



# Beijing Mines and Money 2012

## Investor Presentation

# Disclosure Statement



- Audalia Resources Limited ("Audalia") has prepared this presentation based on information available to it. No representation or warranty express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this presentation.
- To the maximum extent permitted by law, none of Audalia, its directors, employees or agents, advisers, nor any other person accepts any liability, including, without limitation, any liability arising from fault or negligence on the part of any of them or any other person, for any loss arising from the use of this presentation or its contents or otherwise arising in connection with it.
- This presentation is not an offer, invitation, solicitation or other recommendation with respect to the subscription for, purchase or sale of any security, and neither this presentation nor anything in it shall form the basis of any contract or commitment whatsoever. This presentation may contain forward looking statements that are subject to risk factors associated with gold exploration, mining and production businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, reserve estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.
- The information in this presentation that related to mineral resources and exploration results are based on information compiled by Mr Brent Butler who is a Member of the Australasian Institute of Mining and Metallurgy. Any statement herein, direct or implied, as to a potential mineral deposit is conceptual in nature and a reference to the targeted mineral potential and not to any JORC compliant Mineral Resource. Mr Butler is a consultant to Audalia, and has sufficient experience which is relevant to the style of mineralisation under consideration to qualify as a Competent Person as defined in the 2004 edition of the JORC Code. Mr Butler has given his consent to the inclusion in this presentation of the matters based on the information in the form and context in which it appears.

# MEDCALF VANADIUM PROJECT



# Medcalf Project-Key Features



- ❖ 100% owned by Audalia Resources.
- ❖ Three granted exploration licences covering 8km<sup>2</sup>.
- ❖ Located in the mineral rich and endowed Yilgarn Craton of Western Australia.
- ❖ Explored by major Companies, Unimin, Amoco, Cyprus, Arimco, Lionore and recently Norilsk for nickel, copper, gold, platinum group metals (PGE) and vanadium and titanium.
- ❖ Amoco's (1982) estimated historical resource (non-JORC) of 16 million tonnes of 0.8%vanadium and 12% titanium.

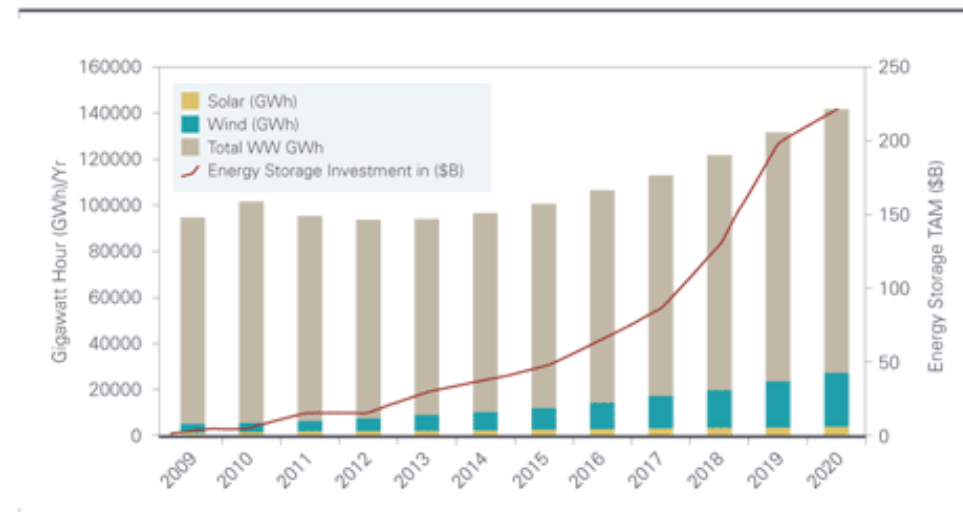


# What Is Vanadium ?

- ❖ Vanadium is a soft, grey, ductile transitional metal.
- ❖ Vanadium has resistance to corrosion and stability against alkalis, acids and salt water.
- ❖ Vanadium has been used to strengthen and harden steel since the late 1800's. A high-strength low-alloy vanadium steel when created greatly reduces shipping and production costs.
- ❖ Vanadium has recently been used in the advancement of battery technology and acts as a supercharger.
- ❖ By 2020, it is predicted that 10% of the vehicle market (currently estimated at 250 million vehicles) will be battery operated.
- ❖ Energy usage in household, commercial and grid is estimated to use 10 million tonnes of vanadium beyond 2020.

# Vanadium's Energy Storage Potential

**Market Potential for Energy Storage**

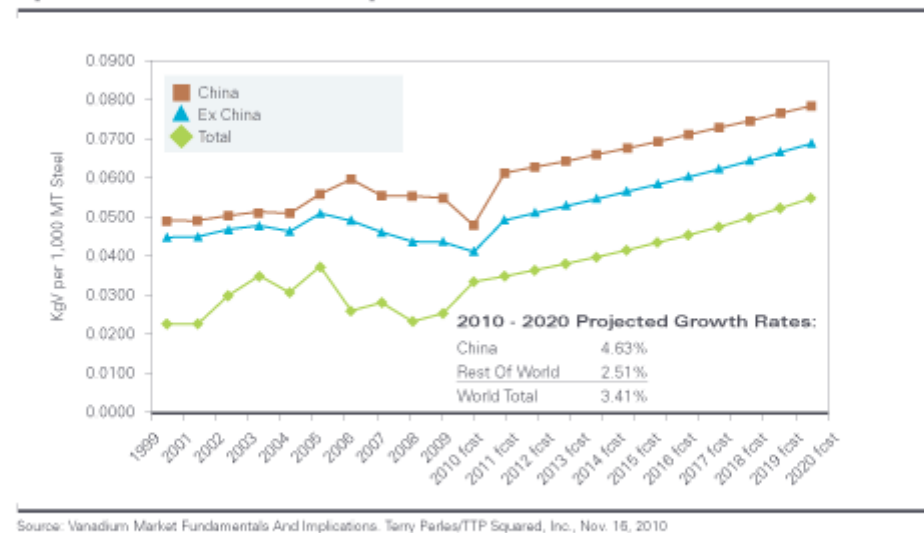


Data Source: Piper Jaffray, World Wind Energy Association, EPIA

- ❖ Energy storage is predicted to be a \$600 billion industry by 2020, with 51% predicted to come from battery technologies.

# Vanadium Consumption & Use

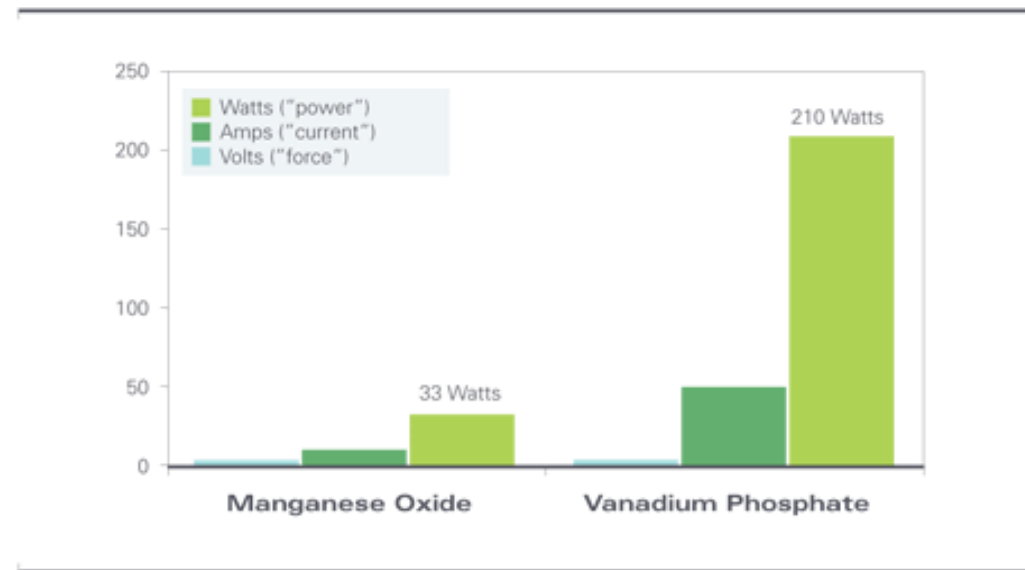
**Specific Vanadium Consumption Rate: 1999-2020**



- ❖ International metals consultancy TTP Squared, Inc. forecasts steel-specific vanadium consumption will grow at a Consolidated Annual Growth Rate (CAGR) of 4.8% over the period 2010 to 2025, with over 80% of growth occurring in Brazil, Russia, India and China (BRIC) countries.

# Vanadium Batteries

**Comparison of Lithium Battery Types**  
manganese oxide vs. vanadium phosphate



Data Source: The Gold Report website (Jon Hykawy interview), Jan. 7, 2011

- ❖ Vanadium-lithium-phosphate delivers the highest energy density and voltage of any current battery chemistry.



# Vanadium Production & Use



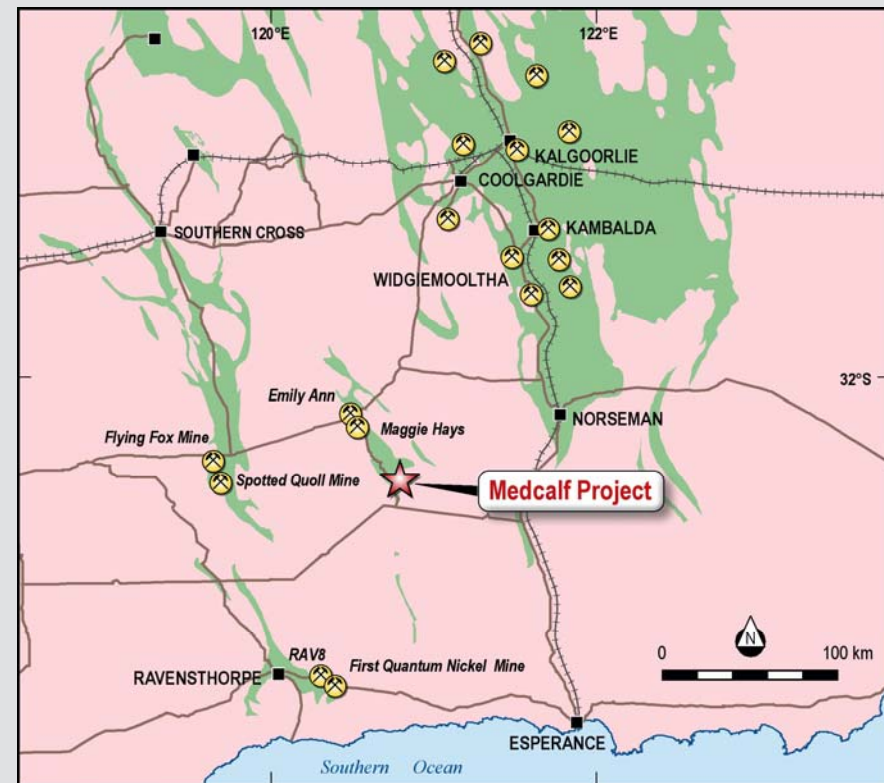
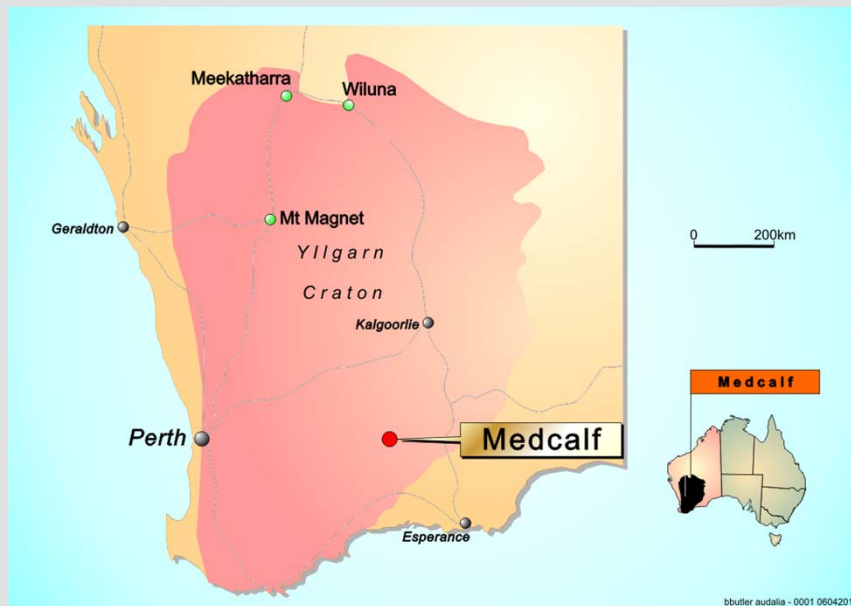
- ❖ Three largest vanadium producers are China, South Africa and Russia.
- ❖ Steelmaking accounts for roughly 92% of all vanadium currently consumed, it's estimated that vanadium is only used in about 9% of all steels today.
- ❖ Percentage is expected to grow as emerging economies, particularly in the BRIC countries and Asia, increase their intensity of vanadium use in steels to build new infrastructure (e.g., in 2008, intensity of vanadium use in the U.S. was over 3 times that in China).
- ❖ China's demand for vanadium has already demonstrated substantial growth, with consumption increasing at 13% per year between 2003 and 2009 in line with its surging steel output.

# World Laboratories Focussing On Vanadium



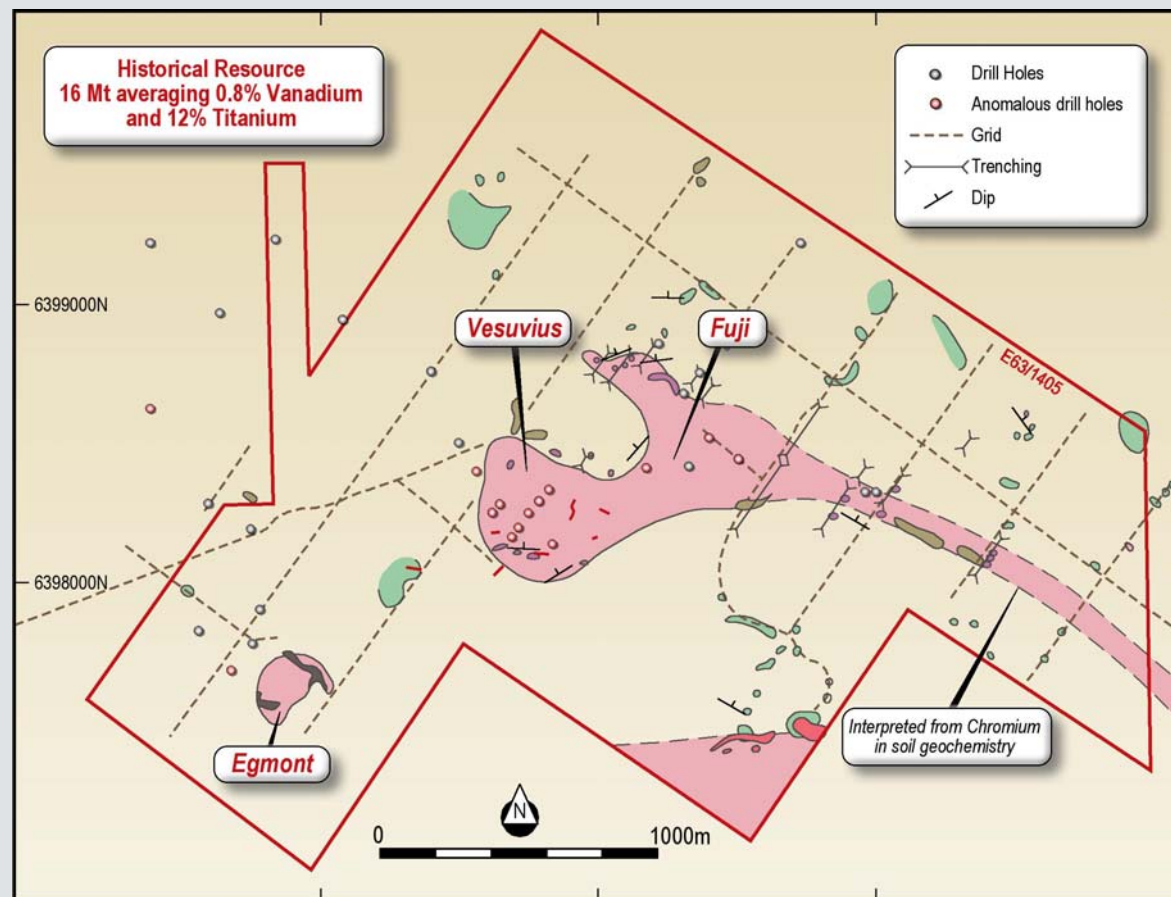
- ❖ *The United States Department of Energy's Pacific Northwest National Laboratory* announced the ability to increase the energy storage capacity of the vanadium redox batteries (VRBs) by 70 percent and to expand the temperature range in which they operate by modifying the battery's electrolyte solution which would mean that smaller tanks could be used to generate the same amount of power (March 17, 2011).
- ❖ *Germany's Fraunhofer Institute* announced that it would be focusing on and expediting the development of VRBs, and in particular, are working on new membrane materials and battery designs, with their long-term goal to build a 20 MWh capacity VRB installation, which would represent the world's largest VRB (March 31, 2011).
- ❖ *The Chinese Academy of Sciences* announced the discovery of a new nanofiltration membrane material that enhances the efficiency of VRBs and therefore, will reduce a key cost component of the battery (April 13, 2011).

# Medcalf Project Location



- ❖ Located 470km south-east of Perth. Esperance port 400km by road.

# Medcalf Project Location



❖ Three mineralised areas, Egmont, Vesuvius and Fuji outlined to date.

# Medcalf Significant Historical Drill Intercepts

Hole No	Maximum V <sub>2</sub> O <sub>5</sub> %	Maximum TiO <sub>2</sub> %
LJ1	0.48	9.7
RM1	1.11	14.8
RM2	1.11	16.5
RM3	0.86	10.9
RM4	0.87	11
RM5	1.49	25
RM6	0.77	9.8
RM7	0.57	10.4
RM8	1.05	12.7
RM9	0.75	8.9
RM10	0.52	12.1
RM11	0.42	9.9
RM13	0.61	11.6
RM15	0.7	14
RM19	0.36	16.1

- ❖ Intervals are approximately 1.5m.
- ❖ Holes are drilled into weathered outcropping pyroxenite unit.
- ❖ Pyroxenite unit is gently dipping and therefore will have a low ore/waste strip ratio when mined.

# A Comparative Project - Barrambie



- ❖ Reed Resources (ASX) completed a Definitive Feasibility Study (DFS) into the production of Vanadium from the Barrambie deposit located in Western Australia during May 2009.
- ❖ The key results of the DFS include:
  - Average EBITDA per annum of A\$105 million using an average ferrovanadium price of US\$30/kg and an exchange rate of AUD\$1=USD\$0.60.
  - Operating costs of less than USD\$20/kg of vanadium.
  - Initial mining reserve of 39.7Mt of ore at a grade of 0.82%  $V_2O_5$ .
  - Minimum of 12 years mine life at throughput of 3.2Mt per annum.
  - Capital cost estimated at A\$628.9 million.

## Medcalf Positives

- ❖ Similar grade.
- ❖ Ore to waste strip ratio expected to be less.
- ❖ Close to the Esperance port.



# Medcalf Proposed Development And Exploration Works To Commence



- ❖ Collect a bulk sample for metallurgical testwork.
- ❖ Complete a drill program to validate and confirm Amoco resource estimate.
- ❖ Complete a Scoping Study on the economics of the project.

# GASCOYNE PROJECT



# Gascoyne Project - Key Features

## In A New Base Metal Province



- 100% owned tenements covering 311 km<sup>2</sup> that are highly prospective for Lead (Pb), Zinc (Zn) and Copper (Cu), located in the Gascoyne region, Western Australia.
- Exploration work and drilling has proven the Company's geological model of base metal mineralisation being associated with coincident soil geochem anomalies and "thumbprint" magnetic anomalies.
- First pass RC drilling of just one of these targets has returned 2.3% Pb and 0.9% Cu.
- Drilling has defined two areas of base metal mineralisation 9 km apart. Mineralisation remains open in all directions.
- Numerous thumbprint targets and a gravity anomaly outlined from previous exploration by BHP remain untested.
- Regional rock chip sampling has returned up to 953ppm Pb and 487ppm Zn.
- Audalia's target is a Broken Hill Sedimentary Exhalative (SEDEX) massive sulphide lead and zinc deposit.

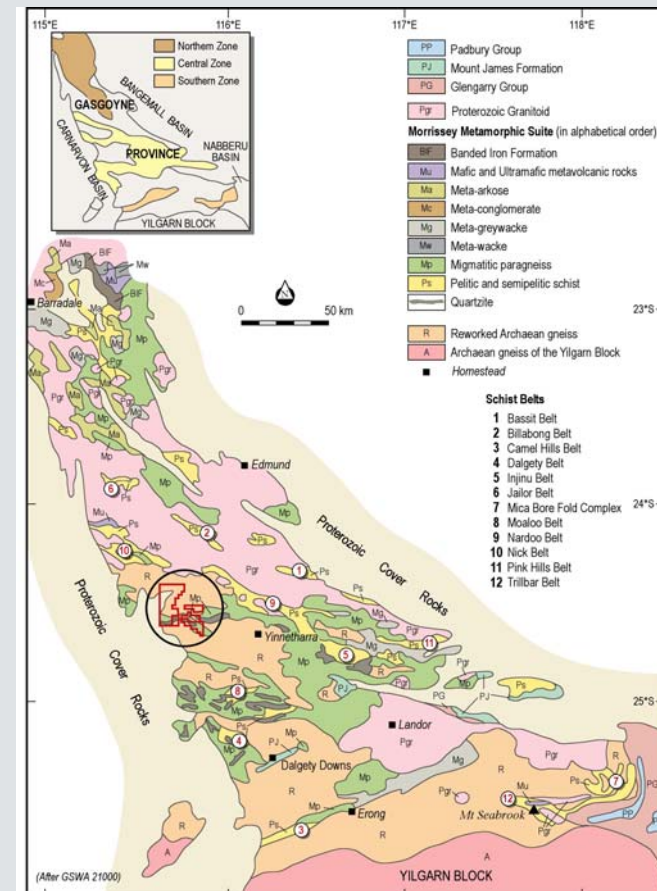
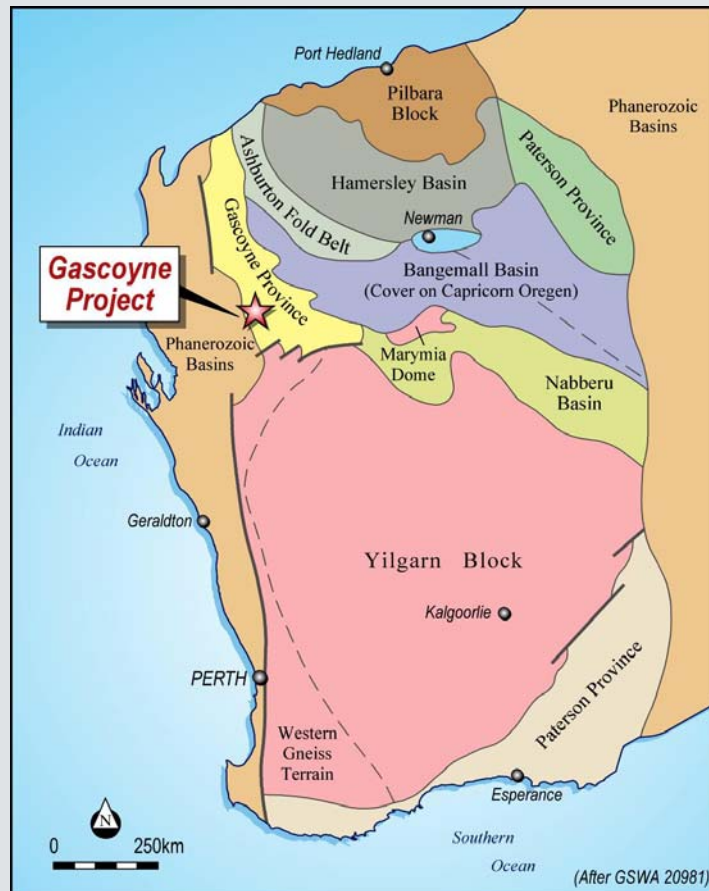
# Gascoyne Project Location and Access



- 1200 km northeast of Perth.
- Project covers an area of 311 km<sup>2</sup>.
- Access via quality bitumen (paved) highways and gravel roads.
- 3 hours from Carnarvon, with a population of 5,000 and Carnarvon is 1.25 hrs by air from Perth (960km by road).

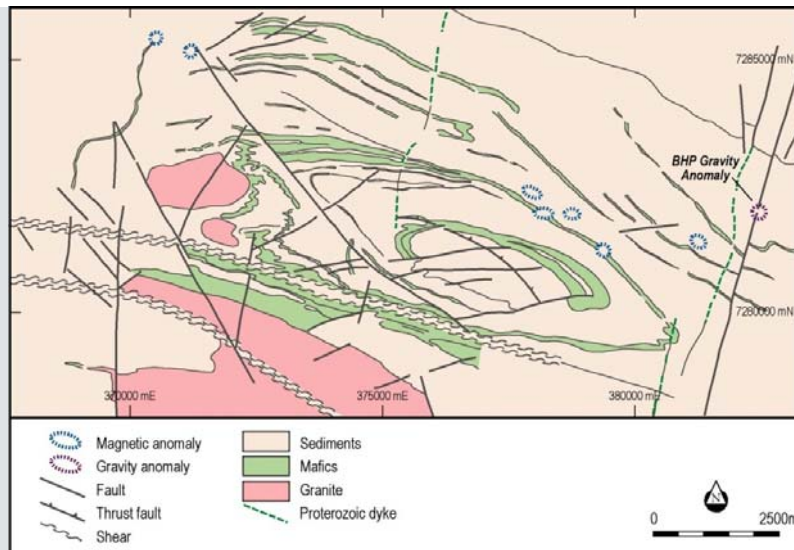
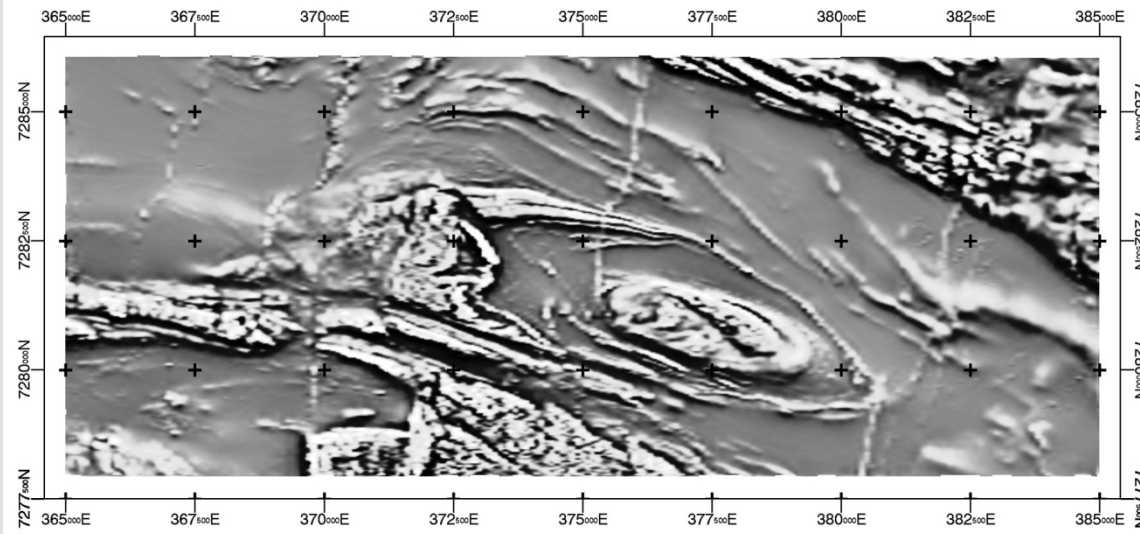


# Gascoyne Project Geology



Proterozoic Morrissey Metamorphic Suite – clastic sediments, granitoid intrusions and intercalated mafic igneous rocks.

# Gascoyne Airborne Magnetic Survey

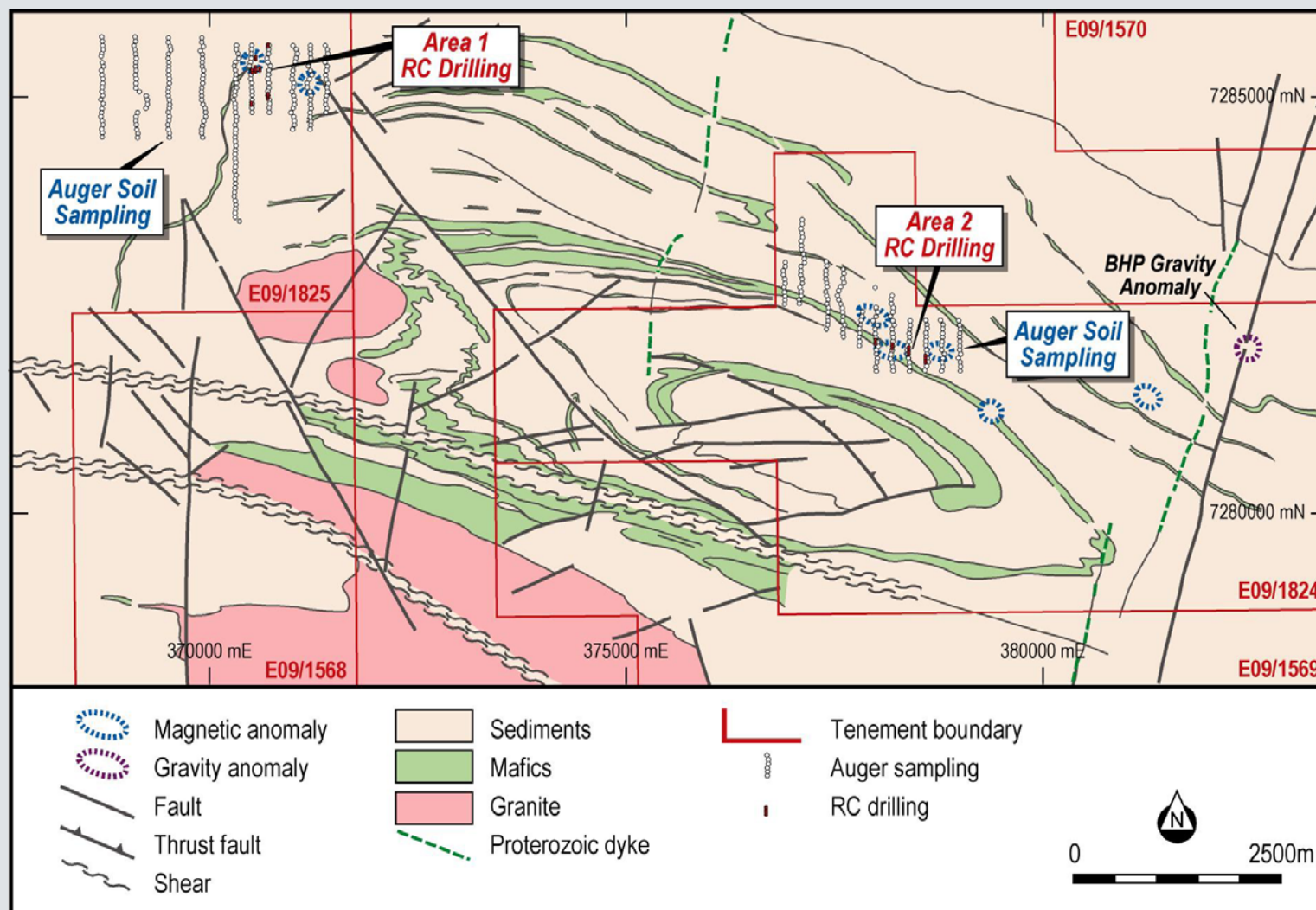


➤ Interpretation of 100m spaced magnetic data shows structure dominated by west-northwest faults/lithologies ( $290^\circ$ ) which are domal in nature –possible sedimentary basin.

➤ “Thumbprint” magnetic anomalies/targets outlined which are coincident with anomalous geochemical samples.

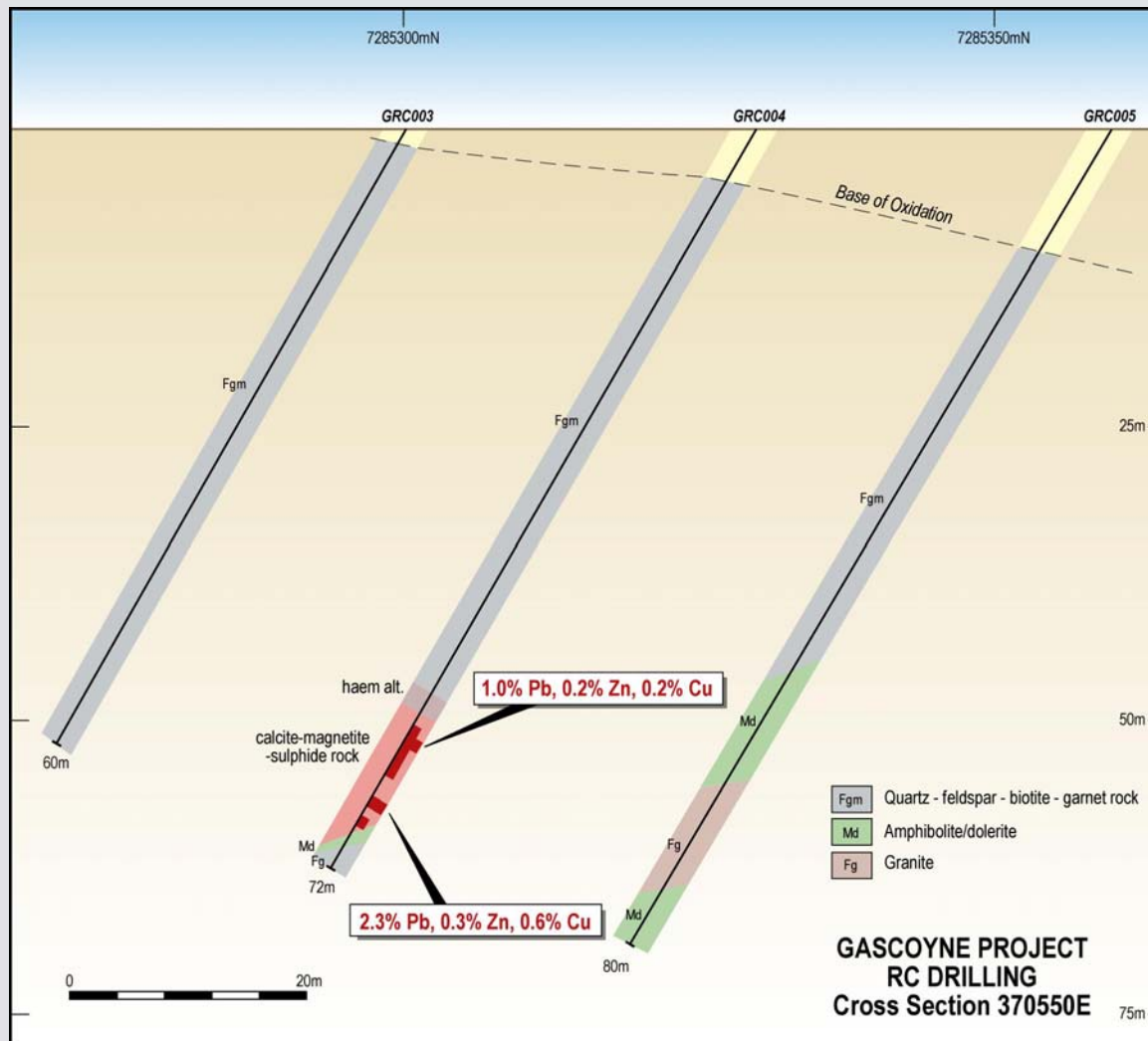


# Gascoyne Auger Geochemistry and RC Drilling



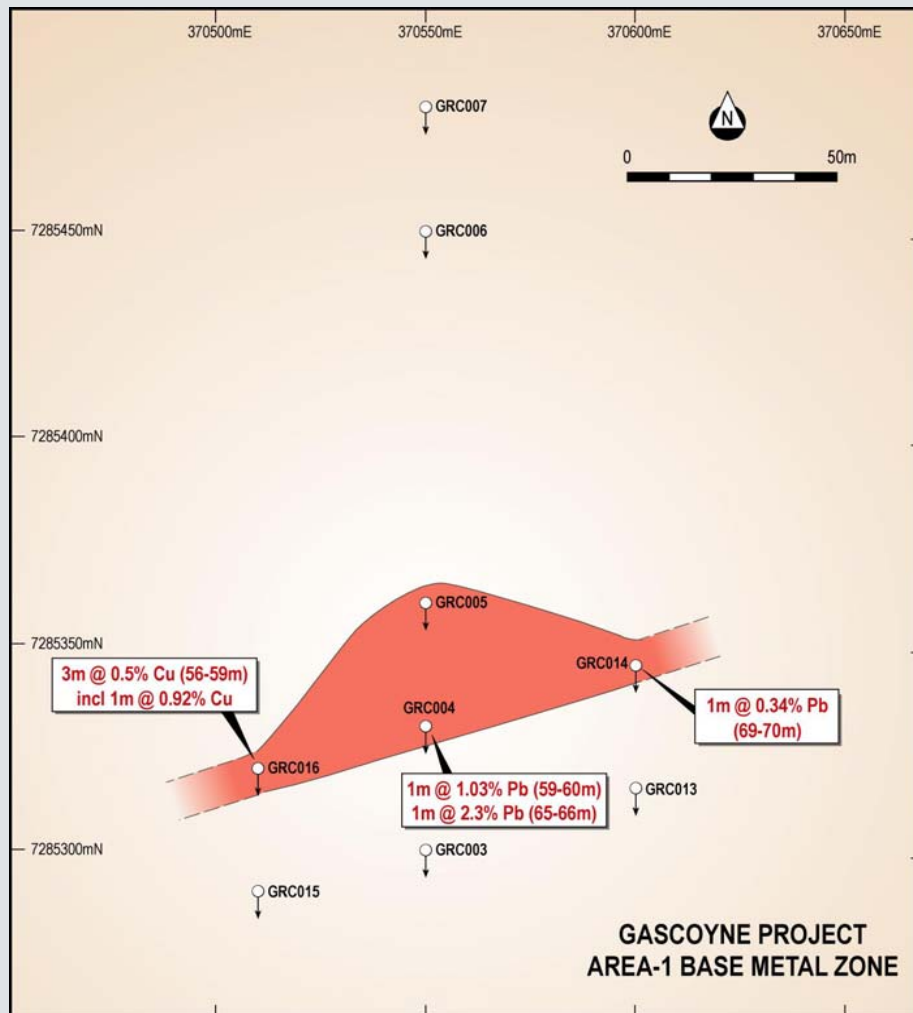
# Gascoyne Project - Area 1 Drill Section

## New base metal discovery



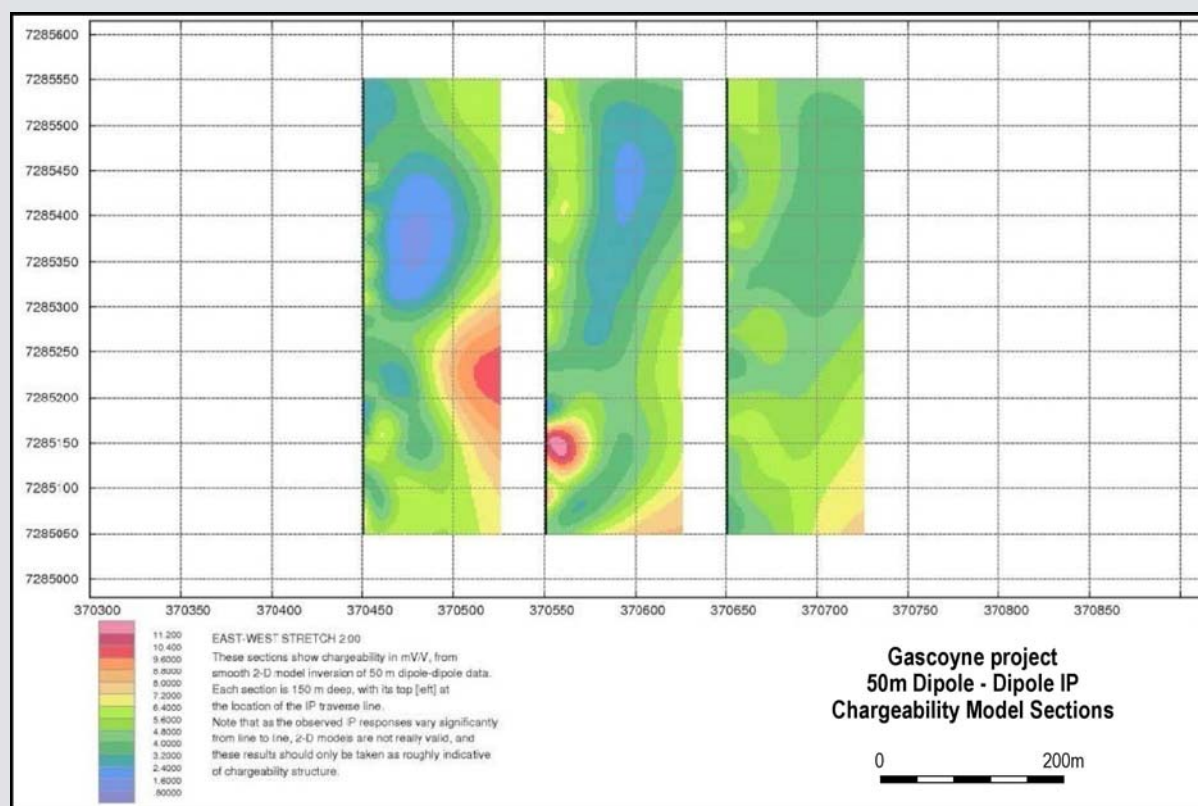
- RC drilling completed at the project has resulted in positive results for a potential new base metal discovery with significant results of up to 2.3% Pb and 0.9% Cu.
- Lead sulphide (galena) and copper sulphides (chalcopyrite) identified in drill chips.

# Gascoyne Project - Area 1 base metal zone



- Significant base metal results on three consecutive RC drill sections with strike length of over 100m established.
- Lead and copper mineralisation outlined remains open along strike.

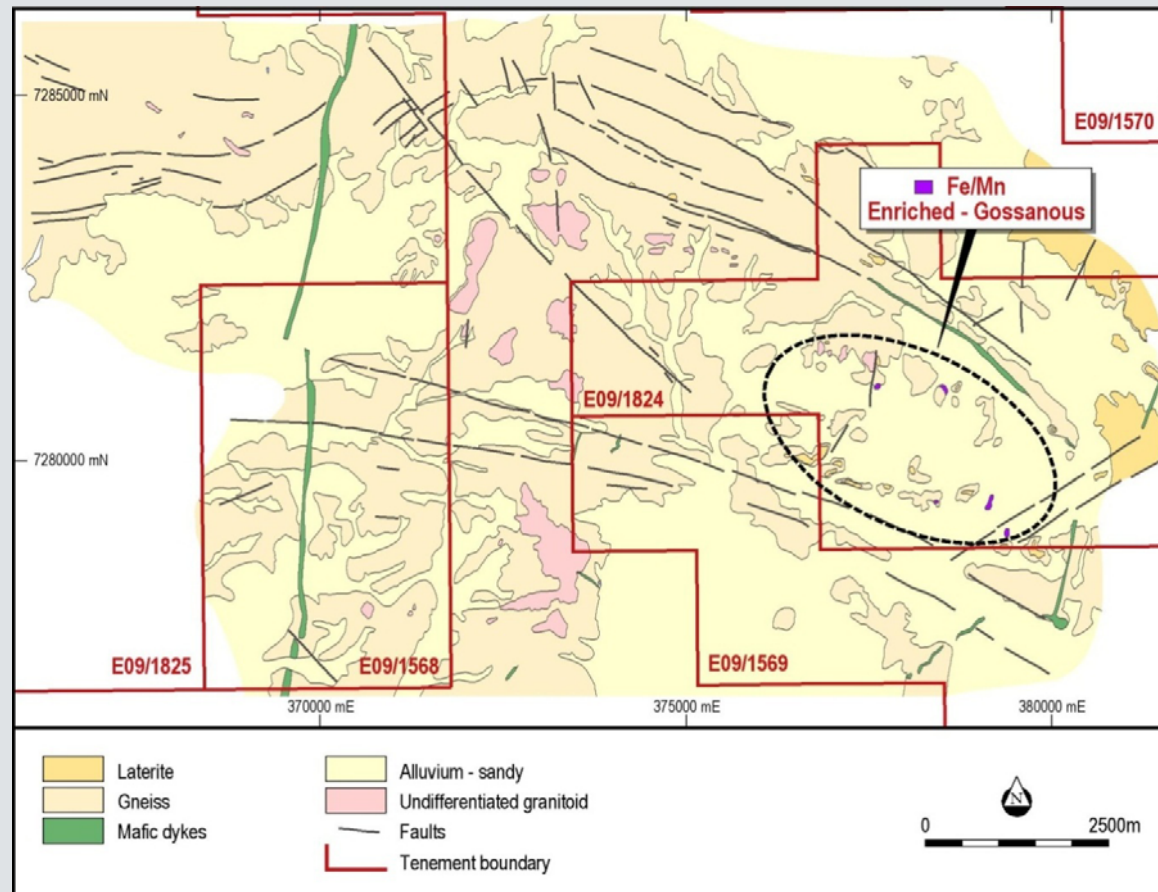
# Gascoyne Induced Polarisation (IP) survey



- A deeper and larger chargeable zone indicated from the IP dipole-dipole data.
- Further investigation with additional IP surveys planned.
- Two-dimensional modelling suggests that this zone lies below 100 m depth.



# Regolith/Geology Interpretation - Gossan Zones



- Iron/manganese-stained outcrops identified.
- These are significant and may prove to be gossanous have been identified by interpretation aerial photography data and confirmed by field visit.

# Gascoyne Proposed Exploration Works To Commence



- Systematic auger drill testing of thumbprint anomalies.
- Geophysical – IP surveys.
- Follow-up drilling of ore grade lead and copper intersections of 2.3% Pb and 0.9% Cu.
- Numerous thumbprint targets and a gravity anomaly outlined from previous exploration by BHP remain untested.
- Audalia's target is a Broken Hill sedimentary exhalative (SEDEX) massive sulphide lead, zinc and copper deposit.



# Why You Should Invest In Audalia Resources



- Medcalf Project with a 16 Mt historical resource averaging 0.8% vanadium and 12% titanium poised at position of initiating a scoping study to examine economics of the project.
- Gascoyne Project has potential for the discovery of a Company maker SEDEX massive sulphide lead zinc and copper deposit.
- Small, focussed and multi-faceted board with strong base metal technical team.

# Capital Structure



Stock Exchange	ASX
Issued Common Shares	80,160,001
Options	6,830,004
Fully Diluted Shares	86,990,005
Year trading range	\$0.10 - \$0.26
Current price at 4th April, 2012	\$0.23
Market Cap at 4th April, 2012	\$18,436,800



Unit 4, 70 Wittenoom Street  
East Perth  
Western Australia 6004

Ph: +61 8 6389 2688  
[www.audalia.com.au](http://www.audalia.com.au)