New Discovery Program

Pre-competitive geoscience to address the discovery challenge in the Mt Isa Province

Vladimir Lisitsin
Brisbane, 24 September 2018
Outline

• New Discovery Program – context and overview
• New Discovery Program – current scope and structure
• Plans for future – invitation of feedback, support and collaboration
Exploration expenditure vs discoveries

$ spent ≠ Major discoveries

Total Expenditures (2016 A$ Billion)

Number of new discoveries

- Estimated Unreported Discoveries
- Moderate Discoveries
- Major Discoveries
- Giant Discoveries
- Exploration Expenditures (2016 A$B)

MinEx Consulting, March 2017
Research vs Discoveries – NW QLD

GSQ NWQ Mineral Province New Discovery Program

SREP

RESEARCH + NEW DATA

EXPLORATION ACTIVITY

(Prof. Rick Valenta, BRC / UQ)
Pre-competitive geoscience to assist discovery challenge

• Need a step change in pre-competitive geoscience to facilitate major discoveries

• UNCOVER Roadmap (August 2017)

• Geoscience Australia – Exploring for the Future (2016-20)

• MinEx CRC (commenced in 2018)
QLD Government response in NW QLD

Deliver minerals and natural gas geoscience data systems and promote the region’s investment potential:

• Improve pre-competitive geoscientific data
• Establish a Minerals Collaborative Exploration Program
• Develop new geological databases
• Initiate gas exploration in proximity to the Province
• Promote the investment potential of the Province
Strategic Resources Exploration Program

SREP 2017-21

Geoscience Data Modernisation
- $7.125M

New Discovery Program
- $11.6M
  - Geophysics
  - Geochemistry
  - Synthesis
  - Collaboration

Collaborative Exploration Initiative
- $3.6M

Investment Attraction
- $1.2M

Frontier Basin Gas Exploration
- $3.6M

- New geophysical surveys
- Surveys, case studies, research
- Compilations, research
- Collaborative contributions
New Discovery Program – developments

Program development: GSQ-Bryan Research Centre/UQ (Prof. Rick Valenta); strategic collaborative partnerships
## New Discovery Program – developments

Program development: GSQ-Bryan Research Centre/UQ (Prof. Rick Valenta); strategic collaborative partnerships; **industry consultation**

Industry survey – August-September 2017:

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Geological Survey of Queensland
Celebrating 150
Exploring Queensland’s Resources
New Discovery Program – developments

- Program development: GSQ-Bryan Research Centre/UQ (Prof. Rick Valenta); strategic collaborative partnerships; industry consultation

- **2017-18** – GSQ set up 4 collaborative agreements (BRC/UQ, CSIRO, JCU, CODES/UTas); 8 projects commenced:
  - Geochemical toolkit (Adelaide Uni-GeoChem Pacific-GSQ, completed)
  - Research compilation and synthesis (BRC/UQ-GSQ, completed)
  - Machine Learning pilot (DATA61/CSIRO, completed)
  - Cobalt and HREE mineral systems (Ken Collerson completed)
  - Tick Hill gold deposit (EGRU/JCU, till 2021)
  - Magma fertility of Mary K Domain (EGRU/JCU, till 2021)
  - Mineral geochemistry vectoring (CODES/Utas, till 2021)
  - North Cloncurry airborne magnetic-radiometric survey (till late 2018)
New Discovery Program – developments

Since July 2018:

• 6 new projects commenced:
  – Deposit Atlas of Northwest Queensland (BRC/UQ)
  – Characterisation of the Cloncurry mineral system (CSIRO)
  – Hydrogeochemistry of the Mt Isa Province (CSIRO-GSQ)
  – Igneous geology of the Mary Kathleen Domain (GSQ)
  – Virtual and physical reference collection of NWQ mineral systems (GSQ)
  – Central Isa airborne magnetic-radiometric survey (GSQ – contract procurement in progress)

• Planning and preparations under way for more geophysical surveys and research projects
New Discovery Program – way forward

• Industry Advisory Panel established to provide strategic advice to GSQ and assist the Program in achieving its goals

• Regular industry and public consultation forums to communicate the progress and results of the New Discovery Program
  – GSQ Digging Deeper 2018 – Brisbane, 5 December 2018
  – GSQ NWQ technical workshop – Brisbane, 6 December 2018
  – The New Discovery Program workshop – Mt Isa / Cloncurry, April 2019 (TBC)

• Ongoing discussions to establish and expand collaborative work on the New Discovery Program
SUMMARY

• The New Discovery Program aims to facilitate mineral exploration in NW QLD

• Close collaboration between GSQ, industry and academia is essential (reference deposit collections and datasets; access to deposits / ground, research)

• Open invitation – engage and collaborate!