CSIRO RESEARCH ENHANCES UPSIDE AT WEBBS CONSOL SILVER PROJECT

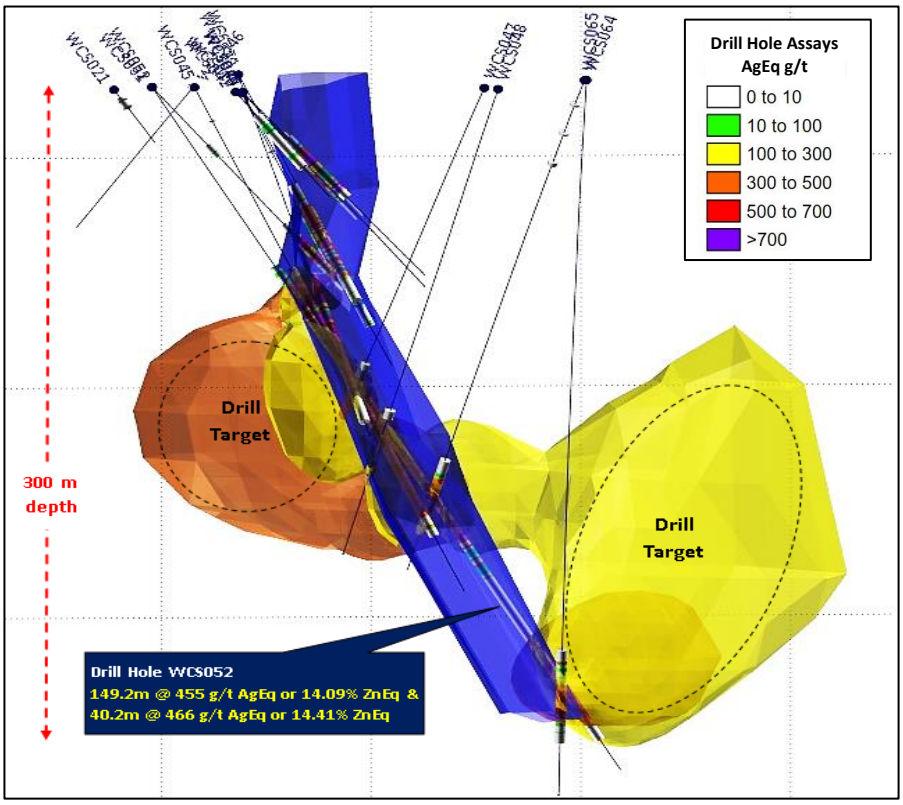
Australia's national science agency, CSIRO, has completed a research study at Lode Resources' Webbs Consol Silver Project in New South Wales, funded through the Entrepreneurs' Programme Innovation Connections Grant (ICG002410).

CSIRO Research Highlights:

- Structural analysis and 3D modelling of Tangoa West, Main Shaft and other prospects has identified the potential for lateral extensions to mineralisation. This has significant implications for estimating size of deposits and greatly assists drill target planning.
- The relative depth of the differing styles of alteration appears constant at all prospects suggesting very limited rotation or block faulting indicating likely preservation of mineralisation around the entire perimeter of the Webbs Consol Leucogranite. To date exploration has focused only on a relatively small area.
- A comprehensive understanding of mineral deposit genesis has been gained by integrating structural, geochemical, mineralogical, and mineral-chemical data. This enables comparison with other similar deposits.
- Through 3D models and the use of innovative geochemical indicators, validated by mineralogical and mineral-chemical analyses, CSIRO have suggested distinct mineralisation styles and ore zones, thereby providing essential knowledge for improved mineral exploration at Webbs Consol.

Please note that this ASX release only broadly summarises the work completed by CSIRO as numerous specific findings are considered proprietary property of LDR and thus remain confidential.

Figure 1. 3D model of Tangoa West prospect showing drill hole AgEq assays and interpreted lode (blue shell) as well as modelled 5.0% Zn anisotropic iso-surfaces. See Figure 7 for explanation.



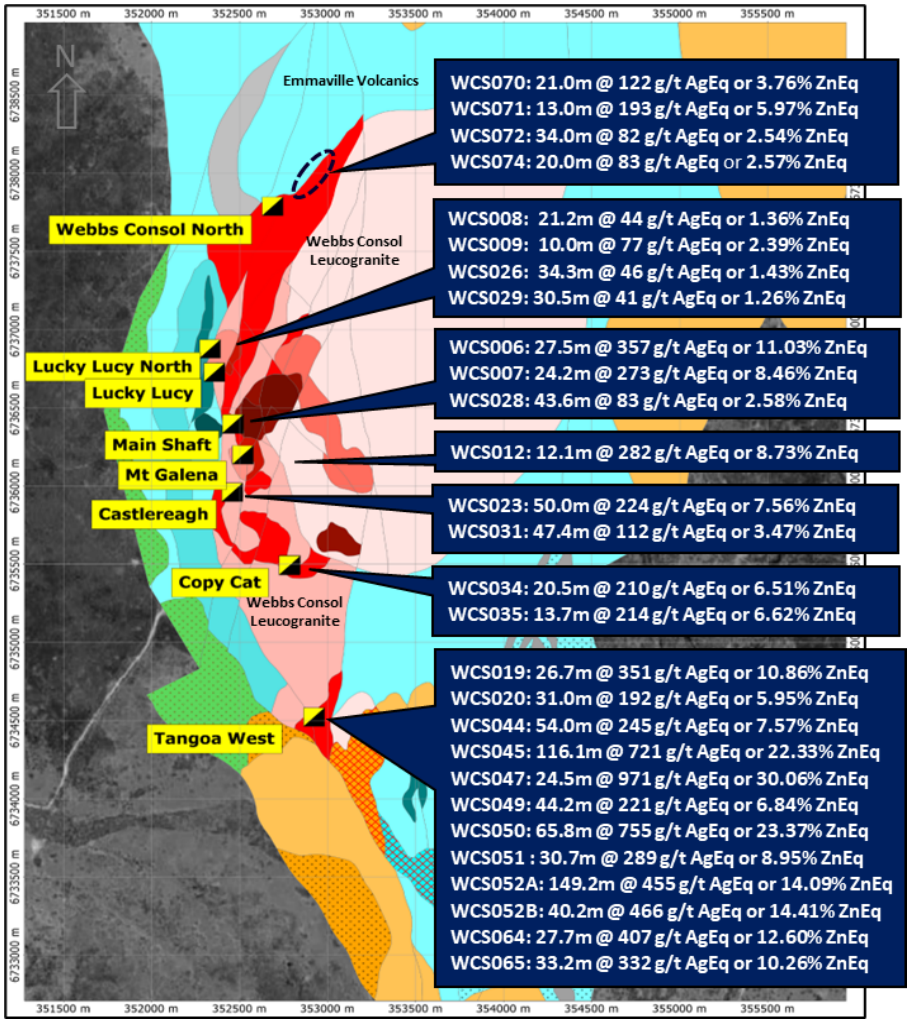
Main Tangoa West Intercepts
WCS019: 26.7m @ 351 g/t AgEq, 10.86% ZnEq
WCS020: 31.0m @ 192 g/t AgEq, 5.95% ZnEq
WCS044: 54.0m @ 245 g/t AgEq, 7.57% ZnEq
WCS045: 116.1m @ 721 g/t AgEq, 22.33% ZnEq
WCS047: 24.5m @ 971 g/t AgEq, 30.06% ZnEq
WCS049: 44.2m @ 221 g/t AgEq, 6.84% ZnEq
WCS050: 65.8m @ 755 g/t AgEq, 23.37% ZnEq
WCS051 : 30.7m @ 289 g/t AgEq, 8.95% ZnEq
WCS052A: 149.2m @ 455 g/t AgEq, 14.09% ZnEq
WCS052B: 40.2m @ 466 g/t AgEq, 14.41% ZnEq
WCS064: 27.7m @ 407 g/t AgEq, 12.60% ZnEq
WCS065: 33.2m @ 332 g/t AgEq, 10.26% ZnEq

Findings Summary:

- A comprehensive understanding of mineral deposit genesis has been gained by integrating structural, geochemical, mineralogical, and mineral-chemical data. This enables the direct comparison with other similar deposits.
- Through 3D models and the use of innovative geochemical indicators, validated by thorough mineralogical and mineral-chemical analyses, CSIRO have successfully discerned distinct mineralisation styles and ore zones, thereby providing essential knowledge for improved mineral exploration at Webbs Consol.
- The successful outcomes of this research underscores the significance of multi-scale and multi-analytical techniques to constrain deposit parameters essential for mineral exploration.
- The relative depth of the differing styles of alteration appears constant at all prospects suggesting very limited rotation and likely preservation of mineralisation around the entire perimeter of the Webbs Consol Leucogranite.
- Structural analysis of Tangoa West and other prospects suggests potential areas for lateral extensions to mineralisation.

In 2023, CSIRO, funded through the Entrepreneurs Programme Innovation Connections Grant (ICG002410), was engaged to undertake a collaborative research project to achieve a comprehensive understanding of the characteristics of hydrothermal Zn-Ag-Pb sulphide mineralisation linked to the ca. 256 Ma Webbs Consol Leucogranite in the New England Fold Belt (NEFB). CSIRO produced a comprehensive 79-page research report titled “Webbs Consol silver and base metal deposit characterisation, New England Fold Belt, NSW”.

Figure 2. Webbs Consol Silver Project – Location of main lodes and significant intercepts



The project included mapping of structures in drill core and the field, covering prospects throughout the research area, including Copy Cat, Castlereagh, Mount Galena, Lucky Lucy, Lucky Lucy North, Main Shaft, and Tangoa West. The findings were integrated with existing structural information provided by Lode Resources, allowing the creation of 3D models that support the multi-scale structurally-controlled nature of mineralisation.

To constrain hydrothermal alteration styles (chloritisation and sericitisation) and mineralisation processes, CSIRO conducted whole-rock geochemical analyses and micro-analytical characterisations on unaltered granite and mineralised samples from a number of prospects (Tangoa West, Main Shaft, Castlereagh, and Lucky Lucy North). The results were integrated with whole-rock assay data supplied by Lode Resources to geochemically classify the granitic intrusions and discriminate alteration and mineralisation zones.

A robust correlation between alteration styles and metal endowment was established through the integration of geochemical data, hyperspectral (FTIR) core logging results, petrophysical data, as well as micro-XRF elemental mapping and mineralogical/mineral-chemical characterisations of drill core samples.

The chloritised mineralisation are characterised by high Zn concentrations, with Fe-rich sphalerite containing numerous chalcopyrite inclusions (chalcopyrite disease). The sericitised zones exhibit 'ordinary' sphalerite but enrichments in Pb and As, primarily manifesting as galena and arsenopyrite together with blebby chalcopyrite. Furthermore, the sericitised samples prominently feature Ag-rich sulphide grains bound to galena-chalcopyrite±arsenopyrite assemblages. Similar Ag concentrations were observed in chloritized samples, but Ag-rich sulphide grains are rare. This discrepancy may be attributed to the preferential uptake of Ag by sphalerite, or by the microscopic inclusions of chalcopyrite enclosed within the sphalerite.

Figure 3. Photomicrographs and micro-XRF elemental distribution maps (K, Si, Fe, and Zn, As, Pb, Cu) of strongly altered samples in drill hole WCS045.

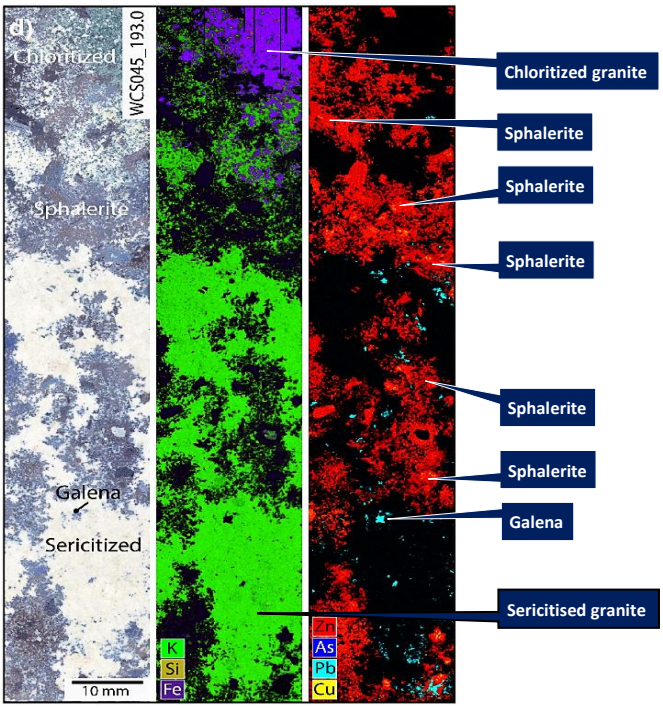


Figure 4. BSE image overlaid with EDS elemental distribution map showing large accumulation of galena with overgrowths of Ag-Sb-Bi-rich sulphide phase in drill holed WCS045.

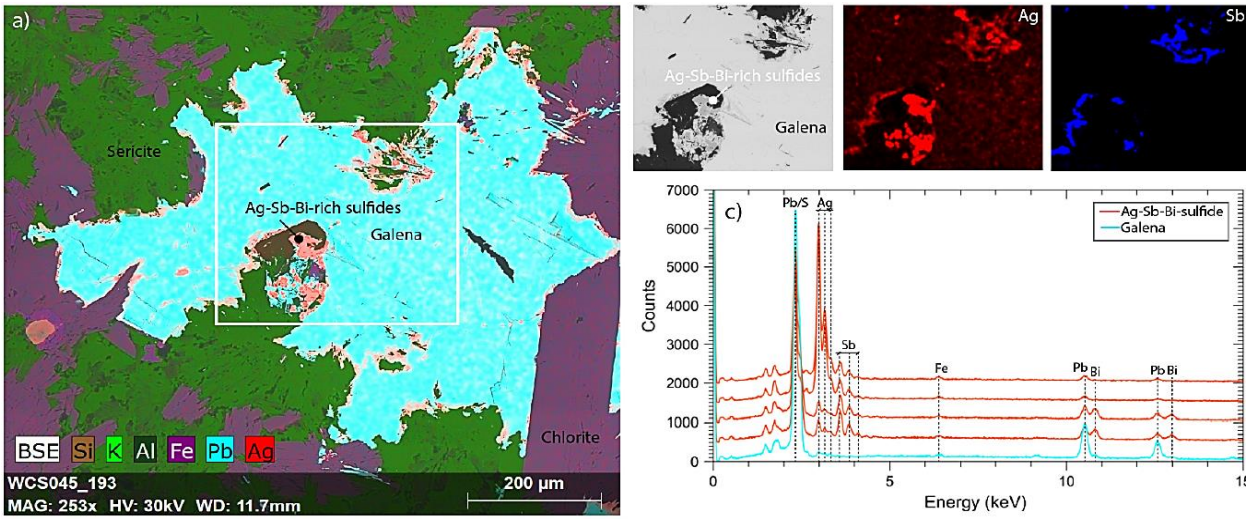
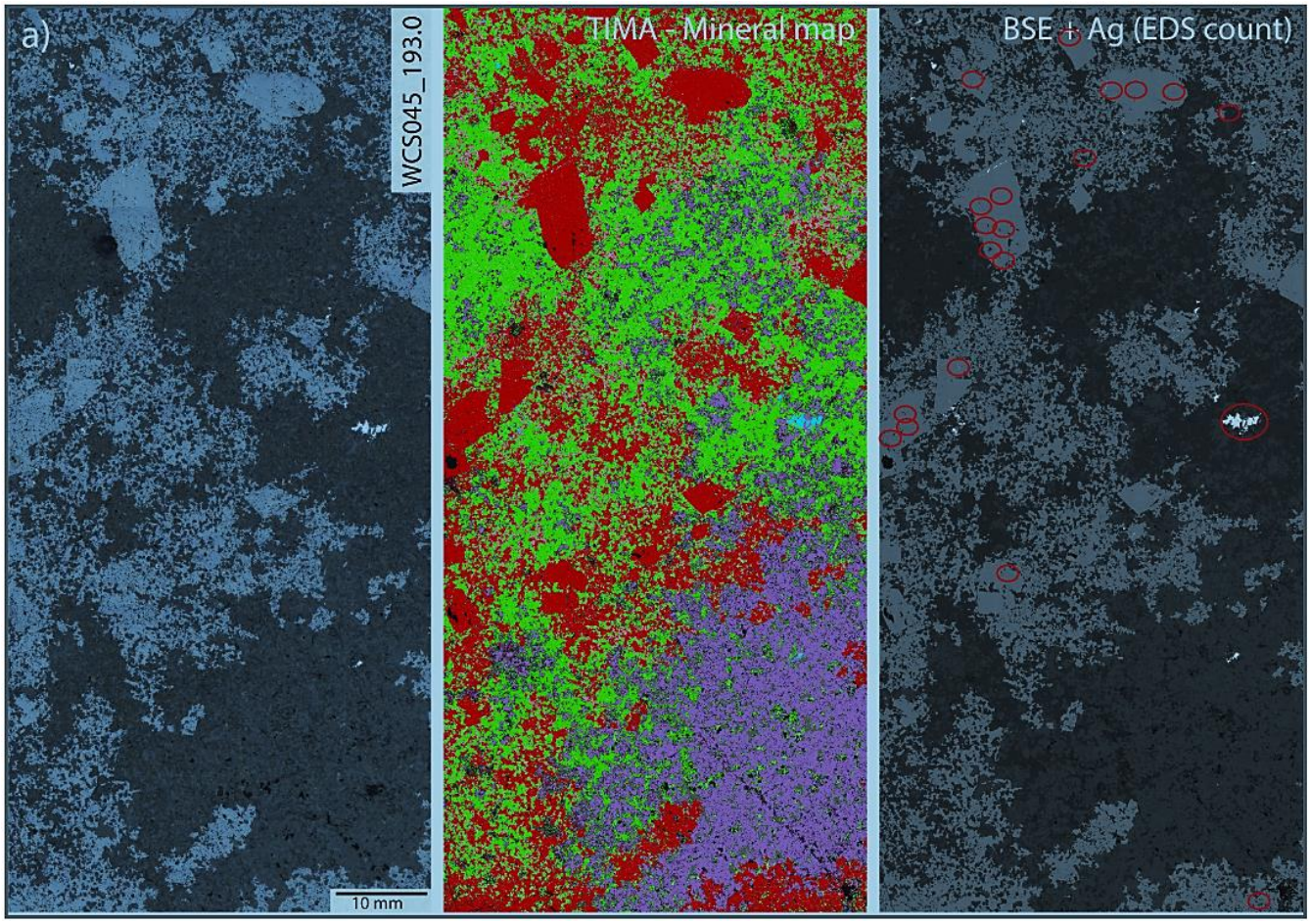


Figure 5. Reflected light microscopy images along with TESCAN-TIMA mineral and Ag-Sb sulphide distribution maps of mineralised chloritised samples for drill hole WCS045. The presence of Ag-Sb-rich sulphide grains is highlighted by red circles. Sphalerite is discriminated based on its Fe content [low-Fe sphalerite (light red) < 10 wt% Fe < high-Fe sphalerite (red), with up to c. 15 wt% Fe). Chlorite is discriminated based on its Mn content (low-Mn chlorite < 4 wt% Mn < high-Mn chlorite).



By understanding the alteration style and mineralisation process at each prospect **a consistent trend of hydrothermal alteration patterns and ore zones relative to elevation across the entire Webbs Consol mineral system can be observed.**

Using a threshold elevation of 700 meters above sea level, consistent patterns are summarised as:

i. The lower ore zones (characterised Ag and Fe-bearing Zn-rich mineralisation) at Tangoa West and Main Shaft are consistently found at greater depths, below the 700-meter threshold, and;

ii. The upper ore zones (characterised by an assembly of Ag-Zn-Pb-Cu mineralization) throughout the Webbs Consol mineral system predominantly appear at elevations exceeding 700 meters.

This observation suggests very limited rotation and likely preservation of mineralisation around the entire perimeter of the Webbs Consol Leucogranite.

At Tangoa West, zinc data from drillholes support steep ESE and ENE anisotropic fields (Figure 1), further suggesting that the mineralisation, regardless of whether genetic/structural connections between the two ore zones exist, are steeply plunging and overall linear.

Figure 6. **3D model of Tangoa West prospect showing drill hole Zn assays and modelled 5.0% Zn anisotropic iso-surfaces (Ag and Pb assays are not shown).** Modelled anisotropic iso-surfaces based on drill assays, alteration vectors and dominant controlling structural (left diagram: 85° towards 105° – 3:3:1 & right diagram: 85° towards 60° – 3:3:1). Please note this modelling is conceptual.

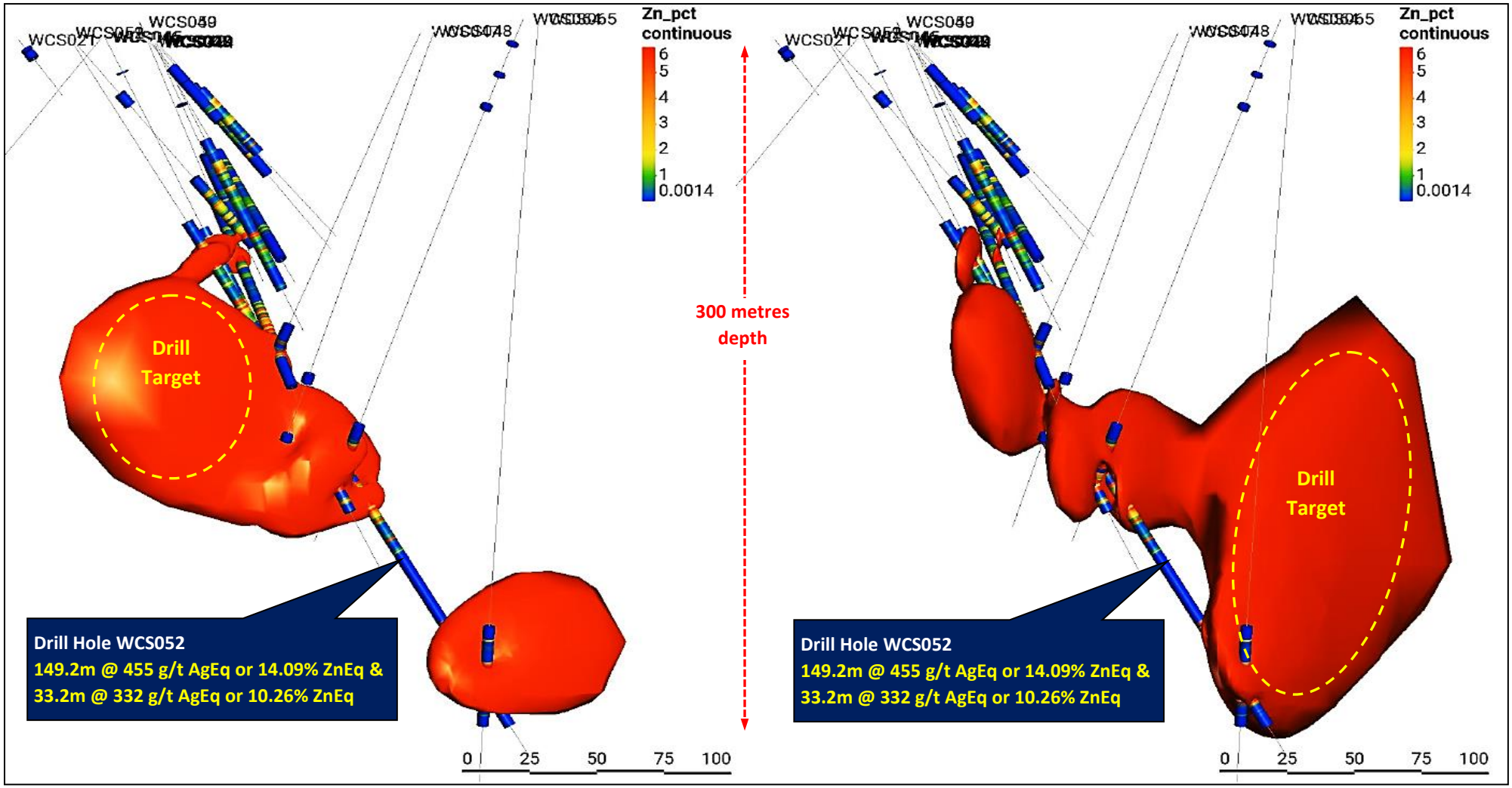


Figure 7. 3D model of Tangoa West prospect showing drill hole AgEq assays and interpreted lode (blue shell) as well as both modelled 5.0% Zn anisotropic iso-surfaces from Figures 6. Modelled anisotropic iso-surfaces based on drill assays, alteration vectors and dominant controlling structural (Orange shell: 85° towards 105° – 3:3:1 & right diagram: 85° towards 60° – 3:3:1). Please note this modelling is conceptual.

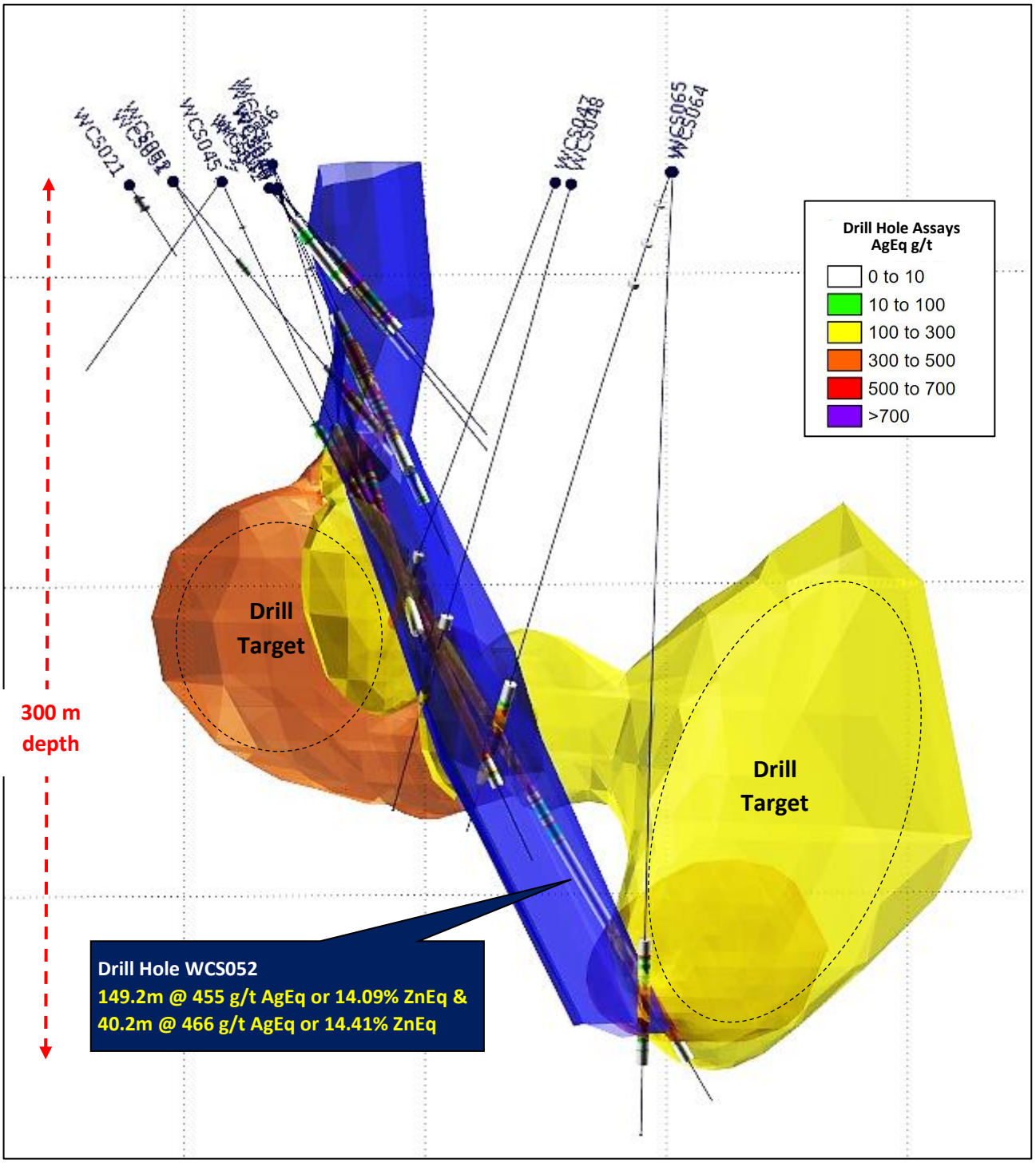


Table 1. Main drill intercepts to date at the Webbs Consol Silver Project

Hole	From (m)	To (m)	Interval (m)	AgEq[1] (g/t)	ZnEq[1] (%)	Ag (g/t)	Pb (%)	Zn (%)	Cu (%)	Prospect
WCS006	104.6	132.1	**27.5**	**357**	**11.03**	118	0.77	6.52	0.07	**Main Shaft**
WCS007	122.9	147.1	**24.2**	**273**	**8.46**	63	0.49	5.96	0.04	**Main Shaft**
WCS008	24.0	45.2	**21.2**	**44**	**1.36**	17	0.09	0.14	0.01	**Luck Lucy N**
WCS009	70.0	80.0	**10.0**	**77**	**2.39**	45	0.09	0.17	0.23	**Luck Lucy N**
WCS012	48.0	60.1	**12.1**	**282**	**8.73**	108	5.49	0.36	0.10	**Mt Galena**
WCS019	30.1	56.8	**26.7**	**351**	**10.86**	115	6.43	1.07	0.25	**Tangoa West**
WCS020	30.6	61.6	**31.0**	**192**	**5.95**	55	3.37	0.98	0.12	**Tangoa West**
WCS023	17.0	67.0	**50.0**	**244**	**7.56**	94	2.93	1.81	0.08	**Castlereagh**
WCS026	28.7	63.0	**34.3**	**46**	**1.43**	23	0.13	0.26	0.06	**Luck Lucy N**
WCS028	138.4	182.0	**43.6**	**83**	**2.58**	12	0.28	1.91	0.02	**Main Shaft**
WCS029	36.3	42.1	**5.8**	**41**	**1.26**	10	0.43	0.55	0.01	**Luck Lucy N**
WCS031	66.5	113.9	**47.4**	**112**	**3.47**	46	0.79	1.22	0.04	**Castlereagh**
WCS034	16.0	36.5	**20.5**	**210**	**6.51**	77	1.10	2.87	0.10	**Copycat**
WCS035	23.3	37.0	**13.7**	**214**	**6.62**	87	0.71	2.61	0.26	**Copycat**
WCS044	48.3	102.3	**54.0**	**245**	**7.57**	84	3.69	1.22	0.21	**Tangoa West**
WCS045	90.9	207.0	**116.1**	**721**	**22.33**	254	6.35	8.35	0.24	**Tangoa West**
WCS047	144.7	169.2	**24.5**	**971**	**30.06**	389	1.56	16.00	0.24	**Tangoa West**
WCS049	81.8	126.0	**44.2**	**221**	**6.85**	68	4.16	0.56	0.20	**Tangoa West**
WCS050	104.4	170.2	**65.8**	**755**	**23.37**	266	13.56	2.38	0.42	**Tangoa West**
WCS051	79.0	109.7	**30.7**	**289**	**8.95**	93	3.88	2.13	0.21	**Tangoa West**
WCS052A	98.0	247.2	**149.2**	**455**	**14.09**	183	3.13	5.19	0.19	**Tangoa West**
WCS052B	279.0	319.2	**40.2**	**466**	**14.41**	83	0.16	11.56	0.04	**Tangoa West**
WCS064	203.3	231.0	**27.7**	**407**	**12.60**	146	0.35	7.69	0.03	**Tangoa West**
WCS065	270.0	303.2	**33.2**	**332**	**10.26**	64	0.14	8.13	0.01	**Tangoa West**
WCS070	2.0	23.0	**21.0**	**122**	**3.76**	97	0.33	0.35	0.01	**WC North**
WCS071	10.0	23.0	**13.0**	**193**	**5.97**	82	0.36	3.03	0.01	**WC North**
WCS072	18.0	52.0	**34.0**	**82**	**2.54**	25	0.63	1.19	0.01	**WC North**
WCS074	75.0	88.0	**13.0**	**83**	**2.57**	20	0.49	1.45	0.01	**WC North**

The results of this research constrained ore genesis and comparisons with potentially similar vein/pipe-like Zn-Ag-Pb deposits within the NEFB and on a global scale. The observation of chloritised Fe-rich sphalerite mineralisation prevailing at greater depths, while sericitised Zn-Pb-As-rich mineralisation occur at shallower levels, aligns with earlier reports of a vertical zonation pattern of metals at Webbs Consol. We interpret that the lower, deeper chloritised Zn-rich zones have formed closer to hot fluid sources, perhaps at temperatures of up to 400 °C, resembling mesothermal mineralisation styles. In contrast, the upper ore zones may have formed under cooler conditions, promoting sericitisation in the 200-300 °C range.

Overall, we note similarities in terms of deposit geometry and mineralisation style compared to certain deposits associated with the Gilgai Granitic suites in the NEFB, such as the Conrad Mine. Additionally, similarities are noted with the Devonian Zeehan and Dundas Pb-Zn-Ag ore fields in Tasmania and several world-class deposits located in orogenic belts of Central/Eastern Asia and Northern America.

Table 2. Comparison of the Webbs Consol Silver and Base Metal Deposit with selected Australian and global base metal sulphide deposits of comparable origins.

Deposit	Region/Setting	Host/Association	Mineralisation style	Alteration style	Temperature	Age
Webbs Consol silver and base metal deposit[1]	New England Fold Belt (NSW)	Webbs Consol Leucogranite (A-type)	Vein-type, mostly within granites – Zn-Ag-Pb-Cu±As sulphides	Sericitic-chloritic (-kaolinitic)	c. 250-400 °C[2]	Early Triassic[2]
Gilgai Granite-related polymetallic deposits (including Conrad Mine)	New England Fold Belt (AUS)	Gilgai Granite (I type)[1]	Vein-type within granites – Pb-Zn-Ag-Cu-As±Mo±Sn sulphides1	Sericitic-chloritic-kaolinitic[1]	-	Early Triassic[1]
Mole Granite-related polymetallic deposits	New England Fold Belt (AUS)	Distal metasediments around Granite[1]	Uncertain, distal to granites – Zn-Pb-Ag±Cu sulphides[1]	Chloritic[1]	-	Early Triassic[1,4]
Zeehan and Dundas mineral fields (Zeehan, Magnet, Mount Farrell)	Western Tasmanian Granites (AUS)	Granite cupolas or ridges[5,6]	Vein-type – Pb-Zn-Ag sulphides[5,6]	Chloritic-sericitic[5,6]	-	Devonian[5,6]
Xiasiai Pb-Zn-Ag veins (among others)	Xiasai-Lianlong metallogenic belt (CHN)[7]	Rongyicuo granite and surrounding metasediments (A type)[7]	Vein-type – Pb-Zn-Ag sulphides[7]	Chloritic-sericitic[7]	c. 400-150 °C[7]	Cretaceous[7]
Shuangjianzishan, Bianjiadayuan, Bairendaba, and Weilasituo Pb-Zn-Ag deposits	Great Hinggan Range (CHN, MN)[8]	Metasediments[8]	Vein-type – Pb-Zn-Ag sulphides[8]	Chloritic-sericitic[8]	c. 200-300°C[8]	Jurassic-Cretaceous[8]
Kokanee Range Pb-Zn-Ag deposits	Kokanee Range[9]	Nelson batholith (I type) and surrounding metasediments[9]	Vein-type – Pb-Zn-Ag sulphides[9]	Chloritic-sericitic[9]	c. 300 °C[9]	Jurassic[9]

References

[1]Baumgartner, R.J., Schmid, S., Schaubs, P., 2023. Webbs Consol silver and base metal deposit characterisation, New England Fold Belt, NSW. CSIRO, EP2023-4798, 1-70.

[2]LDR announcement 18 July 2023 titled "CSIRO Collaboration Study"

[3]LDR announcement 10 August 2023 titled "Webbs Consol Silver Project Exploration Update"

[4]LDR announcement 9 October 2023 titled "High-Grade Drill Intercepts At Webbs Consol Silver Project"

[5]LDR announcement 16 October 2023 titled "Significant Drill Target Defined at WC Silver Project"

[6]LDR announcement 22 November 2023 titled "Drilling Commences On Large Surface Silver Anomaly"

[7]LDR announcement 19 February 2024 titled "Drilling at Webbs Consol North Delivers Solid Silver-Zinc Intercepts"

Zinc Equivalent Grades

Since the commencement of drilling at the Webbs Consol Silver Project it was deemed that silver was the appropriate metal for equivalent metal calculations as silver is the most common metal to all mineralisation zones. This is still the case however zinc is becoming increasing dominant with depth and therefore LDR has decided to calculate both silver and zinc equivalent grades to demonstrate overall grades. Metal equivalent figures are a simple way to demonstrate overall grade with a single figure thus making comparisons easier for investors. All assumptions and formulae are outlined in the JORC Code, 2012 Edition - Table 1 located in the Appendix of LDR announcement dated 19 February 2024 and titled "Drilling at Webbs Consol North Delivers Solid Silver-Zinc Intercepts"

Webbs Consol Project Overview

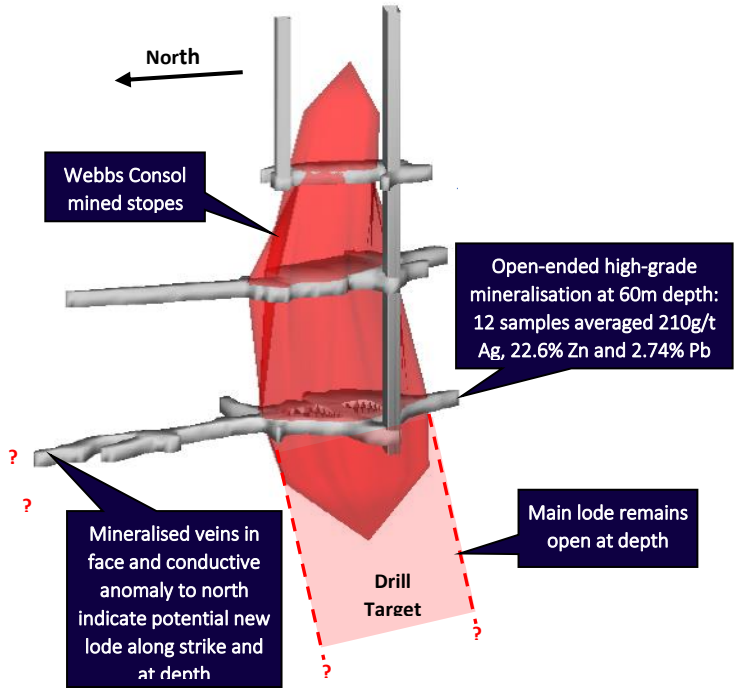
Located 16km west-south-west of Emmaville, Webbs Consol was discovered in 1890 with intermittent mining up to the mid-1950s. The Webbs Consol Project (EL8933) contains several small, high-grade, silver-lead-zinc-gold deposits hosted by the Webbs Consol Leucogranite, which has intruded the Late Permian Emmaville Volcanics and undifferentiated Early Permian sediments.

Several mine shafts were worked for the high-grade galena and silver content only, with high-grade zinc mineralisation discarded. Mineral concentration was via basic Chilean milling techniques and sluicing, with some subsequent rough flotation of galena carried out, however no attempt to recover sphalerite.

Ore mineralogy includes galena, sphalerite, marmatite, arsenopyrite, pyrite, chalcopyrite, minor bismuth, and gold. Chief minerals are generally disseminated but also high-grade "bungs" where emplacement is a combination of fracture infilling and country rock replacement. Gangue mineralogy includes quartz, chlorite and sericite with quartz occurring as veins and granular relicts.

Historical sampling shows potential for high-grade silver and zinc mineralisation at Webbs Consol, and it was reported that 12 spot samples taken from the lowest level of the main Webbs Consol shaft ("205' Level" or 60m depth) averaged 210g/t silver, 22.6% zinc and 2.74% lead. Epithermal style mineralisation occurs in 'en échelon' vertical pipe like bodies at the intersection of main north-south shear and secondary northeast-southwest fractures. No leaching or secondary enrichment has been identified.

Webbs Consol Main Shaft oblique view



Webbs Consol Main Shaft specimen showing coarse galena mineralisation

This announcement has been approved and authorised by Lode Resource Ltd's Managing Director, Ted Leschke.

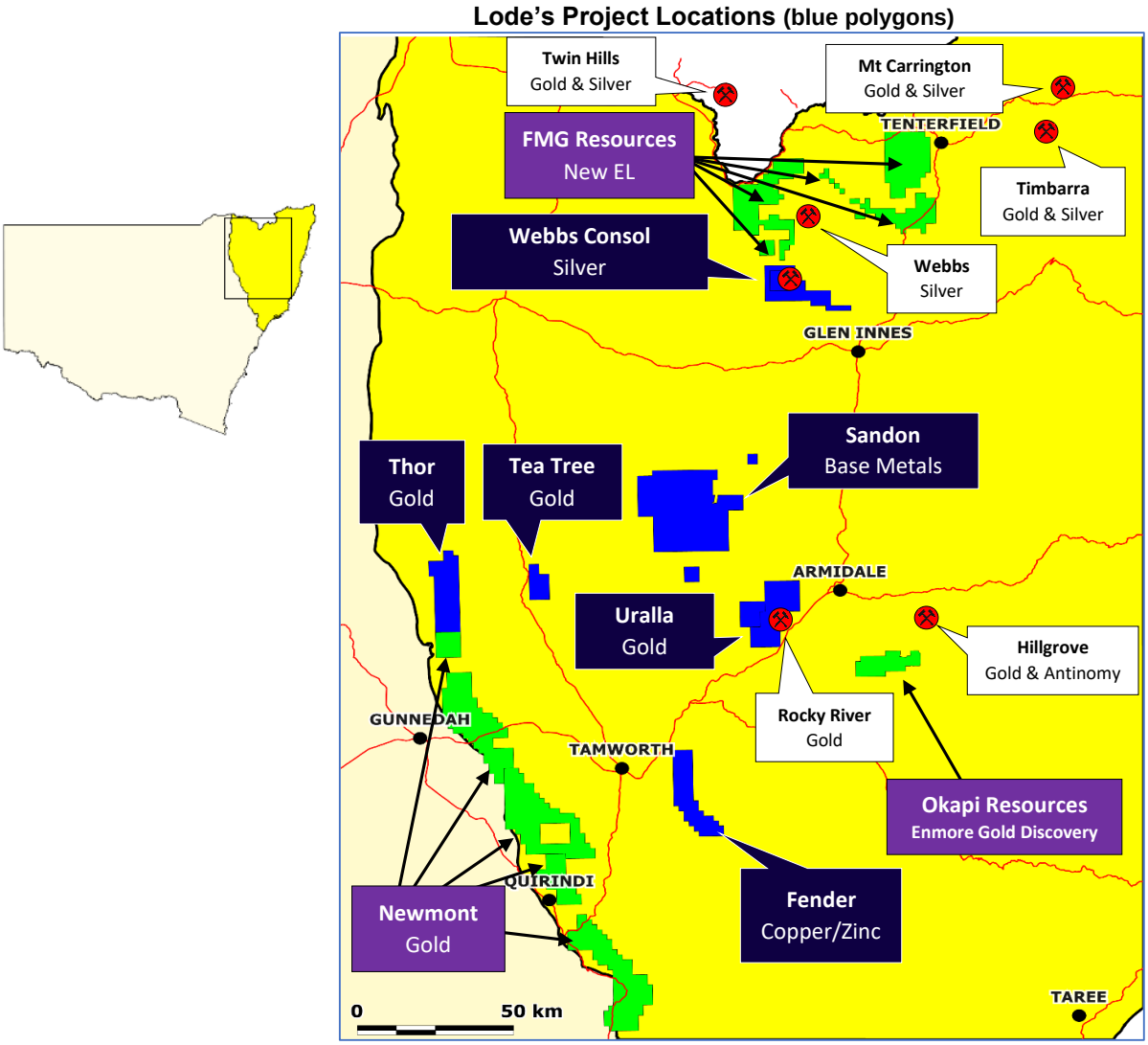
Competent Person's Statement

The information in this Report that relates to Exploration Results is based on information compiled by Mr Mitchell Tarrant, who is a Member of the Australian Institute of Geoscientists. Mr Tarrant, who is the Project Manager for Lode Resources, has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Tarrant has a beneficial interest as option holder of Lode Resources Ltd and consents to the inclusion in this Report of the matters based on the information in the form and context in which it appears.

About Lode Resources (ASX:LDR)

Lode Resources is an ASX-listed explorer focused on the highly prospective but under-explored New England Fold Belt in north-eastern NSW. The Company has assembled a portfolio of brownfield precious and base metal assets characterised by:

- 100% ownership;
- Significant historical geochemistry and/or geophysics;
- Under drilled and/or open-ended mineralisation; and
- Demonstrated high-grade mineralisation and/or potential for large mineral occurrences.



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