A photograph of two men in a field, looking at a large rock sample. The man on the left is wearing a dark jacket, and the man on the right is wearing a blue shirt. The rock is a large, reddish-brown block. In the background, there are trees and a clear sky.

Sandfire Resources

The Doolgunna Copper-Gold Discovery



SANDFIRE RESOURCES NL

September 2009

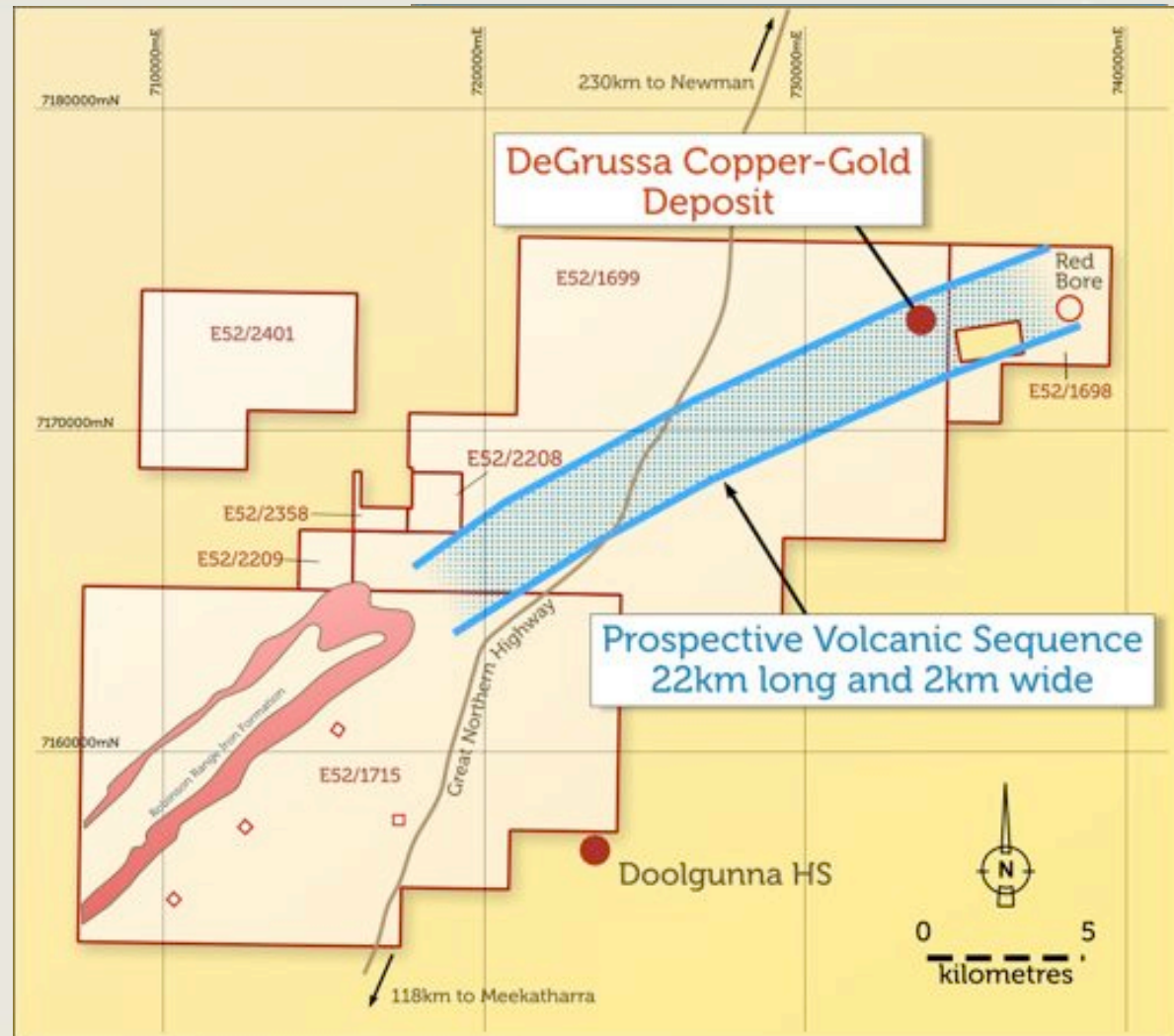
A Snapshot

- Recent high-grade VMS-style copper-gold discovery at Doolgunna Project
- Located 150km north of Meekatharra in Western Australia
- Resource definition drilling underway
- Dominant ground position over an emerging copper-gold mineralised belt
- 395 sq km tenement package originally pegged by renowned prospecting geologist, Graeme Hutton



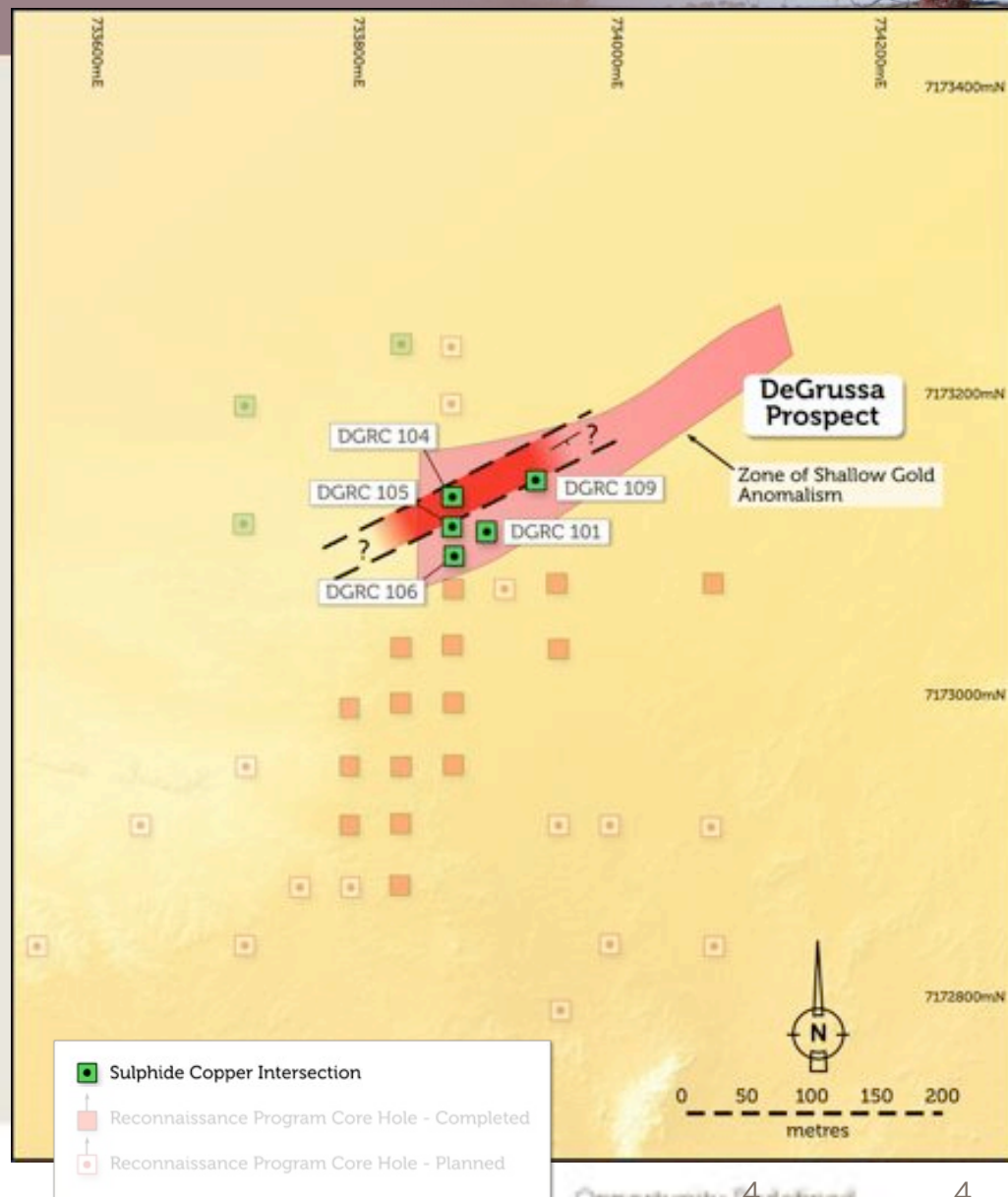
Doolgunna Project

- Tenements cover 22km strike length of prospective Narracoota Volcanics
- Great Northern Highway runs through the middle of the tenement package
- Goldfields Gas Transmission Pipeline nearby
- Excellent infrastructure



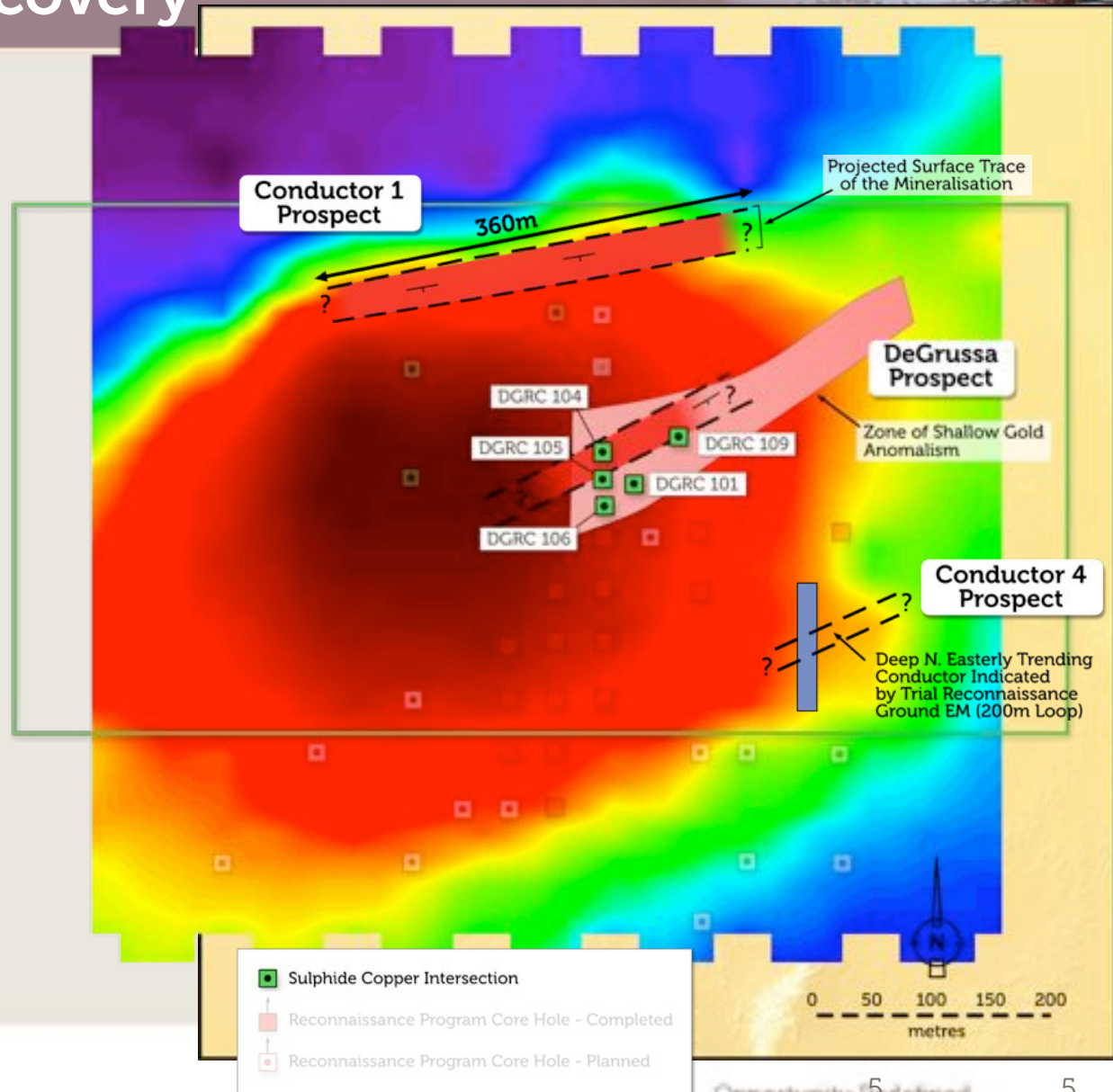
Doolgunna Project – DeGrussa Discovery

- In April/May 2009, an inclined and vertical RC drilling program intersected significant copper-gold sulphide mineralisation beneath a previously discovered oxide gold zone at DeGrussa



Doolgunna Project – Conductor 1 Discovery

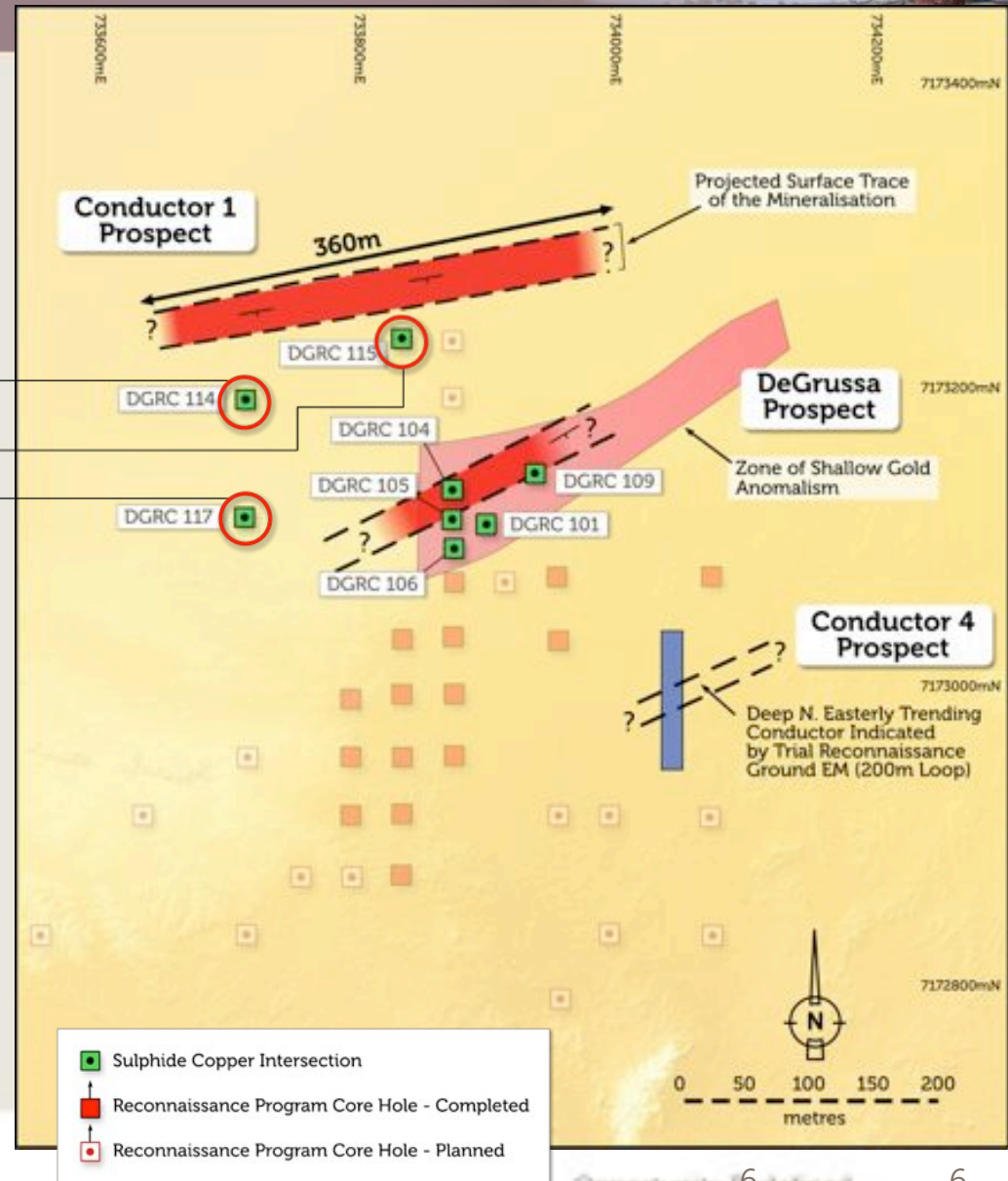
- Following the success of this initial drilling, a ground EM survey was undertaken which identified a very large conductive body immediately north of DeGrussa
- This 360m long body was referred to as Conductor 1



Doolgunna Project: Drilling Success

- Initial RC drilling – Conductor 1:

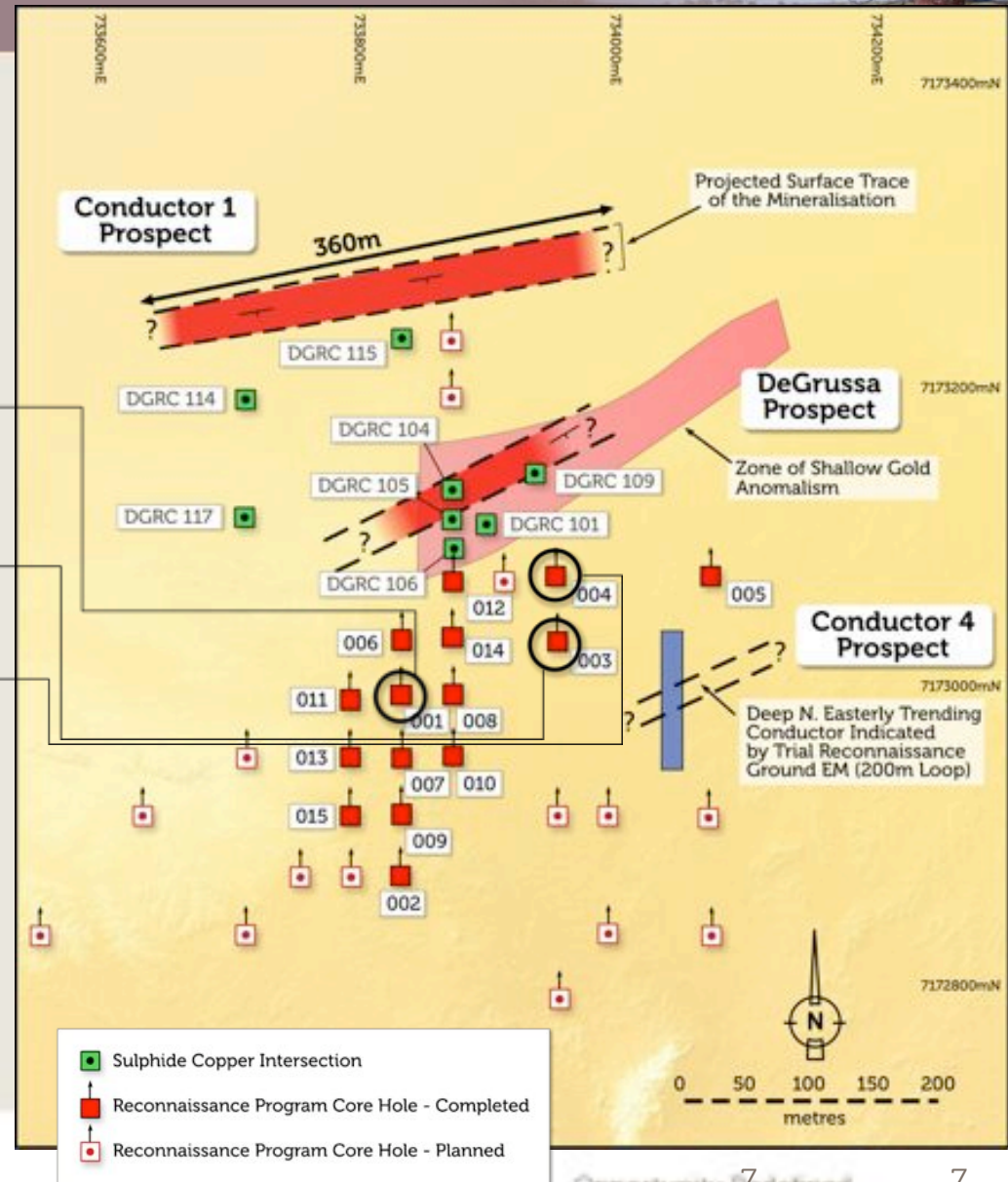
- 39m @ 5.2% Cu, 1.6g/t Au from 135m (DGRC114)
- 32m @ 4.6% Cu, 1.7g/t Au from 90m (DGRC115)
- 32m @ 2.9% Cu, 1.3g/t Au from 294m (DGRC117)



Doolgunna Project: Drilling Success

- Diamond drilling – DeGrussa and Conductor 1:

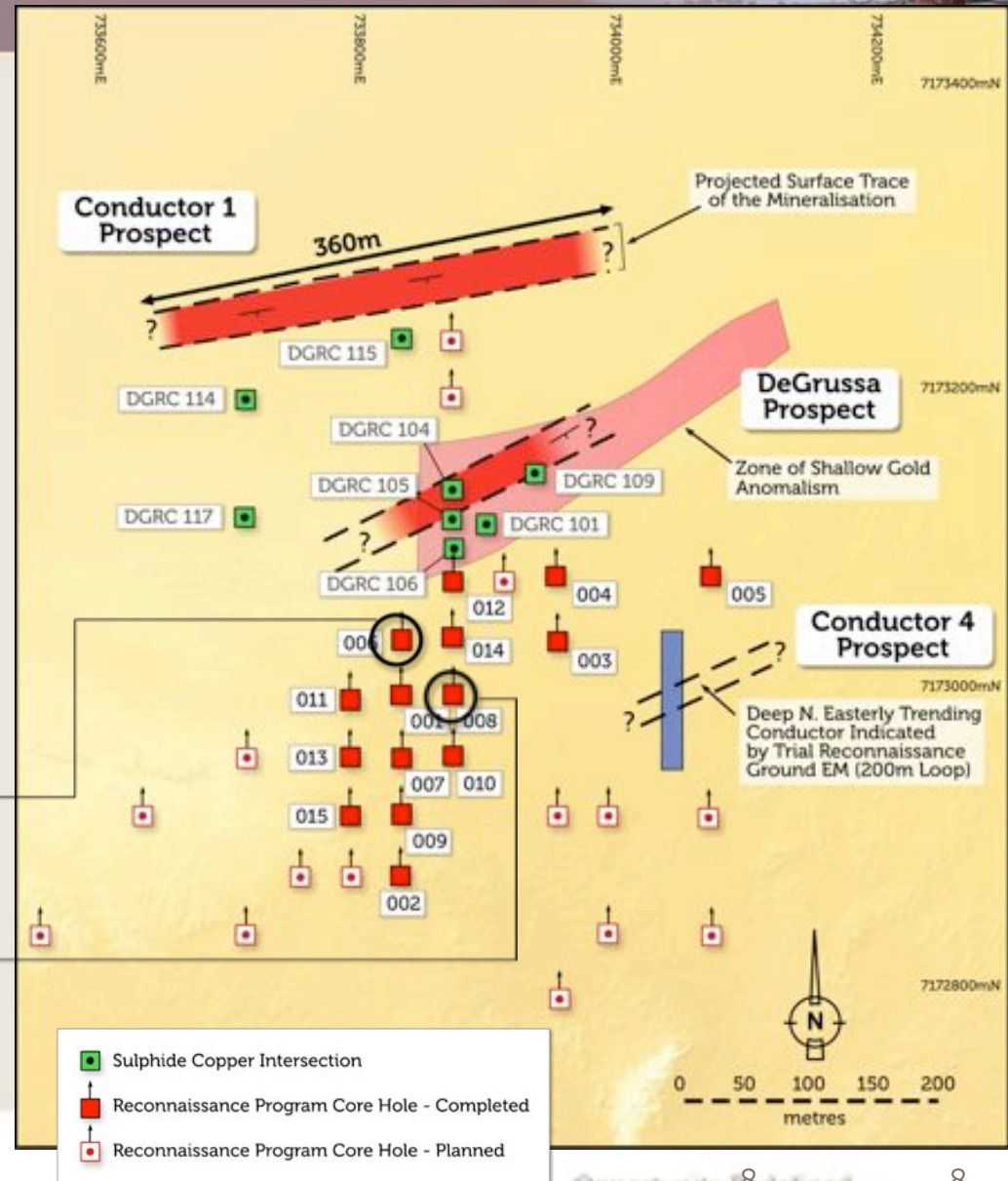
- 53.2m @ 17.3% Cu, 2.5g/t Au from 146.1m (DGDD-001) – DeGrussa
- 25.1m @ 3.4% Cu, 1.6g/t Au, 1.5% Zn from 319.m (DGDD-001) – Conductor 1
- 21.9m @ 5.0% Cu, 2.0g/t Au, 1/8% Zn from 322.2m (DGDD-003) – Conductor 1
- 13.7m @ 6.7% Cu, 2.6g/t Au, 2.2% Zn from 267.8m (DGDD-004) – Conductor 1



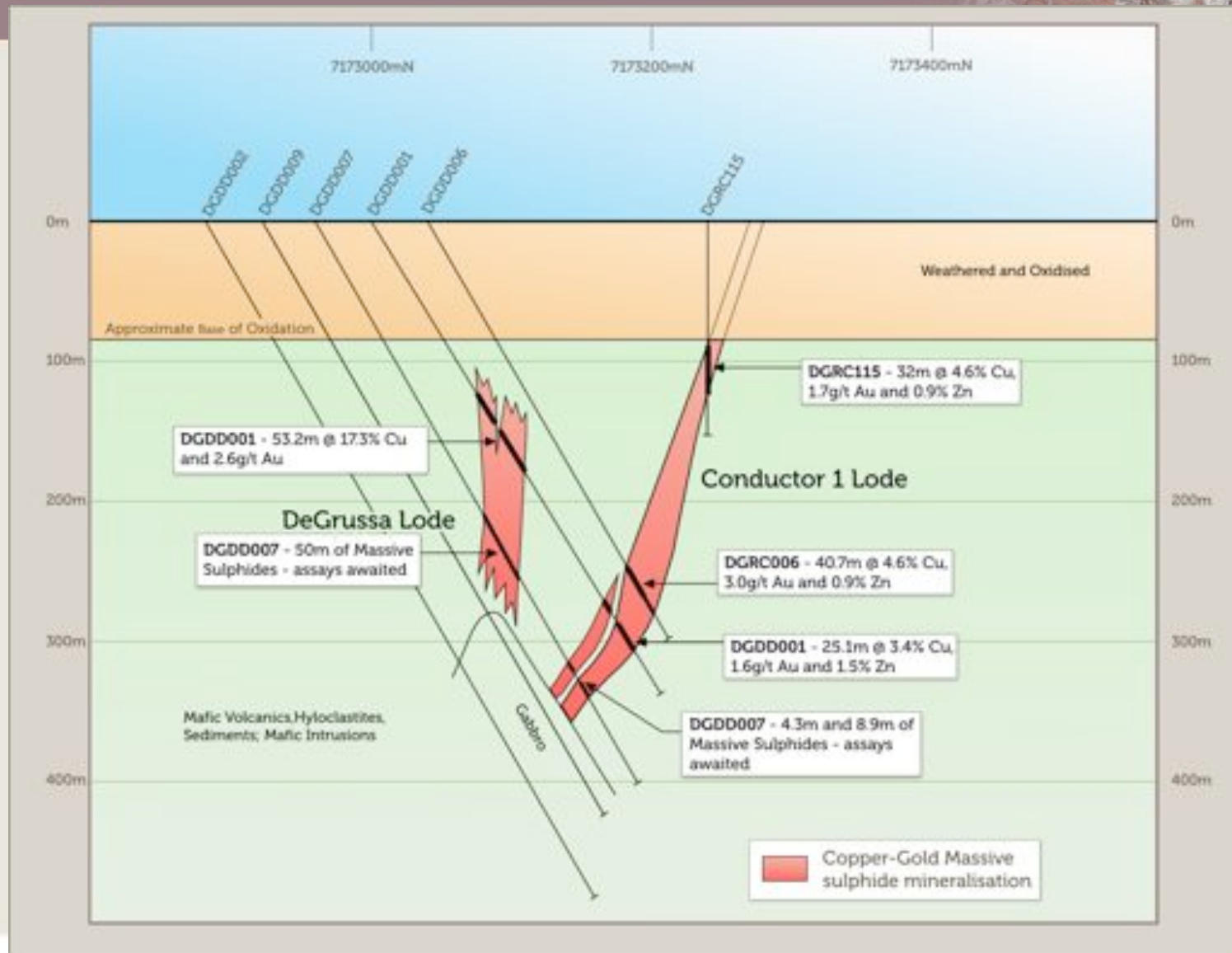
Doolgunna Project: Drilling Success

- Diamond drilling – DeGrussa and Conductor 1:

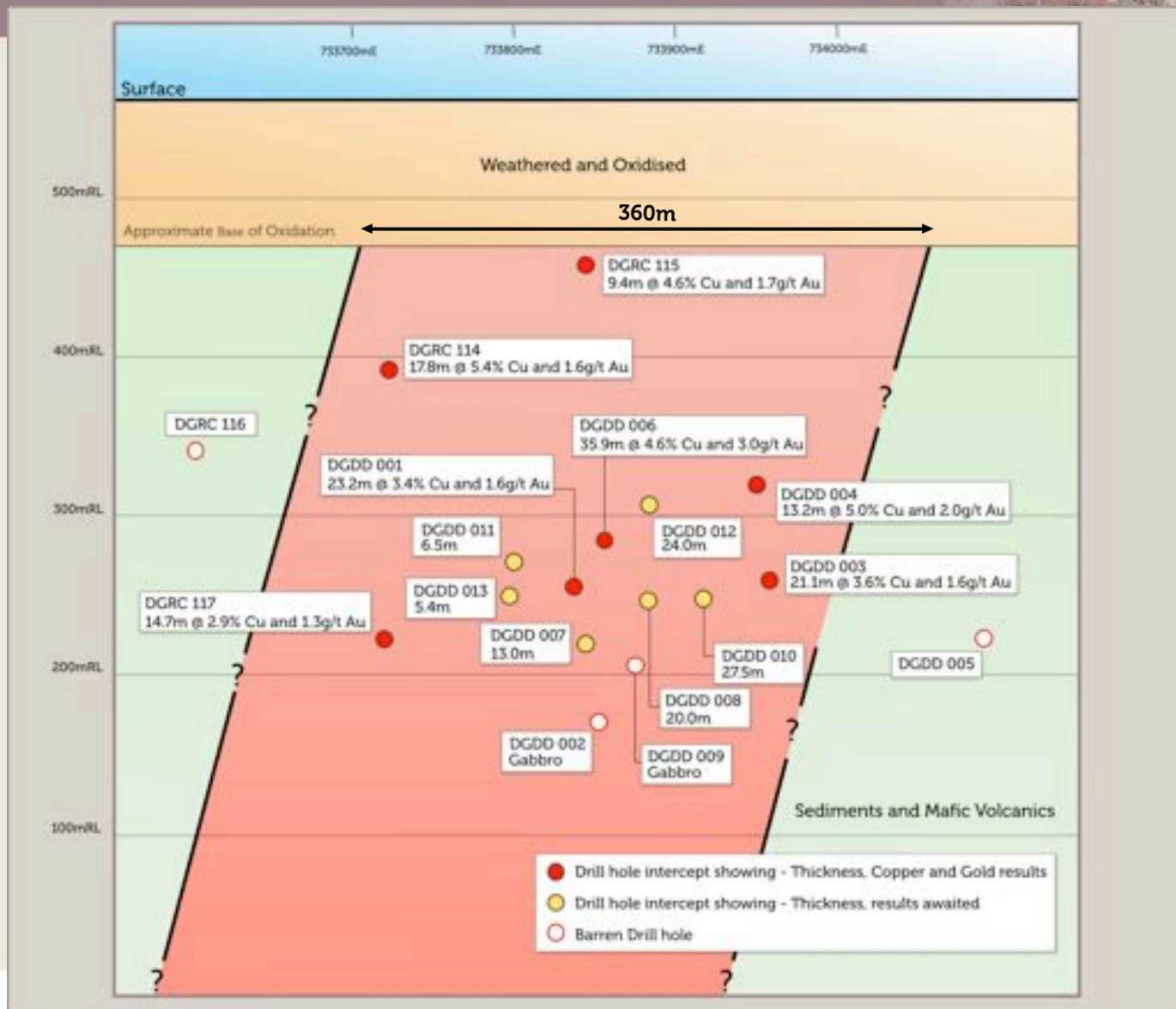
- 53.2m @ 17.3% Cu, 2.5g/t Au from 146.1m (DGDD-001) – DeGrussa
- 25.1m @ 3.4% Cu, 1.6g/t Au, 1.5% Zn from 319.m (DGDD-001) – Conductor 1
- 21.9m @ 5.0% Cu, 2.0g/t Au, 1.8% Zn from 322.2m (DGDD-003) – Conductor 1
- 13.7m @ 6.7% Cu, 2.6g/t Au, 2.2% Zn from 267.8m (DGDD-004) – Conductor 1
- 40.7m @ 4.6% Cu, 3.0g/t Au from 283.0m (DGDD-006) – Conductor 1
- 15.6m @ 3.1% Cu, 2.5g/t Au, 3.6% Zn from 347.4m (DGDD-008) – Conductor 1
- 42.0m @ 6.6% Cu, 2.4g/t Au, 1.4% Zn from 245.0m (DGDD-008) – DeGrussa



DeGrussa/Conductor 1 – Cross-Section



DeGrussa/Conductor 1 – Longitudinal Section



Drilling Results to Date

DeGrussa Copper-Gold Deposit - INTERSECTIONS

Drill Hole	Length (m)	Assay Results			
		Cu %	Au g/t	Zn%	
DGDD-001	10.7	26.2	1.7		
	10.6	6.5	0.9		
	31.9	17.9	3.5		
	TOTAL	53.2	17.3	2.6	
DGDD-007	50	Massive sulphides			
DGDD-008	42.0	6.6	2.4	1.4	
DGDD-010	4.2	Massive sulphides			Assay Results Awaited
DGDD-011	2.6	Massive sulphides			
DGDD-012	14.0	Zone including Oxide, Native Copper			
DGDD-014	3	Native & Oxide Copper			
	90.8	Massive sulphides			
All Diamond Holes Inclined at 60° North					
Legend: Cu: Copper; Au: Gold					

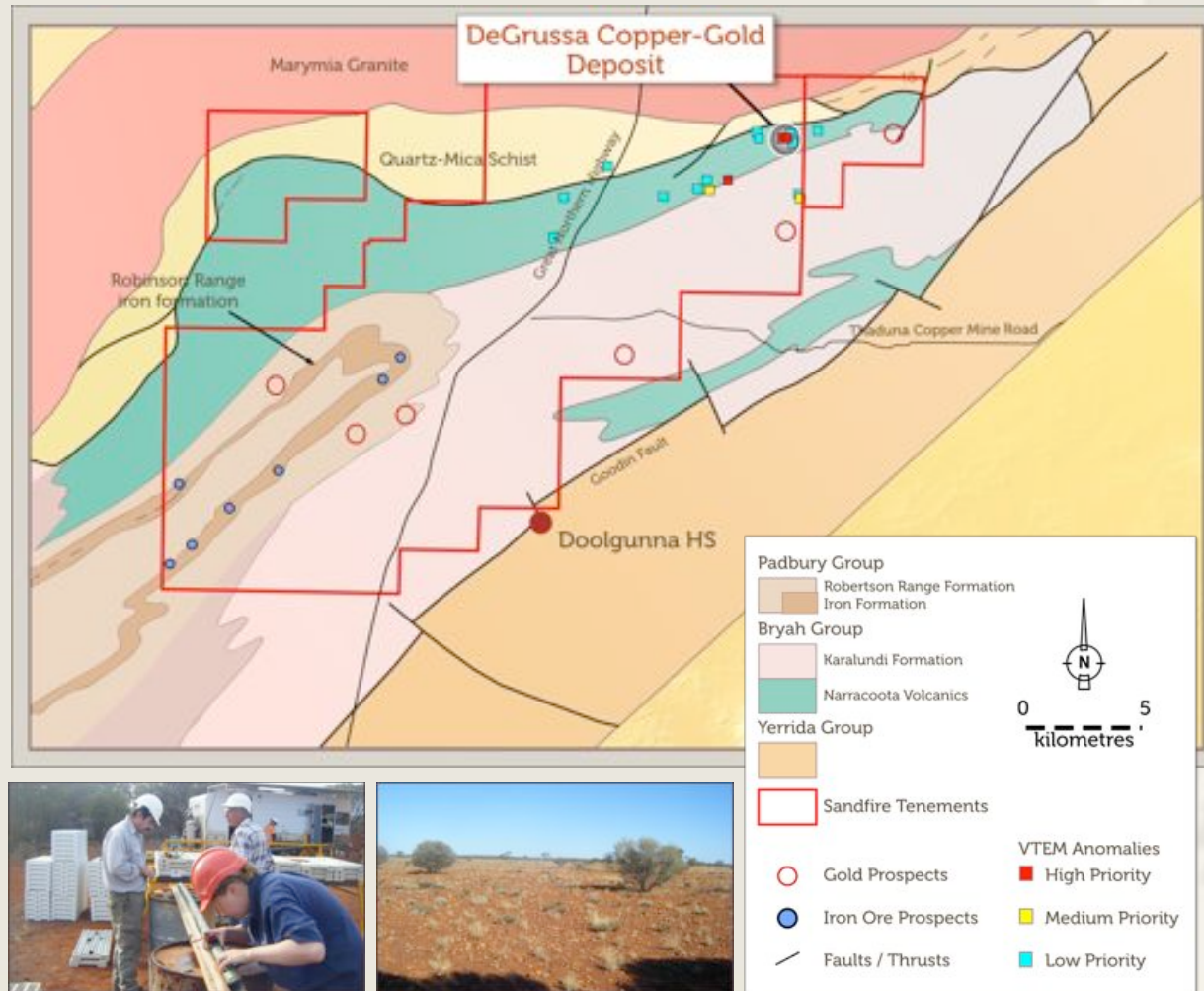
Conductor 1 Copper-Gold Deposit INTERSECTIONS

Drill Hole		Assay Results				
	Length (m)	Cu %	Au g/t	Zn %	Ag g/t	
DGRC-114	39	5.4	1.6	0.6	11.0	
DGRC-115	32	4.6	1.7	0.9	7.9	
DGRC-117	32	2.9	1.3	0.8	6.6	
TOTAL	5.5	2.9	1.5	0.5	9.6	
	19.6	3.6	1.6	1.9	19.8	
	25.1	3.4	1.6	1.5	16.7	
DGDD-003	21.9	5.0	2.0	1.8	14.9	
DGDD-004	13.7	6.7	2.6	2.2	26.2	
DGDD-006	40.7	4.6	3.0			
DGDD-007	4.3	Massive sulphides				
	8.9	Massive sulphides				
DGDD-008	15.6	3.1	2.5	3.6	Assay Results Awaited	
	4.7	Massive sulphides				
DGDD-010	26.5	Massive sulphides				
	1.3	Massive sulphides				
DGDD-011	7.1	Sulphides				
DGDD-012	24.6	Massive sulphides				
DGDD-013	6.0	Sulphides to massive sulphides				
Legend: Cu: Copper; Au: Gold; Zn: Zinc; Ag: Silver						

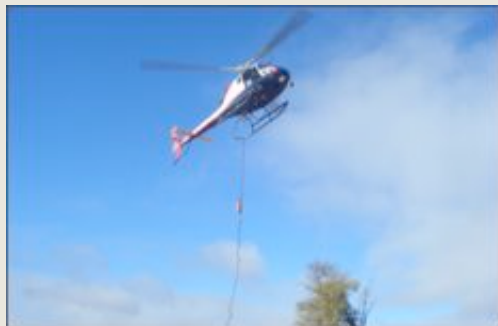


The Bigger Picture

- DeGrussa/Conductor 1 cover just a tiny portion of the Doolgunna tenements which extend for 395 sq km
- The tenements cover a 22km strike length of the prospective Narracoota Volcanics
- A major airborne EM survey has been conducted
- Numerous conductive features have been revealed, providing targets for future exploration



Doolgunna...Our Next Steps



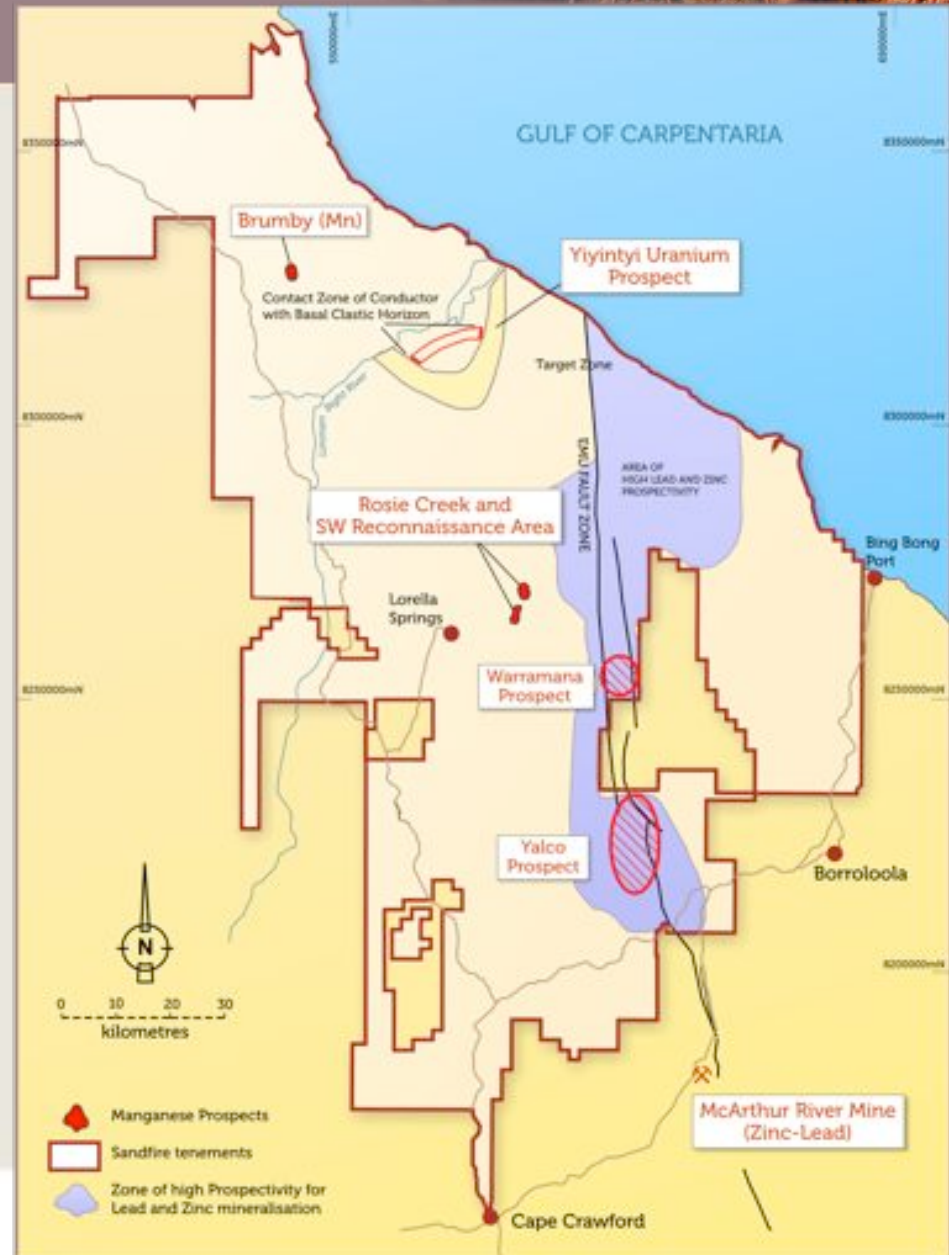
- Resource definition drilling ongoing
- Drilling to define lateral limits of the mineralisation and determine depth continuity – open in most directions
- Targeting initial JORC resource for DeGrussa/Conductor 1 before the end of 2009
- Systematic testing of regional prospects identified from EM Survey to commence shortly
- Initial Scoping Assessments underway
- Aiming to fast-track evaluation of Doolgunna

Other Projects



Borrooloola Project

- +14,000sq km tenement position in world-class NT mineral province
- Prospective for zinc-lead-silver deposits (McArthur River), manganese (Groote Eylandt), iron ore and uranium
- Manganese potential confirmed at Rosie Creek and SW Reconnaissance Area
- Base metal potential at Warramana and Yalco
- Uranium potential at Yiyintyi



Corporate Information



Issued Share Capital	95 million Ordinary fully paid shares 12 million Ordinary Contributing shares (A\$0.15 to pay)
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Cash (August 2009)	A\$13 million
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Major Shareholders	%
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POSCO	17.5
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Founders/Board	15.6
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High Net Worth	15.0
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Last major funding	A\$1.20 (August 2009 rights issue)
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Current Price	A\$1.80
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People



MILES KENNEDY, Non-executive Chairman (Lawyer)

- developed largest gold producer in New Zealand;
- developed +\$A300 million diamond producer in Western Australia;
- +25 years in resource sector.

KARL SIMICH, Managing Director (Chartered Accountant)

- developed largest gold producer in New Zealand;
- developed +\$A300 million diamond producer in Western Australia;
- +20 years in resource sector.

W. JOHN EVANS, Executive Technical Director (Geologist)

- 17 years with CRA and 12 years as Managing Director of Marymia Exploration;
- specialist in base metals, iron ore and gold;
- +35 years in resource sector.

JONGHUN JONG, Non-executive Director

- Mr. Jong holds a Bachelor of Business Administration;
- has been with POSCO for 19 years focusing on purchase of raw materials;
- present role with POSCO is focused on new business opportunities.

JOHN HUTTON, Non-executive Director

- background in accounting and finance;
- experience in merchant banking, accounting, financial planning and tax related matters;
- member of the Australian Institute of Company Directors.



Summary & Outlook



- Exciting VMS-style copper-gold discovery in WA
- Well-funded exploration & resource development program underway
- Targeting initial JORC copper-gold resource by end of 2009
- Strong and supportive major shareholder
- Quality project pipeline
- Experienced Board & Management



Disclaimer and Important Information

- **Competent Person's Statement**

The information in this report that relates to Exploration Results is based on information compiled by John Evans who is a Fellow of the Australasian Institute of Mining and Metallurgy. John Evans 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 of Reporting of Exploration Results, Mineral Resources and Ore Reserves. John Evans consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

- **JORC – Exploration Targets**

It is common practice for a company to comment on and discuss its exploration in terms of target size and type. The information in this presentation relating to exploration targets should not be misunderstood or misconstrued as an estimate of Mineral Resources or Ore Reserves. Hence the terms Resource(s) or Reserve(s) have not been used in this context. The potential quantity and grade is conceptual in nature, since there has been insufficient work completed to define them beyond exploration targets and that it is uncertain if further exploration will result in the determination of a Mineral Resource.

Forward-Looking Statements and Disclaimer

Forward-Looking Statements

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