



# PACMAG METALS LIMITED

ABN 73 066 353 231

27 February 2009

Company Announcements Office  
Australian Stock Exchange  
4<sup>th</sup> Floor, 20 Bridge Street  
SYDNEY NSW 2000

Dear Sir/Madam

Please find attached for release to the market a copy of an investor presentation on the Company's Sentinel uranium-germanium-molybdenum project. The presentation will be delivered by the Company's Managing Director to investors at the Prospectors and Developers Association of Canada (PDAC) Conference in Toronto as well as to investors in the USA commencing early next week.

Yours faithfully

Bruce Acutt  
**Company Secretary**

*attach.*



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# PACMAG METALS LIMITED SENTINEL PRESENTATION PDAC - MARCH 2009



(ASX-PMH)



[www.pacmag.com.au](http://www.pacmag.com.au)

*Drilling at Sentinel*

Investors should take independent advice from their stockbroker, accountant or other professional advisers before making an investment in PacMag Metals Limited or making a decision to transact shares in the company.

# FORWARD-LOOKING STATEMENTS



Some statements in this presentation regarding estimates or future events are forward-looking statements. They involve risk and uncertainties that could cause actual results to differ from estimated results. Forward-looking statements include estimates of future production, reserve and mineralised material estimates, capital costs, and other estimates or prediction of future activities. They include statements preceded by words such as "believe", "estimate", "expect", "intend", "will" and similar expressions. Actual results could differ materially depending on such things as political events, labour relations, currency fluctuations and other general economic conditions, market prices for PacMag Metals Limited products, timing of permits and other government approvals and requirements, change in operating conditions, lower than expected ore grades, unexpected ground and mining conditions, availability and cost of materials and equipment, and risks generally inherent in the ownership and operation of mining properties and investment in foreign countries.

## Technical Detail

This presentation aims to provide a high level summary of various technical aspects of the Company's projects. For more details on the underlying technical parameters the reader is referred to the ASX Reports on the PacMag Metals Limited's website; [www.pacmag.com.au](http://www.pacmag.com.au) .

## CAPITAL

- Stock Exchange: ASX
- ASX Code: PMH
- Ordinary Shares ~ 144.6M @ \$0.5\*
- Market Capitalisation ~\$7.2M
- Cash ~\$2.9M\*\*
- Equities ~\$0.7M

## MAJOR SHAREHOLDERS

- Giralia Resources NL
- Top 20 own 51%
- Directors own 6%

## ➤ Michael Joyce – Non Executive Chairman

Mr Joyce is a geologist with over 27 years experience in mineral exploration. He graduated from Melbourne's Monash University in 1979 with a BSc (Hons) degree in geology and holds an MSc in Mineral Exploration from the Royal School of Mines at the University of London.

Mr Joyce is the Managing Director of Giralia Resources NL. Prior to joining Giralia in 1998, Mr Joyce led the gold exploration team at Aberfoyle Resources Ltd, which discovered the Carosue Dam and Davyhurst Gold deposits in Western Australia.

## ➤ Michael Clifford – Managing Director

Mr Clifford holds a BSc (Hons) from James Cook University, as well as an MSc in Mining and Exploration. Prior to joining PacMag in November 2005, Mr Clifford was Exploration Manager Australia for AngloGold Ashanti Limited, where teams under his leadership were successful in the discovery of the Sickle and Tropicana gold deposits in Western Australia.

Mr Clifford is a geologist with 20 years experience in the exploration and mining industry.

## ➤ Emmanuel Althaus

Mr Althaus has been active in mining and commercial ventures for over 33 years.

## **Sentinel Project – North Dakota Lignite Hosted, High-Grade Uranium-Germanium-Molybdenum**

- 1. Large area (25,000 acres under lease and application, only 3000 acres drilled),**
- 2. Historic Production grades 0.1%  $U_3O_8$  and 0.1%  $MoO_3$ ,**
- 3. Resource drilling completed**
  - Local very high grades**
  - Very shallow depths (average 3.4 metres),**
- 4. Uranium Metallurgical Testwork indicates potential for 92% recovery,**
- 5. Ge – Mo Metallurgical testwork in progress,**
- 6. Flat lying mineralisation in lignites,**
- 7. Similar style to lignites in Yunnan – China where Ge is produced**

## 1. Good Legislation

- Currently 6 coal mining operations in Western North Dakota

## 2. Excellent Infrastructure

- Flat to gently undulating open grassland (farming and grazing)
- Accessible via network of state, county and farm roads
- Northern Pacific Railroad provides nearby shipping facility
- State power grid
- Natural gas pipelines



**May 08 - Mineral and surface leases negotiated and applications filed over prospective regions**

**Sampling 5km and 10km north of central lease, returns high grade U and Mo**

**Jun 08 - Surface sampling returns high grade U and Mo over 3.3km of strike on central lease**

**Drill testing commenced**

**Jul 08 - Initial drill results – positive – leads to decision to drill out resource**

**Germanium identified in surface sampling**

**Aug 08 - Resource drilling 336 holes completed, positive geology and gamma logging results**

**Bulk sampling for metallurgical testwork**

**Sep 08 - Close spaced posthole sampling confirms continuity of mineralisation**

**Oct 08 - Results for first 42 drill holes – strong coherent mineralisation,**

**Lower lignites identified with Ge mineralisation**



# PROGRESS



**Nov 08 - Decision to drill 55 wide spaced (500m) deeper (40m) holes to test lower lignites for Ge**

**Positive uranium metallurgical testwork**

**Dec 08 - Bulk of resource drilling assay results received, Ge widespread**

**Jan 08 - Geological resource modelling**

**Feb 08 - Resource modelling in progress and check assay study**

## **Project Evaluation by an Experienced - High Quality Team**

### **Land Leasing and Geological**

### **Analysis**

### **Resource Estimate**

### **Metallurgy**

- Hazen Research – Colorado
- Florin Labs – Nevada
- Ecole Polytechnique - Montreal

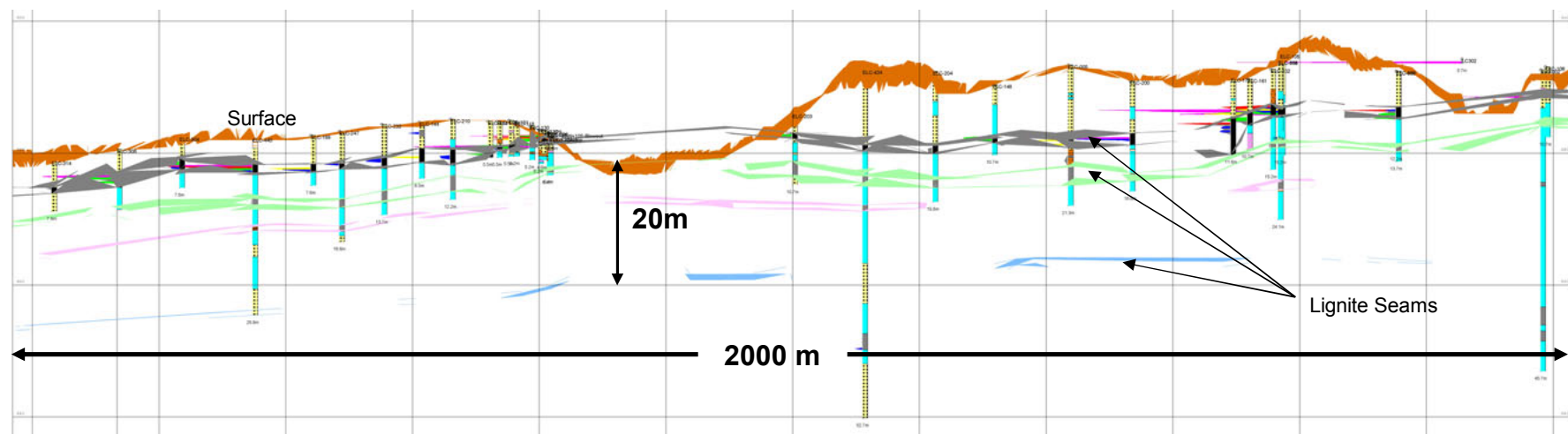
**Golder Associates - Aust**

**J Litz - Colorado**



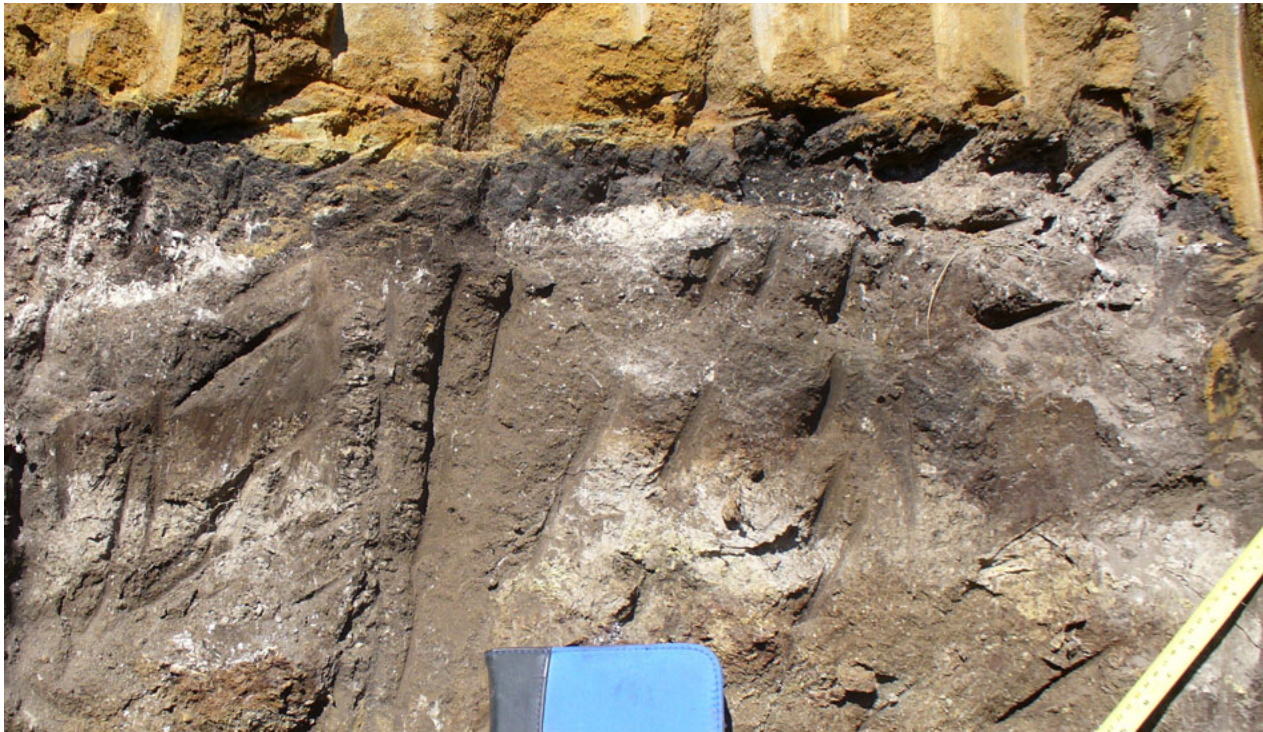
**World Industrial Minerals**

# DISCOVERY



LONG SECTION THROUGH SOUTH-EAST OF CHURCH DEPOSIT (10x Vertical Exaggeration)

## Altered Oxidized Clayey Sand Overlying Germanium-Uranium-Molybdenum Lignite Seam



# METALLURGICAL TESTWORK



**LIGNITE**

- 2- 3 times grade increase
- $\frac{1}{2}$  -  $\frac{1}{3}$  reduction in weight

**ASH**

- Sulphuric acid
- Acid consumption 75kg/tonne

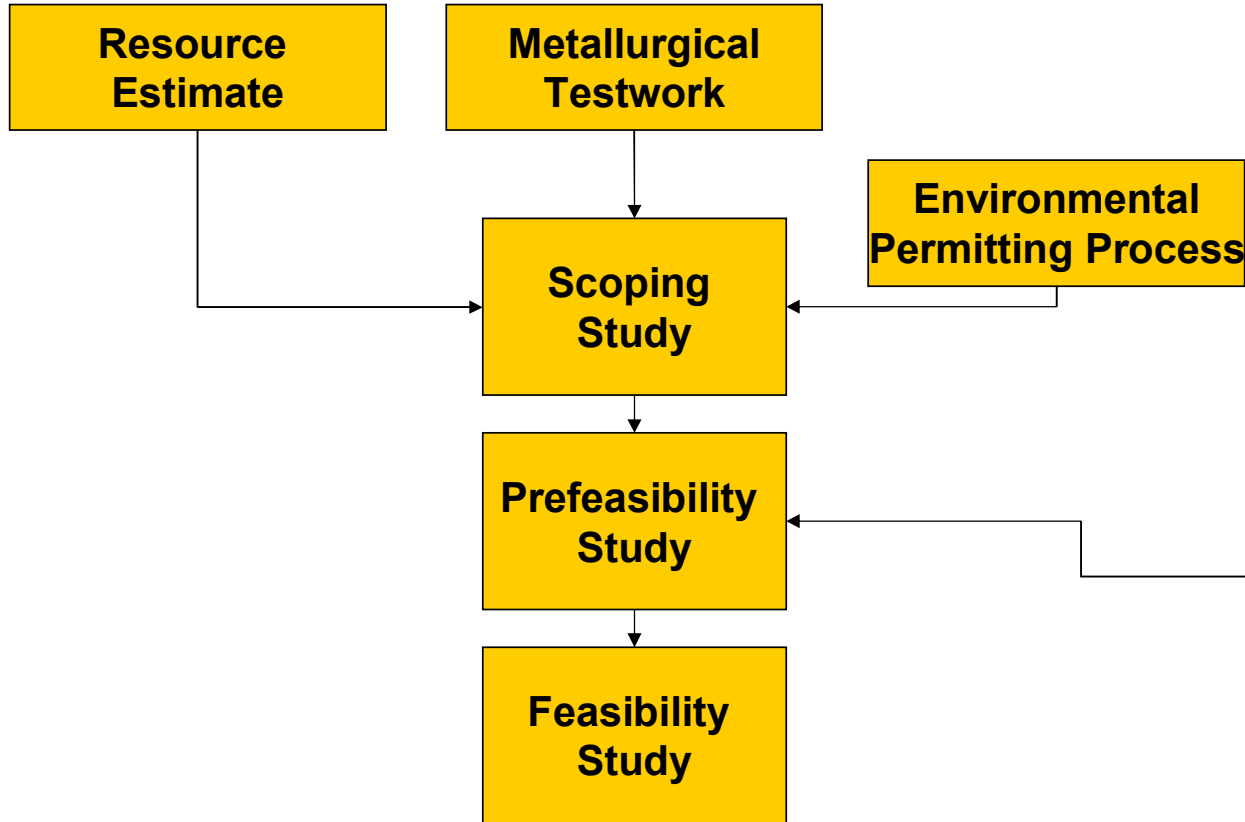
- 92%  $U_3O_8$  Recovery
- Ge and Mo testwork in progress



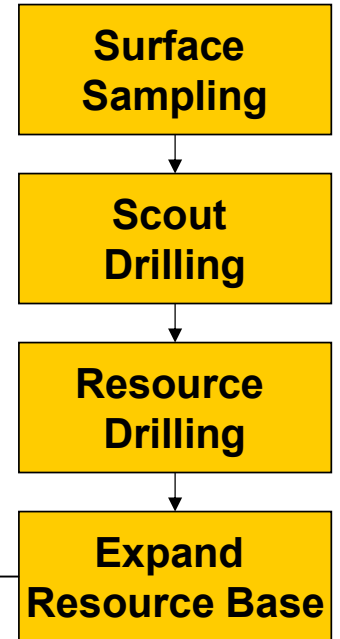
# THE WAY FORWARD



## Church Deposit (3,000 acres)



## Regional Prospects (25,000 acres)





# Germanium – A Metal for the “Electronic Age”



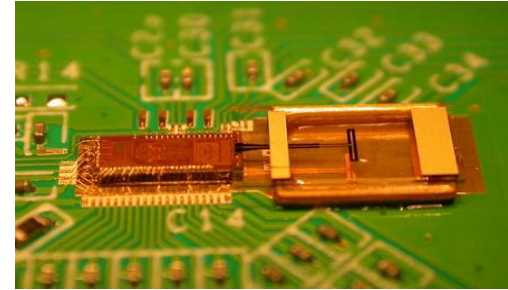
Solar Panels



Fibre optics



Night vision goggles



New computer chips



Medicines



Radiation detectors



PET plastics (catalyst)



Semiconductors

**$\text{GeO}_2 = \$850/\text{kg}^* = \$850,000/\text{tonne}$**

# Competent Person Statements



The information in this ASX Release that relates to the Sentinel Project Exploration Results, Minerals Resources or Ore Reserves, as those terms are as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserve", is based on information compiled by Mr Michael Clifford and Mr J Guilinger. Mr Clifford is a Member of the Australian Institute of Geoscientists and a full time employee of the Company, whilst Mr J Guilinger is a Registered Member (RM) with the Society of Mining Engineers (SME) and a Qualified Person (QP) with the Mining and Metallurgical Society of America (MMSA), and a consultant to the Company. Mr Guilinger has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserve". Mr Clifford and Mr Guilinger consent to the inclusion in this ASX Release of the matters based on their information in the form and context in which it appears.

The information in this ASX Release that relates to Ann Mason and Blue Rose Exploration Results, Minerals Resources or Ore Reserves, as those terms are as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserve", is based on information compiled by Mr Michael Clifford, who is a full time employee of the Company and a Member of the Australian Institute of Geoscientists. Mr Michael Clifford has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserve". Mr Michael Clifford consents to the inclusion in this ASX Release of the matters based on his information in the form and context in which it appears.



# PacMag Metals Limited



(ASX:PMH)



Sentinel Samples