



## **Economic Results for Maracás Definitive Feasibility Study**

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# Forward Looking Statements



The information presented contains “forward-looking statements”, within the meaning of the United States Private Securities Litigation Reform Act of 1995, and “forward-looking information” under similar Canadian legislation, concerning the business, operations and financial performance and condition of the Company. Forward-looking statements and forward-looking information include, but are not limited to, statements with respect to the estimation of mineral reserves and mineral resources; the realization of mineral reserve estimates; the timing and amount of estimated future production; costs of production; metal prices and demand for materials; capital expenditures; success of exploration and development activities; permitting time lines and permitting, mining or processing issues; government regulation of mining operations; environmental risks; and title disputes or claims. Generally, forward-looking statements and forward-looking information can be identified by the use of forward-looking terminology such as “plans”, “expects” or “does not expect”, “is expected”, “budget”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates” or “does not anticipate”, or “believes”, or variations of such words and phrases or state that certain actions, events or results “may”, “could”, “would”, “might” or “will be taken”, “occur” or “be achieved”. Forward-looking statements and forward-looking information are based on the opinions and estimates of management as of the date such statements are made, and they are subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking statements or forward-looking information, including, but not limited to, unexpected events during operations; variations in ore grade; risks inherent in the mining industry; delay or failure to receive board approvals; timing and availability of external financing on acceptable terms; risks relating to international operations; actual results of exploration activities; conclusions of economic valuations; changes in project parameters as plans continue to be refined; and fluctuating metal prices and currency exchange rates.. Although management of the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking statements or forward-looking information, there may be other factors that cause results not to be as anticipated, estimated or intended. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements and forward-looking information. The Company does not undertake to update any forward-looking statements or forward-looking information that are incorporated by reference herein, except in accordance with applicable securities laws.

Investors are advised that National Instrument 43-101 of the Canadian Securities Administrators requires that each category of mineral reserves and mineral resources be reported separately. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

## Cautionary Note to U.S. Investors Concerning Estimates of Measured, Indicated or Inferred Resources

The information presented uses the terms “measured”, “indicated” and “inferred” mineral resources. United States investors are advised that while such terms are recognized and required by Canadian regulations, the United States Securities and Exchange Commission does not recognize these terms. “Inferred mineral resources” have a great amount of uncertainty as to their existence, and as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. United States investors are cautioned not to assume that all or any part of measured or indicated mineral resources will ever be converted into mineral reserves. United States investors are also cautioned not to assume that all or any part of an inferred mineral resource exists, or is economically or legally mineable.

# Maracás - Production Parameters



## Main Project Production Parameters:

- Mine reserve of 13,079,000 tonnes of ore at 1.34% V2O5
- Strip ratio at 2.23
- Vanadium recovery at 71.6%
- Production of 70,648 tonnes of vanadium contained in ferrovanadium alloy over 23 years
- Commissioning in 3<sup>rd</sup> quarter of 2010
- Ramp-up of production in 4<sup>th</sup> quarter of 2010
- Production of 3,813 tonnes of vanadium in 2011
- Peak production period from years 2- 8 producing approximately 4,520 tonnes of vanadium per year
- Production declining to 1,748 tonnes from year 14 to 22

# Maracás - Cost Parameters



## Main Cost Parameters:

- Preproduction capital at US\$270,600,000
- Operating costs for first 8 years at US\$15.49 per kg of vanadium
- Life-of-mine operating costs at US\$19.26 per kg of vanadium
- Contract mining for pre-stripping and first two years of production
- Contract crushing for life-of-mine
- Initial capital minimized by contracting services and deferring capital where possible

# Maracás – Economic Results



	Pre-Tax	With No Corporate Tax Incentives	With Corporate Tax Incentives
IRR (%)	43.9	34.9	41.7
NPV @ 10%	US\$489.0 million	US\$335.9 million	US\$450.7 million
Undiscounted Cashflow	US\$1,422.2 million	US\$1,049.4 million	US\$1,329.0 million

SUDENE tax incentive comprises a reduction of corporate tax of 75%

Payback of 1.9 years when SUDENE tax incentives applied

# Maracás – Vanadium Pricing



Year	2010	2011	2012	2013	2014	2015	2016	2017	2018
Price (US\$ per kg)	73.30	65.04	59.97	58.75	56.22	52.47	51.04	48.17	45.86

- Prices of vanadium beyond 2018 are forecast to be US\$45.86 per kg
- Vanadium pricing was provided by the CPM Group of New York
- Prices in 2007 dollars

# Maracás – OPEX Increases



	Micon Revised Scoping Study	Aker Solutions	Comment
Average annual mining costs	\$2,853,000	\$6,321,000	Increased unit rates and initial contract mining
Average annual G&A	\$1,230,000	\$2,963,000	Staffing levels and salaries by Largo
Average annual process	\$23,302,000	\$59,148,000	See below
Power (\$/MWh)	62	119	Recently quoted rate
Heavy fuel oil (\$/kg)	0.46	0.96	Recently quoted rate
Diesel (\$/kg)	0.80	1.09	Recently quoted rate
Kiln feed rate (t/hr)	24	41	Improved recoveries and quality

Contract crushing throughput mine life has increased OPEX