aurelia METALS

The Dominion and Federation discoveries at Nymagee, NSW: An evolving exploration story

A.R. McKinnon & S.W. Munro

GOLD | LEAD | ZINC | SILVER | COPPER

This presentation should not be considered as an offer or invitation to subscribe for or purchase any securities in the Company or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this presentation.

This presentation may contains forward-looking statements and projected drilling schedules that are not based on historical fact, including those identified by the use of forward-looking terminology containing such words as “believes”, “may”, “will”, “estimates”, “continue”, “anticipates”, “intends”, “expects”, “should”, “schedule”, “program” , “potential” or the negatives thereof and words of similar import. Management of AMI cautions that these forward-looking statements are subject to risks and uncertainties that could cause actual events or results to differ materially from those expressed or implied by the statements. Management believes that the estimates are reasonable, but should not unduly be relied upon. AMI makes no representation, warranty (express or implied), or assurance as to the completeness or accuracy of these projections and, accordingly, expresses no opinion or any other form of assurance regarding them. Management does not intend to publish updates or revisions of any forward-looking statements included in this document to reflect Aurelia’s circumstances after the date hereof or to reflect subsequent market analysis.

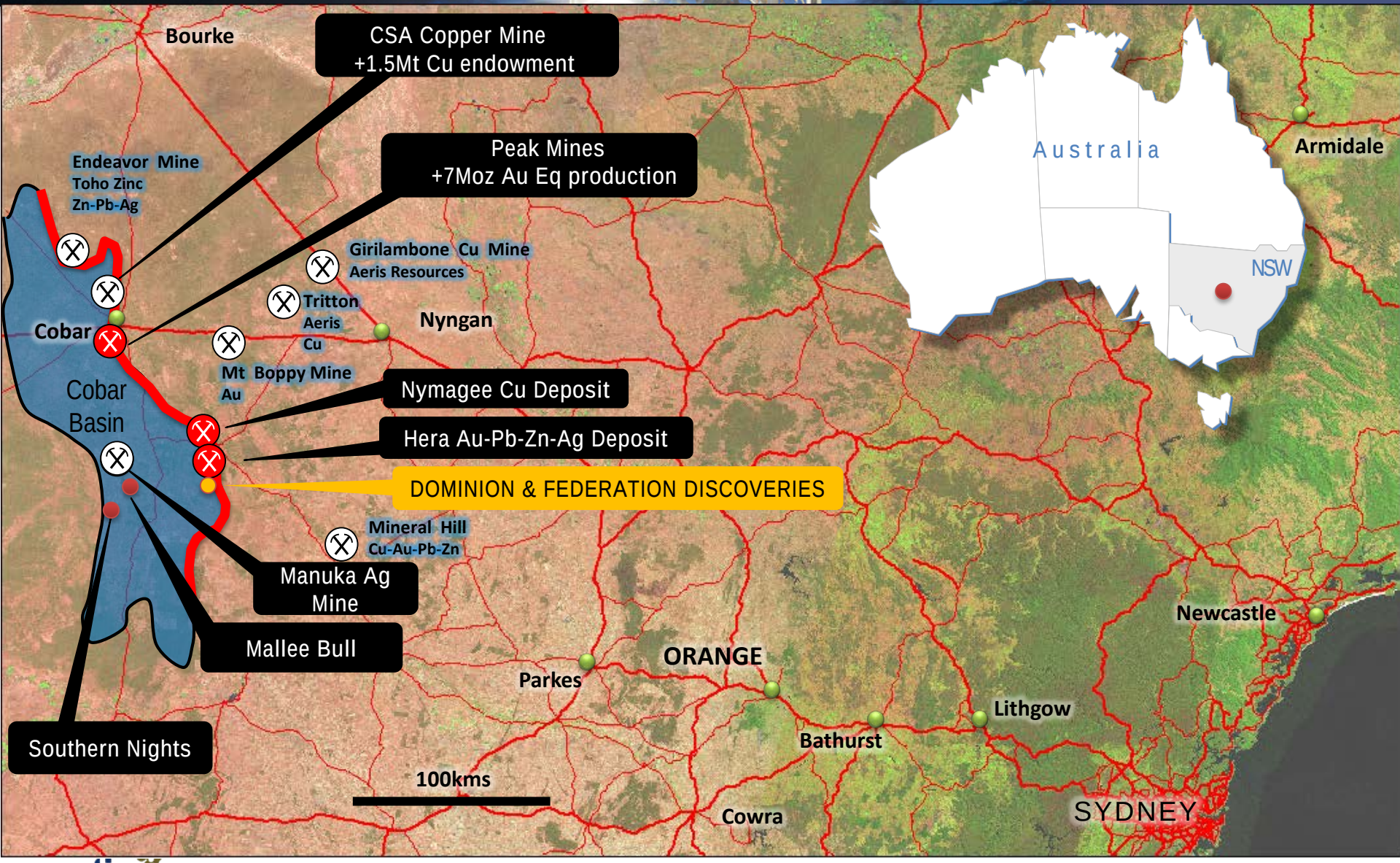
By its very nature exploration for gold and base metals is a high risk business and is not suitable for certain investors. AMI securities are speculative. Potential investors should consult their stockbroker or financial advisor. There are a number of risks, both specific to AMI and of a general nature which may affect the future operating and financial performance of AMI and the value of an investment in AMI including and not limited to economic conditions, stock market fluctuations, gold, copper, lead, zinc and silver price movements, regional infrastructure constrains, securing drilling rigs, timing of approvals from relevant authorities, regulatory risks, operational risks, reliance on key personnel and foreign currency fluctuations. You should not act or refrain from acting in reliance on this presentation material.

This overview of AMI does not purport to be all inclusive or to contain all information which its recipients may require in order to make an informed assessment of the Company’s prospects. You should conduct your own investigation and perform your own analysis in order to satisfy yourself as to the accuracy and completeness of the information, statements and opinions contained in this presentation before making any investment decision.

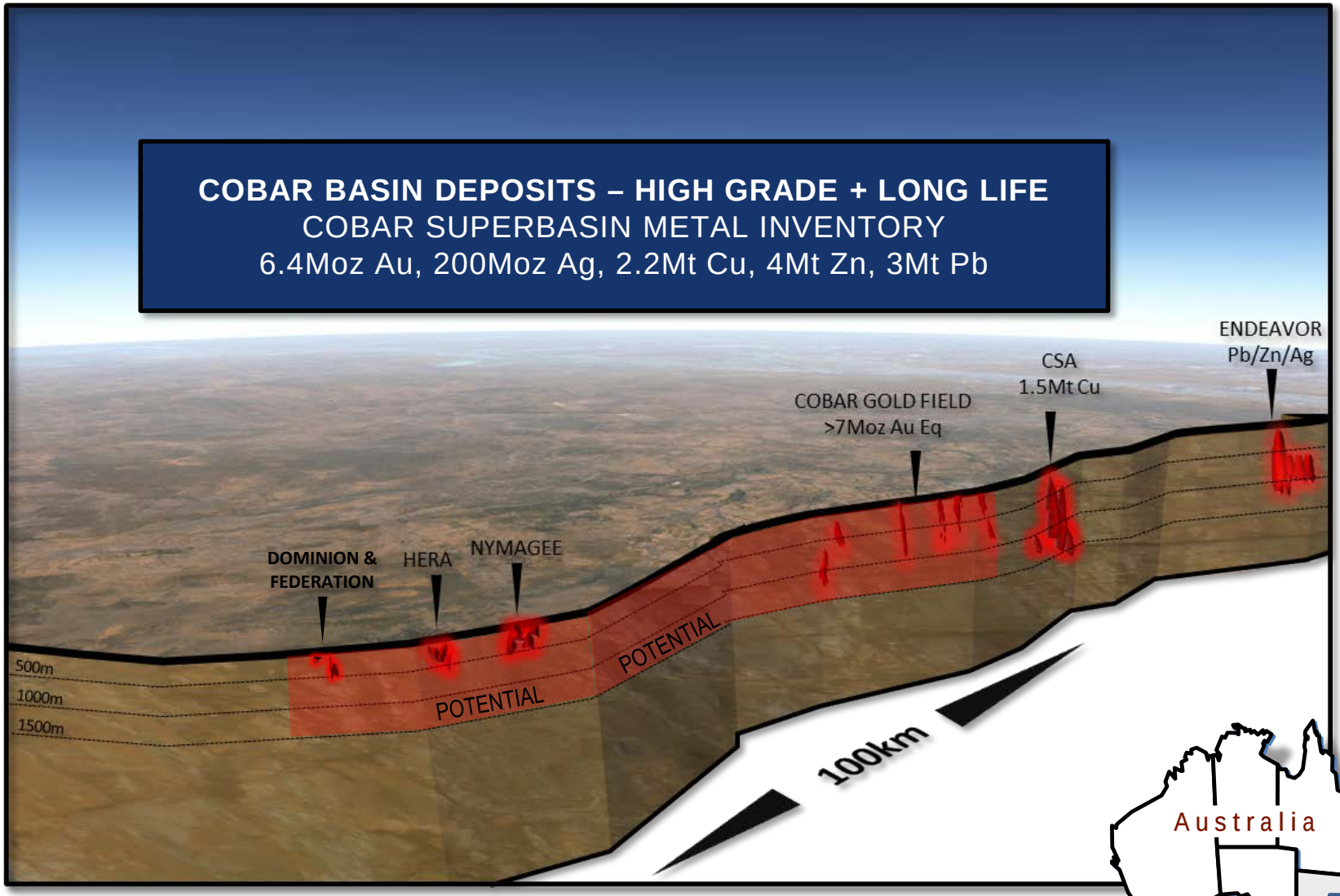
Overview of Presentation

- Location and geological setting
- Previous exploration in the Dominion/Federation area
- Recent work by Aurelia Metals:
  - *The discovery at the Dominion prospect (2018)*
  - *The discovery at the Federation prospect (2019)*
- Geological and geophysical observations
- Further work and conclusions

Location

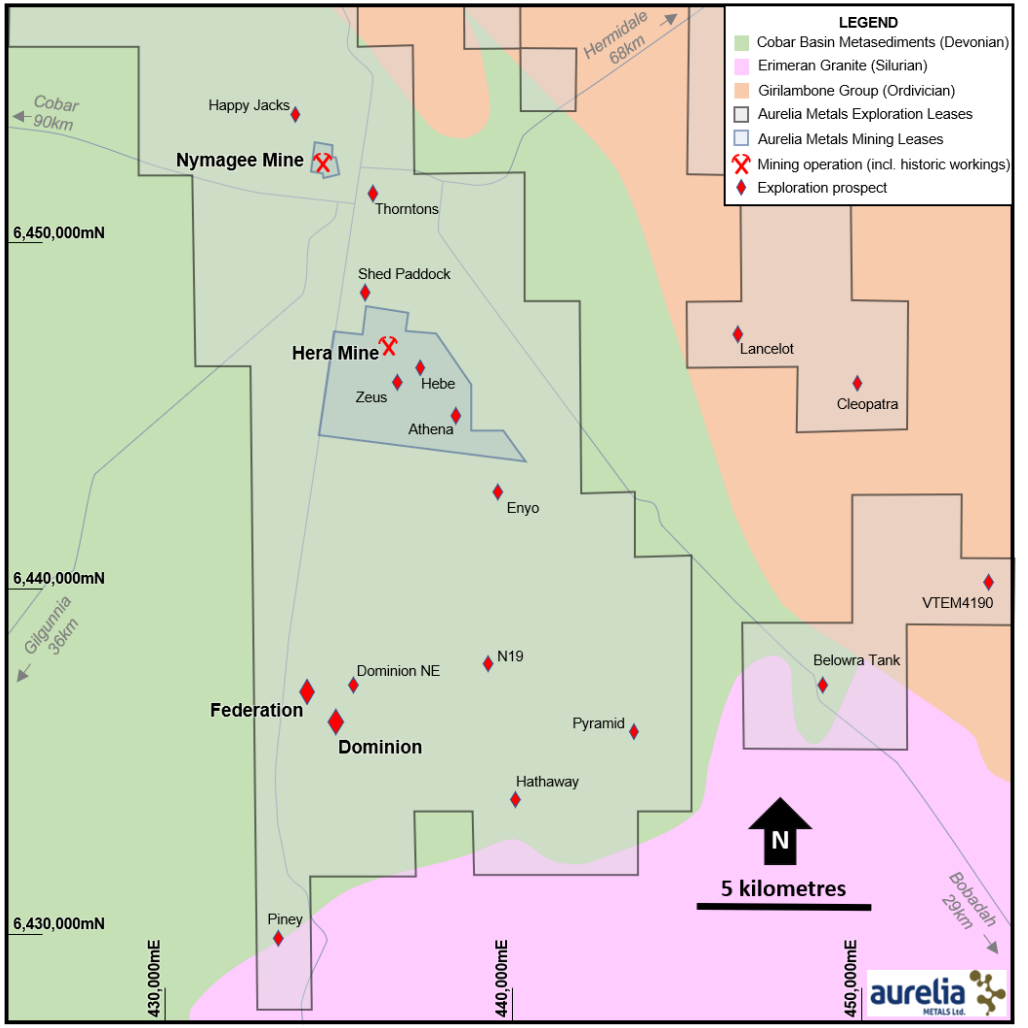

Bourke
CSA Copper Mine
+1.5Mt Cu endowment
Peak Mines
+7Moz Au Eq production
Endeavor Mine
Toho Zinc
Zn-Pb-Ag
Girilambone Cu Mine
Aeris Resources
Tritton
Aeris
Cu
Nyngan
Cobar
Mt Boppy Mine
Au
Cobar
Basin
Nymagee Cu Deposit
Hera Au-Pb-Zn-Ag Deposit
DOMINION & FEDERATION DISCOVERIES
Mineral Hill
Cu-Au-Pb-Zn
Manuka Ag
Mine
Mallee Bull
Southern Nights
Australia
NSW
Armidale
Newcastle
ORANGE
Parkes
Lithgow
Bathurst
100kms
Cowra
SYDNEY

Eastern Cobar Basin - Schematic



Nymagee Region - Geology

- Mineralisation in the region hosted in folded sandstones and siltstones
- The Dominion and Federation prospects occur close to the contact with the Erimeran granite to the south.
- Low-middle greenschist facies metamorphism with moderately well-developed, near vertical cleavage
- Cleavage development in the Dominion and Federation area is subtler than at Hera and Nymagee
- Mineralisation dominantly structurally controlled, minor bedding control also locally evident



Simplified geology of the Nymagee region showing the location of the Federation and Dominion Prospects

Discovery History – Dominion and Federation

Exploration summary for the Dominion and Federation areas

Company	Year	Milestone
Dominion Mining	1993	Anomalous Pb and Au identified in regional lag sampling in the area
Pasminco	2000	Discovery of the Hera Au-Pb-Zn-Au deposit 10 kilometres to the north
Triako Resources	2005-2006	Soil and rock chip geochemistry, limited IP survey completed at Dominion
YTC Resources	2010	Identification of a coherent north-trending Pb-Zn-Au-As-Sb anomaly in soil and rock chips at Dominion
	2010-2012	More than 1,900 metres of RC and diamond drilling completed at Dominion over a 500 metre strike, with minor sub-economic sulphides intercepted
	2012	Fixed loop EM at Dominion and Federation - no bedrock conductors detected
	2013	Four RC holes drilled at Federation, 1 km NW of Dominion, with minor sub-economic mineralisation encountered
Aurelia Metals (formerly YTC Resources)	July 2018	Discovery of auriferous gossan at Dominion during reconnaissance by Aurelia geologists
	September 2018	**Broad zones of oxide and transitional base metal mineralisation discovered in RC drilling at Dominion**
	February 2019	A 25.7 line-km pole-dipole IP survey is completed in the area
	February/March 2019	Follow up drilling identifies first significant sulphide Cu and Pb+Zn mineralisation at Dominion
	April 2019	**Discovery of high grade lead-zinc-(gold) mineralisation at Federation**
	June 2019	High grade polymetallic mineralisation extended to at least 500 metres below surface at Federation

The Dominion Discovery

View looking northeast (uphill) at the Dominion discovery site. Gold-bearing gossan was identified adjacent to the termite mound on the right of the picture.

- Dominion occurs on the southwest slope of a locally prominent ENE-WSW trending topographic rise
- No known historic workings
- Small gossan outcrop with visible gold discovered during reconnaissance by AMI geologists
- Gossan also identified to the north by YTC although not auriferous
- Area initially hand-excavated to access rock chip samples and to define orientation
- A general NNE strike and steep easterly dip was indicated in the excavation
- Trend crosscuts ENE-WNW bedding

The Dominion Discovery

View looking north of the hand-excavated auriferous gossan at Dominion (left), with in situ sampling locations shown (right).

The Dominion Discovery

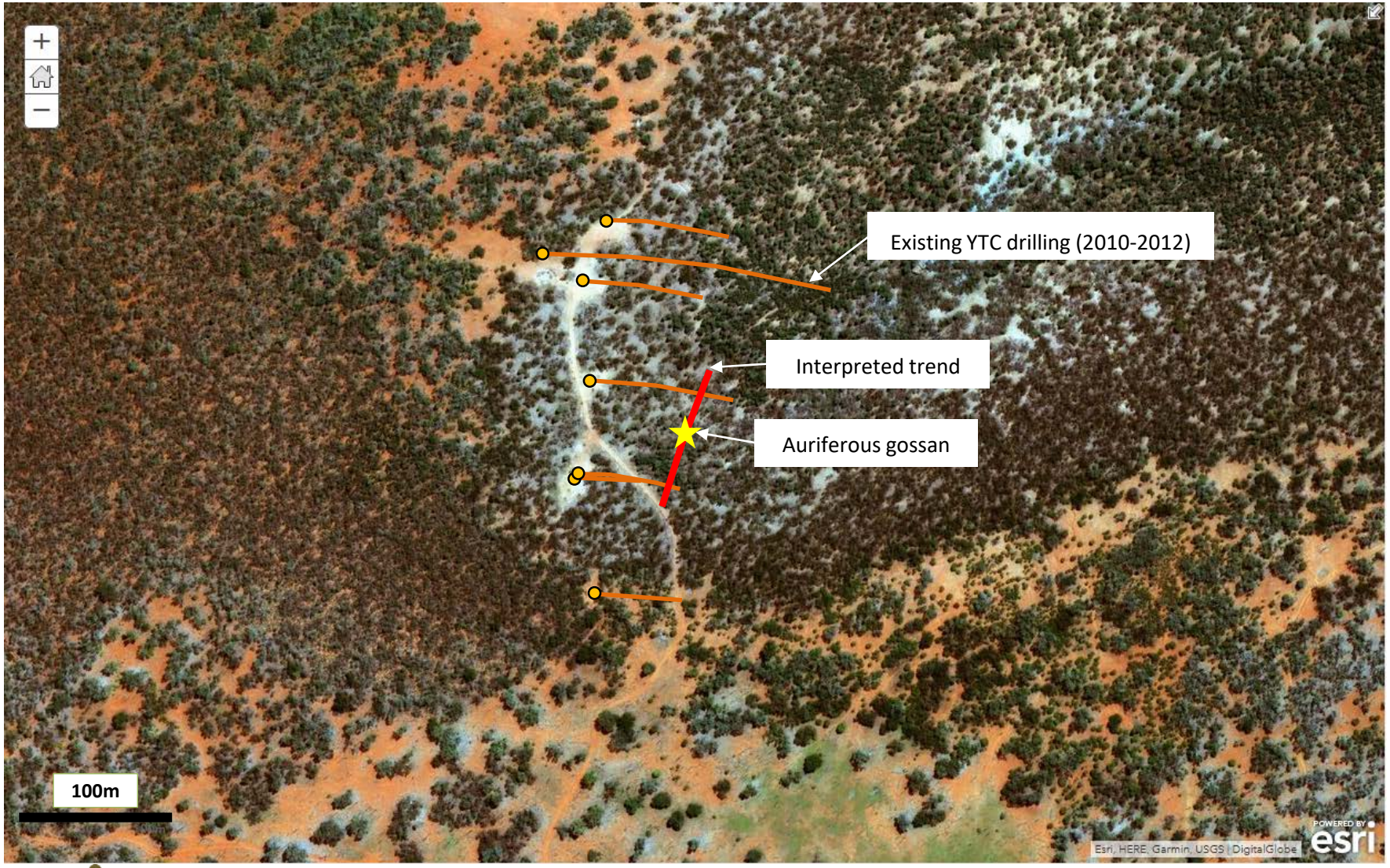
Visible gold in cut gossan samples from the Dominion prospect

Dominion Gossan Sampling

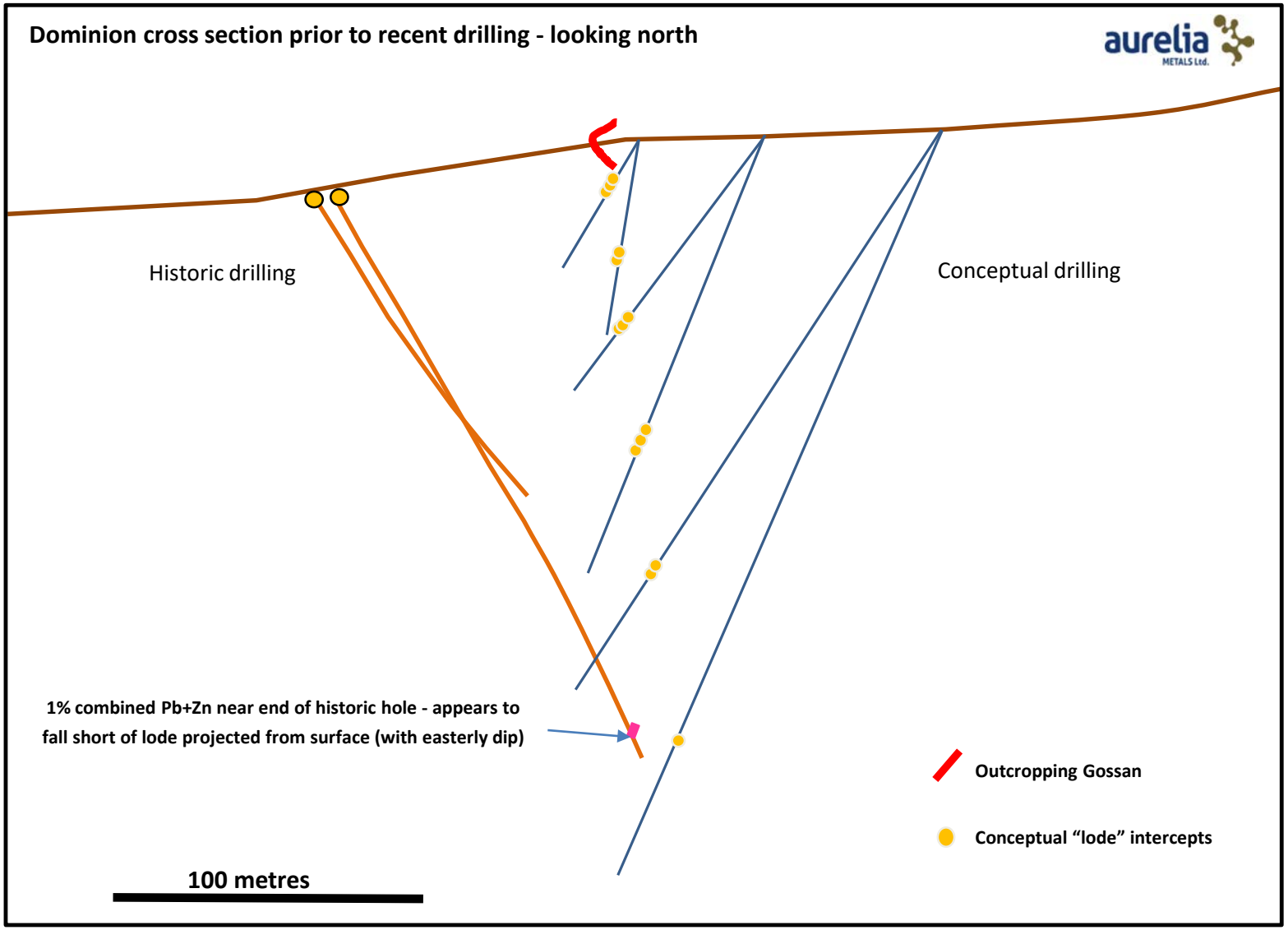
Sample ID	Sample Wt	Average Au*	Pb	Zn	Cu	Ag	Sample Type	Category Average
	kg	g/t	%	%	%	g/t		
DM01704	1.52	682.0	1.8	0.8	0.8	103.0	*Insitu* Gossan	***Insitu* gossan average = 85.9g/t, 2.1% Pb, 0.7% Zn, 0.8% Cu & 13g/t Ag**
DM01705	1.70	158.0	1.7	0.7	0.7	12.6		
DM01706	1.00	2.2	2.6	0.7	0.7	3.6		
DM01707	1.86	2.9	1.8	0.7	0.6	2.0		
DM01708	2.08	4.0	1.6	0.7	0.8	1.5		
DM01709	2.78	3.3	1.1	0.7	1.0	1.9		
DM01710	2.66	2.5	4.0	0.6	0.7	0.8		
DM01711	2.96	1.4	1.2	0.8	0.8	1.0		
DM01712	2.20	1.9	3.8	0.6	0.8	1.1		
DM01713	2.40	0.7	0.9	0.6	0.7	0.3		
DM01715	2.88	1.9	1.1	0.7	0.9	1.2	Loose Gossan Samples	**Loose gossan average = 21.7g/t, 2.2% Pb, 0.7% Zn, 0.8% Cu & 3g/t Ag**
DM01716	2.30	3.3	0.8	0.7	1.0	1.6		
DM01717	2.34	76.2	2.8	0.7	0.7	7.8		
DM01718	2.64	5.4	3.3	0.6	0.7	1.7		
DM01719	3.82	6.4	2.0	0.7	0.6	2.8		
DM01720	2.20	35.2	2.4	0.8	0.7	3.2		
DM01721	3.70	35.1	1.7	0.6	0.9	3.3		
DM01722	3.38	10.0	3.3	0.7	0.7	2.3		
DM01714	0.52	0.21	0.1	0.0	0.0	<0.5	Termite Mound	**Termite mound average = 0.21g/t Au**

*Each sample assayed in triplicate for Au

The Dominion Discovery – Existing Drilling



Dominion Drilling – Conceptual Approach

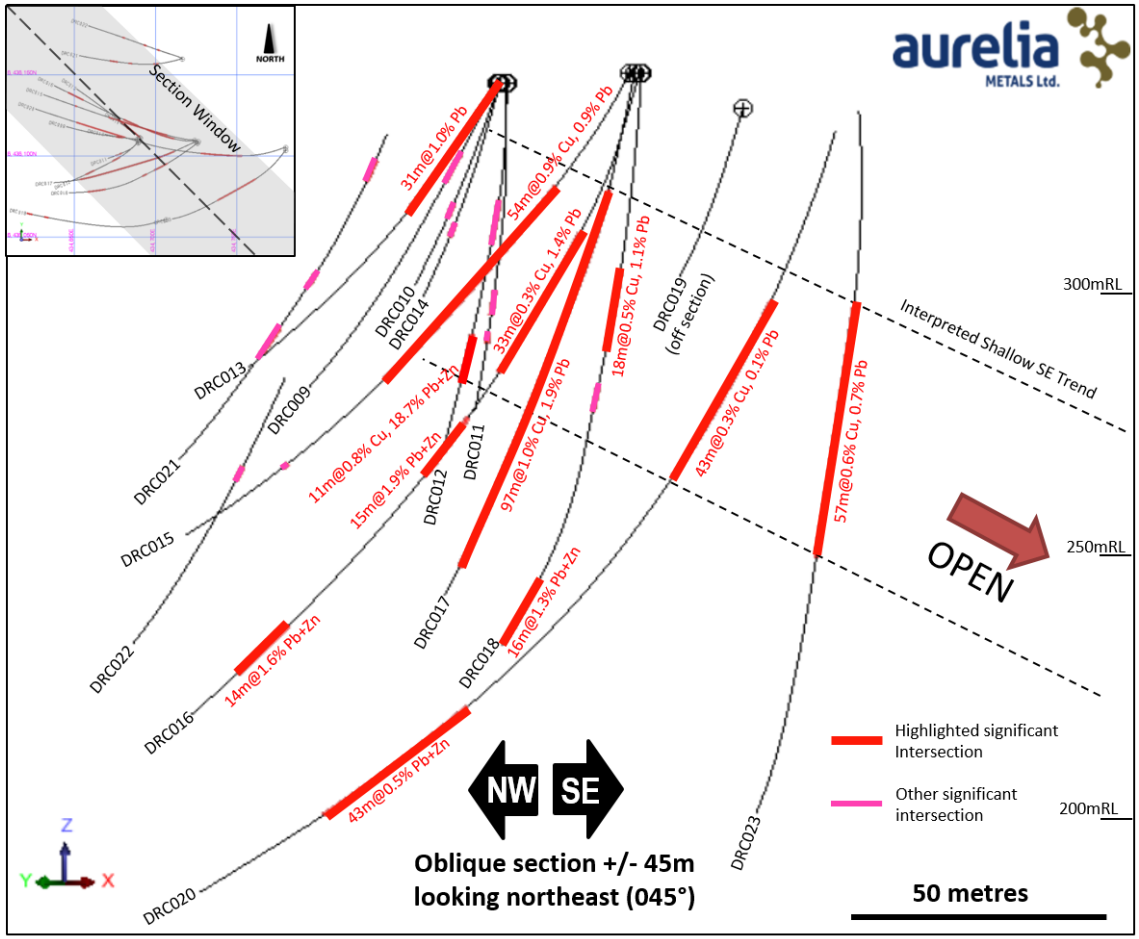


The Dominion Discovery – RC Drilling

Ferruginous siltstone and mineralised limonitic gossan intercepted in the first Aurelia RC hole at the Dominion prospect.

- Initial drilling program of 15 RC holes
- Gossan intercepted in first RC hole, collared 16m from outcrop
- Mineralised zone more extensive and complex than envisaged
- Host is variably ferruginised and silicified siltstones and sandstones with locally intense foliation
- Mineralisation mostly supergene or transitional in nature
- Dominant mineralogy includes malachite, azurite, cuprite, cerussite, pyromorphite, smithsonite and secondary copper sulphides

The Dominion Discovery – RC Drilling



Section showing the extensive nature of the supergene mineralised zones in the initial drilling at Dominion.

Broad zones of mineralisation intercepted at Dominion, including:

97m at 1.0% Cu & 2.4% Pb+Zn from 28m

54m at 0.9% Cu & 0.9% Pb+Zn from 29m

57m at 0.6% Cu & 0.8% Pb+Zn from 53m

33m at 0.3% Cu & 1.5% Pb+Zn from 36m

11m at 0.8% Cu & 18.7% Pb+Zn from 60m

5m at 4.7% Cu & 0.5% Pb+Zn from 41m

Original YTC drilling missed high grade mineralisation by less than 50 metres!

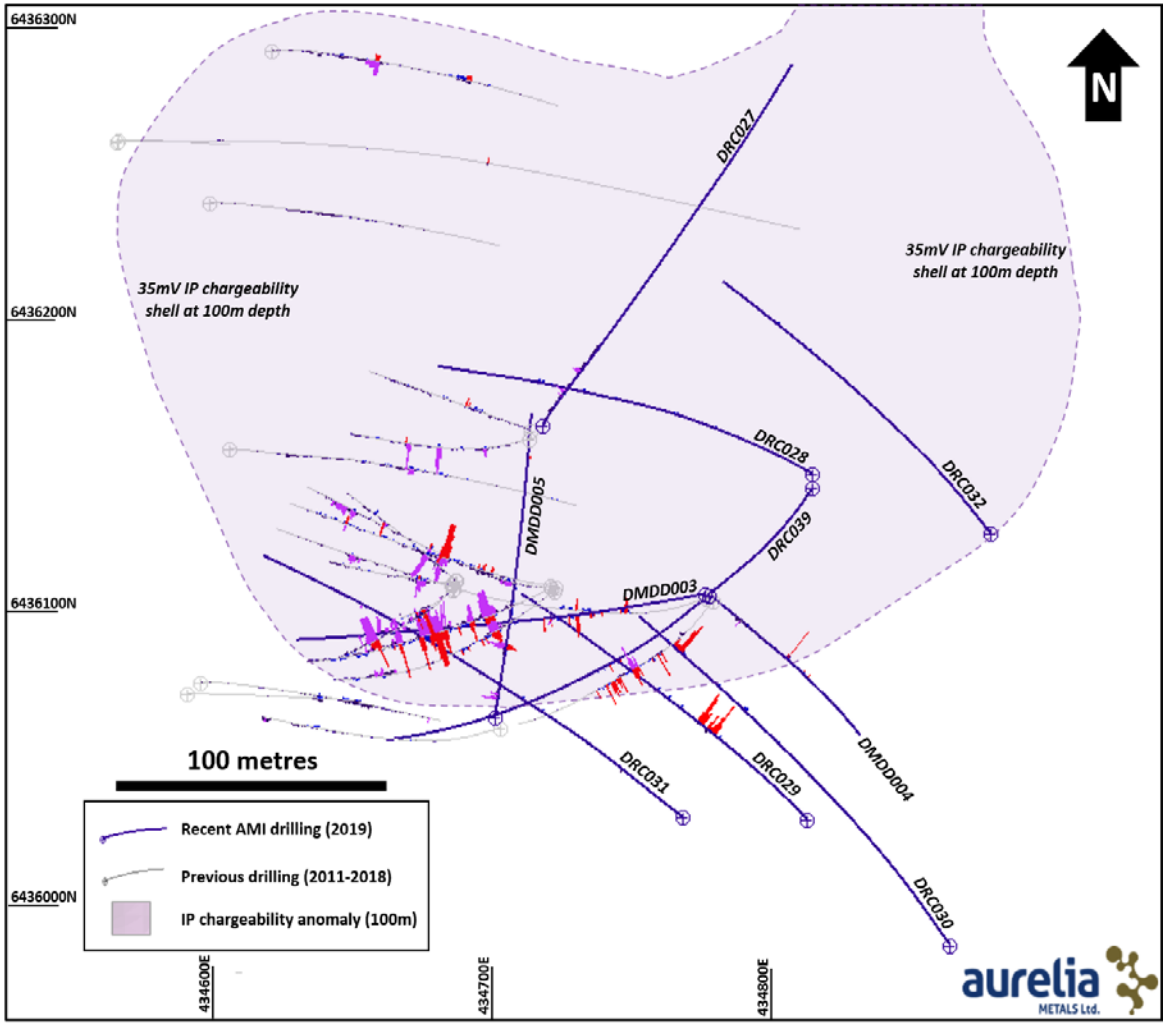
The Dominion Discovery – 2019 drilling

- Follow-up diamond and RC drilling conducted at Dominion in early 2019
- Significant sulphide mineralisation intercepted for first time, including:

  18m at 1.5% Cu from 88m, includes
  *5m at **2.8% Cu** from 101m*

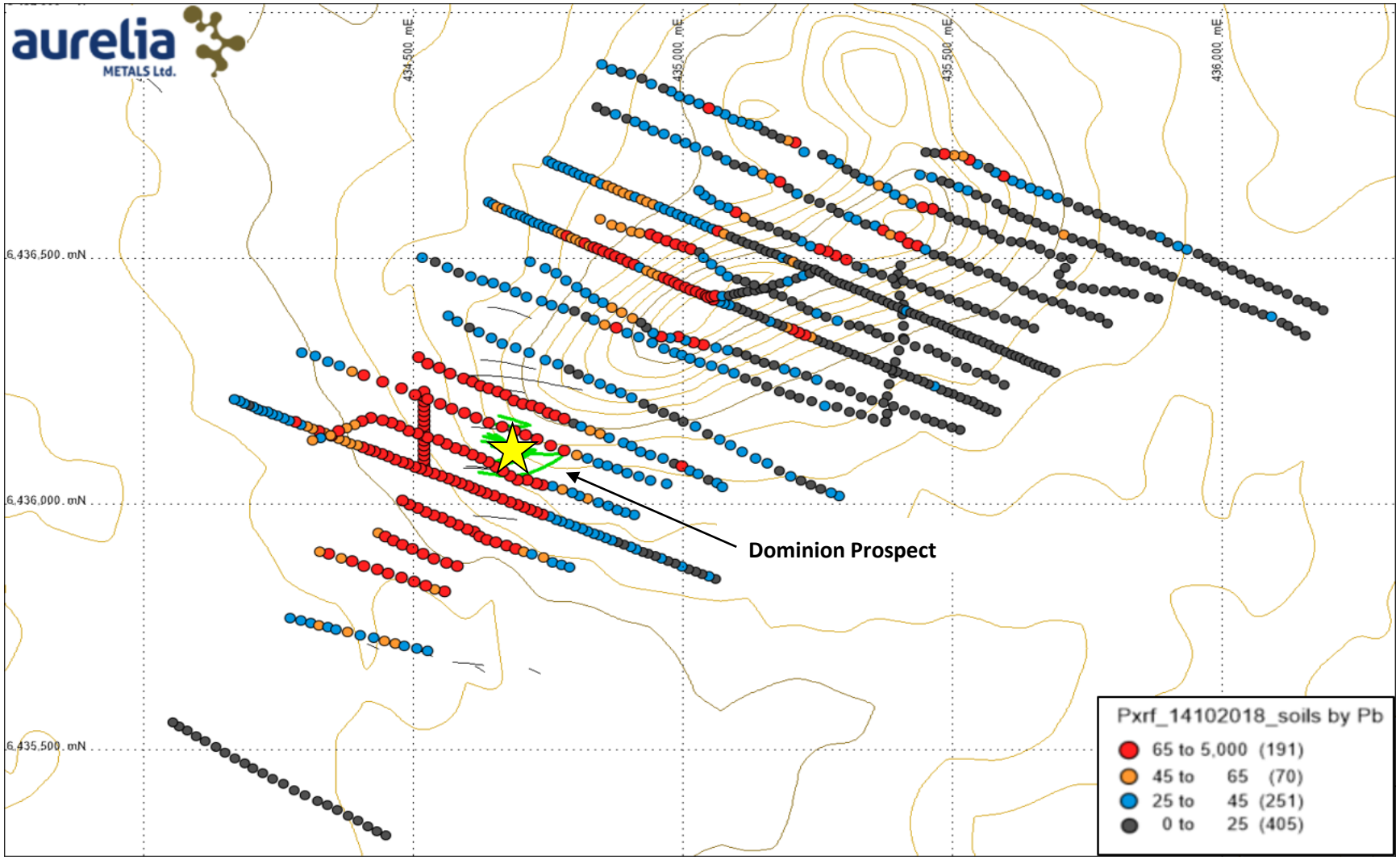
  *5m at **2.2% Cu** from 241m*

  *6m at **3.4% Pb+Zn** from 140m*
- Complex metal zonation evident
- Remains open in multiple directions, including at depth
- High grade gold not encountered at depth (to date)



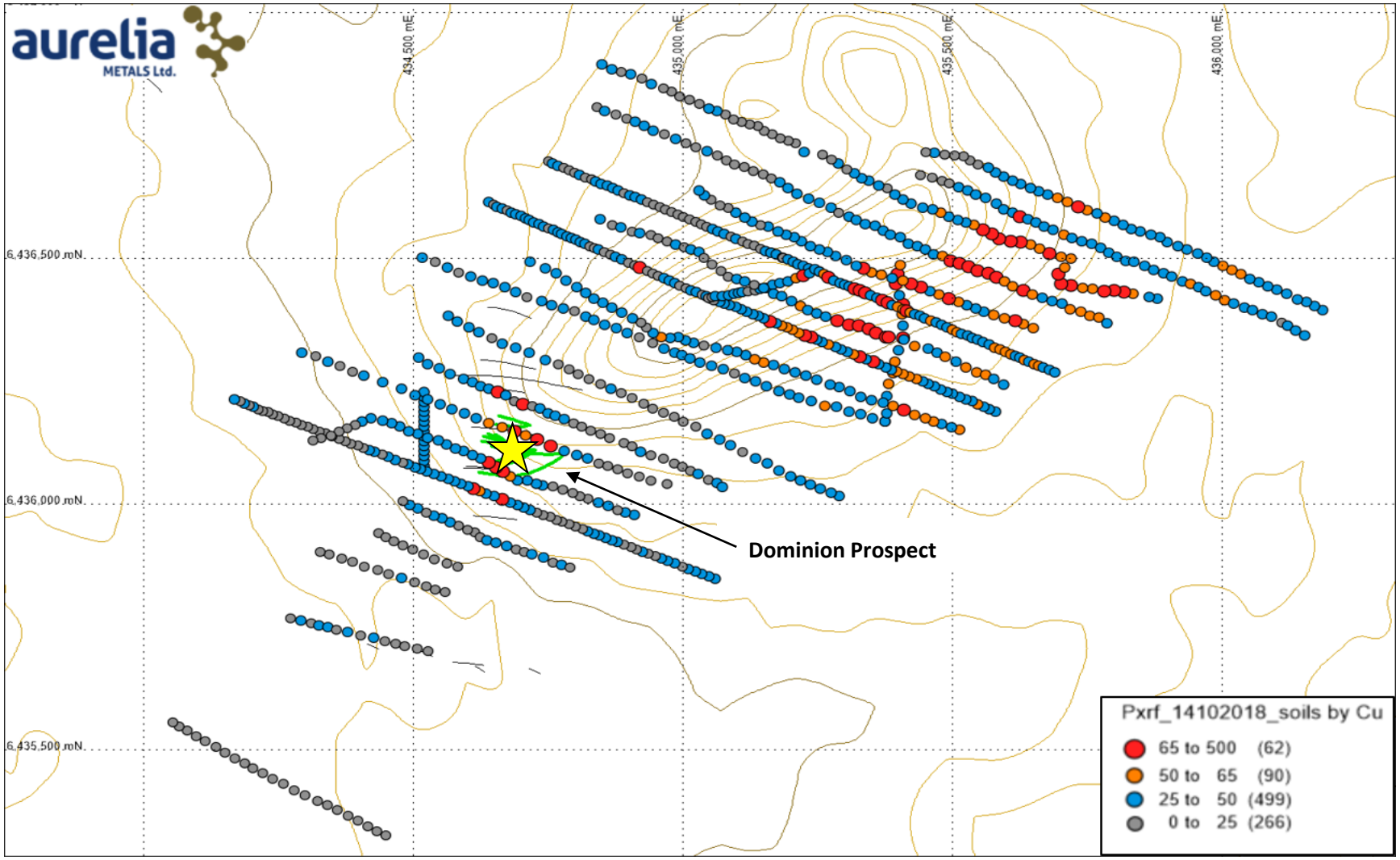
Plan view of the Dominion area showing the 3D IP chargeability shell at 100 metres depth. Down hole Cu assays > 0.5% are shown as red bars, Pb+Zn assays > 1.0% are shown as purple bars.

The Dominion Discovery – pXRF Soil Sampling



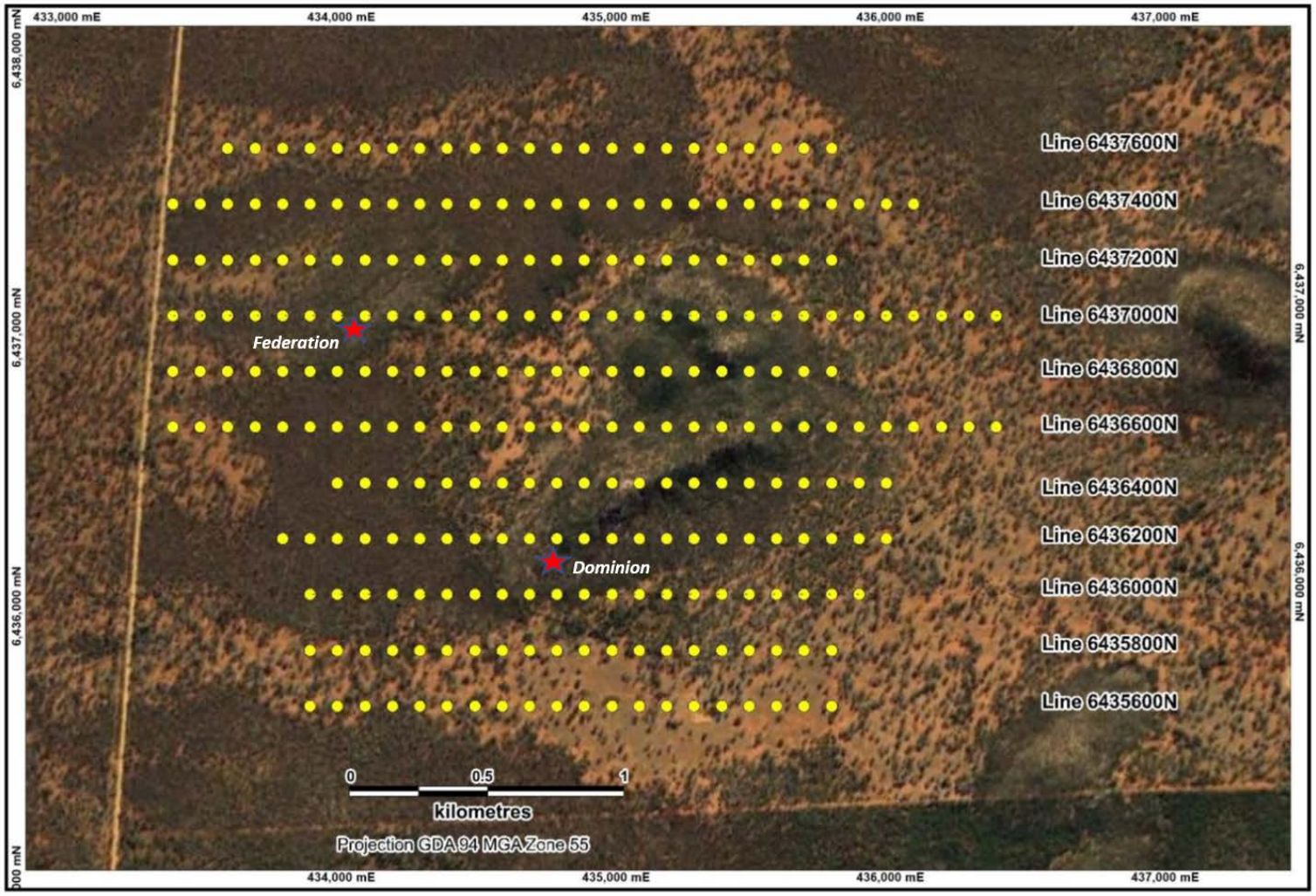
Lead (Pb) in soils by portable XRF in the Dominion area.

The Dominion Discovery – pXRF Soil Sampling



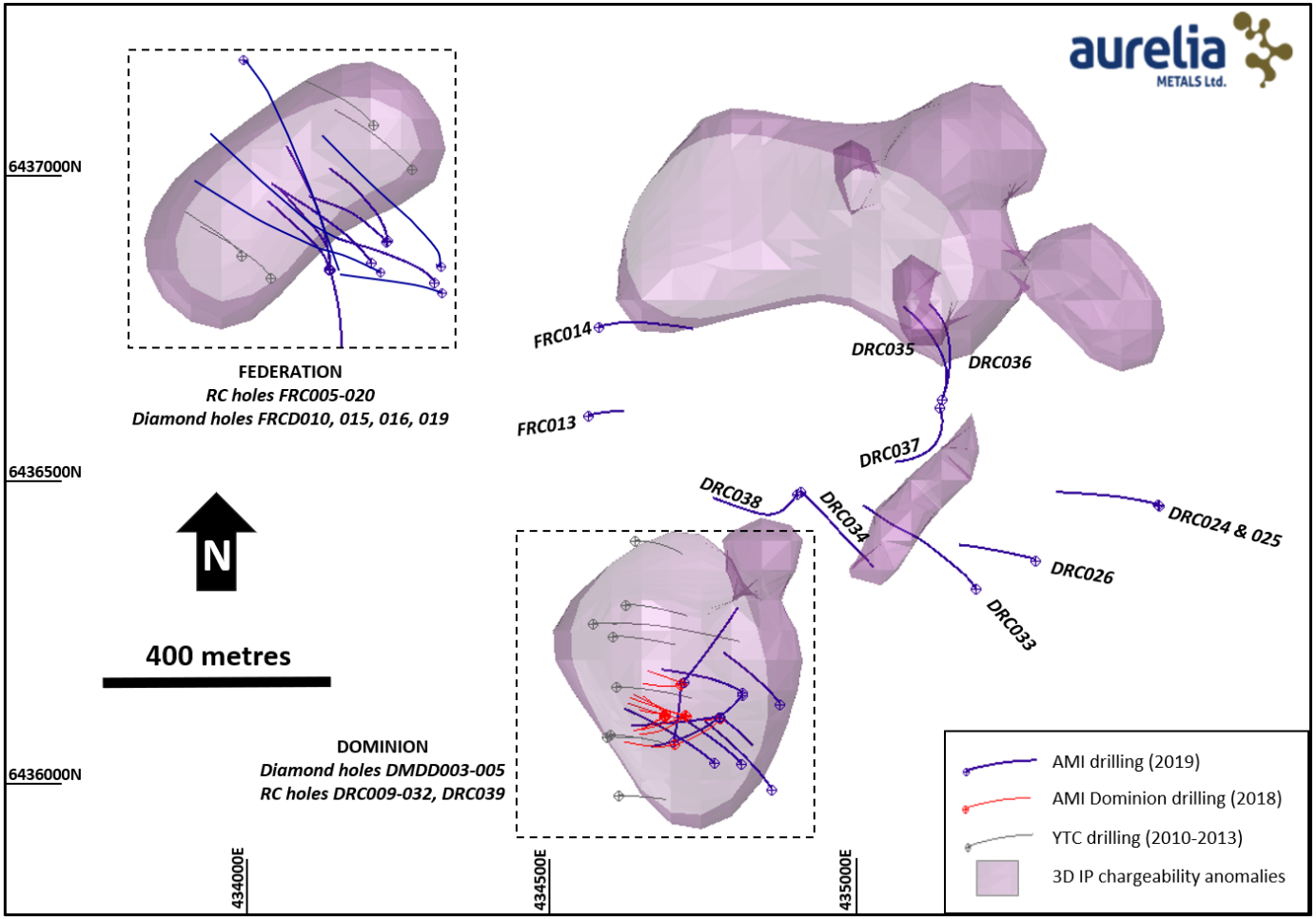
Copper (Cu) in soils by portable XRF in the Dominion area.

Dominion and Federation – Induced Polarisation



Stations for the 25.7 line-kilometre pole-dipole induced polarisation (IP) geophysical survey over the Dominion and Federation areas.

Dominion and Federation – Induced Polarisation



Plan showing drilling completed by Aurelia Metals (AMI) since September 2018 in the Dominion and Federation areas, along with historic drilling by YTC Resources. Modelled 3D IP chargeability anomalies (35mV) identified in the 2019 survey are also shown.

The Federation Discovery

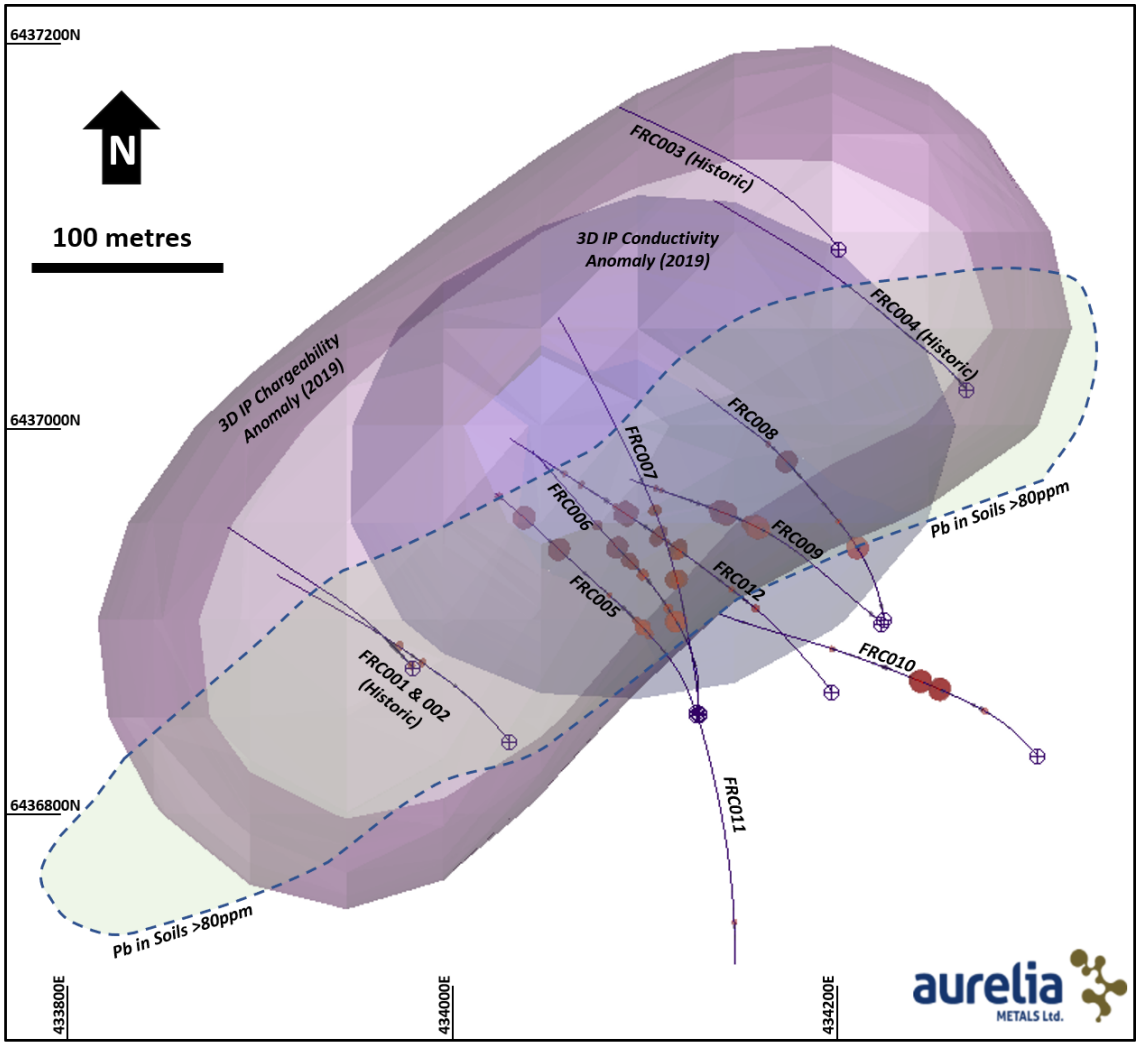
- Federation prospect located 1km northwest of Dominion
- Strong coincident chargeability and conductivity IP features modelled
- Good correlation with Pb and Au soil anomalies
- Initial program of eight RC holes commenced in March 2019
- Six of the holes returned high grade mineralisation, including:

11m at 11.0% Pb+Zn, 1.5g/t Au,
*incl. 5m at **22.6% Pb+Zn**, **3.1g/t Au***

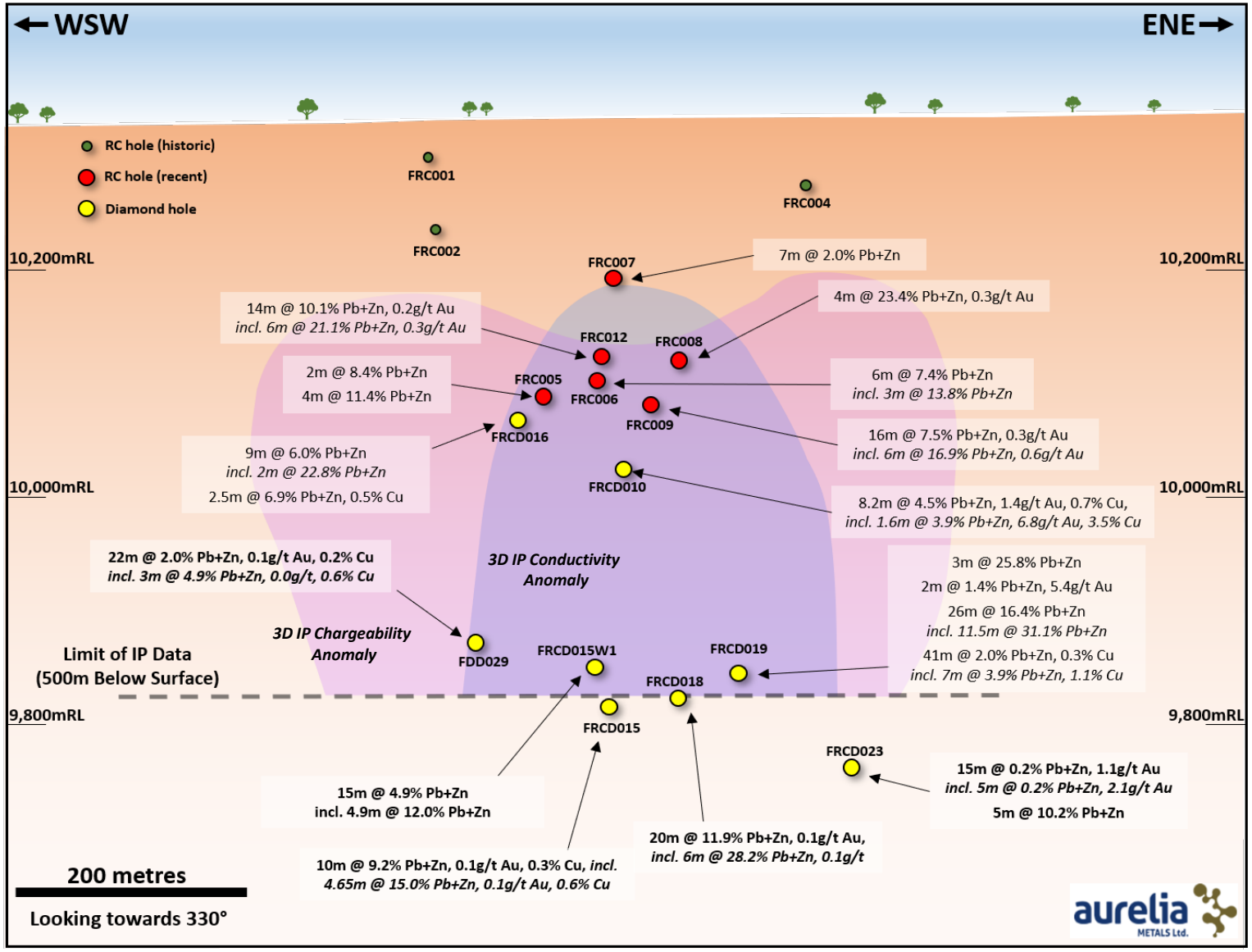
14m at 10.1% Pb+Zn, 0.2g/t Au,
*incl. 6m at **21.1% Pb+Zn**, 0.3g/t Au*

16m at 7.5% Pb+Zn, 0.3g/t Au,
*incl. 5m at **16.9% Pb+Zn**, 0.6g/t Au*

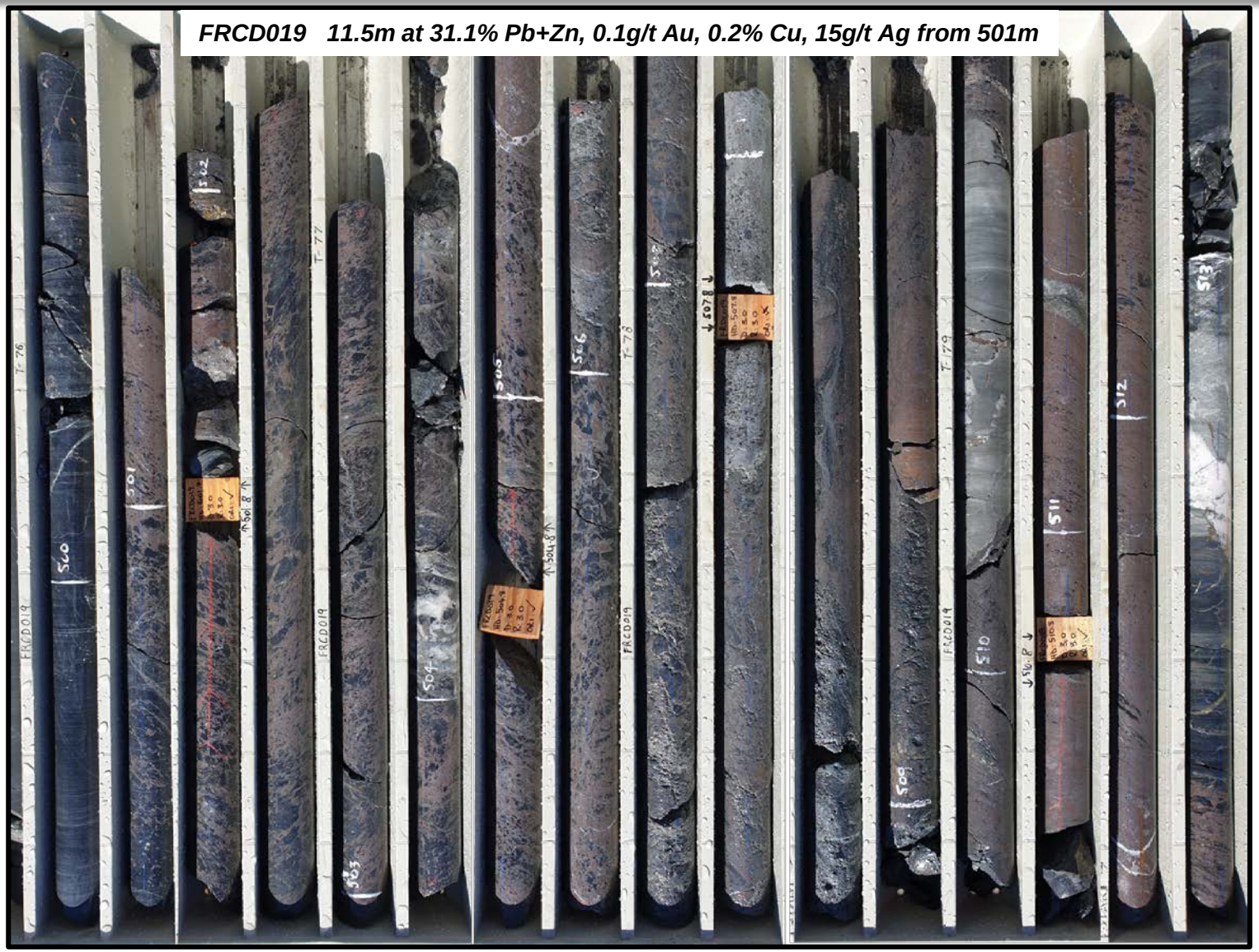
4m at **23.4% Pb+Zn**, 0.3g/t Au



The Federation Discovery



The Federation Discovery



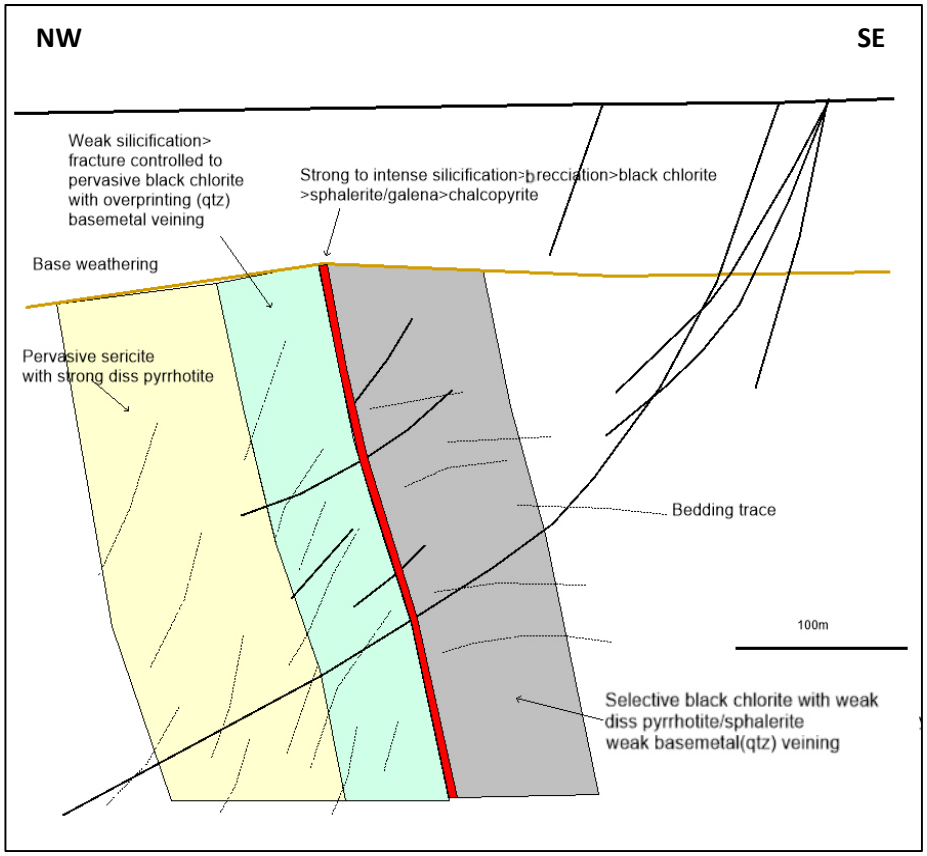
Composite photograph showing a zone in diamond hole FRCD019 with semi-massive and massive zinc-lead mineralisation (brown).

The Federation Discovery

Massive zinc-dominant sulphides intercepted in Federation hole FRCD018.

Low-iron sphalerite breccia intercepted in Federation hole FRCD015W1.

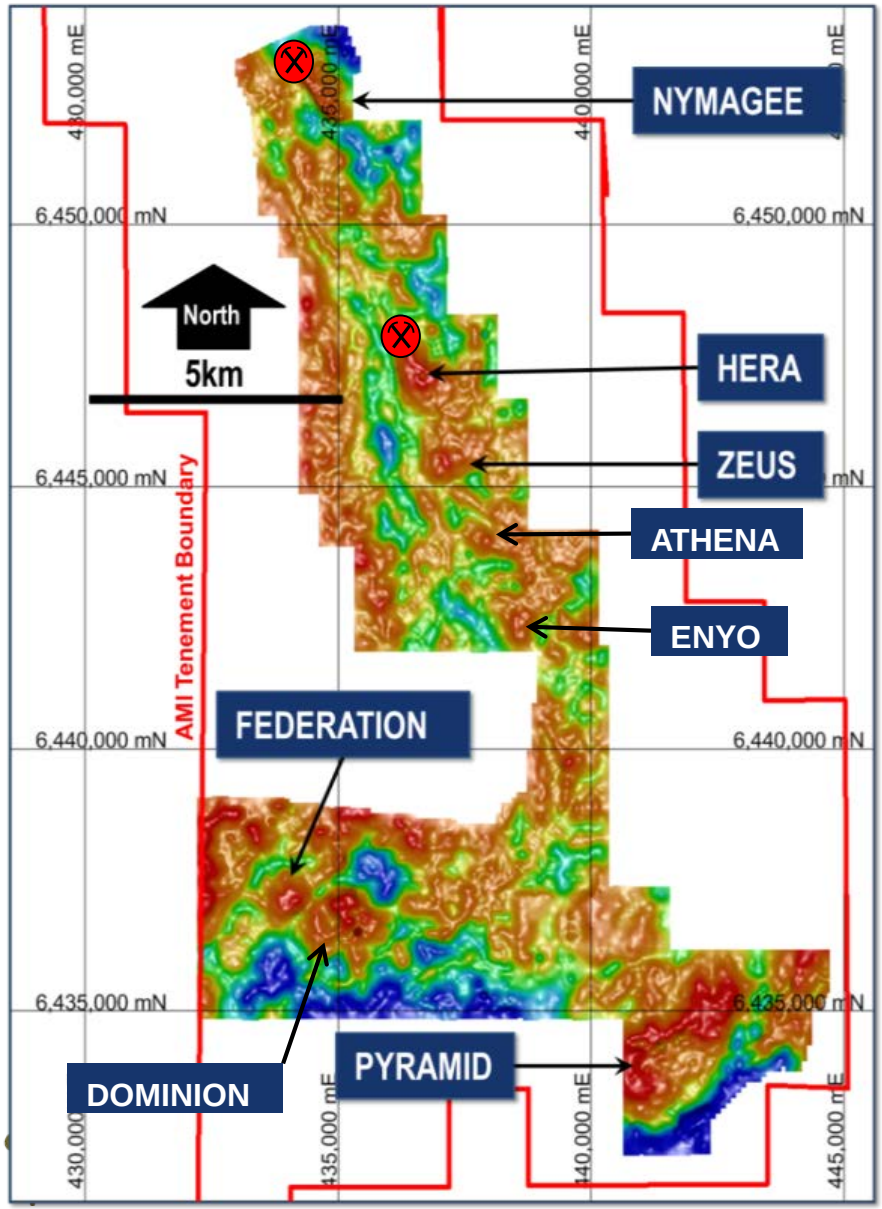
Federation – Alteration and Mineralisation



Schematic cross section of the Federation prospect (looking northeast) showing interpreted zones of alteration, bedding and mineralisation

- Currently defined over a NE-SW strike of more than 300 metres, extends more than 550 metres below surface
- Mineralisation closely associated with a core of early pervasive silicification
- Later overprint by Mg-rich chlorite with pervasive silica, sericite & pyrrhotite (±calcite) in foowall
- Base metal mineralisation post-dates Mg-rich chlorite
- Strongest mineralisation is fracture fill, minor replacement parallel to bedding observed
- Mineralisation possibly associated with axial plane of localised antiform.
- Relationship of base metal and gold mineralisation remains unclear

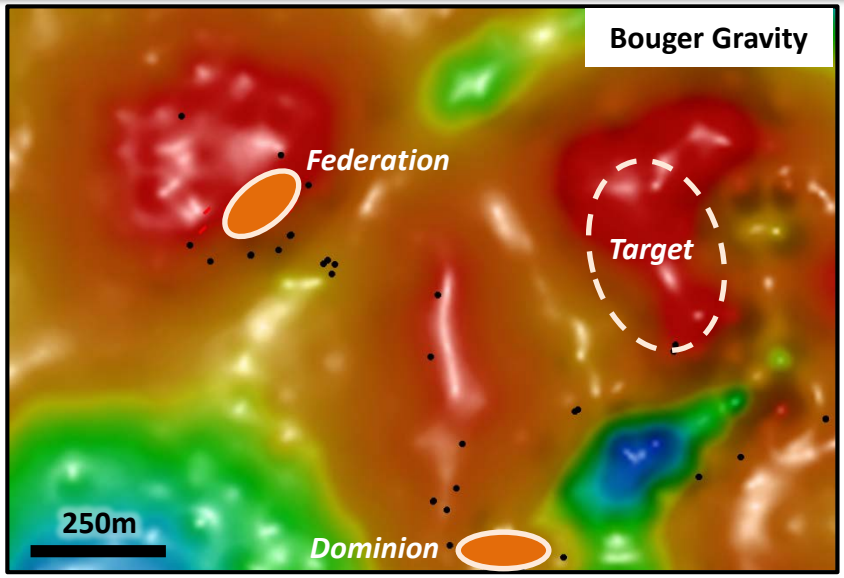
Gravity – Nymagee Region

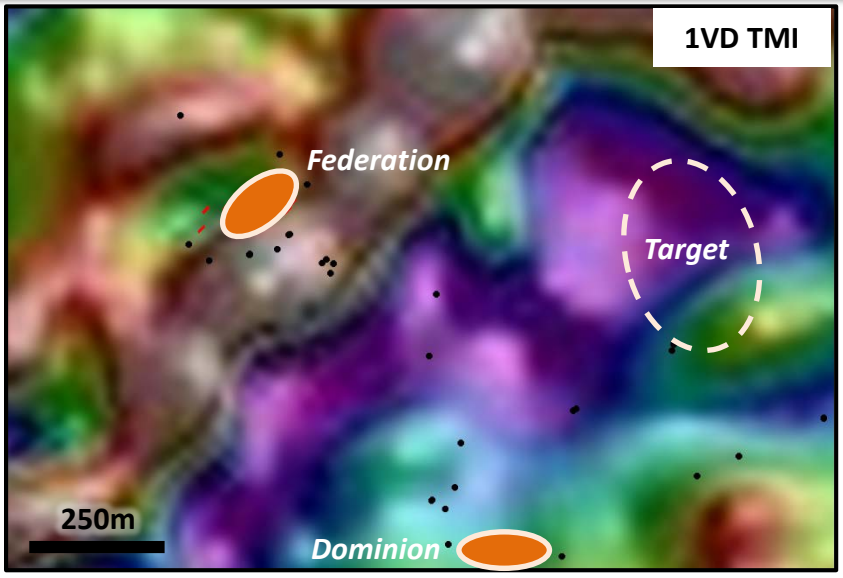


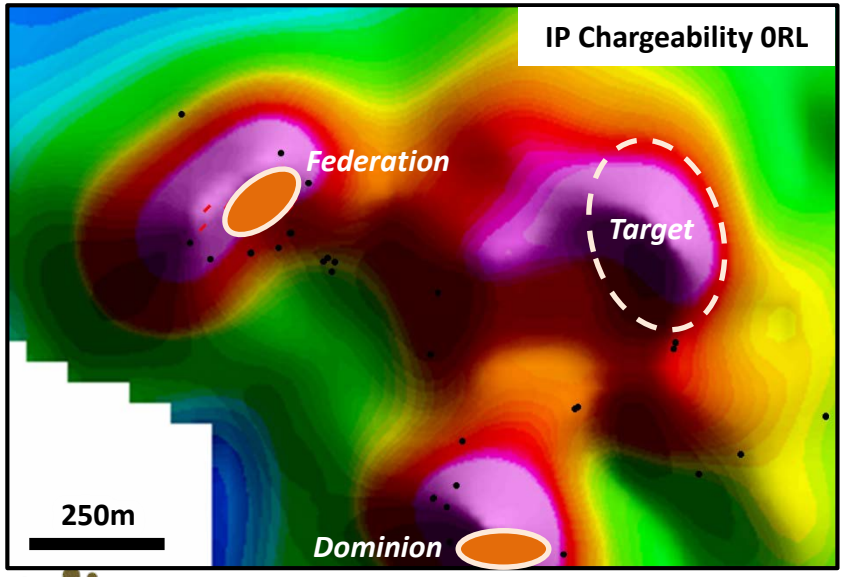
- Strong positive gravity anomalies at Hera, Nymagee, Dominion and Federation
- Probably related to broad alteration systems around mineralisation
- Follow-up gravity survey underway north of Federation

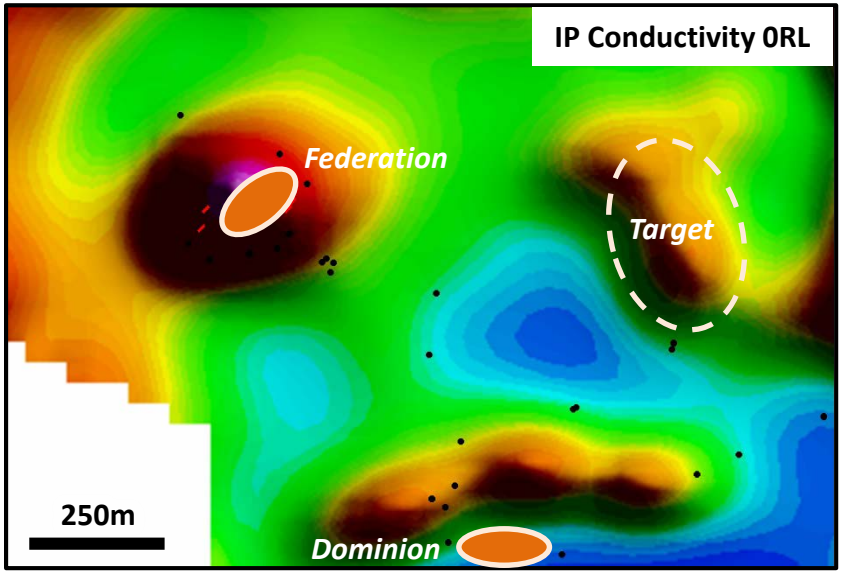
26

Federation - Geophysics









Further Work

Diamond drilling at the Federation Prospect, June 2019

- Ongoing diamond and RC drilling at Federation – resource potential?
- Follow-up diamond and RC at Dominion
- Initial RC testing of the Dominion NE chargeability feature
- Expansion of the IP coverage north and east of Dominion/Federation
- Infill ground gravity survey north of Federation
- Additional pXRF soil geochemistry at selected targets

Conclusions

- ***Serendipity plays an important role in exploration*** - the chance find of visible gold in a very minor outcrop reinvigorated our interest in the area
- ***Field reconnaissance is still highly useful*** - it is still possible to find outcropping mineralisation on mature exploration ground
- ***Find a hill and drill the western side*** - as with multiple other deposits in the Cobar Basin, topographic highs appear to be significant (CSA, Peak, New Occidental, Hera, Nymagee)
- ***Use scissor holes where possible*** - YTC's near miss at Dominion indicates the value of drilling from multiple directions when the system is not well understood
- ***Where there's smoke, there's often fire*** - At both Federation and Dominion, the presence of low grade mineralisation and alteration were indicative of vicinity to nearby high grade

Acknowledgements

- The authors would like to thank Aurelia Metals for permission to publish data related to the Dominion and Federation discoveries.

- Former AMI geologist Michael Thompson is thanked for his early work in the area, particularly at the Dominion prospect.

Coarse-grained galena, low-Fe sphalerite and minor chalcopyrite from Federation hole FRCD019