Optimizing Risk versus Reward in Exploration

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Risk of Non-Discovery is increasing.

World Class and Large Discoveries versus Exploration Expenditure

13 World Class and 125 Large discoveries between 1980 - 2001

- World exploration spending
- Large discovery
- World Class discovery

Data Source: BHP Billiton internal compilation
Key Strategies to Mitigate and Manage Risk

- Terrain Selection – Get in early
- Maximize Value - Leave projects with their natural owner
- Commitment - Consistent funding and clear strategy
- Planning - Be prepared for success
- Understand Risk - Quantify Risk and Value Changes
- Cut your losses - Ruthlessly cut projects that miss milestones
1. Terrain Selection – Get in Early

Exploration Results in Chile

Contained Copper discovered in Chile

Data Source: BHP Billiton internal compilation
1. Terrain Selection – Explorers seek low political risk & high technical risk

Data Source: MEG 2002
2. Maximize Value - Leave Projects with their Natural Owner

Potential value lost between 1981 and 2003 by BHP

Market Valuation of Projects Divested: US$514M
Actual amount received: US$264M

Potential lost value: US$250M

BHP Exploration spend over this period: US$1,340M
3. Commitment - Consistent Funding & Clear Strategy

- Global target prioritisation
- Budget only to the next Key Decision Point (not annually)
- Clarity about what you will not look for is as important as clarity of what you will.

Good results require technical competence and consistent funding over sufficient time to deliver a result.
4. Planning - Be prepared for Success

- Unambiguous agreements with governments
- Strong “Social License to Operate” with local communities
- Aligned Partners
5. Understand Risk – Quantify Risk & Value Changes

Different deposit styles have different risk profiles

Probability of moving to next stage (%)

Project Stage | Province | Targets | Prospects | Advanced Projects | Feasibility

- IOCG
- BHT
- Porphyry Cu

Milestones:
- Identify Target
- Drill Mineralisation
- Likely Economic Mineralisation
- Positive Concept Study
- Greater than $250m NPV

Greater than $250m NPV

Porphyry Cu

BHT

IOCG
6. Cut your losses - Ruthlessly cut projects that miss milestones

- As the probability of success drops, the exploration spend needs to be cut

  - Aqua Rica – US$30M over ten years
    (sold for US$13M)
  - Hope Bay Gold – US$50M over ten years
    (sold for US$23.5M)

Are you sure, that if you find what you're looking for, you will want to develop it?
Conclusions

Industry Consolidation has left majors looking to Exploration for growth
- but with improved performance (through risk management)

Junior Explorers still driven by the need to access cash
- but investors are looking for improved performance and returns (through risk management)

The successful Explorers over the next decade will be those that embrace effective risk management