

New datasets and functionality available in MinView

Includes a live MinView demonstration

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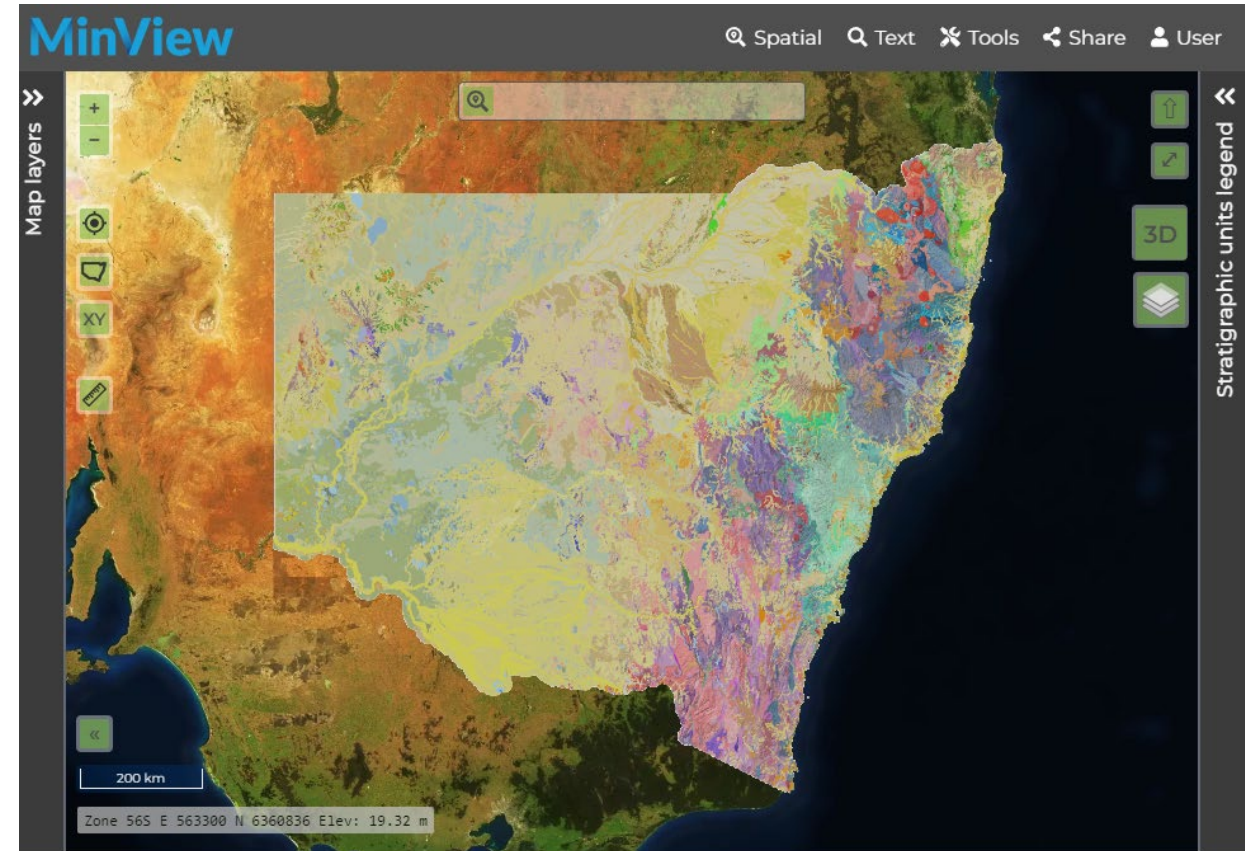
MinView updates

- NSW Seamless Geology

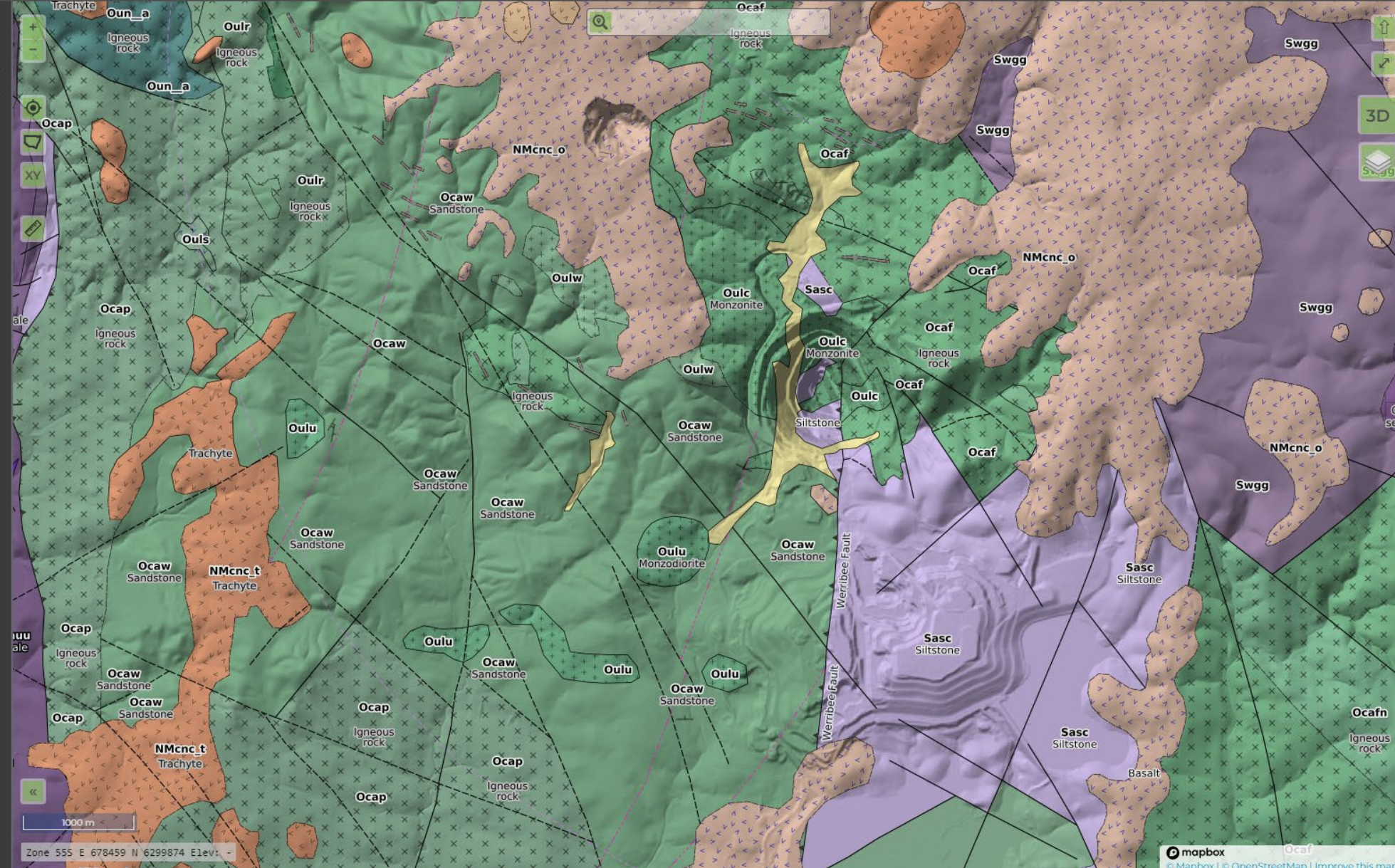
NSW Seamless Geology v2.4

New data

- **Geology upgrades to:**
 - Lake Cowal Volcanic Complex
 - Cadia Valley geology
 - Angullong Syncline/Bridge Creek areas
 - Gunningbland area
 - Quarry Creek area
- **Lightning Ridge** significant boundary upgrade to:
 - Cretaceous Rolling Downs Group outcrop/subcrop areas and the Quaternary black soil alluvial plains (Marra Creek Formation)
- Newly defined **Benolong Volcanic Suite:**
 - Peralkaline Mesozoic volcanic rocks and intrusions around Toongi
- Major review and update of the **Sydney Basin**
- Various **attribution updates**
- **New structural data** (e.g. Merimbula Group)
- Addition of **new units**



Map layers



Stratigraphic units legend

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Phanerozoic	0 - 541 Ma	▼
Cenozoic	0 - 66 Ma	▼
Quaternary	0 - 2.58 Ma	▼
Q_a	Alluvium	
Q_af	Alluvial floodplain deposits	
Neogene	2.58 - 23.03 Ma	▼
Miocene	5.333 - 23.03 Ma	▼
NMcnc	Canobolas Volcanic Complex	
NMcnc	Canobolas Volcanics	
NMcnc_o	Canobolas Volcanics - olivine b...	
NMcnc_p	Canobolas Volcanics - phonolite	
NMcnc_t	Canobolas Volcanics - trachyte	
Palaeozoic	251.902 - 541 Ma	▼
Carboniferous (Pennsylvanian)	298.9 - 323.2 Ma	▼
Cul	Unassigned Late Carboniferous intrusi...	
Cul_d	Unassigned Late Carboniferous int...	
Devonian	358.9 - 419.2 Ma	▼
Late Devonian	358.9 - 382.7 Ma	▼
Dca	Catombal Group	
Dck	Black Rock Subgroup	
Dckm	Macquarie Park Sandstone	
Silurian	419.2 - 443.8 Ma	▼
Ludlow	423 - 427.4 Ma	▼
Smu	Mumbil Group	
Smuw	Wallace Shale	
Smuu	Ulah Formation	
Llandovery	433.4 - 443.8 Ma	▼
Sas	Ashburnia Group	

MinView updates

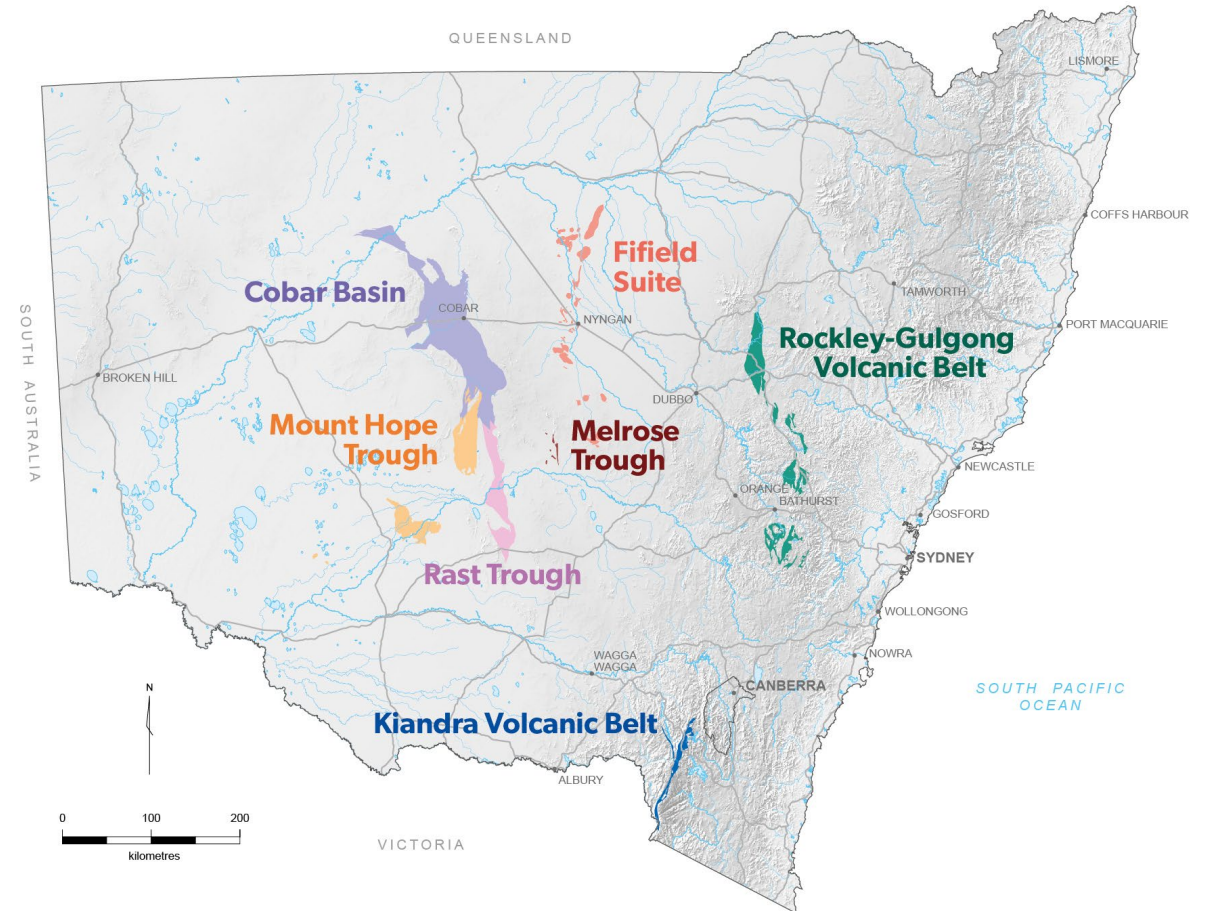
- NSW Stratigraphic Unit Database

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NSW Stratigraphic Unit Database

55 new stratigraphic unit tables added to MinView

- Rock units for parts of Cobar Supergroup/Macquarie Arc and Fifield Suite
- ~104,000 words compiled
 - equivalent to an explanatory notes publication!
- Quality data output
 - compiled/QA'd/QC'd/edited/finalised
 - expert input to economic geology where available
- ~400 unique references used to compile the data
 - comprehensive review of the literature



Map layers

- + -
- 👁
- 📐
- XY
- 📏

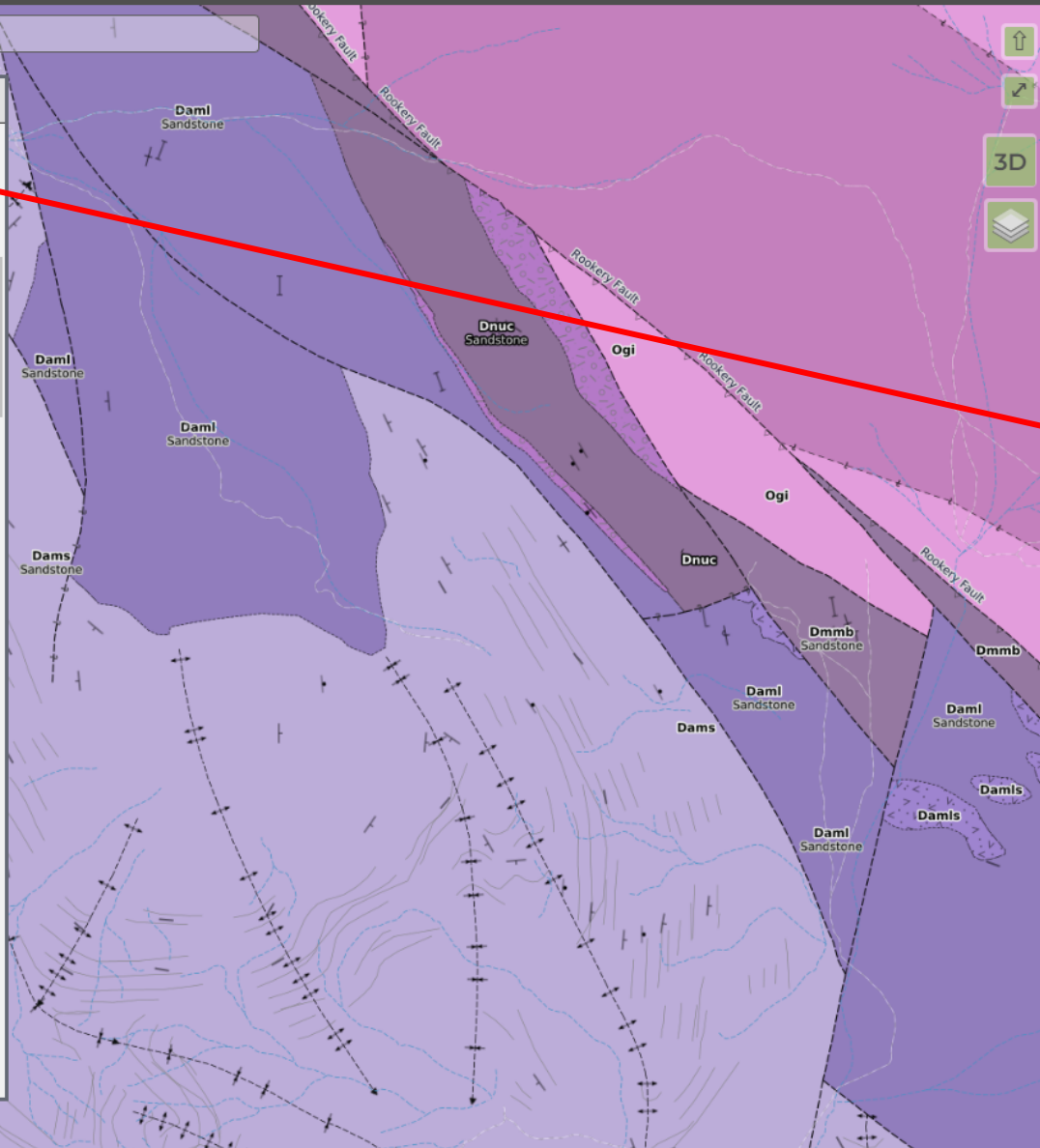
Stratigraphic unit

Economic geology
 Host to a string of deposits close to its contact with the underlying Mouramba Group along the southeastern margin of the Cobar Basin including Nymagee Cu-(Zn-Pb-Ag), Hera Zn-Pb-Au-Ag, Federation Zn-Pb-Au-Ag and Dominion (Cu-Zn-Pb).

Mineralisation at Nymagee mine resides in the hanging wall ~1 km west of the Rookery Fault and comprises 3 zones (western, main and eastern; Pb-Zn-rich in the west and Cu-rich in the east) with a combined maximum width of 250 m over 750 m of strike (Paterson 1974; Jones 1979; Suppel 1984; Suppel and Gilligan 1993). The mineralised zones are broadly conformable with bedding/cleavage in the enclosing sedimentary rocks and may be massive, disseminated to laminated and vein/stringer in style. The mineralised zones are summarised in Suppel and Gilligan (1993) as: eastern zone comprising pyrrhotite-chalcopyrite-quartz veins/stringers; main zone comprising shoots (Pb-Zn-rich west and Cu-rich east) that are characterised by tabular zones of diffuse stringer and disseminated mineralisation that decreases in intensity to the east; western zone that is sphalerite-galena-rich with lesser pyrrhotite and chalcopyrite.

Ore comprises combinations of pyrrhotite, chalcopyrite, sphalerite, galena, magnetite, with lesser arsenopyrite, cubanite, vallerite, tenetite, mackinawite, native bismuth and argentite within a gangue comprising combinations of quartz, chlorite, muscovite, biotite, talc, stilpnomelane, calcite, and tremolite (Downes et al. 2016). Fitzherbert et al. (2017b) classified the Nymagee deposit as a fault-hosted, extensively retrogressed distal skarn. The authors described a broad porphyroblastic biotite halo around the orebody with rare zones of intense calc-silicate (garnet, anorthite, zoisite, titanite, tremolite) and aluminous (ferro-hastingsite, Fe-rich biotite and epidote) skarn within the mineralised lodes.

The Hera (Zn-Pb-Au) ore body occurs in the same stratigraphy ~6 km south of Nymagee mine. A series of related prospects (South Peak, Hebe prospect and Athena) extend for 2.5 km to the south of Hera but occur in the underlying Mouramba Group. The ore body at Hera is interpreted as a fault-controlled, grossly stratabound, distal skarn-related sulfide breccia (McKinnon and



Stratigraphic units legend

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Phanerozoic 0 - 541 Ma

Palaeozoic 251.902 - 541 Ma

Devonian 358.9 - 419.2 Ma

Early Devonian 393.3 - 419.2 Ma

Dc Cobar Supergroup

- Dmm Mouramba Group
- Dmmb Burthong Formation
- Dam Amphitheatre Group
- DamI Amphitheatre Group, lower i**
- DamIs Stones Tank Tuff Member i
- Dams Shume Formation i
- Damu Amphitheatre Group, upper i
- Dnu Nurri Group
- Dnuc Chesney Formation i
- Dnuc_c Chesney Formation - conglome...

Ordovician 443.8 - 485.4 Ma

Early Ordovician 470 - 485.4 Ma

- Ogi Girilambone Group
- Ogib Ballast Formation

Future plans in 2024

Cobar Supergroup (shallow water sequences)

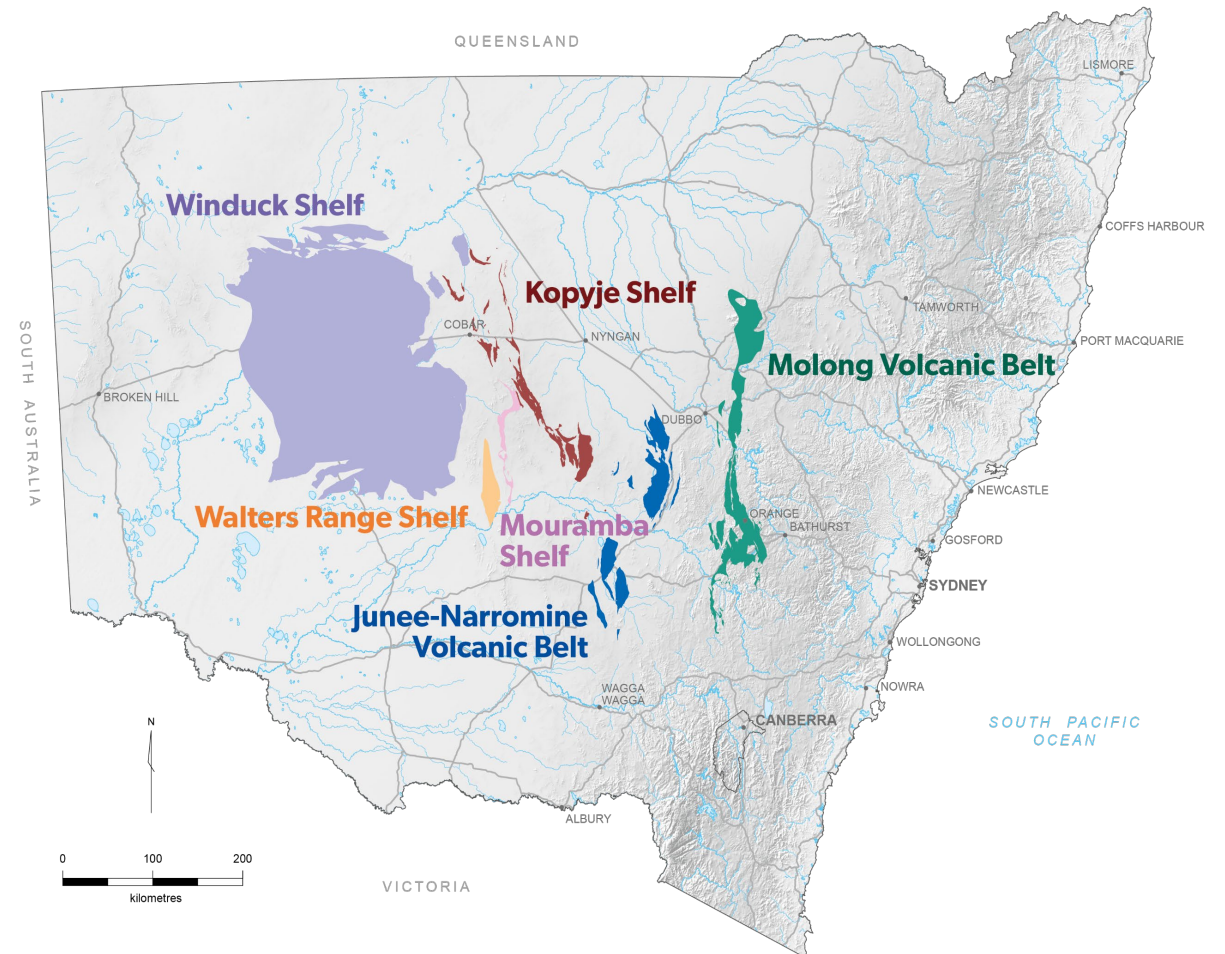
- Kopyje Shelf
- Winduck Shelf
- Mouramba Shelf
- Walters Range Shelf

Macquarie Arc

- Selected areas of the Molong and Junee–Narromine volcanic belts
 - Cadia Intrusive complex and surrounding intrusions
 - Lake Cowal Volcanic Complex

Further MinView enhancements

- Investigate linking to other data layers e.g. field observations, drillholes, fossils
- Investigate the integration of photos



MinView updates

- New datasets and functionality

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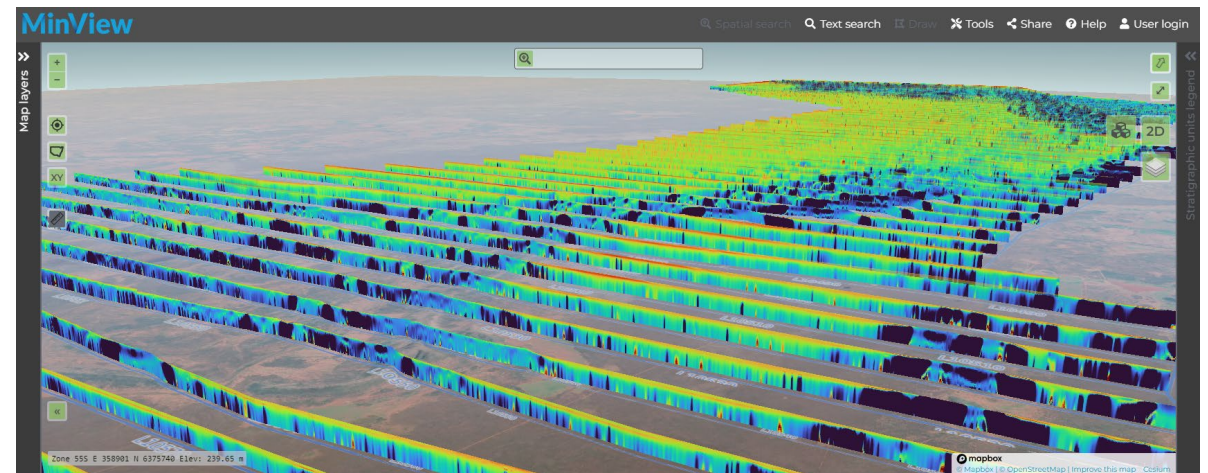
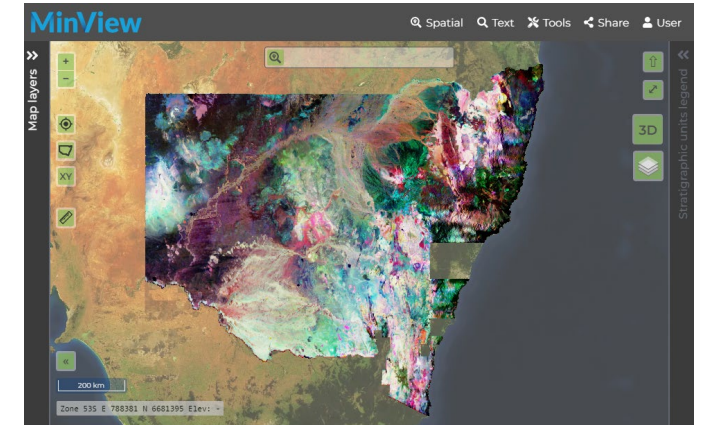
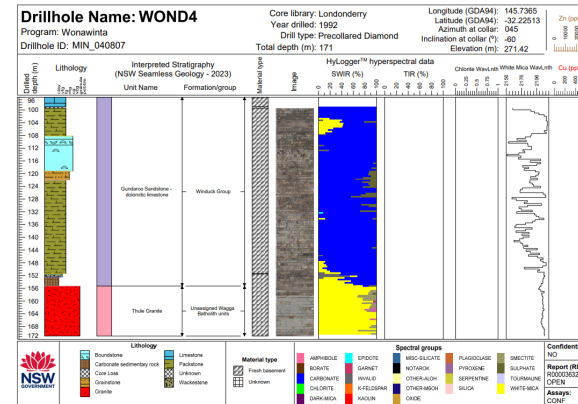
New datasets and functionality

New datasets

- 2023 statewide radiometric merge
- 2024 statewide magnetics merge
- **1,000,000+** new data points from the Annual Report Release Project: drilling, downhole drillholes, surface samples
- AEM surveys with 3D curtains – Forbes, Dubbo, Yathong, Coonabarabran
- Cobar downhole drillhole dataset
- Preliminary airborne Bouguer gravity statewide data
- NSW Dams, Solar Farms, Lightning Ridge opal information layers

New functionality

- Download search results/add local spatial data as GeoJSON
- Spatial search: export to CSV up to 50,000 records!



<https://minview.geoscience.nsw.gov.au/>

Live MinView demonstration

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