

NEWS RELEASE
6 MARCH, 2012

POSITIVE RESULTS FROM PRELIMINARY METALLURGICAL TESTWORK ON THE ARAGUAIA NICKEL PROJECT, BRAZIL

Horizonte Minerals plc, (TSX:HZM, AIM:HZM) (**‘Horizonte’** or **‘the Company’**) the exploration and development company focussed in Brazil, is pleased to announce positive results from the preliminary metallurgical testwork, from both pyrometallurgical and hydrometallurgical testing, for its flagship 100% owned Araguaia Nickel Project (**‘Araguaia’**) located south of the Carajás Mineral District of Northern Brazil.

Highlights:

Pyrometallurgy

- Commercial grade of ferronickel produced in laboratory smelting tests on two ore blends (35.3% nickel to 40.5% nickel)
- High nickel recoveries in laboratory tests (94.4% to 96.1%)

Hydrometallurgy

- Atmospheric tank leach (**‘ATL’**) tests achieved up to 89% nickel extraction and up to 93% cobalt extraction in 4 hours on ore blend samples
- Acid consumption for the ATL laboratory tests ranged from 506 – 752 kg/tonne
- Bottle roll leach (**‘BRL’**) tests achieved up to 89% nickel extraction and 92% cobalt extraction on ore blend samples
- Acid consumption for the BRL laboratory tests on ore blend samples ranged from 651 – 729 kg/tonne

Horizonte CEO Jeremy Martin said, “The completion of the initial phase of metallurgical test work is a significant milestone at Araguaia with both process routes returning positive results, which is an excellent outcome. The mineral resources on the project are saprolite and transition dominated, which combined with the good infrastructure and low cost hydroelectric power in the district made the tried and

tested pyrometallurgical route a key process option. Today in Brazil there are 4 plants producing ferronickel via the pyrometallurgical route, the most recent of these is Anglo American's Barro Alto project that started nickel production in March 2011. The results returned from our initial pyrometallurgical tests showed that it is possible to produce ferronickel with grades ranging from 35.3% nickel to 40.5% nickel with good overall recovery rates. A ferronickel product within this grade range can be sold directly to stainless steel producers.

"In parallel hydrometallurgical test work was undertaken focussed on Atmospheric Tank Leach (ATL) and Bottle Roll Leach (BRL) as a precursor test for atmospheric heap leaching. Sulphuric acid was used on both types of leaching tests. The results from the ATL tests were positive showing that there are high nickel recoveries up to 89% with moderate acid consumption and the BRL tests also indicated good nickel recoveries.

"The completion of the preliminary metallurgical testwork is a major step in de-risking the project, we are now able to demonstrate two process routes that with additional testing are potentially suitable for commercial production. Shortly we will be awarding the contract for the Phase 2 pyrometallurgical test work to run a pilot plant of approximately 100 tonnes of ore on a continuous feed basis. I look forward to updating shareholders as we advance this work."

Further Details

Pyrometallurgy

The pyrometallurgical test programme was undertaken at the laboratories of Xstrata Process Support ('XPS') in Sudbury, Ontario, Canada.

This test programme examined the pyrometallurgical smelting performance of laterite ore from the Araguaia Nickel Project. For the programme, samples of the limonite, transition and saprolite zones were submitted to XPS. The results of chemical analysis on the samples of these materials dried at 105⁰C showed the following results:

Chemical assays on ore materials sent to XPS

Sample	Ni	Co	Fe	SiO ₂	MgO	Al ₂ O ₃
Limonite	1.23	.21	37.9	18.10	2.70	8.3
Transition	1.76	0.064	18.8	42.78	9.73	5.25
Saprolite	1.61	0.04	10.3	42.14	18.41	8.13

The following blends, considered representative of the combined Pequizeiro and Baião deposits at a 1% nickel cut-off, were made up at XPS. Blend 1 is representative of the entire blended ore zones, while Blend 2 represents the blend of the transition and saprolite zones only.

HORIZONTE

MINERALS

Blend	Proportion, %		
	Limonite	Transition	Saprolite
Blend 1	15	45	40
Blend 2	0	53	47

After calcining at 900⁰C, smelting tests were carried out at 1,520⁰C with varying amounts of reductant. It was found that ferronickel alloy having grades between 21.9% Ni and 40.5 % Ni could be produced from the transition and saprolite materials, with the Ni recovery ranging from 94.4% to 97.6%. Further, the tests showed that in the case of Blend 1, a ferronickel product averaging 34.1% Ni could be produced at an average Ni recovery of 95.1%, while in the case of Blend 2, ferronickel grading 35.3% Ni could be produced, with a Ni recovery of 96.1%. Material grading 35% Ni is a sought after grade of ferronickel by stainless steel producers.

Horizonte ores have a high SiO₂/MgO ratio, in a similar range as that found at the BHP Billiton Cerro Matoso ferronickel operation. The XPS study also developed a Metsim model of a potential reduction/smelting process for the Araguaia ore and found that the energy requirements for Horizonte will be similar to published data for laterite smelting.

Hydrometallurgy

The preliminary hydrometallurgical testwork was undertaken at the Wardell-Armstrong International ('WAI') test laboratories at Wheal Jane, Cornwall, UK. Two separate approaches to hydrometallurgical processing were tested, Atmospheric Tank Leaching and Bottle Roll Tests aimed at a preliminary investigation for Heap Leaching. Sulphuric acid was selected for both types of leaching tests.

Atmospheric Tank Leach Tests

Preliminary atmospheric tank leach tests were undertaken under different test conditions to investigate the leachability of Araguaia blended ore with respect to the effect of particle size, solid/liquid ratio, acid strength, leaching temperature, leach time on metal recoveries and acid consumptions. A composite feed ore blend consisting of 15% limonite, 45% transition and 40% saprolite core drill samples was used to carry out the 21 batch tests.

The batch tests clearly established that Araguaia laterite ore was leachable in tanks with promising results. Nickel leach rates were encouraging with up to 65% of nickel extracted within the first hour and 89% extraction achieved in 4 hours leaching. Ranges of 70-89% recovery for nickel and 68-93% recovery for cobalt, with acid consumptions of 500 – 750 kg/t, were achieved in 16 of the 21 tests.

The results of a selection of the tests based on assays of the solids are tabulated below:

TEST ID	Ore size (µm)	S/L Ratio	Acid Strength (wt %)	Leach Temp. (°C)	Leach Time (hr)	Ni Recovery (%)	Co Recovery (%)	Acid Cons. (kg/t)	Acid Cons. (kg/kg Ni)
Base Test 1	-75	1/3	80	80	4	80.8%	87.3%	644	51
ATL 1	-1000	1/3	80	80	4	79.4%	82.5%	658	54
ATL 2	-500	1/3	80	80	4	81.3%	85.4%	640	51
ATL 3	-150	1/3	80	80	4	83.3%	86.7%	667	51
ATL 5	-75	1/2	80	80	4	71.7%	75.3%	731	65
ATL 10	-75	1/3	60	80	4	70.9%	68.3%	506	45
ATL 12	-75	1/3	100	80	4	89.1%	93.1%	752	54

Bottle Roll Leach Tests

Sixteen Bottle Roll tests were performed at WAI test laboratories using separate limonite, transition and saprolite samples as well as a composite ore blend. The tests were carried out under atmospheric pressure and ambient temperature. Solid/liquid ratio was 1:10 using 150 grams of feed ore for each test. Two ore sizes: 6.35 and 3.35 mm and two acid concentrations: 75 and 100 g/L were tested for each type of ore.

At the end of 91 days leaching, the transition and saprolite samples produced nickel recoveries in excess of 85% and the composite feed ore blend generated nickel recoveries in the order of 85-90%. As was expected, nickel recoveries for the pure limonite samples were lower (51%). Acid consumptions varied in the range of 400-800 kg/t ore for different ore types and test conditions.

Tabulated results for 10 of the tests based on solid analysis are given below

Test ID	Description	Leach Days	Ni Recovery %	Co Recovery %	Acid Cons. (kg/t)	Acid Cons. (kg/kg Ni)
BRT 1	Lim - 3.35 - 75 gpL	91	49%	27%	403	68
BRT 2	Lim - 3.35 - 100 gpL	91	52%	27%	447	72
BRT 5	Sap - 3.35 - 75 gpL	91	86%	89%	742	54
BRT 6	Sap - 3.35 - 100 gpL	91	87%	86%	878	64
BRT 9	Tra - 3.35 - 75 gpL	91	81%	55%	640	48
BRT 10	Tra - 3.35 - 100 gpL	91	88%	64%	654	45
BRT 13	Blend - 3.35 - 75 gpL	91	81%	83%	720	56
BRT 14	Blend - 3.35 - 100 gpL	91	89%	92%	770	54
BRT 15	Blend - 6.35 - 75 gpL	91	85%	87%	651	48
BRT 16	Blend - 6.35 - 100 gpL	91	89%	89%	729	51

HORIZONTE

MINERALS

Metallurgical testing of Horizonte's laterite deposits continues, with a planned test programme, about to commence shortly, aimed to test the upgrading of the Ni level in ore samples using a variety of new, advanced upgrading technologies.

Dr. Phillip Mackey P.Eng., Ph.D., FCIM, is the Qualified Person as defined by NI 43-101 for the metallurgical testing programme on the Araguaia Nickel Project. Dr. Mackey has reviewed and approved the contents of this news release as it relates to the results of the preliminary metallurgical testing programme.

****ENDS****

For further information visit www.horizonteminerals.com or contact:

Jeremy Martin	Horizonte Minerals plc	Tel: +44 (0) 20 7763 7157
David Hall	Horizonte Minerals plc	Tel: +44 (0) 20 7763 7157
Dominic Morley	Panmure Gordon (UK) Limited (Nomad and Broker)	Tel: +44 (0) 20 7459 3600
Joanna Weaving	Finncap Ltd (Joint Broker)	Tel: +44 (0) 20 7600 1658
Felicity Edwards	St Brides Media & Finance Ltd (PR)	Tel: +44 (0) 20 7236 1177
Sebastian de Kloet	Horizonte Minerals plc Canadian Investor Relations	Tel: 1-416-970-5277

About Horizonte Minerals:

Horizonte Minerals plc is an AIM and TSX listed exploration and development Company with a portfolio of nickel and gold projects in the Carajas District of Brazil. The Company is focussed on creating value by generating and rapidly advancing exploration projects in tandem with joint ventures with major mining companies, providing mid-term cash flow, which is then used to develop the business and pipeline projects.

Horizonte has two committed major mining partners: Teck Resources Limited, a major strategic shareholder in the Company, and AngloGold Ashanti Limited, a JV partner on the gold portfolio.

Horizonte owns 100 per cent of the advanced Araguaia nickel project located to the south of the Carajas mineral district of northern Brazil.; the project has the potential to deliver a resource with size and grades comparable to other world-class projects in northern Brazil.

In addition, Horizonte and AngloGold Ashanti have a US\$5.3 million exploration alliance to generate and develop new and existing gold targets within two areas of Brazil and a further JV with the major whereby AngloGold Ashanti can earn into 51% of the Falcao gold project by expending US\$4.5 million over three years with the right to earn a further 19% by taking the project to Pre-feasibility Study.

Horizonte is well funded to accelerate the development of its core projects.

CAUTIONARY STATEMENT REGARDING FORWARD LOOKING INFORMATION

Except for statements of historical fact relating to the Company, certain information contained in this press release constitutes "forward-looking information" under Canadian securities legislation. Forward-looking information includes, but is not limited to, statements with respect to the potential of the Company's current or future property mineral projects; the success of exploration and mining activities; cost and timing of future exploration, production and development; the estimation of mineral resources and reserves and the ability of the Company to achieve its goals in respect of growing its mineral resources; and the realization of mineral resource and reserve estimates. Generally, 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 statements that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". Forward-looking information is based on the reasonable assumptions, estimates, analysis and opinions of management made in light of its experience and its perception of trends, current conditions and expected developments, as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made, and are inherently 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 information, including but not limited to risks related to: exploration and mining risks, competition from competitors with greater capital; the Company's lack of experience with respect to development-stage mining operations; fluctuations in metal prices; uninsured risks; environmental and other regulatory requirements; exploration, mining and other licences; the Company's future payment obligations; potential disputes with respect to the Company's title to, and the area of, its mining concessions; the Company's dependence on its ability to obtain sufficient financing in the future; the Company's dependence on its relationships with third parties; the Company's joint ventures; the potential of currency fluctuations and political or economic instability in countries in which the Company operates; currency exchange fluctuations; the Company's ability to manage its growth effectively; the trading market for the ordinary shares of the Company; uncertainty with respect to the Company's plans to continue to develop its operations and new projects; the Company's dependence on key personnel; possible conflicts of interest of directors and officers of the Company, and various risks associated with the legal and regulatory framework within which the Company operates.

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 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.