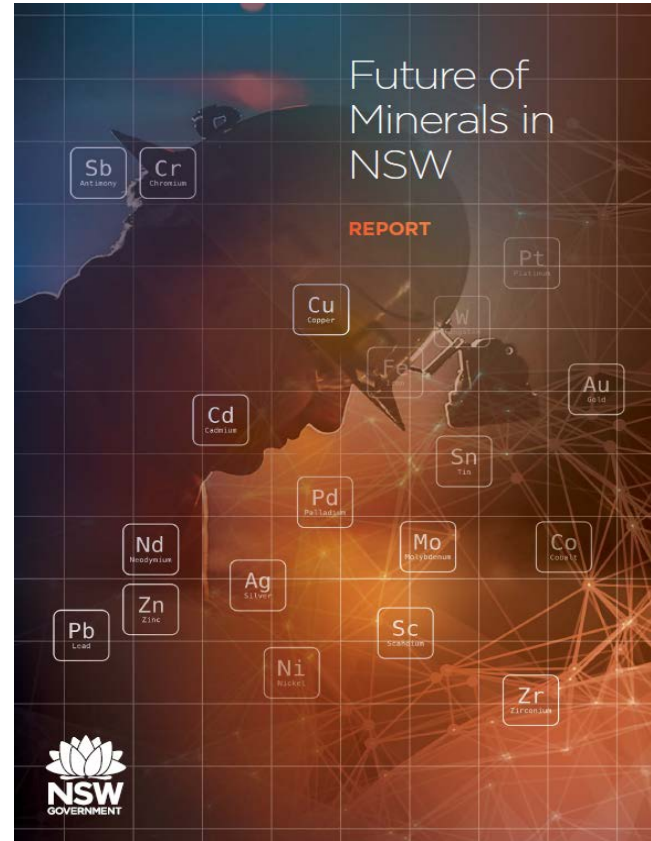
Deputy Premier and Minister responsible for Resources John Barilaro said coal mining will remain a key industry for some decades to come, generating jobs for regional communities and royalties that can be used to pay for essential public services and infrastructure.

Petroleum and Coal



<https://www.resourcesandgeoscience.nsw.gov.au/miners-and-explorers/programs-and-initiatives/future-of-coal-statement>
<https://www.nsw.gov.au/gas-statement>

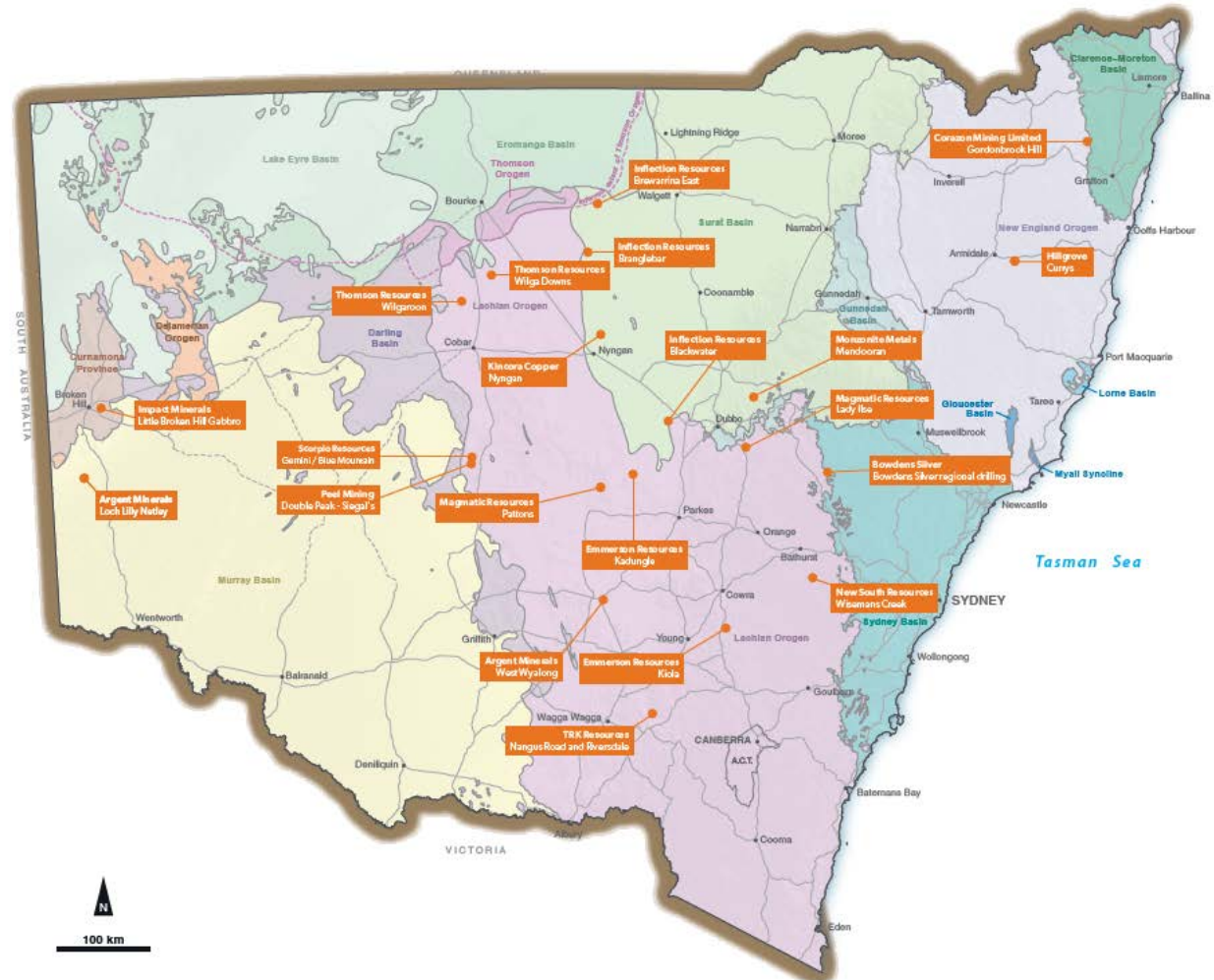
Minerals



Cooperative Drilling

Cooperative drilling – grants program RD 3

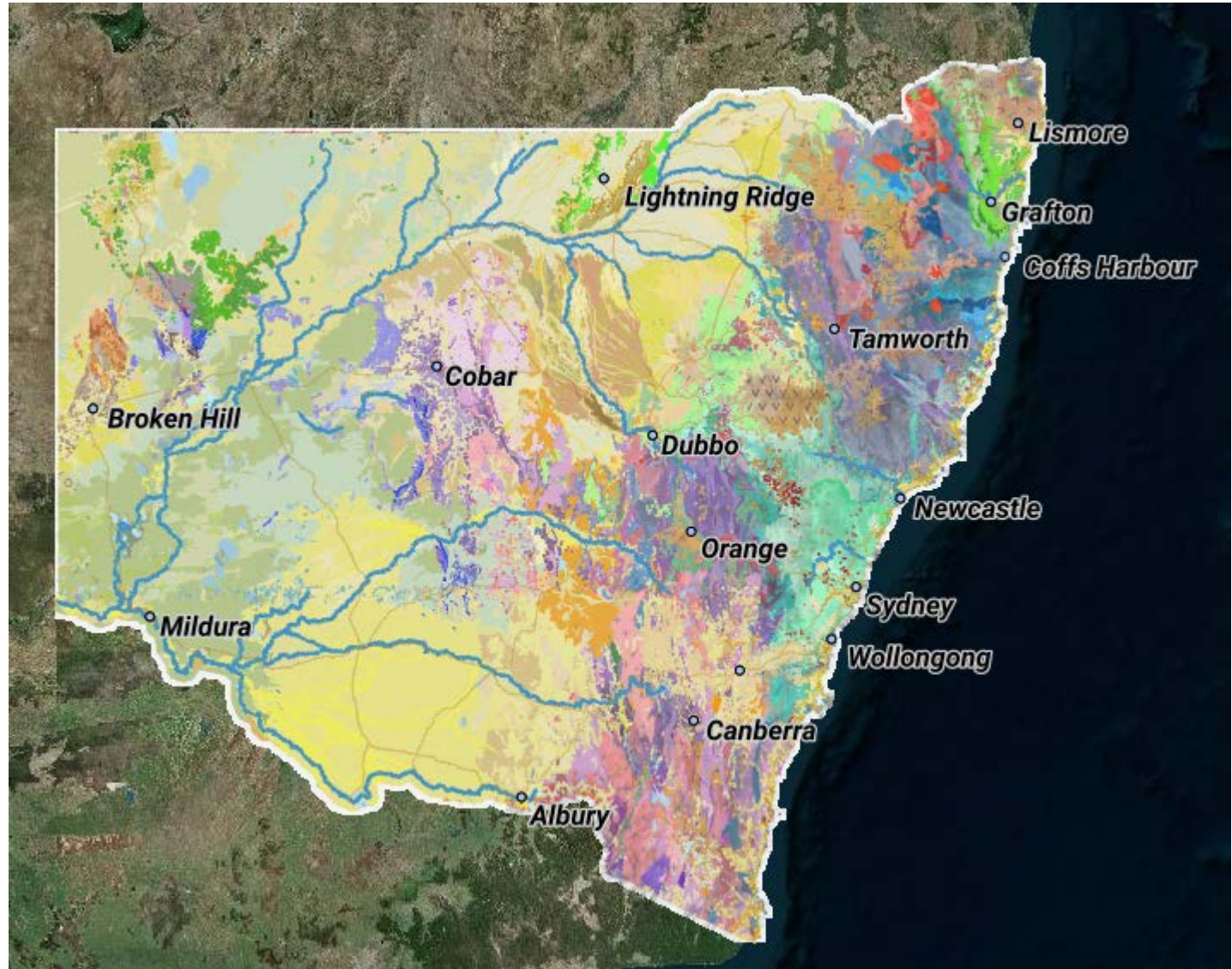
- \$2.2 million awarded in April 2020 to 22 projects:
 - Mostly in the Lachlan Orogen.
 - Strong focus on copper–gold.
 - Drilling must be completed by 30 June 2021.
 - 7 completed or underway (Oct)
- Future rounds planned



Seamless mapping upgrade

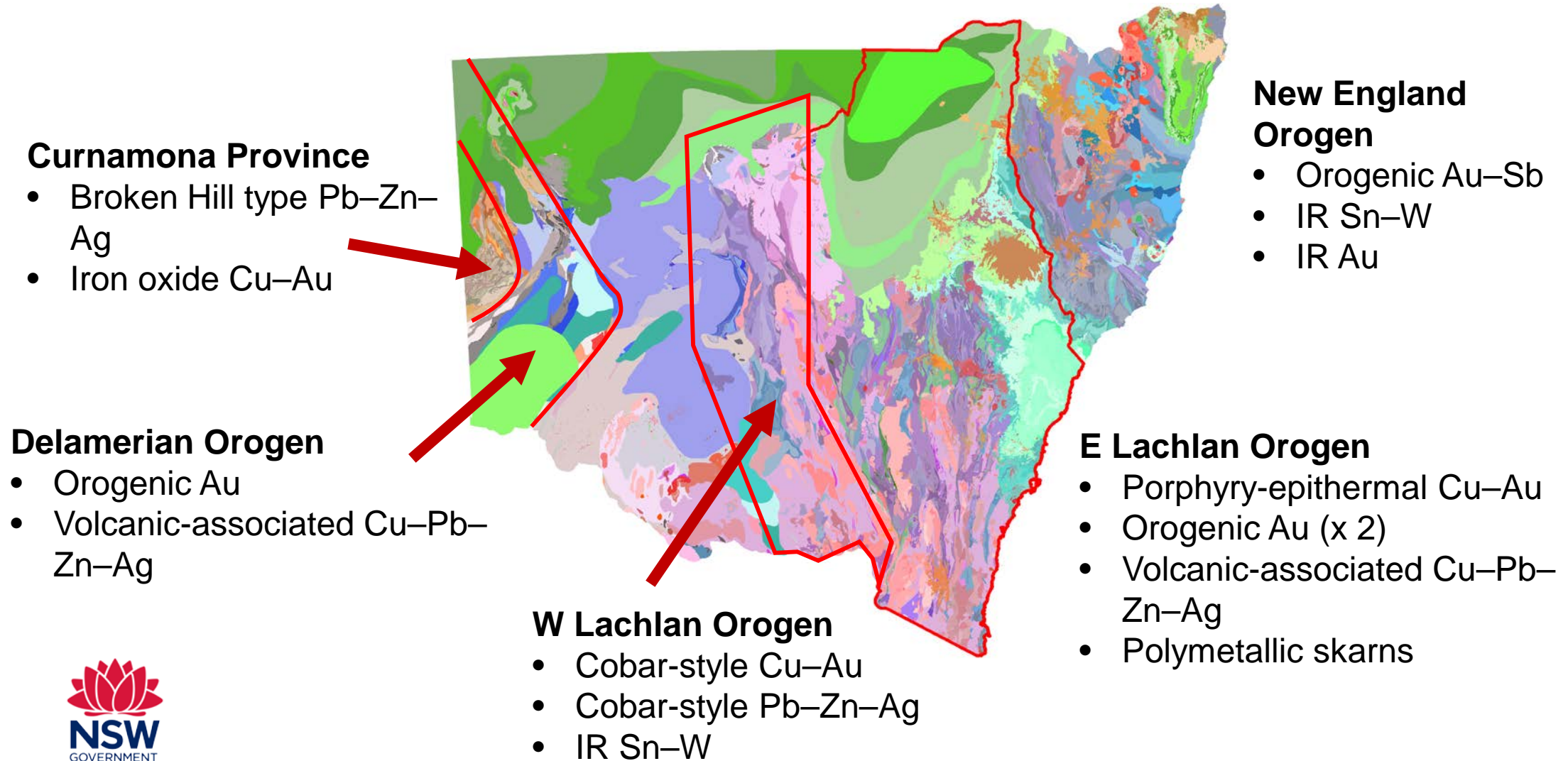
Seamless upgrade

- version 2 released - May
- East Riverina mapping
- 11,000 new structure points
- 30,000 plus attribution changes
- Available as a single layer

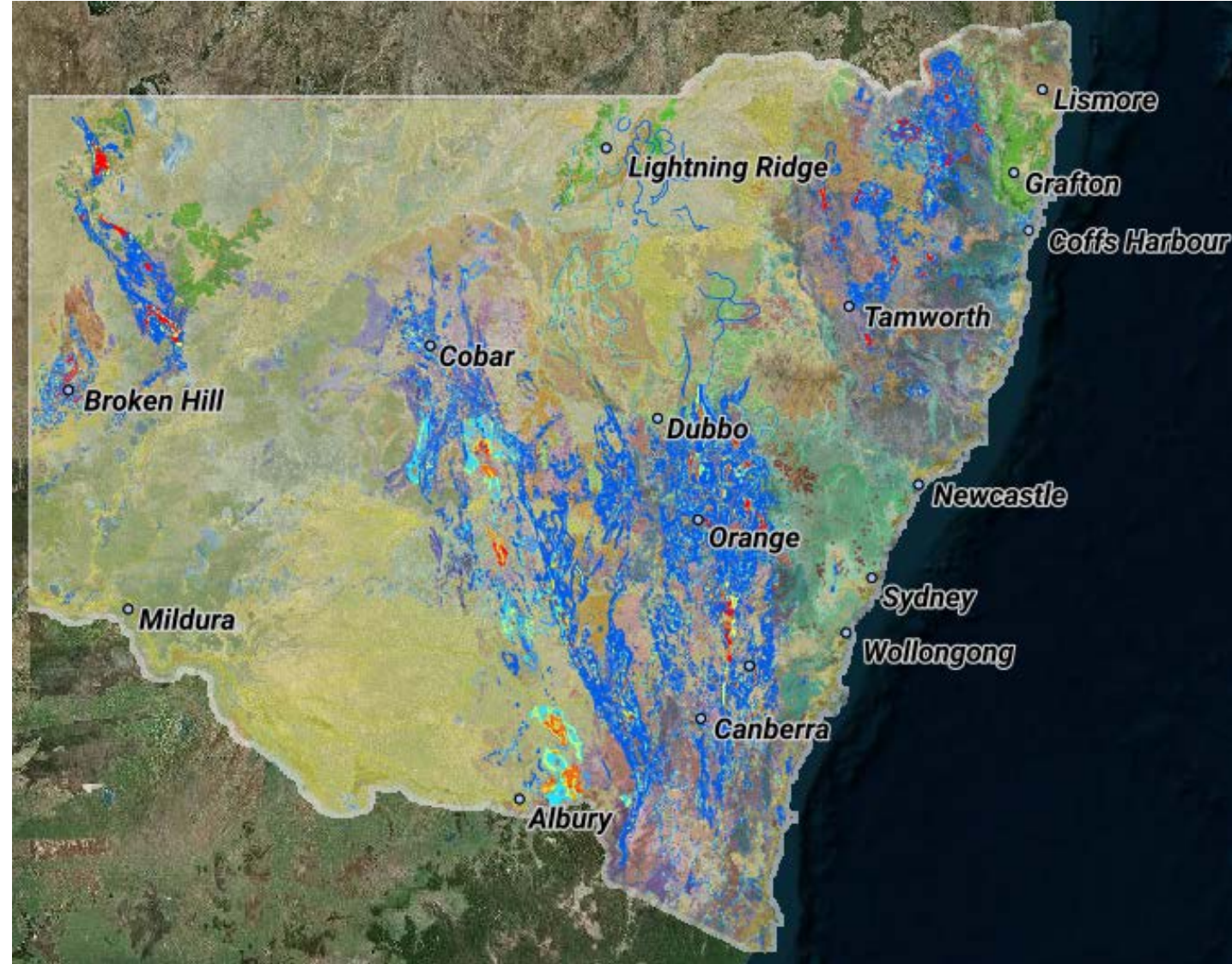


Mineral Potential Mapping

Mineral potential mapping – 15 major systems



Mineral potential mapping – 15 major systems



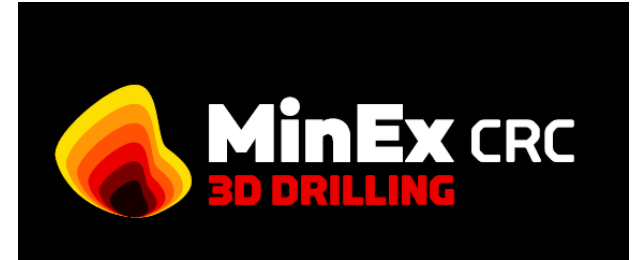
Minex CRC – precompetitive data

Minex CRC – Exploration undercover

- \$220 million, 10 year investment in mineral exploration R&D.
- ~40 organisations involved, including:
 - major miners, juniors and METS providers.
 - all Australian geological surveys (4 participants, 4 affiliates).
 - CSIRO, AuScope and 7 Australian universities.
- Three applied research programs:
 - Program 1 – Improved drilling efficiency.
 - Program 2 – Real-time data collection and analysis.
 - Program 3 – National Drilling Initiative (NDI).

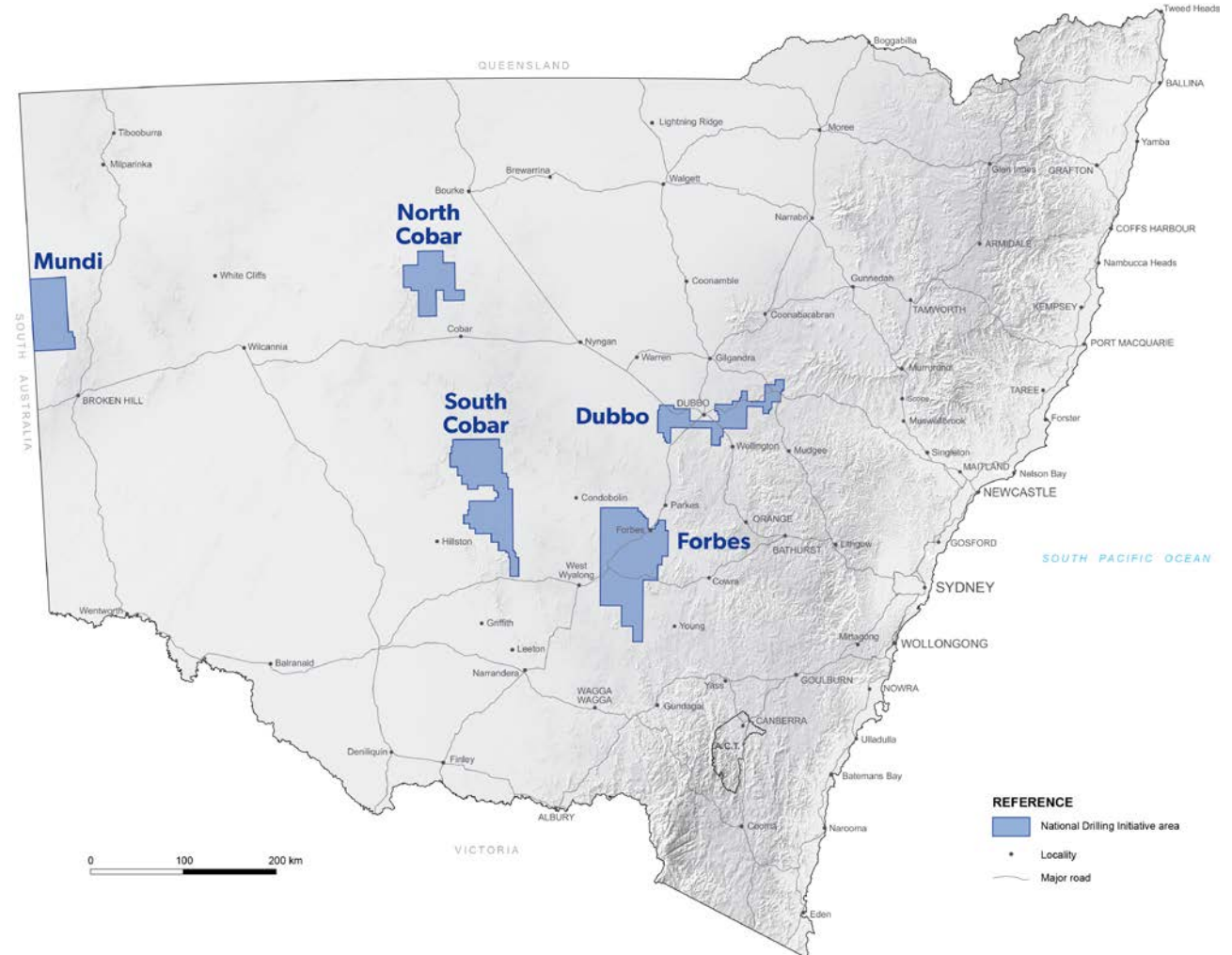


*The world's largest
mineral exploration
collaboration.*



Minex CRC – National Drilling Initiative in NSW

- Focus on five areas that are undercover extensions to known mineralised terranes.
- Integrated program of data compilation, mapping, geochemistry, geophysics and drilling over 10 years.
- Goal is to enable a new generation of discoveries.



Minex CRC – Audit and Gaps

- Report for each of the five focus NDI areas.
 - Includes previous mapping, geophysics, geochronology, palaeontology, field observations, geochemistry etc.
 - Inform work program and research opportunities for each NDI area.
- **Mundi** <https://search.geoscience.nsw.gov.au/report/R00055770>
 - **Forbes** <https://search.geoscience.nsw.gov.au/report/R00055771>
 - **Dubbo** <https://search.geoscience.nsw.gov.au/report/R00055780>
 - **South Cobar** <https://search.geoscience.nsw.gov.au/report/R00055778>
 - **North Cobar** <https://search.geoscience.nsw.gov.au/report/R00055779>



MinEx CRC audit and gaps report: Mundi
Chris Folkes and Astrid Carlton
GS Report Number 2019/1237
February 2020



NSW Department of Planning, Industry and Environment | dpi.nsw.gov.au



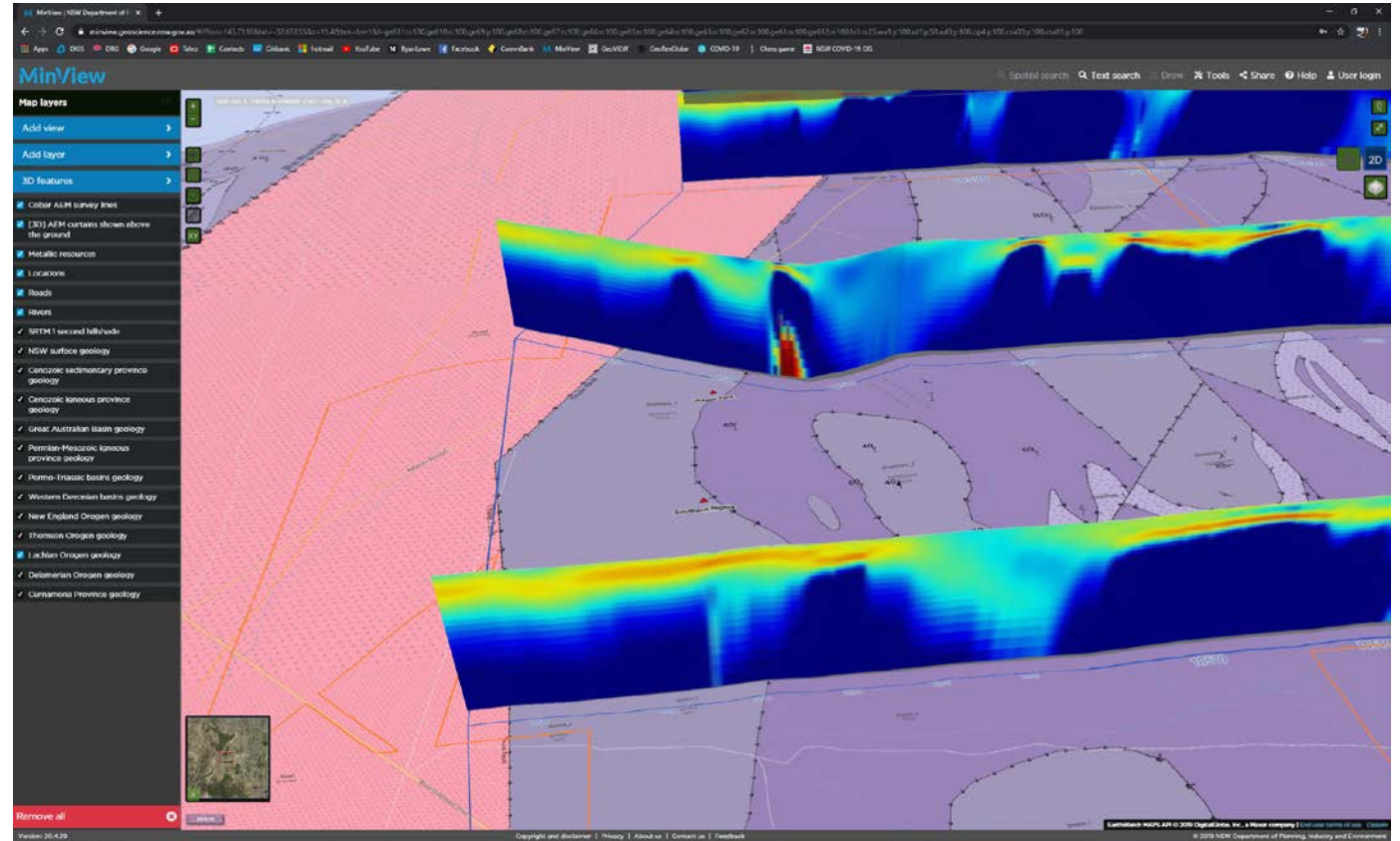
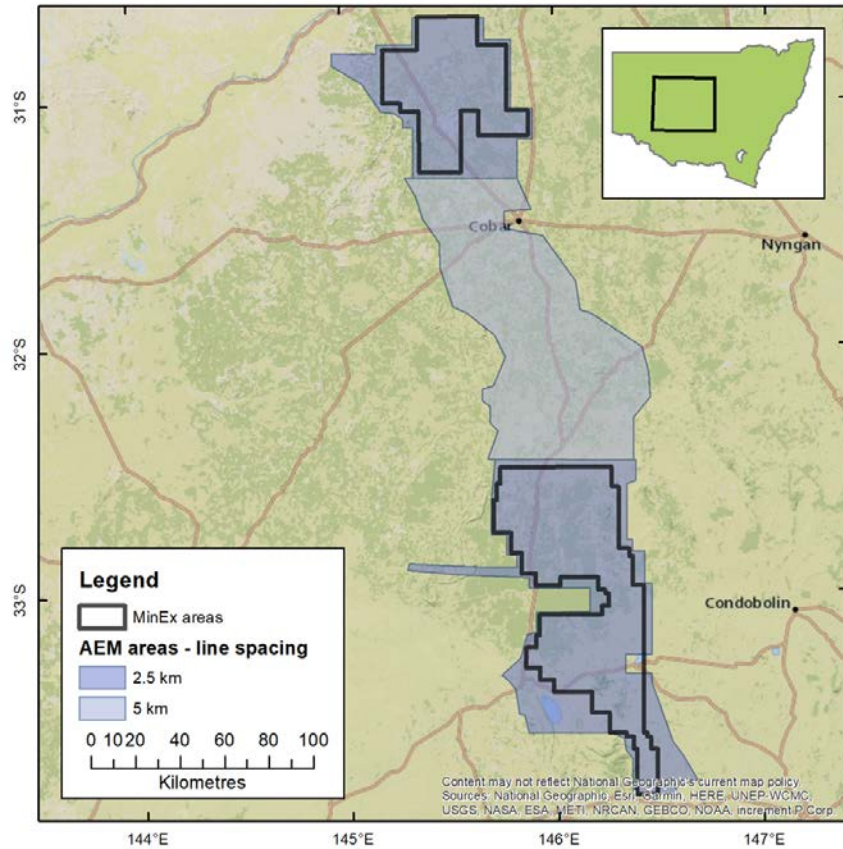
MinEx CRC audit and gaps report: Forbes
Mark Eardale and Astrid Carlton
GS Report Number 2019/1238
May 2020



Regional NSW | nsw.gov.au/RegionalNSW

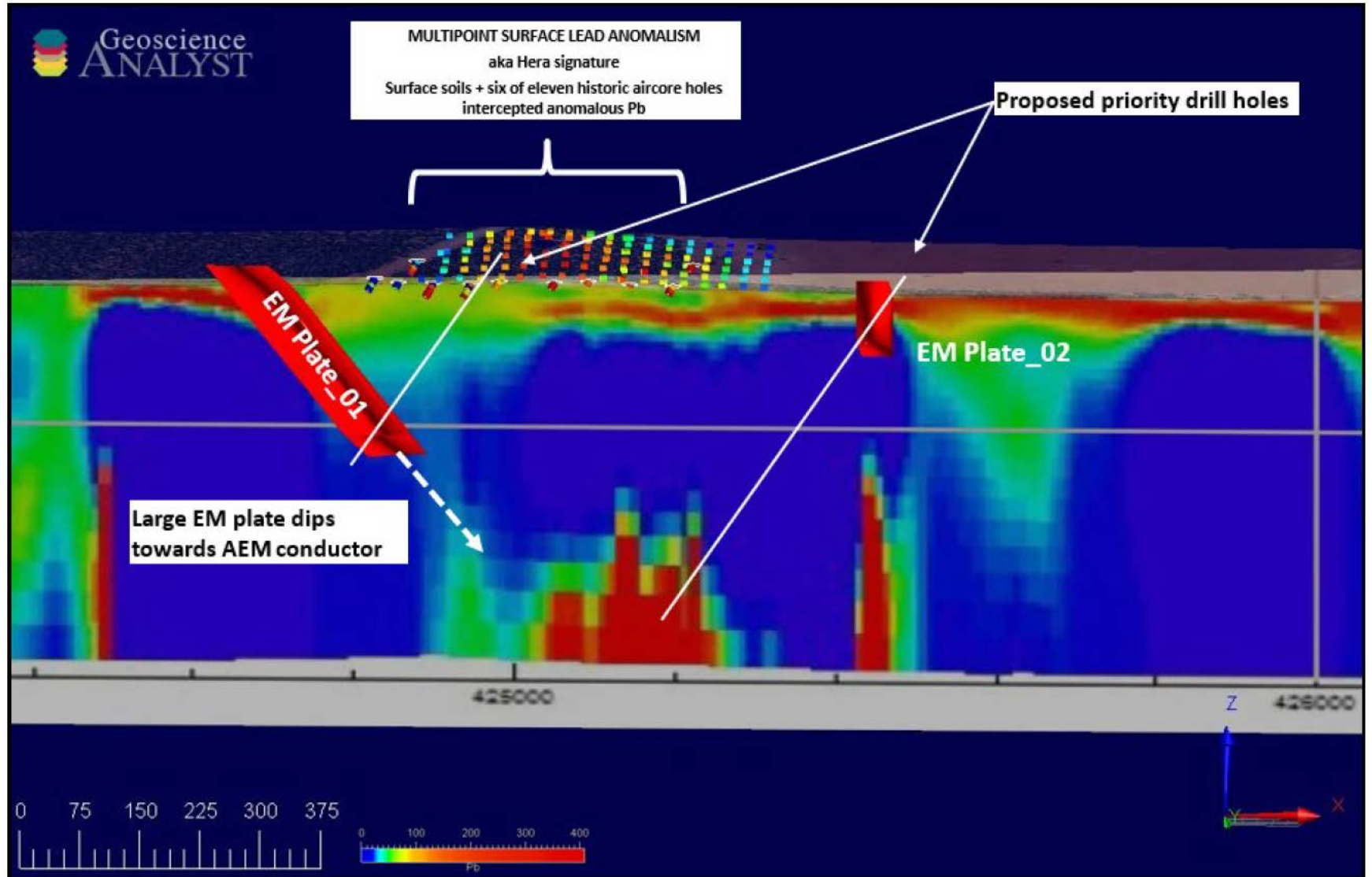
Minex CRC - Cobar AEM

Cobar AEM



Cobar AEM

Magmatic Resources
ASX Announcement 18
Sept 2020

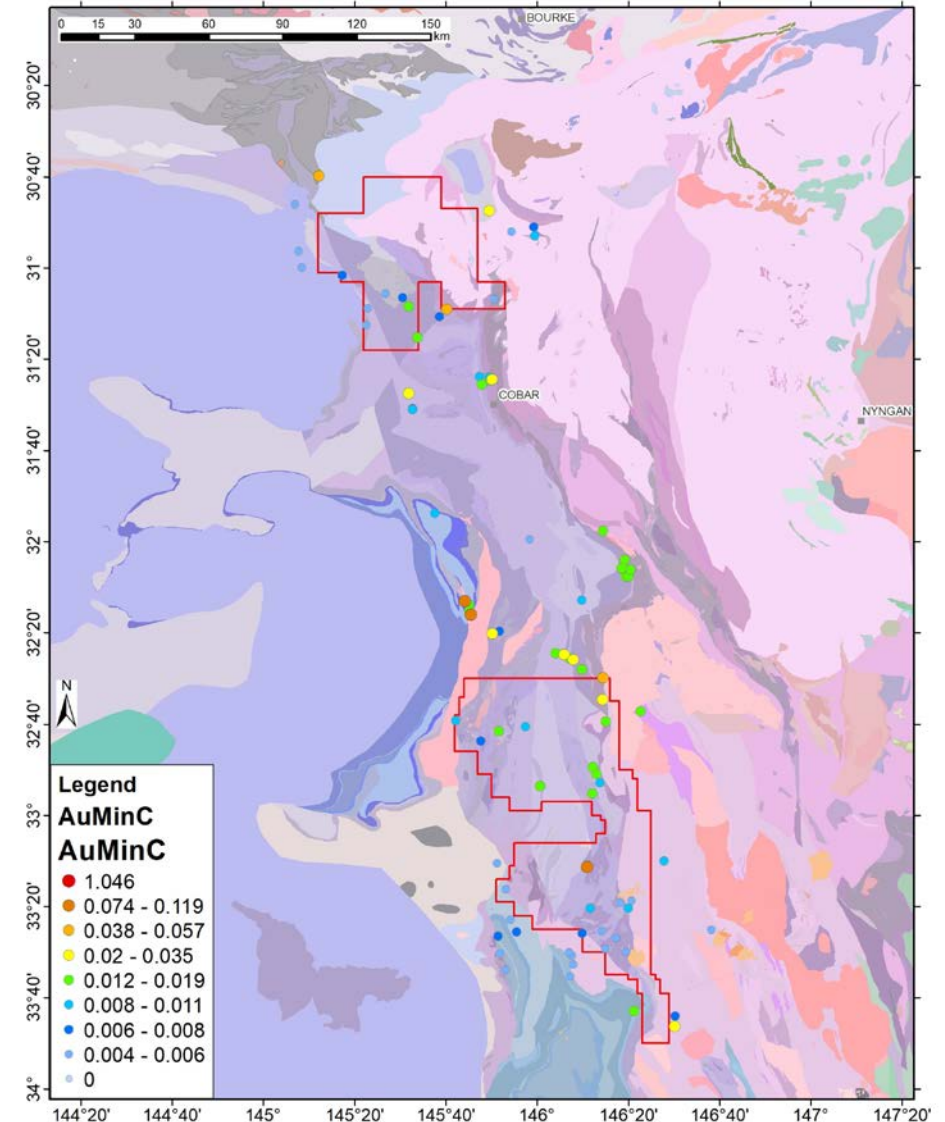


Minex CRC - Hydrogeochemistry



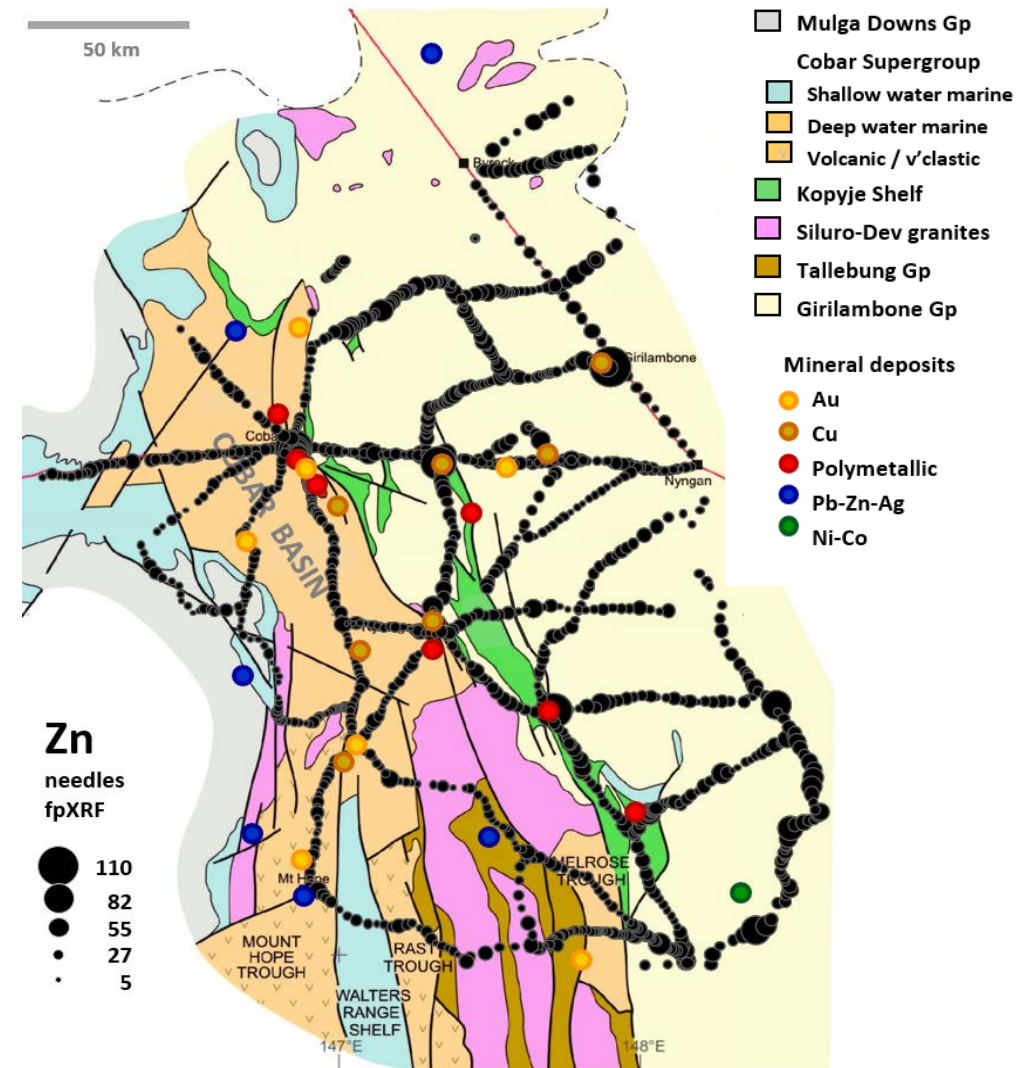
Cobar hydrochemistry

- In collaboration with CSIRO.
- 88 waterbores sampled in late 2019.
- Analysed for
 - Full suite of trace elements
 - O,D,H and isotopes
 - Hydrochronology.
- Data available, report in review.
- **2*Au+As+Ag+Sb** index-most successful for finding Au-related Cobar-type deposits.



Cobar biogeochemistry

- MinEx CRC PhD study undertaken by Joe Schifano at UNSW, with industry support.
- Sampling Cypress Pines.
- Covers 42,000 km².
- Regional (42,000 km²) and detailed studies.
- Pb, W, Cd (for Zn), Sb, As are showing excellent potential as vectors to mineralisation.



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ICP-MS **pin**es and **so**ils

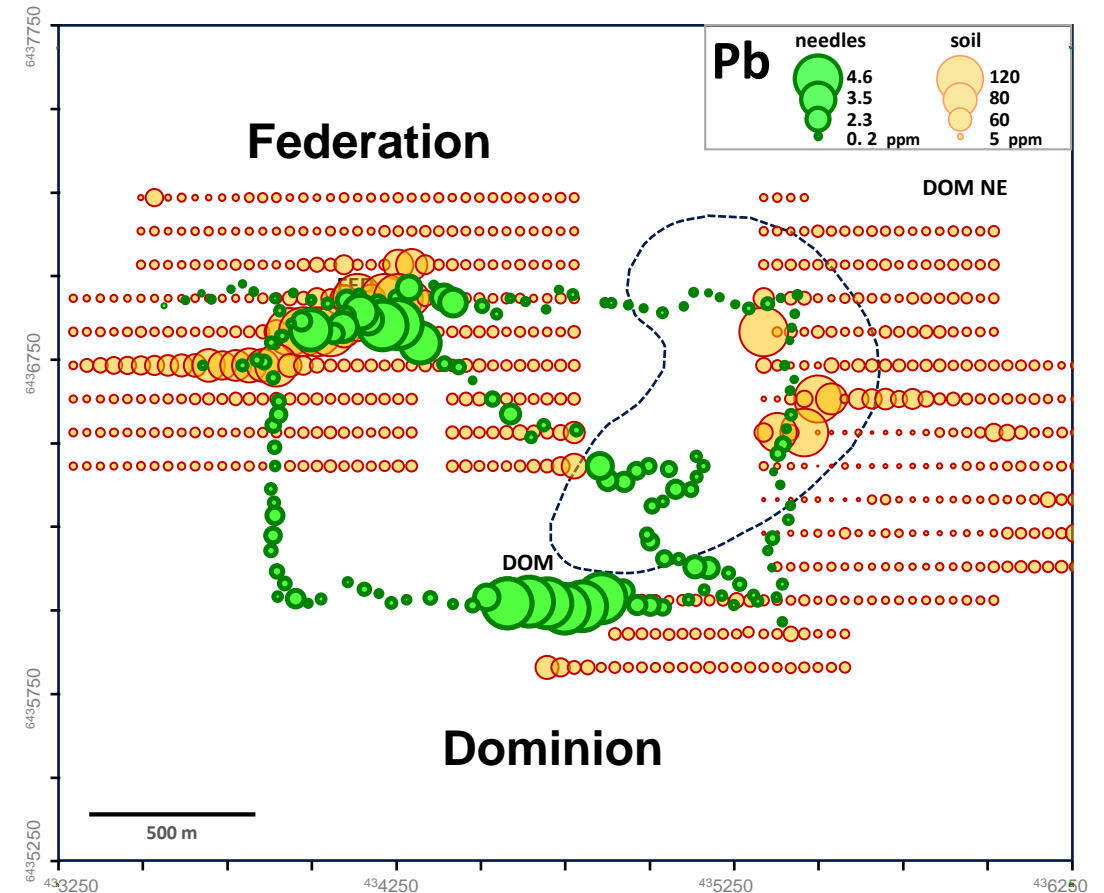


Image courtesy Joe Schifano, UNSW.

Newcastle Geotrail



Newcastle Geotrail

- Launched August
- 7km Nobbys to Glenrock
- Collaboration GSNSW, UoN, Newcastle Council
- Permian landscapes
- Human history



10 year mapping strategy

10 year mapping strategy

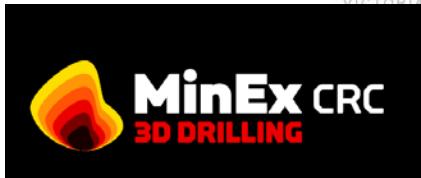
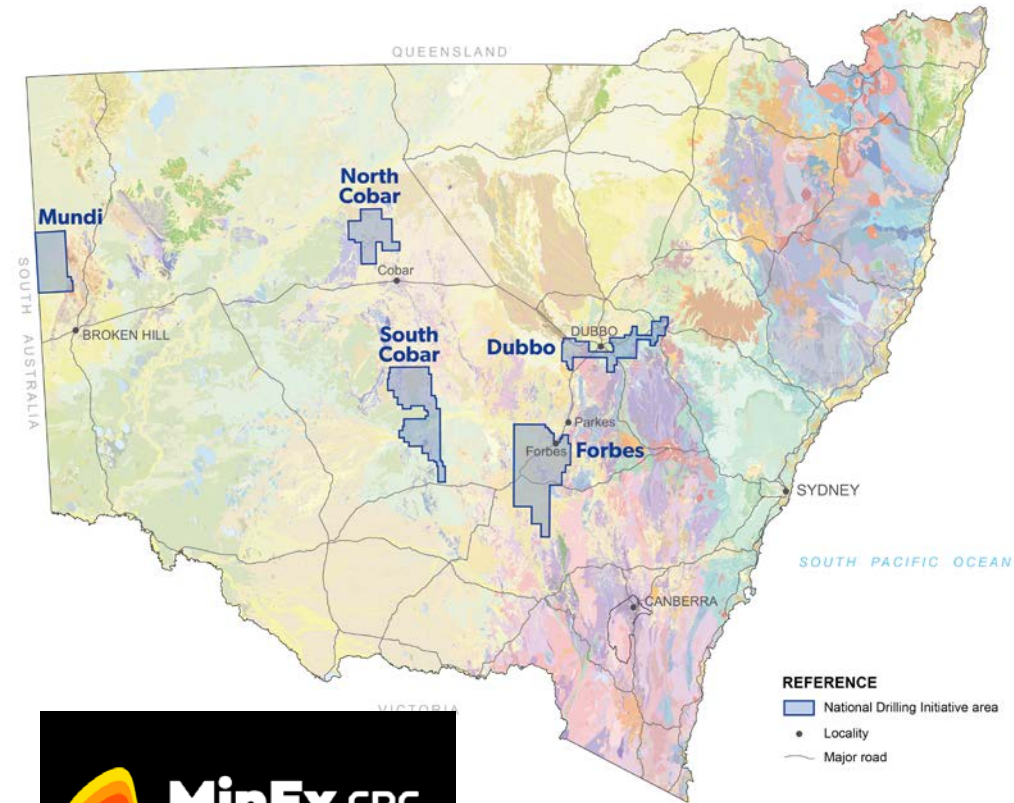
- 2020-2030 mapping plan
- Submission 31 Dec 2020
- Medium term mapping framework
- Drivers
 - Minex CRC
 - New Frontiers 5 year plan
 - Key and critical minerals
 - GA – EFTF program



Priorities 2021



2021 priority projects



SUNSET CLAUSE





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