



NEW VISION • NEW WORLD • NEW RESOURCES

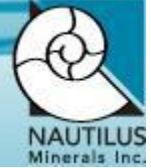
TSX : NUS
AIM : NUS

BMO Global Metals and Mining 2009

Investor Update

February 2009

Forward Looking Statements



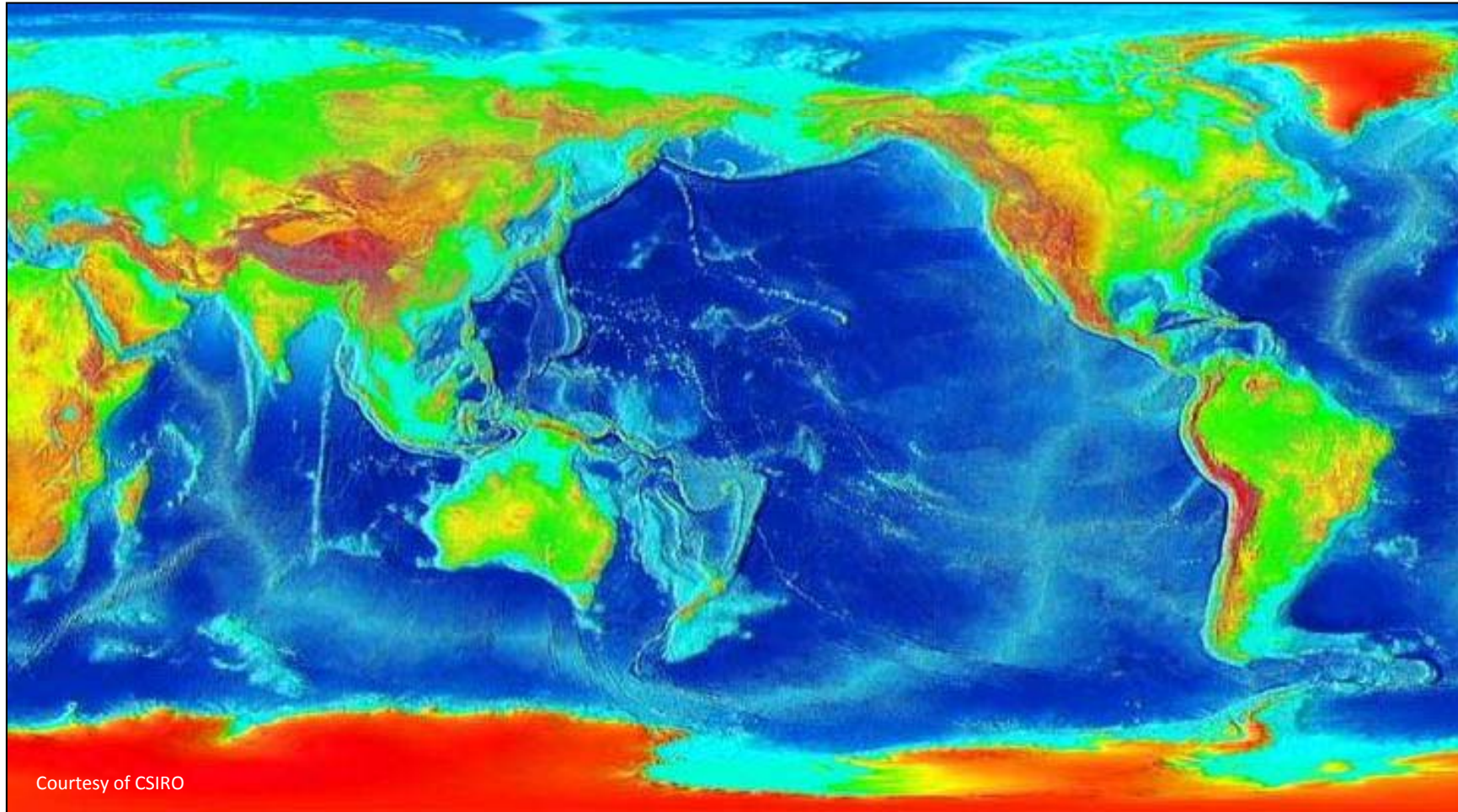
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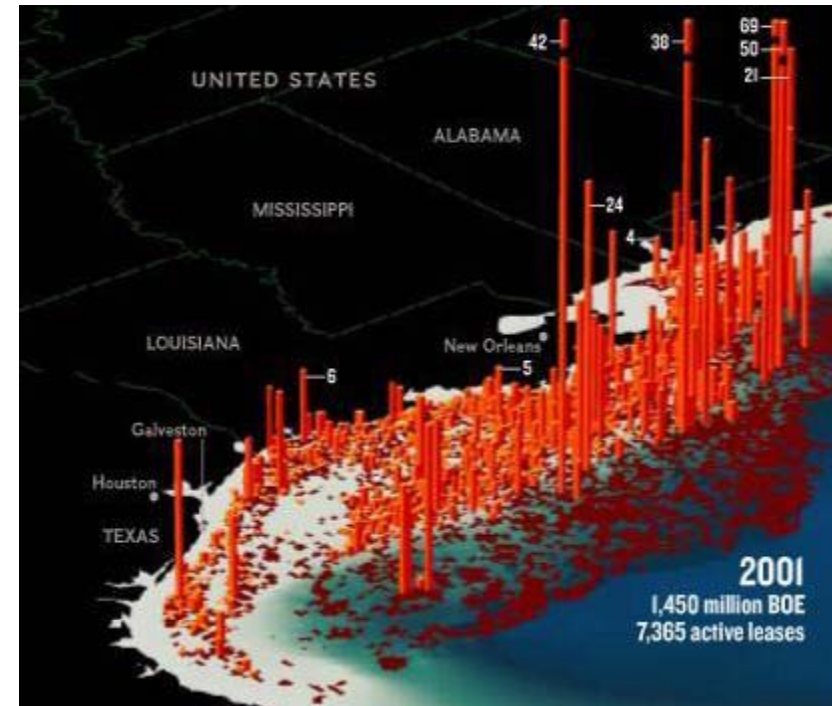
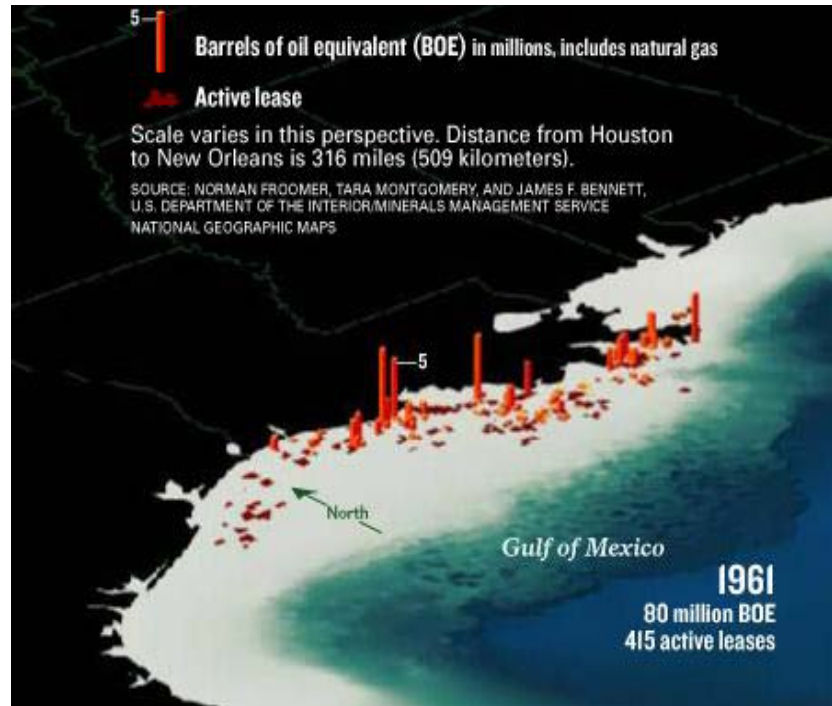
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Seafloor Mineral Potential Is Enormous



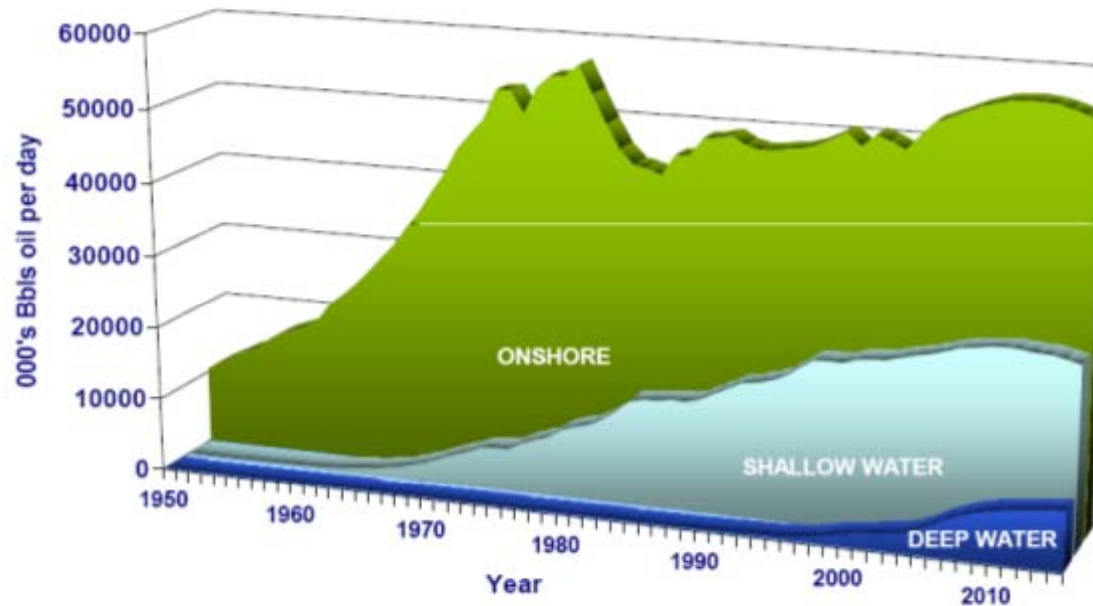
- Oceans cover 70% of the Earth's surface

Offshore Oil and Gas Industry



- 35% world's oil is now derived from offshore locations
- 26% world's gas is now derived from offshore locations

Offshore Oil Production

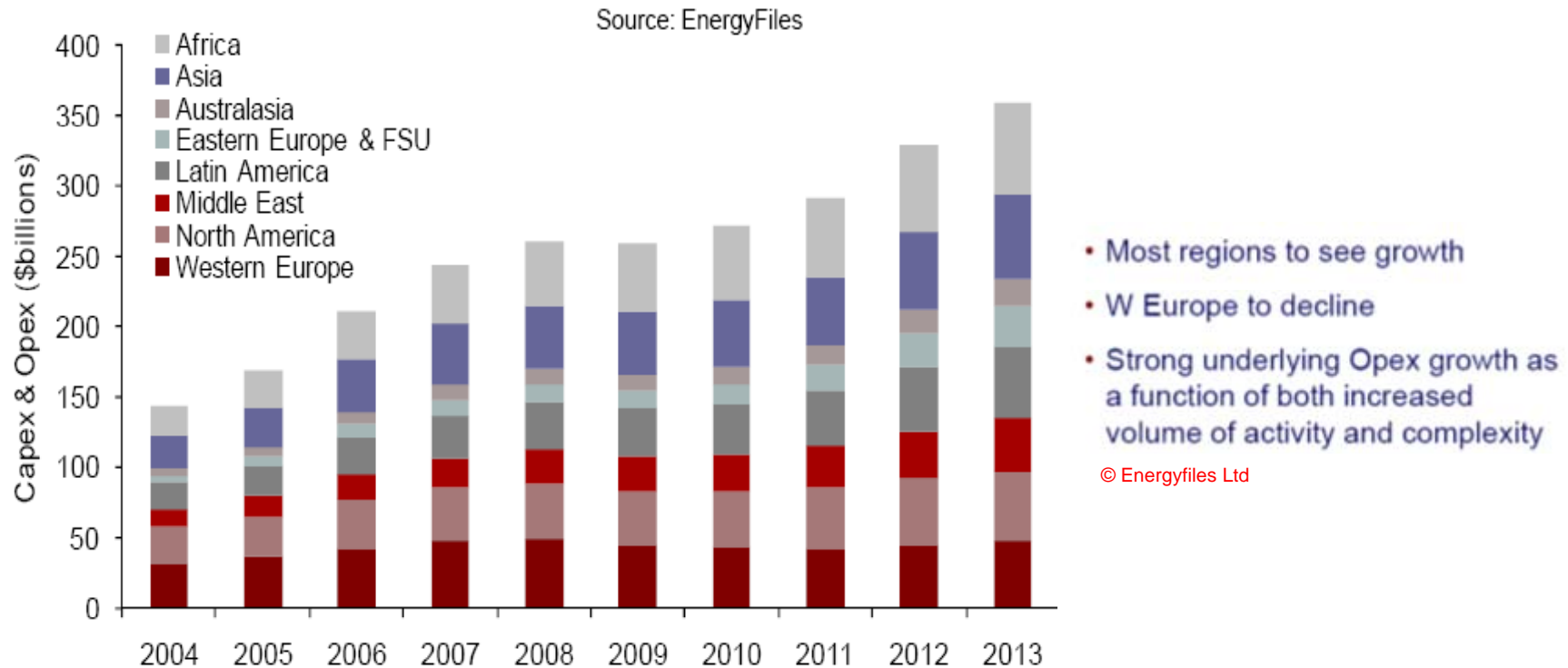


© Energyfiles Ltd.

- Offshore 35% of world's oil production
- Deepwater – 3% of production in 2002, 6% in 2007, 10% by 2012
- After 2012, deepwater is the only sector to continue to grow

Source Douglas Westwood - *Global Offshore Prospects & 10th February 2009*

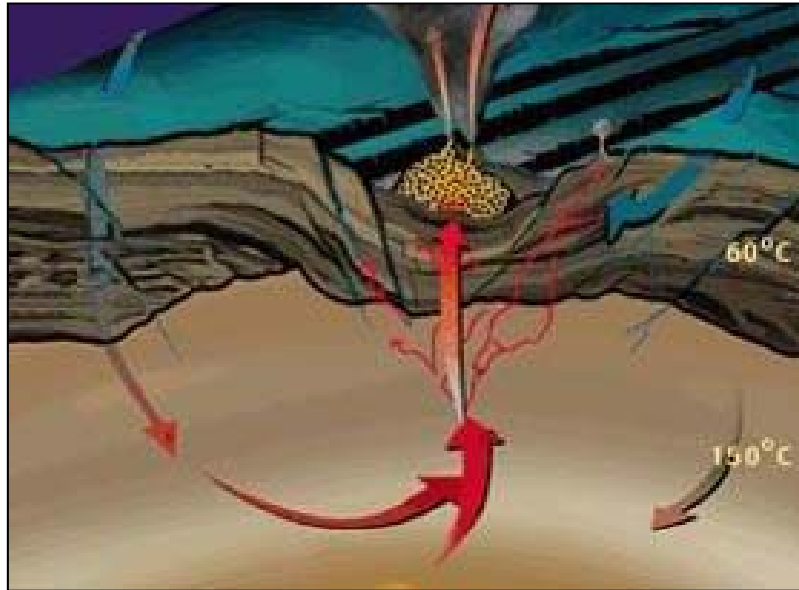
Offshore Oil & Gas Production & Spend to Grow



Source Douglas Westwood - Global FPS Prospects - World FPS Congress 2009, London

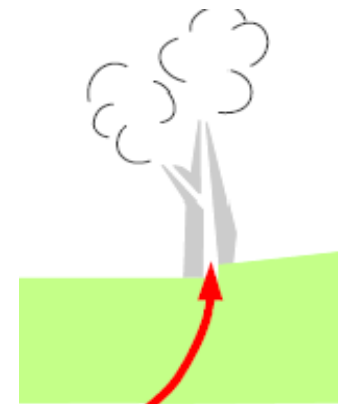
- Main growth area within the upstream offshore oil and gas division are:
 - Deepwater (greater than 500m) due to shallow water decline
 - Floating production – mainly deep water
 - Subsea production – both deepwater and many shallow-water tiebacks
 - Maintenance, modifications and operations to existing fields.

Seafloor Massive Sulphide Deposits

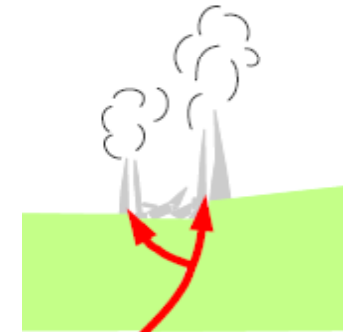


http://www.divediscover.whoi.edu/images/vent_chemistry.jpg

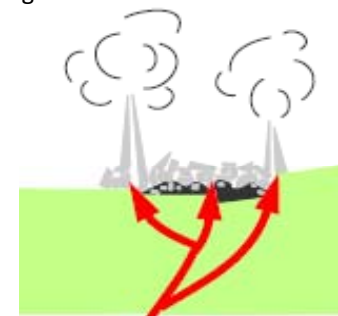
- Near sites of seafloor rifts and volcanoes, cold seawater moves down through cracks in the seafloor.
- This water is heated to temperatures as high as 400°C by the molten magma deep within the crust.
- The hot hydrothermal fluid rises to the surface, and gushes out of vents opening along cracks in the rifts and volcanic centres.
- This hydrothermal fluid contains many dissolved metals and other chemicals.
- SMS deposits form slowly as sulphides are precipitated in the chimneys and the volcanic rock below with the interaction of 2°C seawater



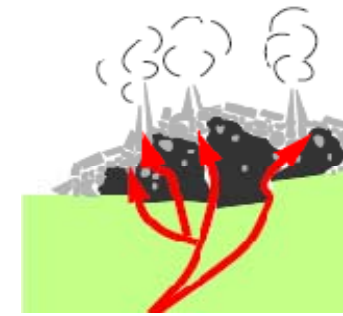
Initiation of hydrothermal discharge and chimney growth



Collapse of old chimney and growth of new chimneys



Growth of mineral sulphide mound by accumulation of chimney talus and defocusing of hydrothermal discharge



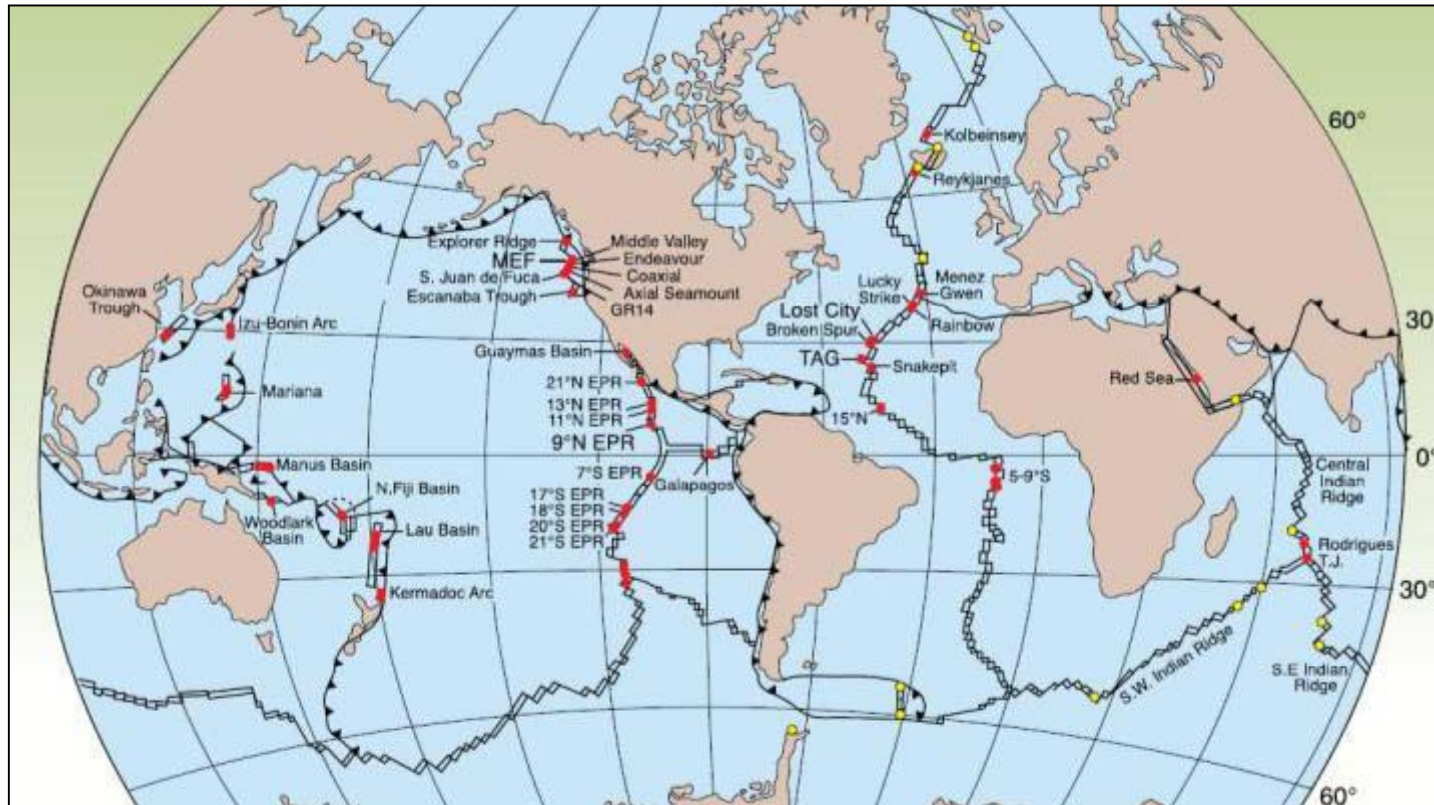
Decrease of mound permeability and intra-mound sulphide precipitation, replacement and remobilisation

Jankowski (2006)

Seafloor Massive Sulphides (SMS)



Map of Discovered SMS Deposits



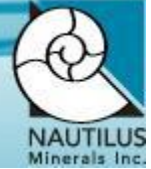
- Known SMS sites
- Areas of activity as indicated by mid-water chemical anomalies

*Assumes 3000 sites and mining rate of 2.0 million tonnes mineralised material per year

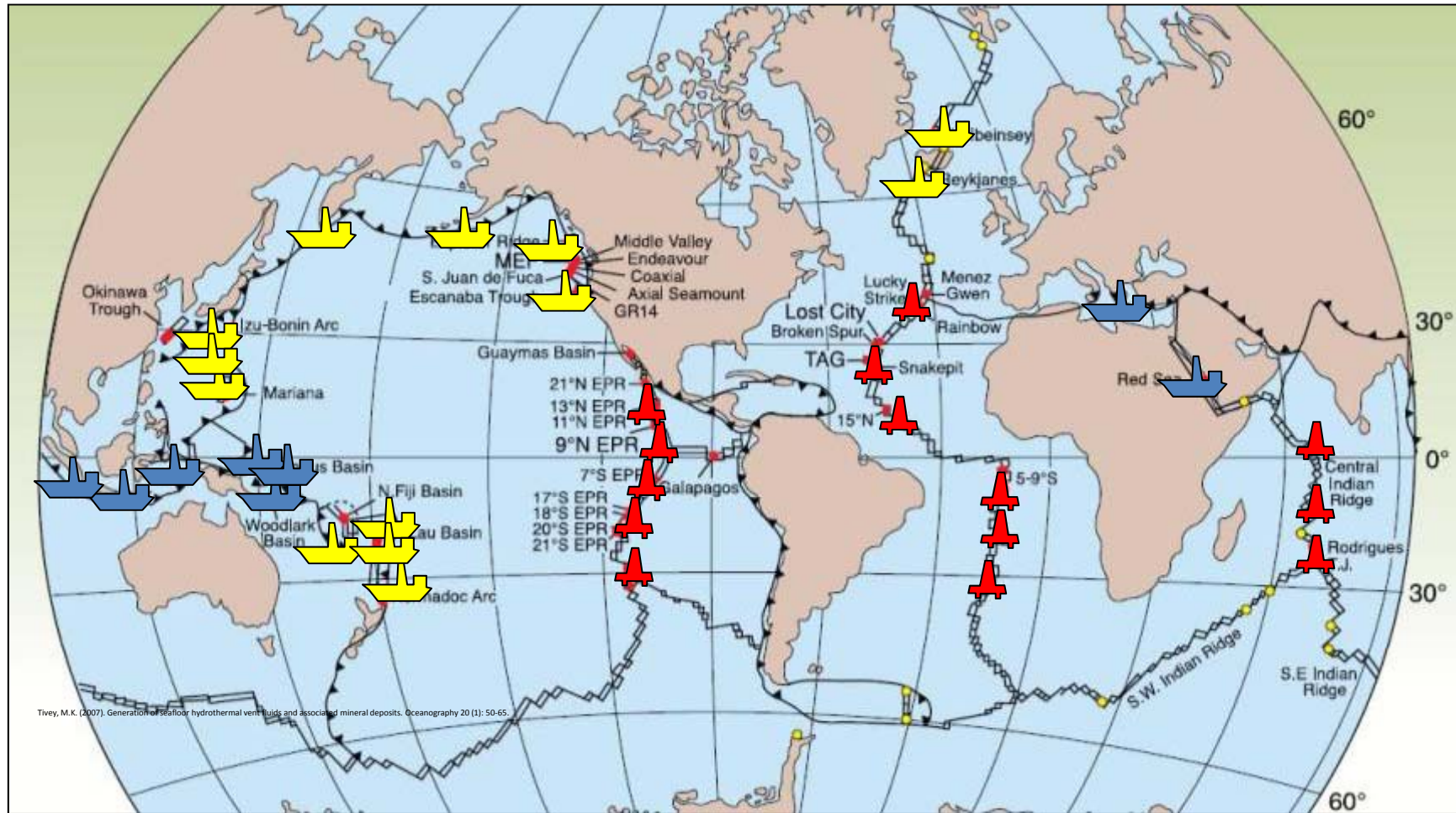
Figure after Baker et al., 1995; German and Von Damm, 2004; Hannington et al., 2005; Koschinsky et al., 2006

- Estimated 3-4k SMS sites worldwide (Dr. Steve Scott, 2008)
- Land fossil record indicates typical size of 2 Mte commercially viable material
- If only 50% are geographically viable = 4 billion t or enough to keep 150 mining ships busy for 20 years each*!

Seafloor Massive Sulphide Industry



🚢 1st Generation: 0-5 yrs
 🚢 2nd Generation: 5-10 yrs
 🚢 3rd Generation: 10-20 yrs



Tivey, M.K. (2007). Generation of seafloor hydrothermal vent fluids and associated mineral deposits. *Oceanography* 20 (1): 50-65.

Number of symbols represents significant potential known mineralization NOT the number of predicted operating platforms

Well Funded

- Aprox US\$266 million in cash (as of Sept 30, 2008)

Massive Exploration Upside

- 521,000 km² exploration tenements
- Large known mineral belts
- High-grade copper, gold and zinc

Near Term Production

- Target production within 3 years
- Compressed development time line – no pre strip or shaft

World Class Partners and Investors



- 21.0% US\$109 M

Gazmetall

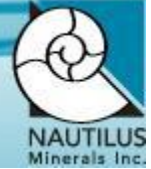
- 6.8% US\$40 M
(Plus \$14.5 M investment in exploration)

Teck

- 11.1% US\$35 M

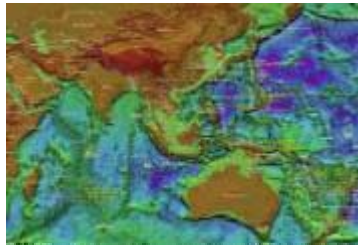


Exploration

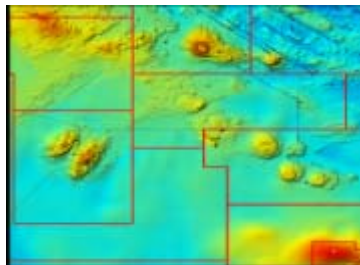


Initial Concept

- Data Research eg cruises, compilation and analysis



- Regional geophysical and geochemical surveys and or grab sampling



Focused Work

- Deep tow bathymetric surveys and/or grab sampling

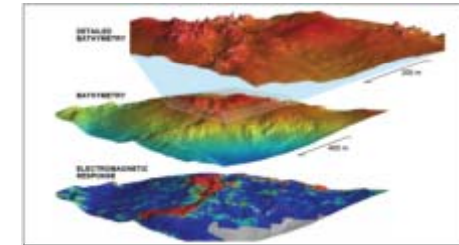


- ROV detailed mapping and sampling



Resource Def & Exploration

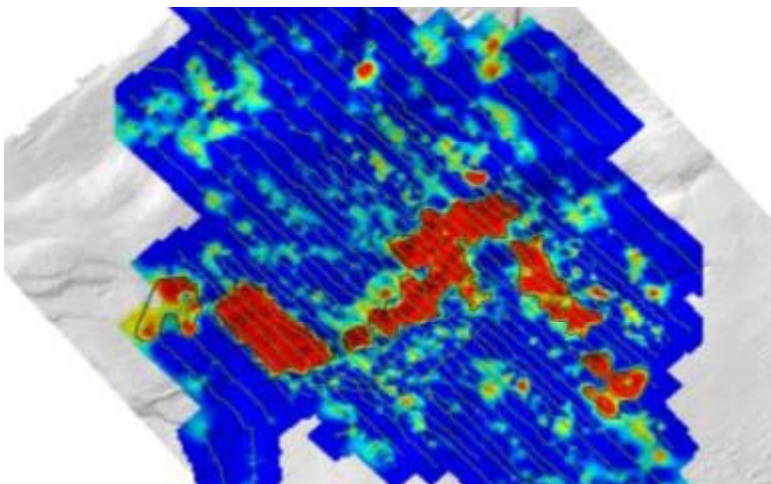
- Project Delineation



- Resource Evaluation



The "Tool Kit"

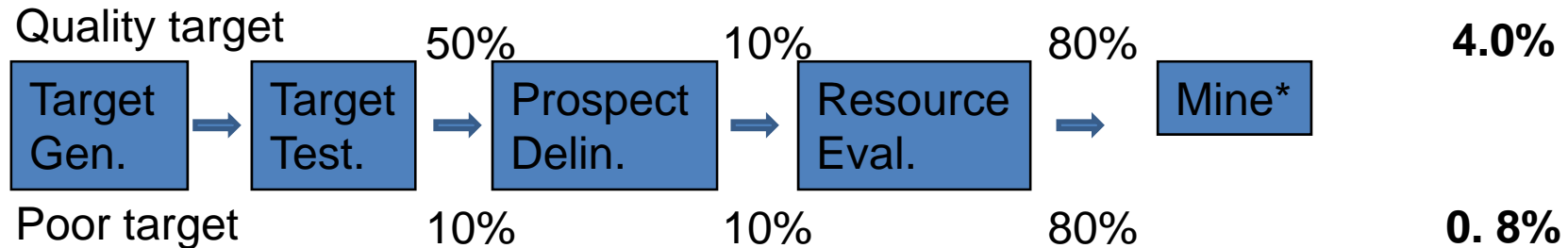


SMS Exploration Has Lower Risk Profile

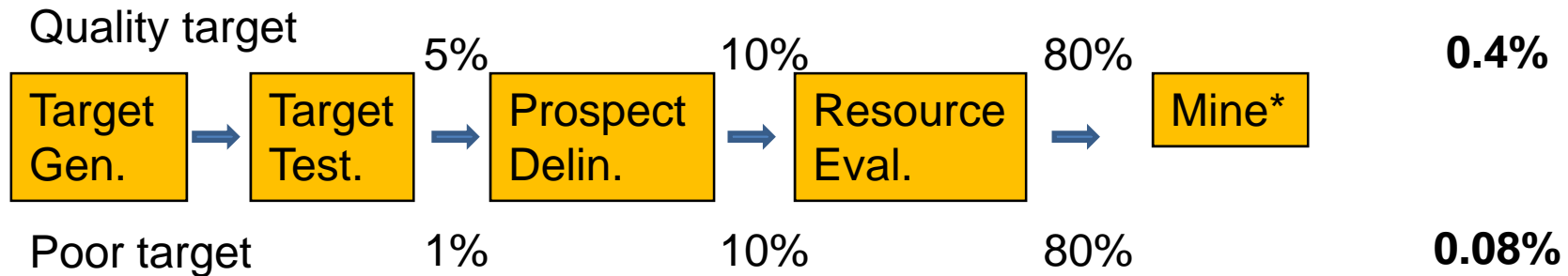


**Chance a target will
be a productive
resource**

Seafloor Massive Sulphide targets



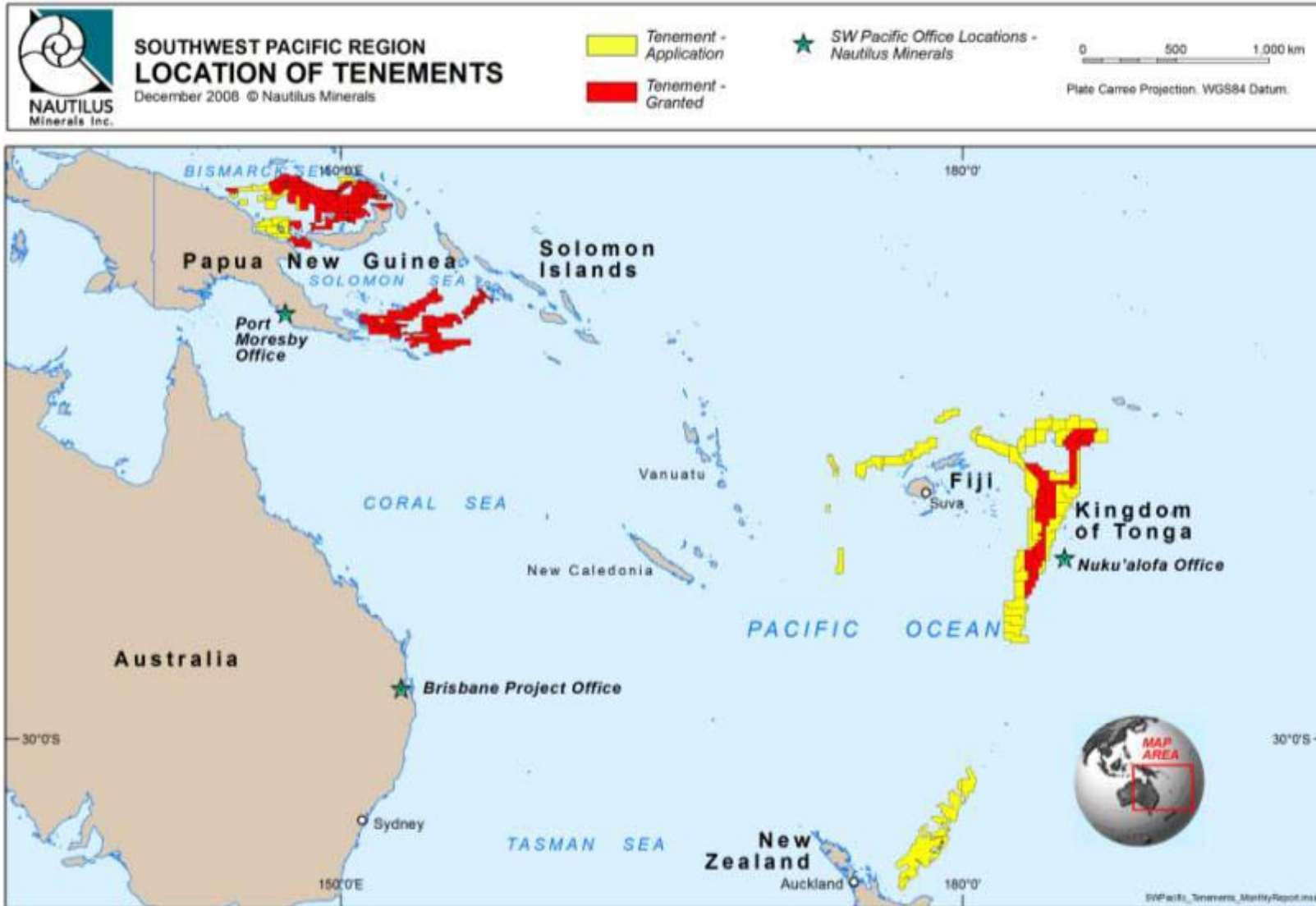
Traditional Porphyry or VMS targets



* Production > 100kton Cu-eq per annum.

Learn more details at our exploration presentation at PDAC 2009

Tenement Locations



Solwara Prospect Locations

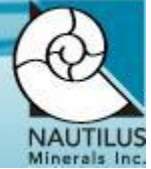
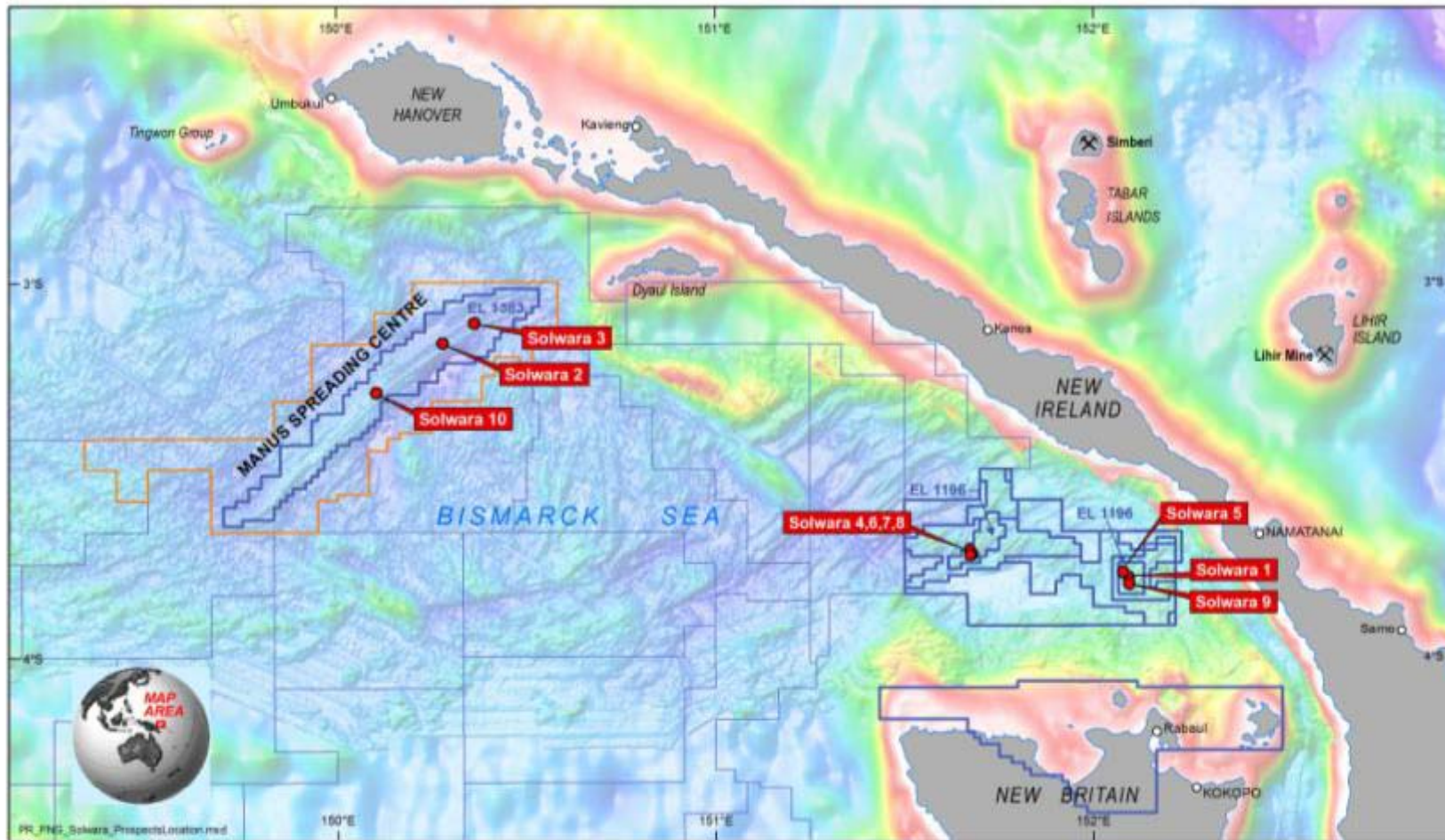


Figure 1
TERRITORIAL WATERS, PAPUA NEW GUINEA
LOCATION OF SOLWARA PROSPECTS
 6 February 2009 © Nautilus Minerals

- Selected SMS system
- ⊗ Gold mine or deposit
- ▭ 100% Nautilus tenement
- ▭ Nautilus tenement subject to Teck option
- ▭ Teck tenement subject to Nautilus JV right

0 20 40 60 80 km
 UTM Projection, WGS84 Datum.
 Imagery is of bathymetry data
 provided by SOEST, U. Hawaii and NOAA



Growing Pipeline of High-Grade Prospects in PNG



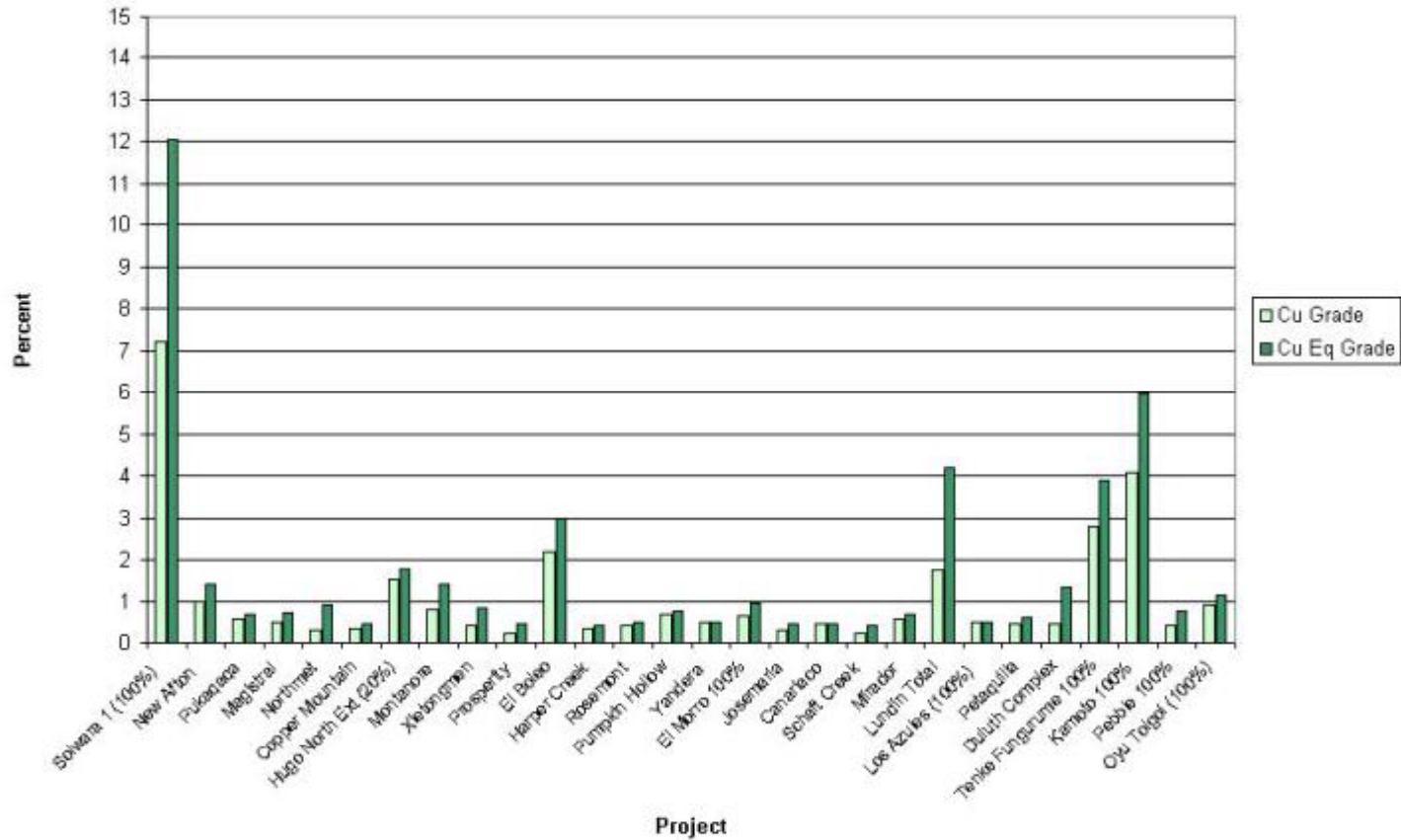
Prospects	Cu % *	Zn %*	Au g/t*	Ag g/t*	Comments
Solwara 2	1.1	23.8	10.7	343	67 chimney samples
Solwara 3	0.5	11.0	30.6	3375	2 chimney samples
Solwara 4	12.5	19.5	14.0	229	45 chimney samples
Solwara 5	6.0	8.3	14.6	282	12 chimney samples
Solwara 6	11.7	18.4	16.1	203	7 chimney samples
Solwara 7	4.6	18.7	13.3	315	9 chimney samples
Solwara 8	3.4	33.4	16.1	333	11 chimney samples
Solwara 9	6.3	10.6	19.9	296	17 chimney samples
Solwara 10	7.1	14.1	2.3	152	13 chimney samples
Solwara 11	1.8	9.8	1.1	226	16 chimney samples

*Note –mean values of surface grab samples

Grade is King

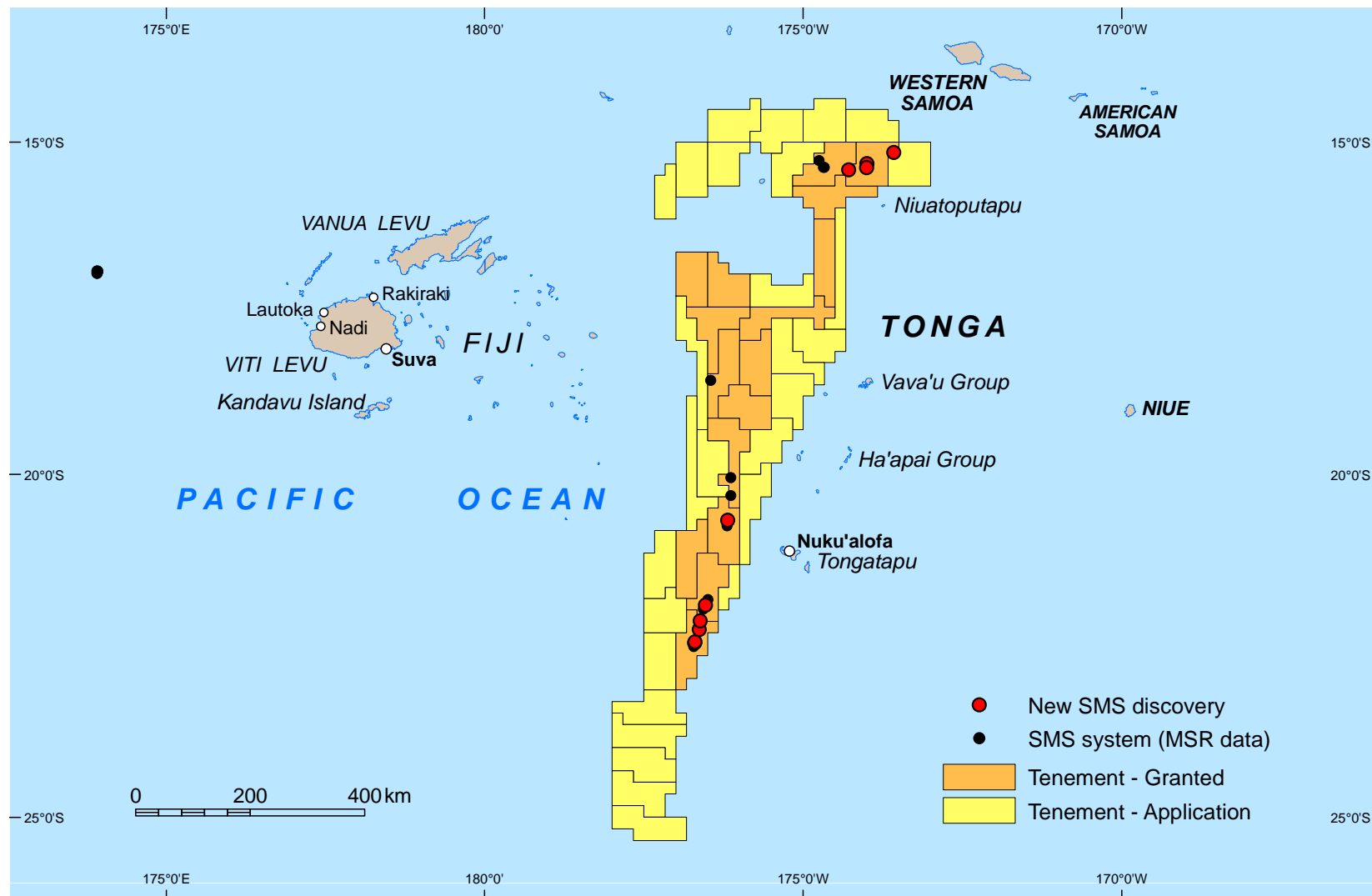


Grade - Cu & CuEq



Courtesy of Craig Miller, TD Securities, October 2008, Nautilus Minerals NI 43-101 resource

Tonga Tenements and 2008 SMS Discoveries



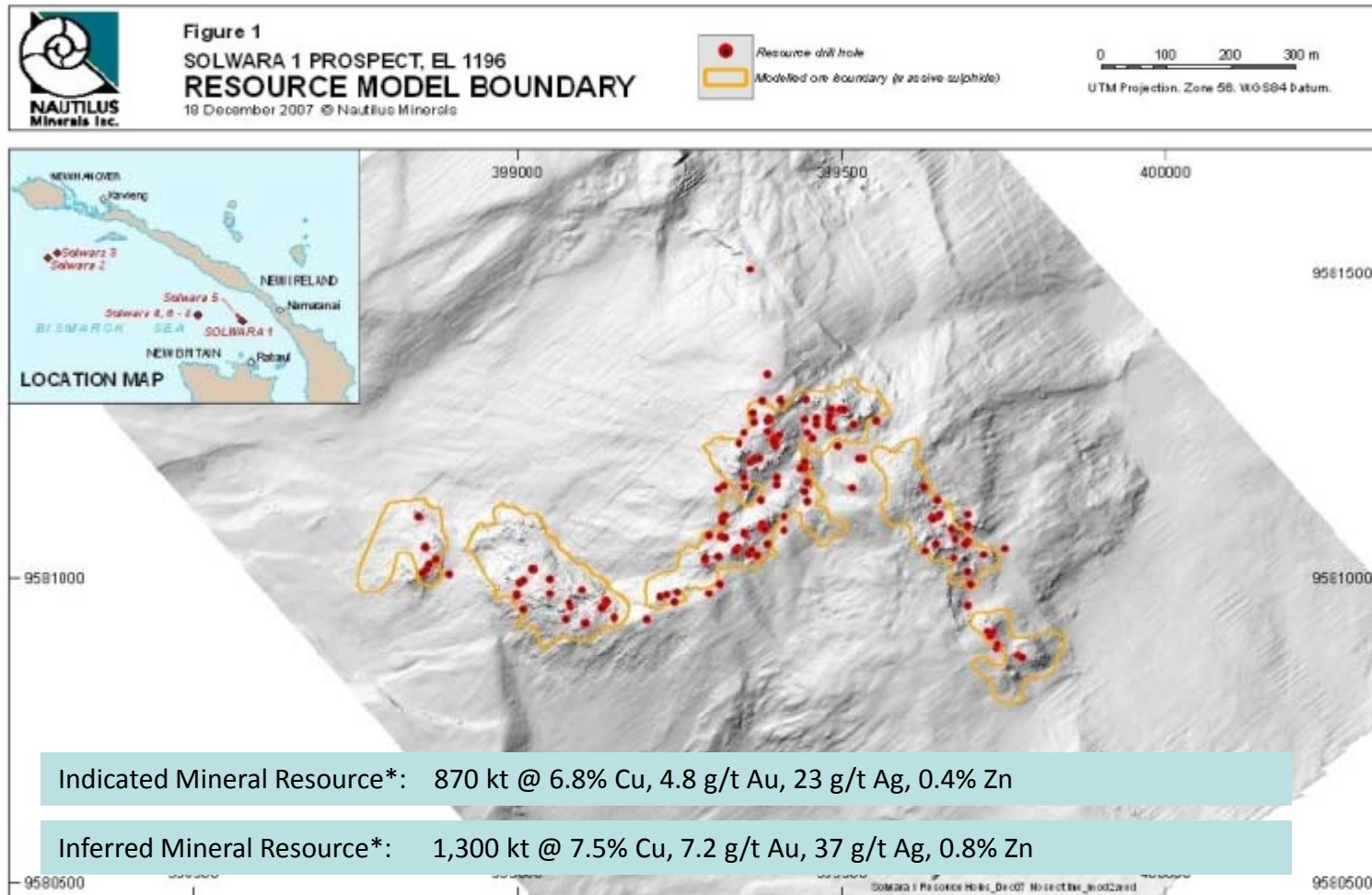
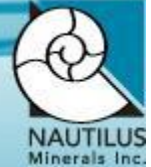
Growing Pipeline of High-Grade Prospects in Tonga



Prospects	Cu % *	Zn %*	Au g/t*	Ag g/t*	Comments
Tahi Moana 1	1.4	28.1	3.8	162	10 chimney samples
Tahi Moana 2	0.2	6.3	2.6	110	6 chimney samples
Tahi Moana 4	0.0	1.7	12.3	533	1 chimney sample
Tahi Moana 5	1.2	10.0	15.5	543	9 chimney samples
Tahi Moana 6	0.4	27.0	7.8	230	3 chimney samples
Hine Hina 1	6.9	21.8	5.3	170	8 chimney samples
Maka	5.4	6.0	4.6	62	3 chimney samples
Mariner	3.8	24.2	3.6	80	3 chimney samples
Niua	8.1	15.3	13.7	313	3 chimney samples
NVFR Site 2	0.7	23.7	5.7	128	4 chimney samples
NVFR Site 3	1.8	22.5	3.3	115	12 chimney samples
Pia	4.6	17.6	20.6	191	6 chimney samples
Tui Malila 1	0.9	21.8	4.0	84	5 chimney samples
Tunu-Sosisi	14.3	8.2	20.3	173	5 chimney samples
White Church	0.6	19.3	3.0	87	6 chimney samples

*Note –mean values of surface grab samples

Resource Statement

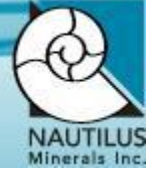


- Resource open to the west and at depth
- 38% holes ended in mineralisation

- Copper concentrate
 - Flotation test work results on material:
 - Cu recovery approx 90%
 - Produced saleable grade Cu-concentrate approx 30%
- Major test work program
 - AMMTEC (Perth Australia) using 1 tonne plus of Solwara 1 drill core



Five+ Advantages to Seafloor Resource Production



Minimal infrastructure

Limited social disturbance



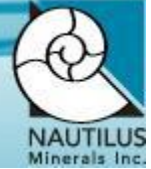
Minimal overburden or stripping

Increased worker safety

Minimal waste

From 2006 Annual Report

Environmental Impact Statement (EIS)



- The Solwara 1 Project can be developed with minimal environmental impact.
- The Solwara 1 Project will respect local traditions and customs.
- The EIS has been developed from findings of independent marine scientists.
- The environment at Solwara 1 is naturally variable.
- Nautilus is setting a high standard for deepwater seafloor mineral resource development.
- The land based impacts from the Solwara 1 project are limited to the use of a pre-existing international port



Research Institutions and Consultant Groups Involved in the EIS



- College of William and Mary/Duke University, USA
- Scripps Institution of Oceanography, USA
- University of Toronto, Canada
- Woods Hole Oceanographic Institution, USA
- CSIRO, Australia
- Hydrobiology, Australia
- University of Papua New Guinea, PNG
- Coffey Natural Systems, Australia
- Rabaul Volcano Observatory, PNG
- Asia Pacific Applied Science Associates (APASA), Australia
- Australian National University, Canberra
- Curtin University of Technology, Australia
- James Cook University, Australia
- Charles Darwin University, Australia



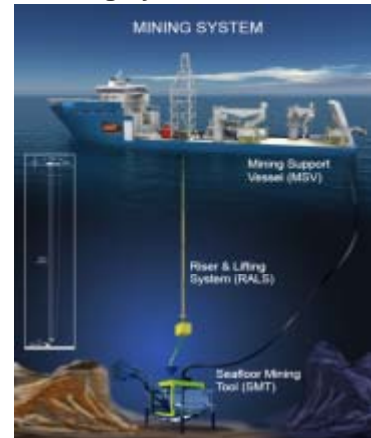
Development Process – Conceptually Two Project Phases



■ Phase 1

- Commence mining at Solwara 1
- Toll treat offshore
- Onshore trans-shipment facilities
- Prove Mining concept – Unlock value of undeveloped resource
- Help fund Phase 2

Mining system



Material barged to shore



Onshore storage



■ Phase 2

- Design and build a floating concentrator (world first)
- Use learning from toll treatment to optimise design
- Geothermal power potential

Treatment facility



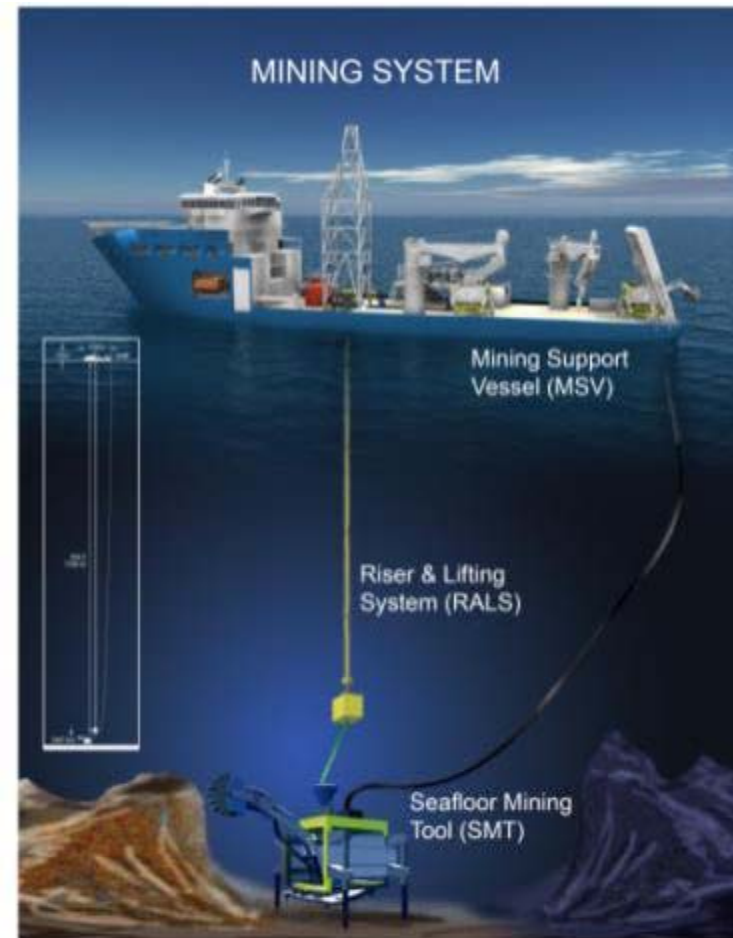
Product to market



Production System



- Seafloor Mining Tool (SMT)
- Riser and Lifting System (RALS)
- Mining Support Vessel (MSV)



Typical Seafloor Trenching and Mining Tools



RT-1 from SMT facility



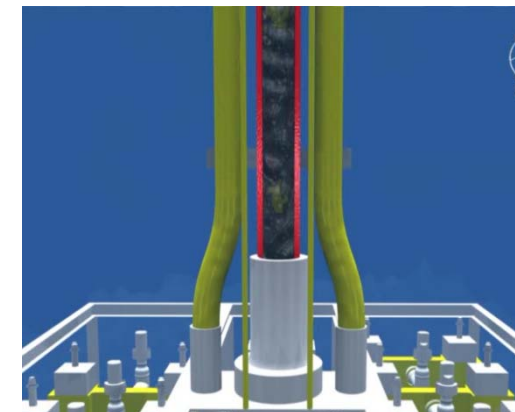
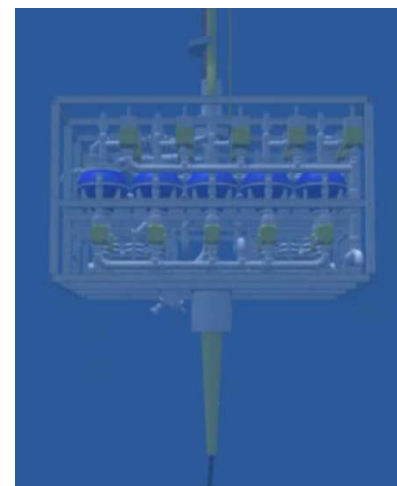
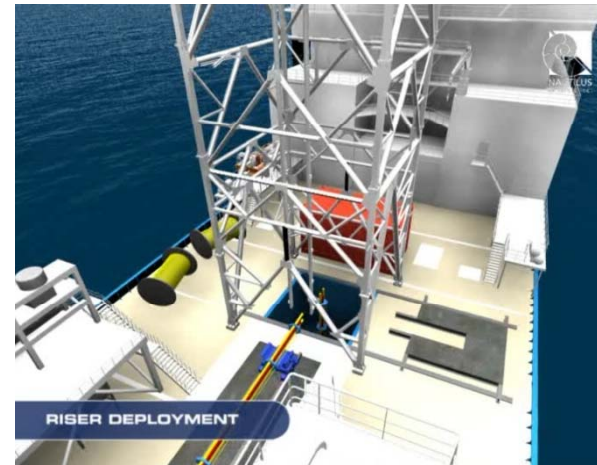
Second generation 200 ton offshore diamond mining machine, DeBeers, Namibia
Courtesy Marine Minerals Pty

- Seafloor trenching has been established for some thirty years plus for submarine pipeline systems
- De Beers has been using seafloor crawlers for diamond mining for nearly twenty years

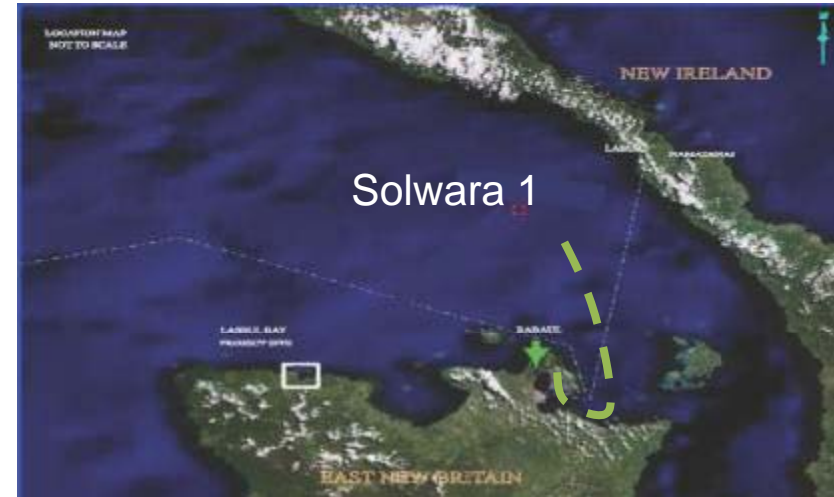
Riser and Lifting System



- Awarded a US\$116 million target price EPCM contract to Technip USA in 2008
- World leaders in their field
- Majority of equipment can be provided on a fixed price basis by oilfield equipment specialists
- Riser handling equipment is off the shelf
- Engineering design continues



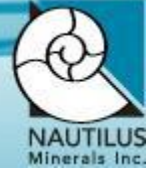
Materials Handling



Port of Rabaul

- 6,000 tonne dumb barges (60km to concentrator)
- Improvements to harbour/wharf

Nautilus 2009 Activities



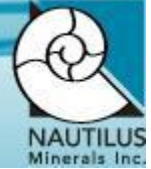
- ✓ Continue with RALS, SMT and other engineering work
- ✓ Source and evaluate vessels
- ✓ Conduct value engineering and optimise CAPEX and OPEX
- ✓ Continue to progress permitting: EIS and ML
- ✓ Exploration program in PNG and Tonga
- ✓ Development of wireline drilling tool
- ✓ Secure additional funding

Nautilus Achievements 2007/2008



- ✓ World first commercial electromagnetic survey of a SMS deposit
- ✓ World first drill out using remote operated drill rigs of an SMS deposit
- ✓ World first NI43-101 drill resource for an SMS deposit
- ✓ Completion and submission of EIS in PNG
- ✓ Discovery of 2 new mineralised areas offshore Papua New Guinea (Solwara 9 and 10)
- ✓ 6 new discoveries in Tonga and 6 previously known SMS systems were also characterised
- ✓ On Nautilus ground, our partners Teck discovered one new system in PNG, Solwara 11 and 4 new systems in Tonga
- ✓ Submitted our Mining Lease Application in PNG

A New Industry, Not Just a Project



All directions point to Nautilus Minerals. We're using proven offshore oil and gas technologies to extract high-grade copper and gold from the ocean floor. To learn how we're doing it visit us at www.nautilusminerals.com.



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