



Lodestar Minerals Limited ABN 31 127 026 528

Registered office
41 Stirling Highway
Nedlands WA 6009

Postal address
PO Box 985
Nedlands WA 6909

Tel: +61 8 9423 3280
Fax: +61 8 9389 8327

Website
www.lodestarminerals.com.au

22 February 2011

ASX Limited

By Electronic Lodgement

Dear Sirs,

RE: PEAK HILL PROJECT

Please find attached a copy of a company presentation for Lodestar Minerals Limited.

Yours faithfully

A handwritten signature in blue ink, appearing to read "Bill Clayton", with a period at the end.

Bill Clayton
Managing Director

LODESTAR MINERALS LIMITED

COMPANY PRESENTATION



February 2011

Forward Looking Statements

Forward Looking Statements: This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning Lodestar Minerals' exploration program and other statements that are not historical facts. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Although Lodestar Minerals believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

JORC Compliance

The information in this report to which this statement is attached that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Bill Clayton who is a member of the Australian Institute of Geoscientists. Bill Clayton is a full-time employee of the Company. Bill Clayton 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 2004 Edition of the "Australasian Code for the reporting of Exploration Results, Mineral Resources and Ore Reserves". Bill Clayton consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

- ❑ **ASX code:**
LSR
- ❑ **Issued Capital:**
89 million shares
6 million unlisted options
- ❑ **Cash:**
\$2.79 million
- ❑ **Market capitalisation @ \$0.12**
\$11 million
- ❑ **Top 20 Shareholders:**
38%

Board & Management

Rhod Grivas (Chairman)

Bill Clayton (Managing Director)

Mark Pitt (Non-Executive Director)

David McArthur (Executive Director & Company Secretary)

12 month Share Price Performance

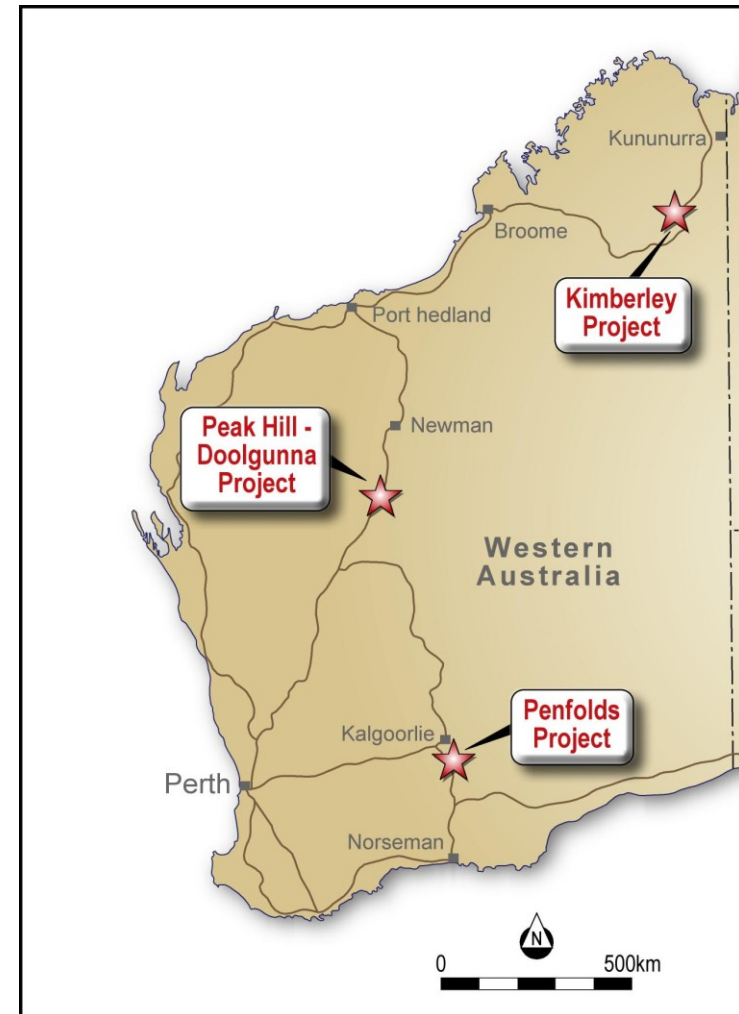
Low	High	Current
0.07	0.19	0.12

Company	Commodity	Status	Market Cap \$M
<i>Sandfire</i>	Cu-Au	Resource (Cu-Au)	1,1021
<i>RNI</i>	Cu-Au	Exploration	140
<i>Talisman</i>	Cu-Au	Exploration	123
<i>Thundelarra</i>	Cu-Au	Exploration	96
<i>Alchemy</i>	Au, Cu-Au	Resource (Au)	40
<i>Sipa</i>	Au, Cu-Au	Exploration	38
<i>Great Western</i>	Cu-Au	Exploration	28
<i>Lodestar</i>	Cu-Au	Exploration	11

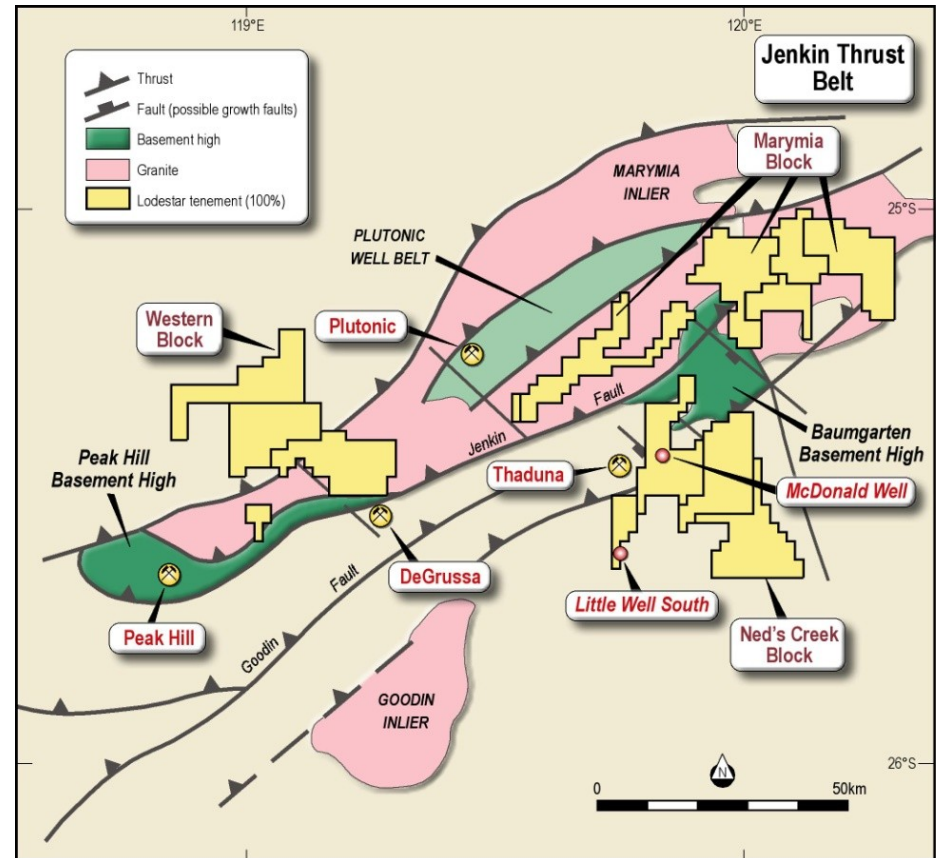
❑ Sandfire demonstrates the success case in this province

Lowest market capitalisation of the Doolgunna explorers-major upside potential

- A large, strategic tenement holding (2200sq km) in a new and under-explored, growing base metal province
- Prospectivity on a par or better than many higher capped competitors
- Funded for intensive exploration in 2011
- Lowest market cap entry into the province
- Major share price growth potential - early exploration stage project with multiple regional and prospect scale targets
- Primary exploration focus:
 - *Sediment-hosted Cu*
 - *Sediment-hosted Pb-Zn-Ag*
 - *Lode Au*
 - *Calcrete U*

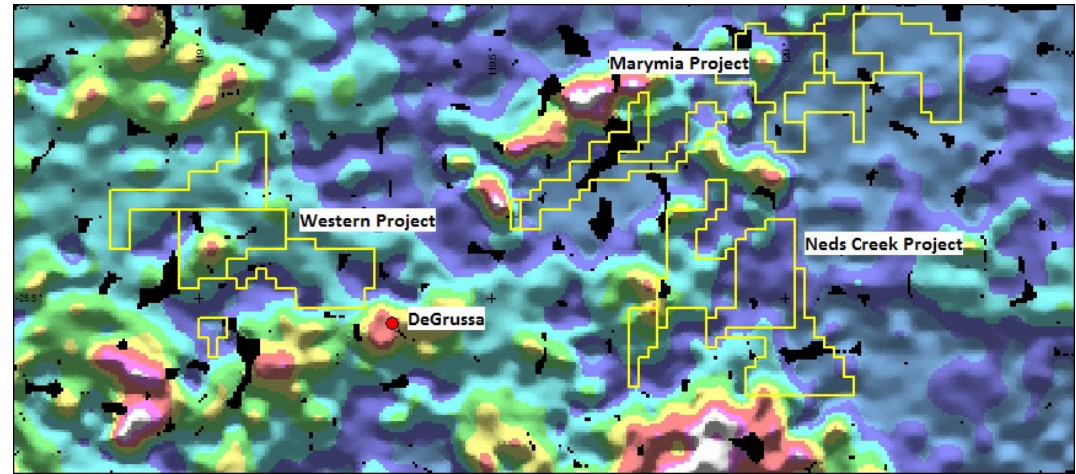


- Host to Sandfire’s DeGrussa discovery, potentially the first major discovery in a new base metal province
- Base metal & gold mineralisation recorded at numerous locations over 100-150 kilometres
- Limited exploration & geological knowledge
- Lodestar’s tenements include prospective basin sequences (fluids) , major structures (fluid transfer) and buried magmatic centres (heat flow) conducive to ore formation
- **Prospective Geological Environments**
Lower Yerrida Gp -Sediment-hosted Cu; SEDEX Pb-Zn-Ag
Upper Yerrida Gp, Bryah Gp -VMS Cu
Archaean – Lode Au

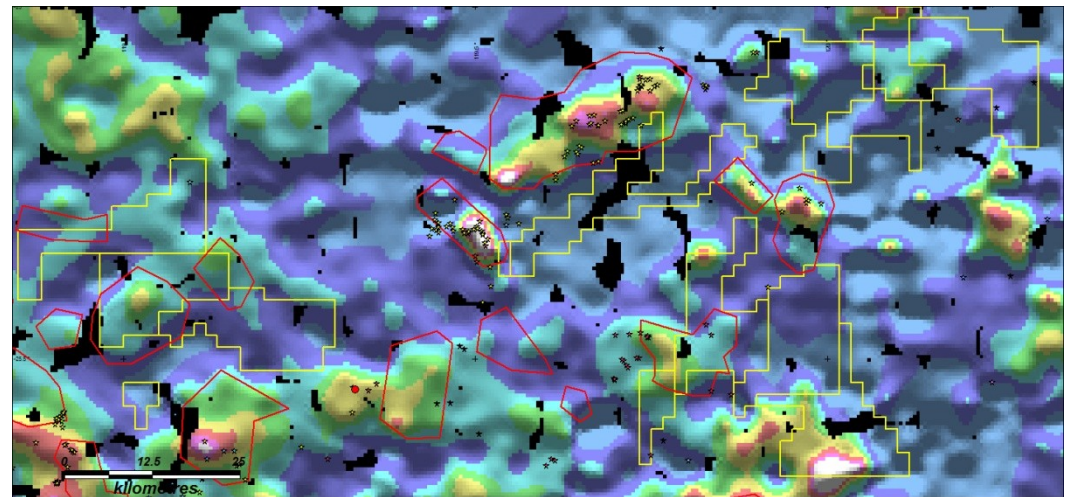


Relatively unexplored province – significant knowledge gaps

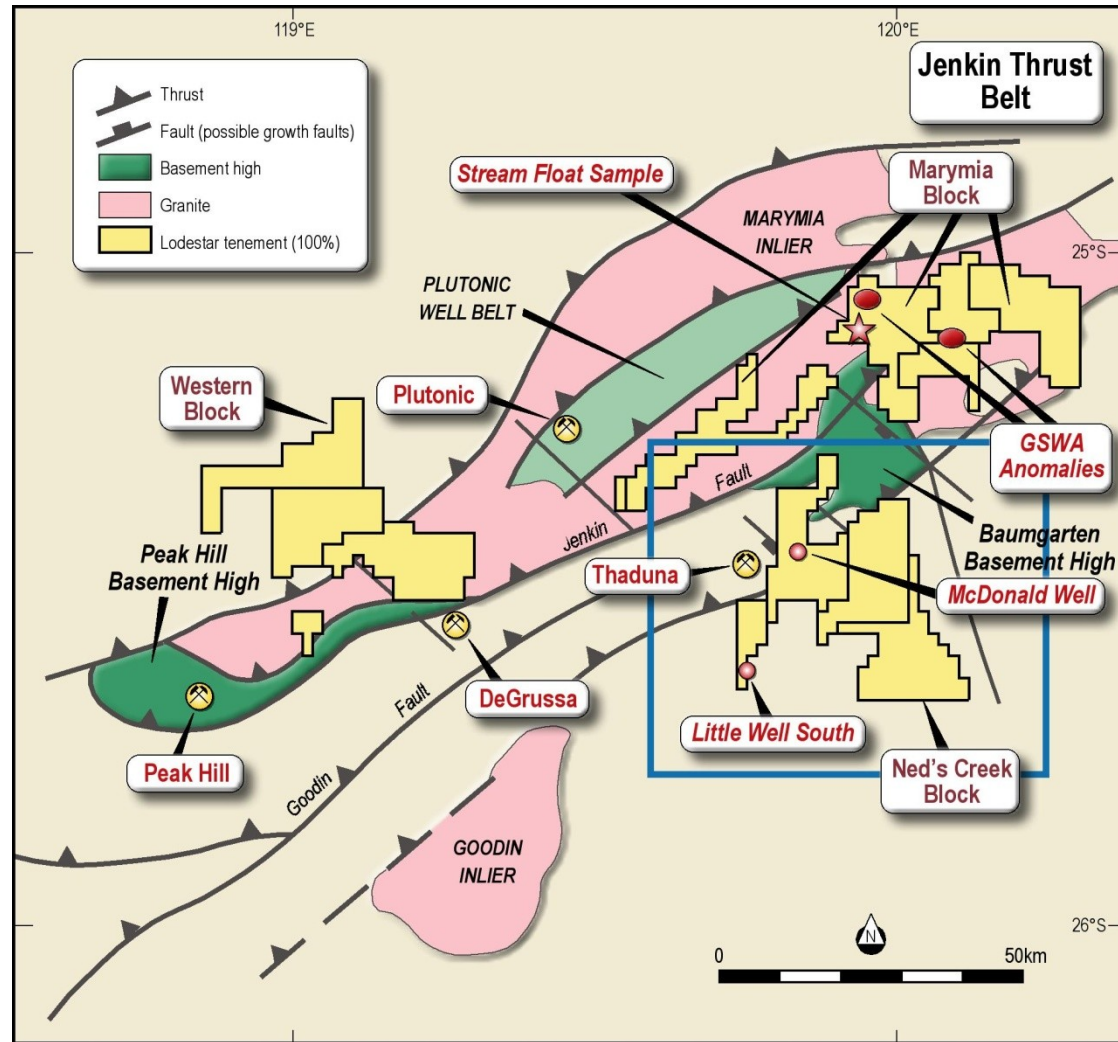
- GSWA regional regolith sampling– Cu distribution (raw data) influenced by regolith domain, bed rock composition, iron content
- GSWA sampling successfully identifies exploration targets at the regional scale (MINEDEX gold and base metal prospects/deposits shown; priority targets areas outlined in red)
- Priority geochemical targets identified at Neds Creek/McDonald Well and Western Project in addition to more subtle anomalies requiring follow up sampling, eg Marymia project tenements
- Sedimentary sequences generally contain low background Cu relative to mafic-ultramafic sequences.



Raw data (Cu)

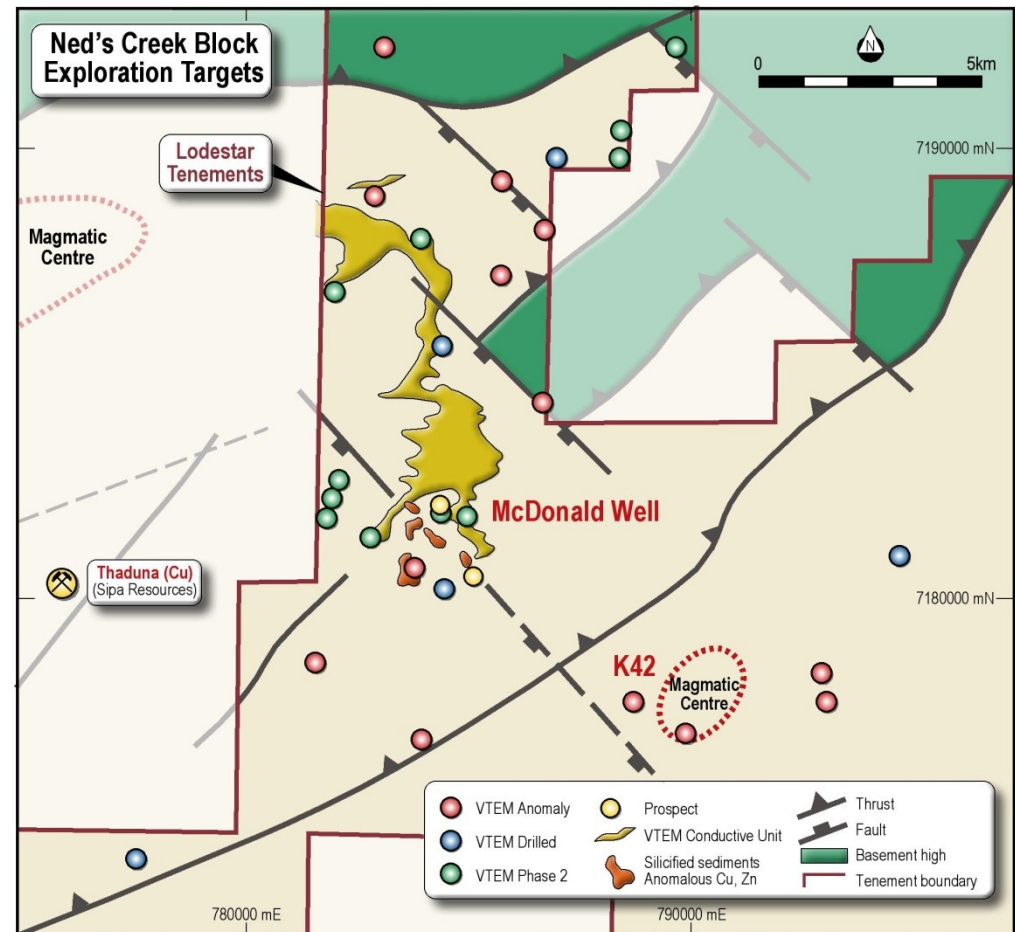


Leveled data (Cu) (regolith domain)



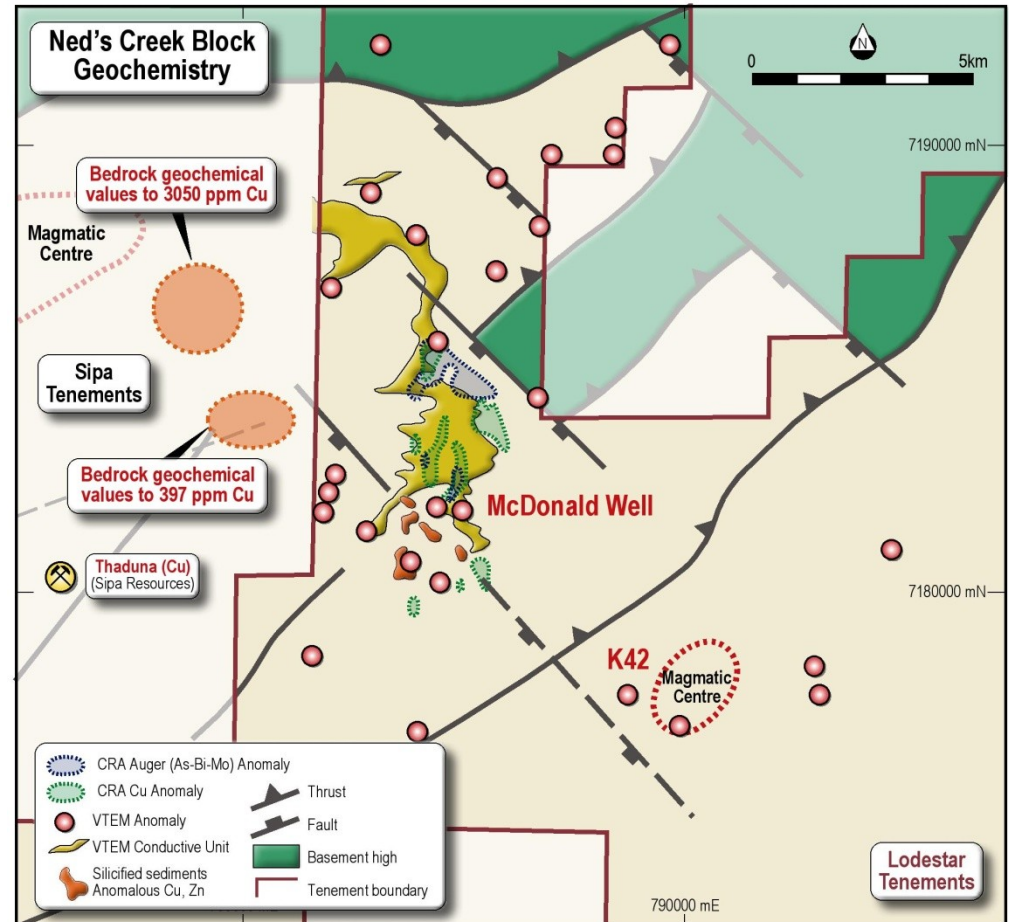
Prospective basin & structural setting within large copper mineralising system

- Widespread copper mineralisation on adjacent tenements – (Thaduna deposits) is thought to represent remobilised primary mineralisation (supergene Cu – graphite-quartz-carbonate gangue) – compare Red Bore/DeGrussa
- Base of Yerrida Gp contains precursor units (evaporites, red beds, carbonaceous shale) common to mineralised basin sequences
- Proximity to major structures, thermal source and basin margins - analogous structural settings commonly recognised in major Proterozoic base metal provinces world wide
- Target Deposit Type – eg *Nifty* (+40Mt @ 2.4% Cu)
- VTEM identified 29 EM anomalies
 - 5 drilled
 - A further 12 confirmed by ground EM with 7 targets ranked as moderate to high priority



Prospective basin & structural setting within large copper mineralising system

- Limited historic exploration:
 - WMC - rock chips to 4100ppm Cu and 1120ppm Zn, anomalous samples reported over 60 sq km
 - CRA -anomalous Cu in shallow auger drilling
- 2010 VTEM survey identifies “conductive unit” (black shale) coincident with anomalous base metal geochemistry, suitable host for sediment-hosted Cu
- >10 kilometres of prospective stratigraphy, plunging to SW, incompletely tested by geochemical sampling



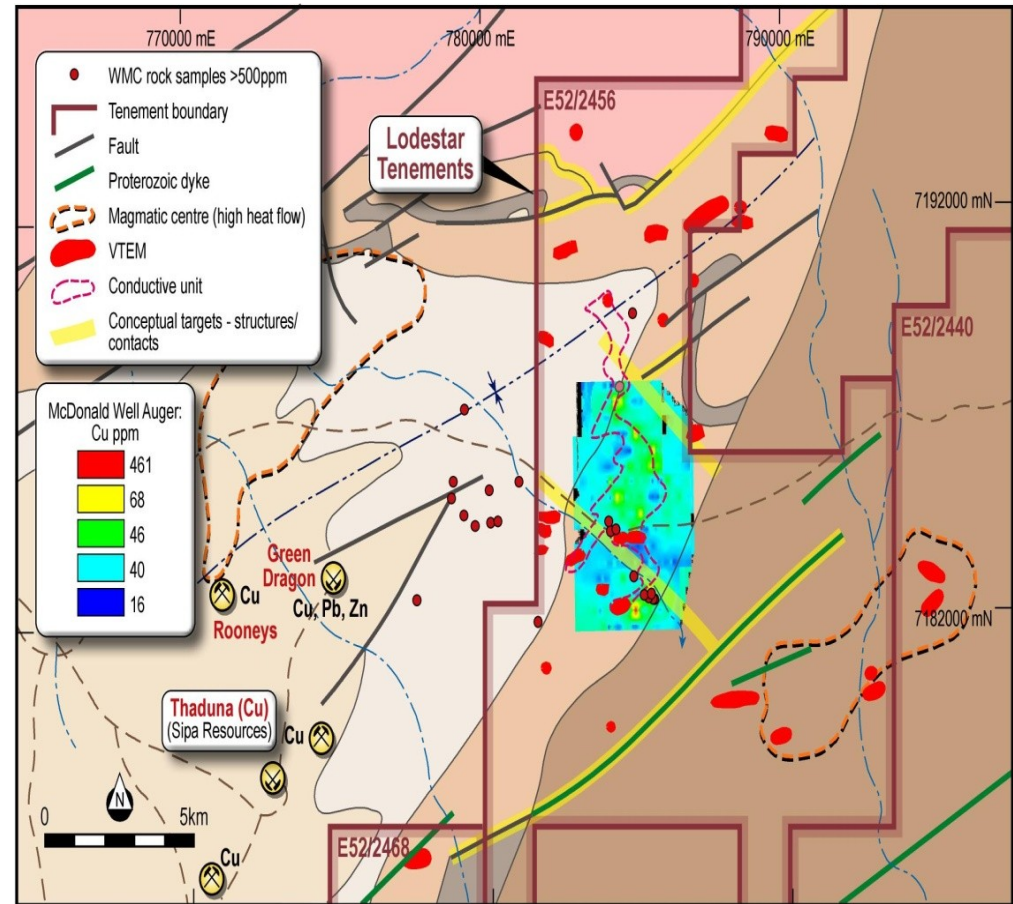
Coincident VTEM anomalies and base metal geochemistry endorse high prospectivity

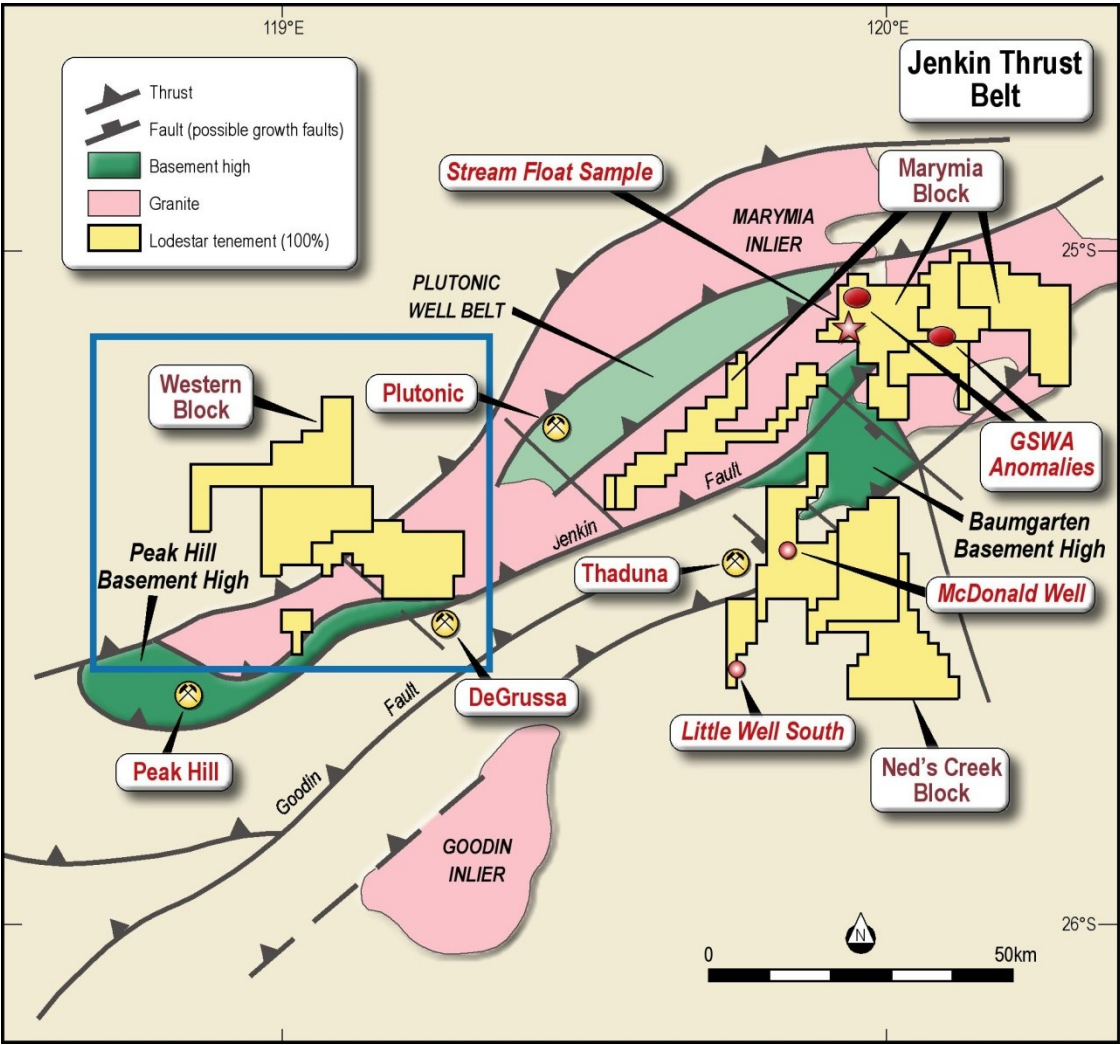
Completed

- VTEM 2010
- 5 **Phase 1** RC holes
 - intersected variable thicknesses of carbonaceous, calcareous, siliceous shale and dolerite in the McDonald Well area
 - carbonaceous shale horizon beneath 60-70m of weathering, anomalous base metal, Ag, As, Sb, Bi +/- Au in shale at fresh rock interface
 - ferruginous breccia related to a major NE structure south of the Thaduna deposit (B-23 anomaly). Down hole EM planned

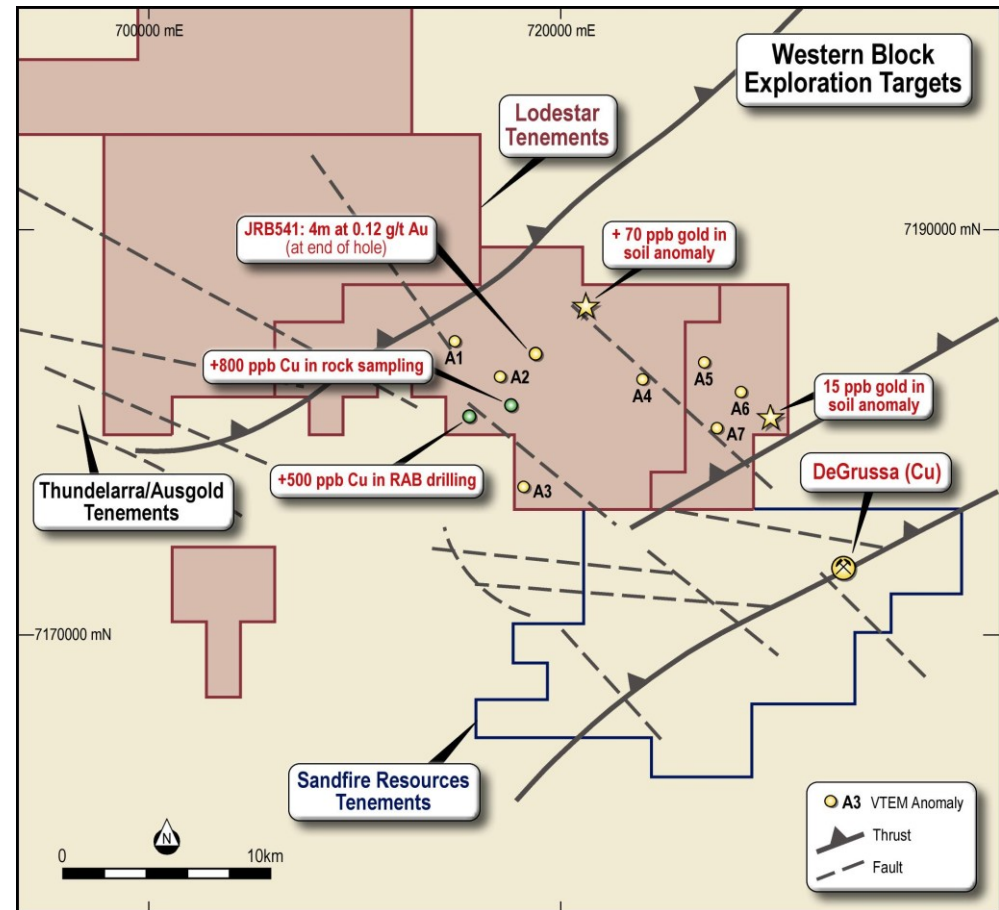
Commencing

- Extend multi-element geochemistry over entire tenement, 400m line spaced lag sampling underway – 399 samples
- **Phase 2** RC Drilling to test surface EM defined targets (work program submitted)



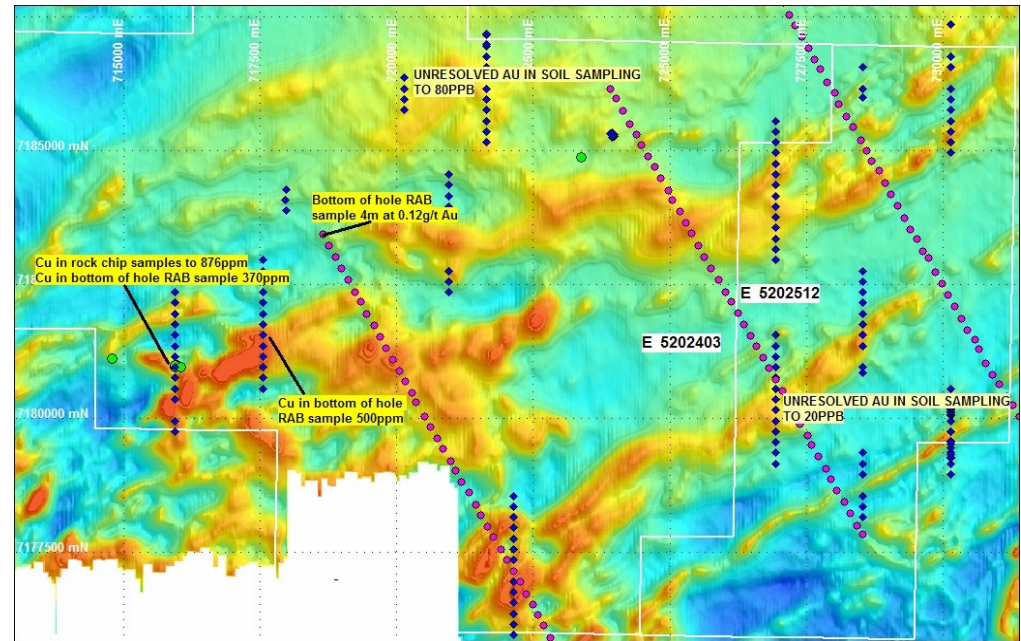


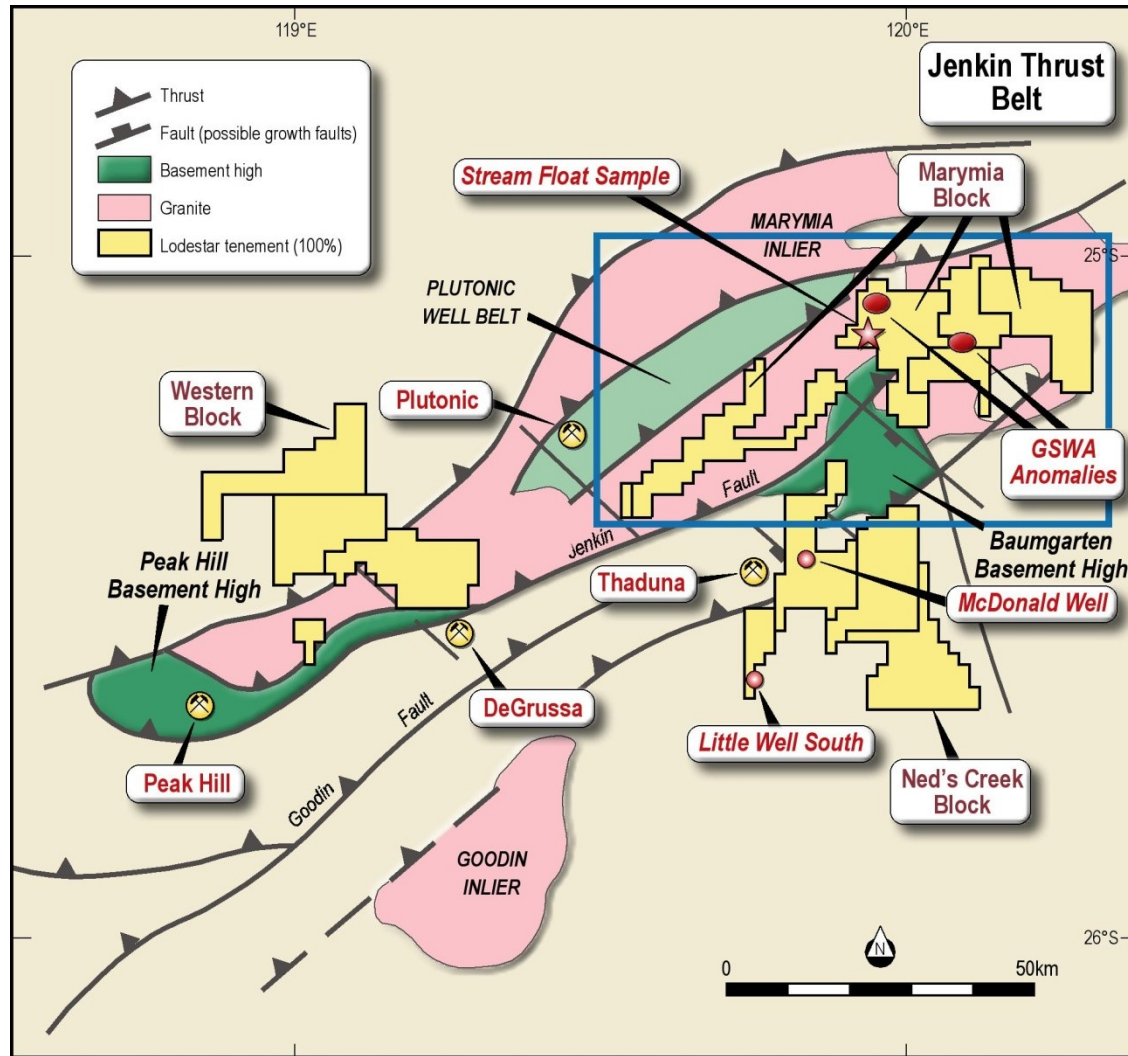
- Adjoins Sandfire tenements
- Between major gold camps, 6km NW of DeGrussa
- Historic Exploration
 - effectiveness reduced by extensive soil/hardpan cover
 - soil sampling anomalies to 80ppb Au
 - wide spaced RAB reported 4m @ 0.12g/t at end of hole (not followed up)
- Structures
 - NE trending thrust faulting
 - Anomalous Cu to 800ppm in rockchip and RAB in breccia zone
- VTEM
 - Low amplitude anomalies identified under cover
- Untested GSWA regional geochemical anomalies
- Untested calcrete radiometric anomaly



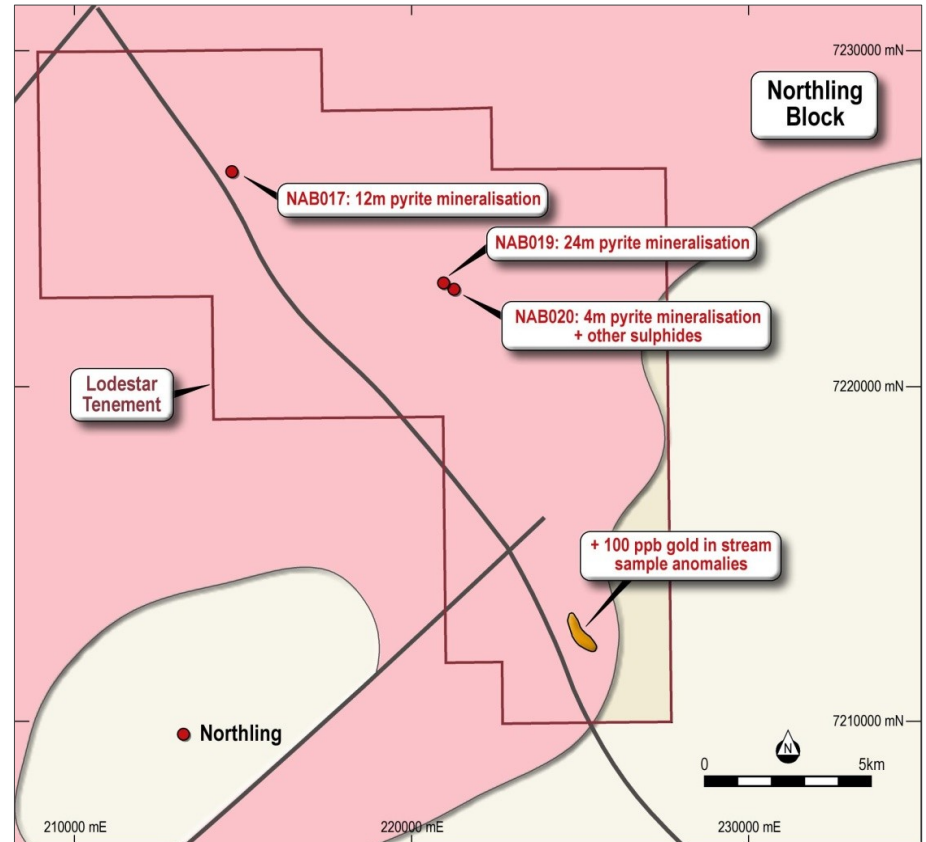
NE thrust faulting and linking structures – potential controls on mineralisation

- Geochemistry
Regional stream/soil/rock chip geochemistry – first pass exploration gold, copper, base metals
Follow up GSWA regional geochemical anomalies.
- Exploration under cover
Geological / structural study – identify geological sequence, focus on potentially mineralised structures and lithologies within Marymia Inlier/thrust zone





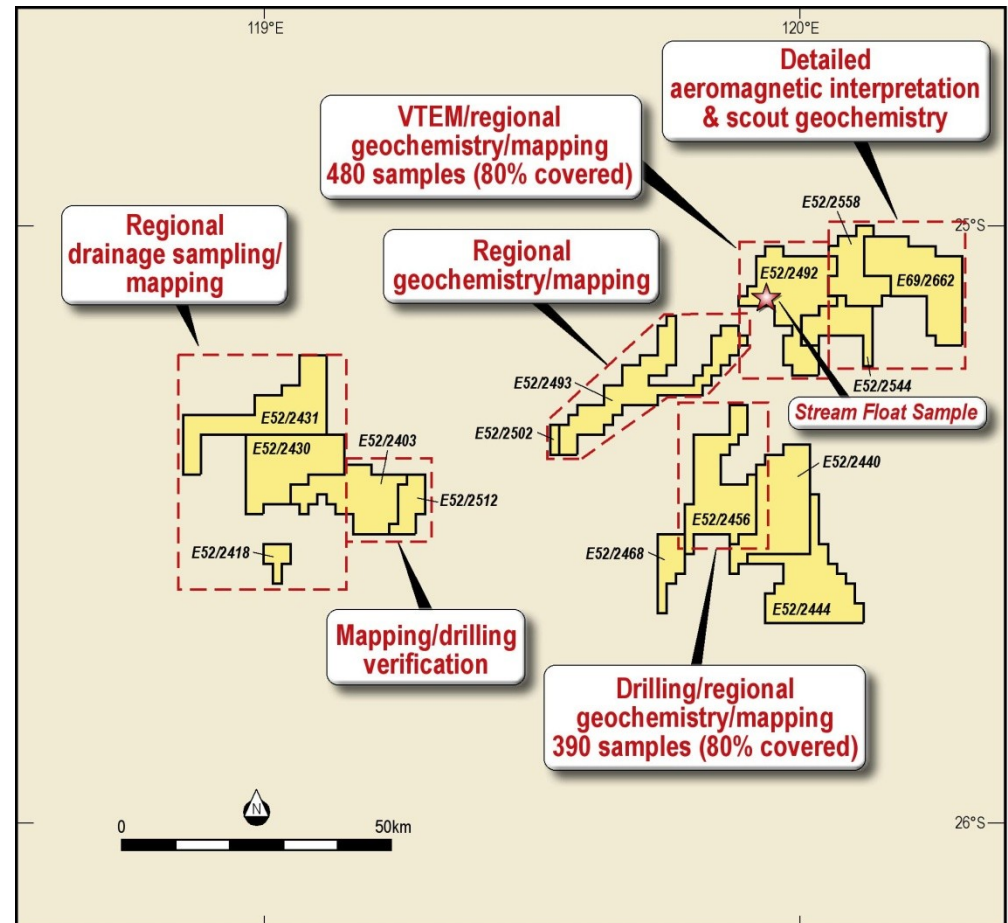
- Minimal base metal exploration, extensive soil cover impedes surface geochemistry
- Historic drilling indicates that cover does not exceed 4-8m depth over large areas.
- Diamond exploration intersected ultramafic/mafic basement with sulphides in historic drilling – not assayed
- Unresolved gold in stream samples to 164ppb associated with NNW – trending fault
- GSWA geochemistry identifies regional targets within tenements
- Lodestar stream float sample reporting 10g/t Ag and 805ppm Pb confirms mineralised structures in sedimentary sequence



- Geochemistry
Commence sampling programs - 480 samples
Follow up anomalies with field checking / mapping / soil geochemistry for base metals and gold
- Aeromagnetics
Acquire multiclient data – interpretation & orientation geochemistry (auger/RAB) in areas under cover
- VTEM survey
Cover Jenkin Thrust extension and adjacent basin sequence



- Funded to complete systematic exploration across the project
- Large tenement holding offers a range of prospective geological environments for precious and base metal mineralisation and exploration success
- Large areas not previously targeted for base metals (eg Marymia, Western Project)
- Multiple exploration targets defined at a regional and prospect scale



Funded to actively explore in 2011

LODESTAR MINERALS LIMITED
41 Stirling Highway
Nedlands WA 6009

Bill Clayton
T: 08 9423 3281
F: 08 9389 8327
billclayton@lodestarminerals.com.au

