

# **DECEMBER 2009 QUARTERLY ACTIVITIES REPORT**

29 January 2010

# HIGHLIGHTS

# **Phosphate**

DAP fertilizer prices are rising very strongly since November 2009, and rock phosphate is rising in consequence.

# Wonarah, Australia (100% Interest)

- Resource drilling has been completed and new resource estimates are anticipated in February 2010.
- > The DSO Feasibility Study is to be completed in the First Quarter.
- The Environmental Impact Statement was prepared and submitted: a supplement will address the feedback matters shortly.
- Permitting and approvals are on schedule and are expected to be completed in the Second Quarter.
- A major bulk sampling operation was completed to provide large test samples to potential customers and feasibility mining information: Australia's first new phosphate production.
- Production start-up and rate to be determined by rock phosphate pricing and demand, and the consequent ability to complete the mine capital raising.

# Namibian Marine (42.5% Direct Interest)

- The Scoping Study is under way. It will include comparison of dredging options and determination of the preferred export product, as well as the usual operating and capital estimates.
- Deeper penetrating sampling of the phosphate sediments will be undertaken in the First Quarter and is likely to result in an increase in the estimates of resources.

# Moina Fluorspar and Polymetallics

> Detailed metallurgical testwork has begun on this potential world class deposit.

#### MINEMAKERS LIMITED

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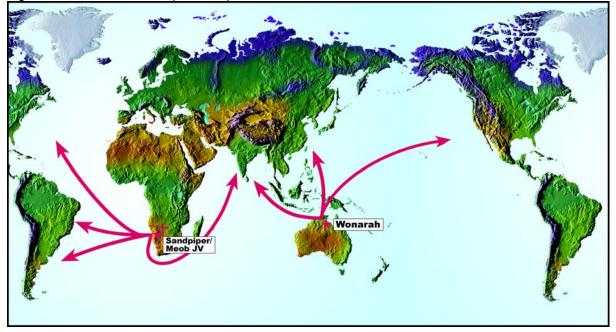
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### **ROCK PHOSPHATE**

### THE GLOBAL ROCK PHOSPHATE MARKET AND MINEMAKERS' INTENDED POSITION WITHIN IT

Figure 1: Minemakers' Phosphate Deposits



Phosphate is an essential component in agriculture for which there is no substitute. Minemakers is in the unique position of having two of the world's largest undeveloped phosphate projects in its portfolio, giving the Company the opportunity to establish itself as a world stature supplier to the global phosphate market and to become involved in downstream processing of higher value phosphate products. The geographic diversity of its intended production centres in the Northern Territory and Namibia will enable Minemakers to market to most corners of the agricultural world.

In the September 2009 Quarterly Report, the Company advised:

"The Global Financial Crisis has impacted strongly upon phosphate demand and pricing. In the middle of 2008, phosphate prices attained record levels of approximately US\$450 per tonne FOB Morocco. They have retreated substantially from this position and, at the time of writing, were around US\$110 per tonne, having apparently begun to recover from lows of US\$90 per tonne. Interestingly, this is still double the price which had prevailed for many years until the dramatic price increases of last year. The world's major fertiliser manufacturers are essentially unanimous in their outlook that demand is likely to increase in the future. This will be driven both by a return to normal demand and growth levels, but also because at present farmers are not applying sufficient fertiliser to maintain soil nutrients at the levels necessary for optimum agricultural output. Experts predict that there will have to be a catch-up application of fertilisers if the world is to continue to grow sufficient agricultural crops to meet future growth demands. So, while the Company will need to ride out the current period of relatively low prices, it is optimistic that there will be a significant increase in prices in the future driven by those demand increases."



During the December 2009 Quarter, prices dropped again to about US\$90 per tonne, but during January 2010 have begun to increase strongly, and presently seem to equate to about US\$120 per tonne FOB for Wonarah grade. Whilst rock phosphate prices will need to increase further to provide a comfortable operating margin, the current trend is most encouraging. Additional to that, Minemakers will enjoy a sea freight advantage to its target Asian and Oceania markets compared to North African producers.

A strong demand increase for fertilizers has also occurred with benchmark DAP (diammonium phosphate) prices having risen sharply recently (Figure 2). Historically, there has been a response lag between fertilizer price increases and raw material input price increases which would suggest that the rock phosphate price can reasonably be expected to increase further beyond its current level.

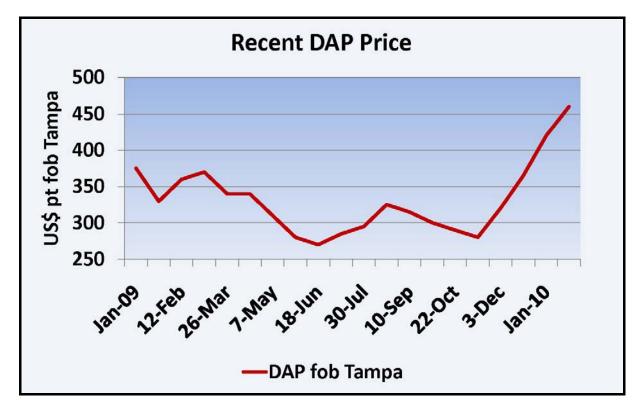


Figure 2: DAP Price Chart (Source: Adopted from Profercy 25 Jan 2010)



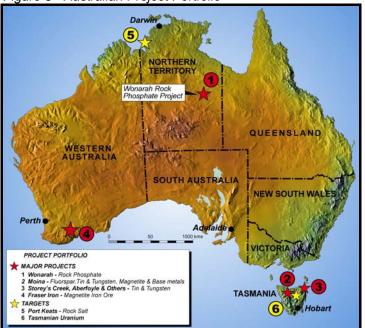


Figure 3 - Australian Project Portfolio

# WONARAH ROCK PHOSPHATE PROJECT, NORTHERN TERRITORY (100% Owned)

### **OVERVIEW**

After the dramatic phosphate price increases at the start of calendar 2008, Minemakers determined that it should bring Wonarah into production as soon as possible. The data which was held by the Company at the time indicated that the optimal development route was to establish an open-cut operation on run-of-mine ore which would need to be beneficiated to bring it up to the usual tradeable grades. Work began on that path and there was an initial commitment to a Feasibility Study which included a beneficiation circuit, resulting in the development of Wonarah being a relatively high capital expenditure project. The onset of the global financial crisis towards the end of 2008 resulted in substantial destruction of available capital and a realisation that the key to a successful development of Wonarah would be by way of a reduced capital requirement.

Fortunately, drilling at Wonarah had shown that a significant amount of high grade phosphate was present.

Accordingly, the Company determined that it should change its development plans by highgrading the mine and producing Direct Shipping Ore ("DSO") material at a grade of more than 30%  $P_2O_5$  in the first years of operation. The capital cost of construction of the beneficiation plant will be deferred until such time as there are sufficient profits, or confidence in future profits, to pay for the plant and also when it could be anticipated that those capital costs could be borne by the then operating margins.

While the necessary metallurgical work for beneficiation plant design for the Arruwurra Deposit was completed in 2008, Main Zone Deposit testwork was deferred until the 2009 drilling programme determined the most likely early areas to be mined. That Main Zone testwork will be re-initiated and should be concluded in the first Quarter of 2010. This will then enable design and costing of the beneficiation plant to be undertaken so that it can be built in a timely fashion to take advantage of future rock phosphate price increases and to lower unit costs – subject to receiving the appropriate permits for that second stage development. Currently Minemakers is focussed on commissioning production of DSO as soon as is practicable and has been receiving favourable responses from potential customers on the quality of the DSO material.



The Company's objective is to be fully permitted during the second Quarter of 2010 so that, when required, initial production can expeditiously begin by enlargement of the Arruwurra bulk sample pit which was completed in the December 2009 Quarter. However, as stated in the earlier quote from the September 2009 Quarterly Report, the Company will have to ride out the flow-on effects from the period of relatively low prices before it can properly and justifiably make a decision to commence production at large scale. Some commercial logistics and infrastructure issues remain to be finalised. Such issues include Minemakers providing the appropriate level of contractual financial security to those mining, road and rail freight contractors who have to secure the fleets needed for mining and freight logistics whilst commercial arrangements for tenure at the Darwin Port have yet to be finalised – although should be shortly. These financial aspects will be part of the mine financing work which is proceeding.

Finally, encouraging discussions to date with some potential customers need to be translated into sales. The matters are, and will be, the subject of intense Company activity during the current and succeeding Quarters, with outcomes likely to influence the targeted date for commencement of production and the annualised rate of production.

### DECEMBER QUARTER REVIEW

Wonarah has again been strongly advanced during the Quarter.

The overall aims were to:

- Complete the resource drilling
- Update resource estimates
- Compile and submit the Environmental Impact Statement ("EIS")
- Undertake the bulk sampling and trial mining to provide material for marketing and to determine optimal mine design, mining and grade control procedures

As discussed above, the intention is to be fully permitted to be in a position to initiate production after the end of the second Quarter, subject to prevailing rock phosphate price.

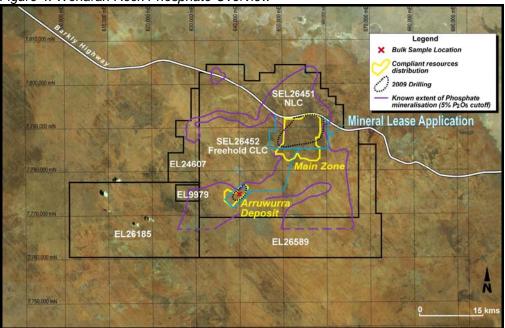


Figure 4: Wonarah Rock Phosphate Overview



During the Quarter, work completed and in progress is indicated in Table 1.

Table 1: Work Done and in Progress

	e 1: Work Done and in Progress		In	Expected
Item		Completed	Progress	Completion
1.	Resource Drilling			
1.1	Arruwurra Stages 1 & 2	Х		
	Arruwurra Resource Validation	Х		
1.2	Main Zone			
	Infill and Extension	Х		
2.	Assaying			
2.1	Routine	Х		
2.2	Chemical characterisation	Х		
3.	Metallurgy			
3.1	Drilling	Х		
3.2	Main Zone Testwork		Х	2 <sup>nd</sup> Quarter 2010
4.	Direct Shipping Ore Study		Х	1 <sup>st</sup> Quarter 2010
5.	Resource Estimation			
5.1	QAQC Studies		Х	January 2010
5.2	Resource modelling and estimation			1 <sup>st</sup> Quarter 2010
6.	Environmental Studies			
6.1	EIS preparation, public exhibition, review and recommendation by NT Government		Х	2 <sup>nd</sup> Quarter 2010
7.	Freight Studies			
7.1	Port expansion studies (Darwin Port Corporation – Port Master Plan)		Х	1 <sup>st</sup> Quarter 2010
8.	Permitting and Land Access			
8.1	Mining Agreement		Х	2 <sup>nd</sup> Quarter 2010
8.2	Grant of Mining Lease		Х	1 <sup>st</sup> Quarter 2010
9.	Feasibility Study			
	Feasibility Study now focused on DSO operation as Stage I of the project. Various operating scenarios will be modelled.		Х	1 <sup>st</sup> Quarter 2010



During the Quarter, principal emphasis has been accorded to:

### **DSO Delineation**

Reverse circulation and diamond drilling programmes for resource delineation, metallurgy and mine planning were completed just prior to the end of the Quarter. Total drilling since inception of Minemakers' evaluation of Wonarah now totals:

Main Zone	43,903 metres
Arruwurra	5,738 metres
Water Exploration	10,930 metres
TOTAL	60,571 metres

In the Main Zone, the mineralisation at likely DSO grades was found to be more irregularly distributed than had been anticipated based on the previously drilled Arruwurra deposit experience. This required considerably more drilling than had been originally planned and an extension of the time necessary to undertake it.

With all assaying and QAQC procedures completed in January, revised resource estimates are now due in February 2010.

The mineralisation has not been closed off by drilling and, in general terms, some of the best results were obtained immediately adjacent to the Barkly Highway in the northwestern part of the Main Zone. Historic drilling indicates strong mineralisation continues to the north of the highway, and Minemakers is initiating the necessary heritage clearances and permitting for drill testing of that area.

### **Bulk Sampling/Trial Mining**

This important milestone was completed during the Quarter with excavation of approximately 2,500 tonnes of high grade potential DSO material.

540 tonnes of the bulk sample have been delivered to Darwin and crushed for shipment to the first two potential long-term customers. The remainder has been stored under cover at site and is available for delivery to other potential customers in due course. Minemakers has approvals in hand for a Stage II bulk sampling operation should it prove necessary or desirable to provide even more customer samples.

The export of these trial shipments is understood to be the first from the Northern Territory and the first from a potential new Australian phosphate mine in many years.

Technical information from the bulk sample exercise will also prove invaluable in refining mining and cost parameters.

The mining and haulage efforts were completed very satisfactorily using local contractors, and without any lost-time injuries. The Company records its gratitude to them and to its employees for this pioneering job and for the completion of the drilling and other field programmes at a time of seasonally trying conditions.

Composition of the bulk sample material, based on the drilling of the area mined, should approximate that in Table 2. It is a very high quality rock by world standards.



Table 2:Unbeneficiated Phosphate Rock Ore – Arruwurra Sample Composite Assay –<br/>Specification V41

Elements Analysed	Unit	Result	
BPL			79
Phosphorus	$P_2O_5$	%	36.3
Aluminium Oxide	$AI_2O_3$	%	1.0
Arsenic	As	ppm	<10
C Organic		%	<0.03
Carbon Dioxide Total	CO <sub>2</sub>	%	0.5
Calcium Oxide	CaO	%	49.1
Cadmium	Cd	ppm	<5
Chlorine	CI	ppm	100
Fluorine	F	%	1.4
Iron Oxide	$Fe_2O_3$	%	0.55
Magnesium Oxide	MgO	%	0.13
Lead	Pb	ppm	156
Silica	SiO <sub>2</sub>	%	<10
Uranium	U	ppm	11
Selenium	Se	ppm	<5
Thorium	Th	ppm	1.0
$R_2O_3$		ratio	1.55
$CaO : P_2O_5$		ratio	1.35



The Trial Pit

Mining High Grade Arruwurra Rock Phosphate





Cleaned and Ready to Load

Loading the Haulage Fleet

### Permitting

The EIS was completed and submitted to the relevant Department of Natural Resources, Environment, The Arts And Sport (NRETAS) and released for public comment. Various submissions were received and the matters raised are being dealt with in a supplement to be prepared during the current Quarter.

The Executive Director of NRETAS advised:

"Overall, the draft EIS is of a very high standard and the information requirements listed in the EIS Guidelines (July 2009) have been thoroughly addressed. I commend the way residual risks have been determined and the proposed management and mitigation measures for those identified risks. Minemakers has also demonstrated a high standard of stakeholder consultation."

Grant of the Mineral Lease awaits the Minister's signature and is anticipated shortly.

Negotiation of the Aboriginal Mining Agreement is proceeding according to schedule and is anticipated to be signed in the June Quarter.

### **Feasibility Study**

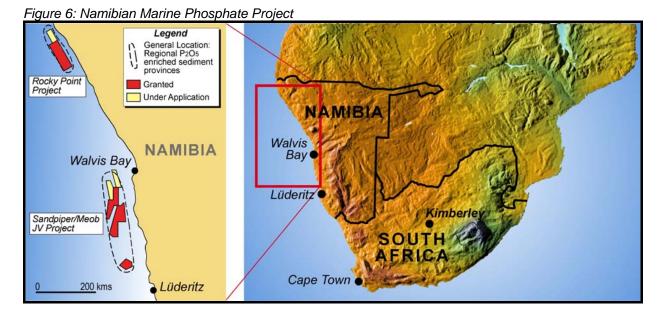
The extension of the expanded drilling programme has caused a delay to resource estimation which, in turn has affected finalisation of the Feasibility Study. It should still be completed in the March Quarter, as previously advised.

Task Name			1200000		0.000	101100	2010	199921	5.000.000		1053 020	0.5055	12111-0123	11111100	1040-0403	10.00	0.000	1169353
	3rd Quarter		4th Quarter		1st Quarter			2nd Quarter			3rd Quarter			4th Qua				
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bulk Sample				-						1			1					
Permitting	_						-											
Drilling	-			1	F	-												
Resource Modelling					_		-											
Aining Studies	-			1	_													
Engineering					_													
easibility Study	_																	
Fender/ Award/ Mobilise Contracts					4	_							h					
Marketing	_			1									-					
Commence Mining								Mining c	commen	ces, subj	ect to m	arkets	<b>1</b>		<u> </u>			

Figure 5: DSO Production Scenario

# SANDPIPER/MEOB JV MARINE PHOSPHATE PROJECT: OFFSHORE NAMIBIA

(42.5% Direct Equity and a further 6.4% Indirect Equity)



### OVERVIEW

Minemakers acquired its direct equity in the Sandpiper/Meob Joint Venture ("JV") phosphate project in offshore Namibia via the acquisition in July 2009 of Bonaparte Diamonds Mines NL and its wholly-owned subsidiaries ("Bonaparte"). The Sandpiper/Meob JV tenements lie in waters approximately 60km off the Namibian coast south of Walvis Bay and are considered to include the most prospective areas of known phosphate mineralisation as determined by previous explorers. Joint Venture partners in the project are:

Minemakers Limited (through its wholly owned subsidiary Bonaparte Diamond Mines (Namibia) (Pty) Ltd)	42.5%	
Union Resources Limited	42.5%	(MAK 14.9%)
Tungeni Investments cc	15%	Namibian Partner

The JV was signed in October 2008 to jointly develop the companies' respective and adjacent Meob and Sandpiper marine phosphate projects.

During the September 2009 Quarter, Minemakers acquired a 14.9% shareholding in Union Resources Limited.

The JV covers a combined area of approximately 8,000km<sup>2</sup> which includes a major part of the regional phosphate - enriched province to the south of Walvis Bay in water depths of 180–300m. The JV is well placed to rapidly develop a new phosphate province in Namibia and controls a substantial part of the most prospective areas. These deposits were delineated during regional university scientific studies in the 1970s but have remained undeveloped. The deposits occur as unconsolidated sea floor sediments, which now lie within the reach and capability of currently available dredging technology.

A large part of this project area has previously been the subject of a scoping level study by Gencor (South Africa) in the early 1990s and subsequent pilot plant testing which confirmed that merchant grade phosphoric acid could be produced from the marine concentrate.

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Minemakers was attracted to participate in the Project because of the bulk nature of phosphate. Freight considerations are important in marketing and it was considered that Wonarah's product is likely to be most competitive in an arc from India and Pakistan and then extending easterly and northerly into Asia, south easterly to New Zealand and possibly to the west coast of North America. On the other hand, the position of the Namibian deposits means that it is more likely to be readily marketed into the Americas as well as India. Minemakers thus has the potential from these two operations to be able to market phosphate and/or phosphoric acid essentially to most corners of the consuming world. Figure 8 indicates how it is currently intended that the project will be mined, processed and exported.

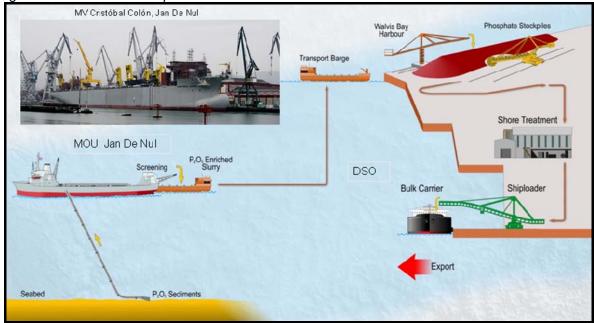


Figure 7: Marine Rock Phosphate Production Schematic

The areas depicted in Figure 8 are the subject of our current scoping studies. A key to an early development and a reduced capital cost requirement is the ability for currently available dredging technology to be able to operate in the water depths in the tenements. Studies during the December 2009 Quarter have indicated that there are several conventional dredging technologies currently available that can handle the task.

As the deposit is easily accessible and has potentially low transport and CAPEX costs, Minemakers sees development of the Sandpiper/Meob JV Phosphate Project as the natural expansion strategy for establishing two geographic distribution centres to supply the growing phosphate import requirements of North and South America as well as potential markets in Africa, India and Asia.

To date, the work has concentrated upon the delineation of the extent and grade of the mineralisation. The aim has been to determine in general where the mineralisation has the best grades, is thickest and where it lies in the shallowest waters.

Widespread sampling of the JV tenements and three more densely sampled sub–areas have upgraded the JORC-Compliant Mineral Resource estimates to:

Indicated resource Category	73.9Mt @ 20.57% P <sub>2</sub> O <sub>5</sub>
Inferred resource Category	1,507Mt @ 18.7% P <sub>2</sub> O <sub>5</sub>
TOTAL RESOURCE	1,581Mt @ 18.8% P <sub>2</sub> O <sub>5</sub>



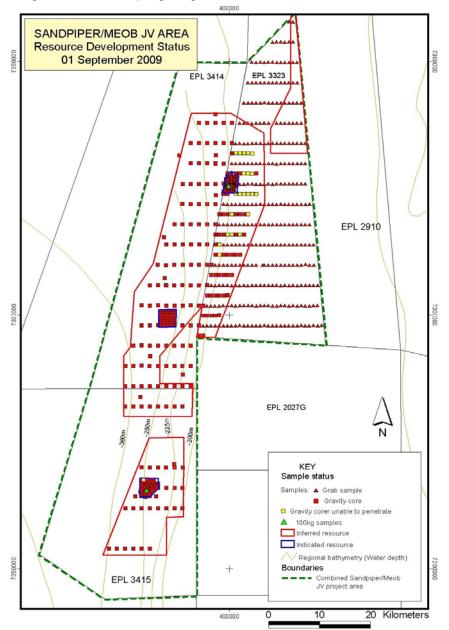


Figure 8: 2009 Sampling Programme

The resource estimates can reasonably be regarded as conservative as they result from sampling methods with a restricted penetration of less than the upper 2m of the phosphate sediments: historical drilling has indicated that the mineralisation can be up to 6m thick in places. The potential for a long life mining operation has been confirmed.

The next phase of core sampling will be conducted using a vibra-coring device with capacity to penetrate to 5m of sediment thickness and an increase in total resource tonnages can reasonably be anticipated. Construction of the vibracorer is almost complete and sampling will be undertaken in the March Quarter.



### Scoping Study

The Scoping Study is behind schedule due to delays in constructing the vibracorer; some permitting issues in EPLs 3414 and 3415, which have been resolved; and a wait for approval for export of samples for testwork. The Study is aimed to be completed in the March Quarter.

Process studies will be undertaken in Israel and the dredging studies by a South African marine consultancy. A key aspect of the Scoping Study will be to determine the optimum product type from the Project. It will examine whether the JV should be aiming to produce phosphate or phosphoric acid, or both.

### OTHER MARINE PHOSPHATE

### Rocky Point Project, Namibia

(MAK 70%)

Bonaparte Tungeni Joint Venture Exploration (Pty) Ltd has three EPLs and one EPL application in the Rocky Point project area which incorporates the core of the second regionally mapped marine phosphate zone which lies north of Walvis Bay. Initial sampling is now aimed to be carried out in the March Quarter.

### Pacifico, Peru

The Company has been awarded a total of seven offshore mineral exploration licences by the Peruvian Ministry of Energy and Mines. The licences cover a total seafloor area of 627km<sup>2</sup> in water depths of 100–300m in an area where previous scientific studies have identified the presence of phosphate-enriched sediments at or near the ocean floor surface. They lie in a similar oceanographic environment to that occurring off Namibia. The tenements incorporate the scientific sample sites where results from the seabed core samples recovered in the late 1980s showed the most significant levels of phosphate concentration.



### **OTHER COMMODITY PROJECTS**

MOINA PROJECT, TASMANIA FLUORSPAR, MAGNETITE, TUNGSTEN, TIN, ZINC AND BASE METALS (Option to acquire an initial 80% Equity)

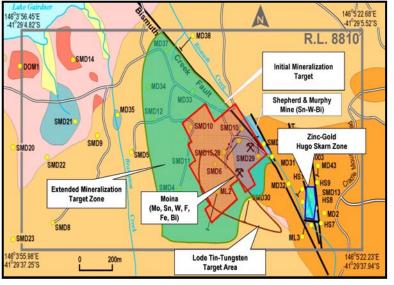
### **Commodity Overview**

China remains the major producer and exporter of fluorspar. In general, China is tightening export availability of raw minerals, and western companies seeking fluorspar are keen to be able to acquire access to non-Chinese production. The price of fluorspar has not been affected greatly by the global financial crisis. Fluorspar is a critical mineral for the derivation of fluorine, or fluoro, containing chemicals. Refrigerant and air conditioning gases, nuclear power and aluminium metal all contain or require fluoro compounds, or rely on them for their manufacture.

### Work Completed

During 2007 and 2008, there was some appraisal work directed towards fluorspar and tungsten by two European mining and mineral processing companies. Unfortunately, those studies were not fully completed and those companies withdrew their interest. Minemakers now has embarked upon detailed а metallurgical assessment of the skarn ore bodies. It is important to realise that to date no company previously has looked at the potential of the entire mineral suite but, instead, each has concentrated upon only one or two of the contained minerals within the extensive suite of them in the Moina deposit.

Figure 9: Moina Mineralisation and Target Overview



At the start of 2009, Minemakers completed a large diameter diamond drilling programme to obtain fresh core samples for detailed metallurgical assessment. The programme was deferred while the metallurgical staff were fully devoted to the Wonarah Project, but the assaying testwork was completed during the Quarter.

Minemakers is very enthusiastic about this project because of the potential size of the deposit. Although resources were estimated historically, these pre-dated the JORC Code and can no longer be quoted. Nonetheless, it is evident that the mineralisation is very extensive and potentially could sustain a high output operation for a long period. Assuming satisfactory metallurgical recovery can be demonstrated, Minemakers has the potential to become a world class producer of fluorspar, tungsten and bismuth, and also a significant producer of tin and magnetite from this Moina deposit.

The Company has appointed a world class fluorspar consultant to oversee the metallurgical appraisal. He has advised that, based on its apparent size potential, Moina may well be the largest undeveloped fluorspar deposit in the world. The metallurgical testwork programme will be initiated after his site visit next month.

# TASMANIAN TIN AND TUNGSTEN PROJECT

(100% Equity)

### **Commodity Price Overview**

The tin price was strongly impacted by the global financial crisis but began its recovery during the Quarter (Figure 10)



Tungsten is not as freely traded as tin and its price is generally set by China, the world's largest producer. Minemakers remains bullish in its outlook for prices for both of these commodities.

In view of that outlook, work has continued on the Tasmanian projects, but at a reduced level because of the decrease in prices, and also because of the Company's priority being given to its Wonarah and Namibian phosphate projects.

Little work was carried out on the projects during the Quarter due to that low tin price and also the commitment of employees with fieldwork at Wonarah.

Tasmanian fieldwork has been re-commenced in January.

PORT KEATS ROCK SALT PROJECT

(100% Equity)

No work undertaken.



### FRASER MAGNETITE IRON ORE PROJECT (80% and/or 100% Equity)

During the Quarter under review, drill targets were determined after interpretation of the airborne magnetic data, the relevant landowners were contacted and drilling approvals were sought.

RC drilling programmes to test the magnetite targets in the West Southdown and East Frankland tenements are scheduled for February.



Figure 11: Fraser Magnetite Iron Ore Project

The East Frankland tenement (*Minemakers 100% Equity*) has not previously been drilled. The key importance of it is that the eastern end of the magnetic target lies only about 10km from the Perth-Albany railway line. Successful exploration of this tenement could potentially lead to a mining and export situation with a very much reduced capital requirement because there would be a simple and cheap way of transporting an unbeneficiated magnetite product to the port of Albany for export.

## CORPORATE

The Company's 2009 Annual General Meeting was held on 27 November 2009. All resolutions put to the meeting were carried on a show of hands.

With over \$37 million at hand at the end of 2009, Minemakers is well positioned for an exciting and productive 2010.

Andrew Drummond Managing Director

### **DECEMBER 2009 QUARTERLY ACTIVITIES REPORT**



The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Andrew Drummond, who is Managing Director of the Company and a Fellow of The Australian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Drummond has sufficient experience deemed relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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 Reserves'. Mr Drummond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.