



**NAUTILUS**  
Minerals Inc.

# COMPANY INFORMATION

## **NAUTILUS MINERALS INC.**

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## **NEWS RELEASE**

**Number 2008–18**

### **Nautilus Confirms Marketable Concentrate from Solwara 1 Ore**

*Toronto Ontario, May 23, 2008 - Nautilus Minerals Inc. (TSX & AIM: NUS)* (the “Company” or “Nautilus”) announces that results have been received for metallurgical test work completed on its Solwara 1 deposit. The results confirm that conventional flotation processing of Solwara 1 ore can produce a clean and high-grade copper concentrate. The low Bond Ball Mill Work Index and simple flotation requirements also indicate low capital and operating cost potential of Solwara 1 ore treatment.

David Heydon, Nautilus' CEO commented: "Building on the preliminary results reported in February 2008 (<http://www.nautilusminerals.com/s/Media-NewsReleases.asp?ReportID=284239>), we can now confirm that a high-quality copper concentrate with grades of better than 28% copper can be produced using standard flotation techniques with copper recoveries of more than 85%. The concentrates produced are “clean” with low levels of deleterious elements which demonstrate we have a marketable product.”

The metallurgical test work comprising mineragraphy, comminution and flotation was carried out by AMMTEC laboratories in Perth, Western Australia. It was carried out on 10 composite samples recovered from 1.2 tonnes of Solwara 1 drill core collected during the 2007 drilling campaign at the Company's Solwara 1 Project, located in the territorial waters of Papua New Guinea (“PNG”), as documented in the Resource Report completed by Golder Associates Pty Ltd., released on February 1, 2008.

The metallurgical test program was developed to provide data to design a flotation process. The following key points have been concluded from this metallurgical test work:

- Over 95% of the copper occurs as the mineral chalcopyrite ;
- The gangue consists of pyrite, barite, anhydrite and minor silicate minerals, all of which are readily separated from chalcopyrite using standard flotation techniques;
- Grinding and flotation tests indicate effective liberation with a likely primary grind size of 80% - 55 microns and regrind size of 80% -25 microns.
- Comminution data tabulated below indicate that the ore has an average Bond Ball Mill Work Index of about 11 kWh/t;
- Flotation results outlined below obtained using standard conditions indicate that copper concentrate grades greater than 28% should be achieved at copper recoveries in excess of 85%;

- The impurity element arsenic is held predominantly in the mineral arsenopyrite. Test work indicates that the arsenopyrite is readily liberated from the chalcopyrite and pyrite and flotation produces marketable concentrates with arsenic contents below the penalty level.
- The copper concentrates contain significant gold contents and in some cases payable levels of silver; and
- Greater than 90% of the gold reports to sulphides either to a copper or a pyrite concentrate. Further work defining gold and silver department is in progress.

<b>Solwara 1 Project Comminution Data</b>						
Sample	Description	Approx Percentage of resource	Bond Rod Mill Work Index kWh/t	Bond Ball Mill Work Index kWh/t	Bond Abrasion Index Ai	Bond Impact Crushability kWh/t
Ore type 1	Mineralised sediment	14%	11.1	11.3	0.0881	3.9
Ore type 2	Vuggy massive sulphide	53%	9.2	11.9	0.1188	3.4
Ore type 3	Massive sulphide	22%	11.4	10.8	0.1559	3.9
Ore type 4	Brecciated massive sulphide	7%	11.9	12.3	0.1524	3.8

<b>Solwara 1 Copper Flotation Test Results</b>						
Sample No.	Description	Approx percentage of resource	Copper Concentrate Grade % Cu	Copper Recovery to Copper Concentrate %	Gold Grade of Copper Concentrate g/t	Gold Recovery to Copper Concentrate %
Ore type 1	Mineralised sediment	14%	31.4	90.9	10.4	31.1
Ore type 2	Vuggy massive sulphide	53%	30.1	87	7.86	23.4
Ore type 3	Massive sulphide	22%	32.7	83.9	3.64	17.9
Ore type 4	Brecciated massive sulphide	7%	25	89.9	3.75	14.2
Ore type 9	Chimney - low Zn	3%	30.1	92.6	20.5	31.9
Ore type 10	Chimney - high Zn		28.6	85	11.3	20.8

The metallurgical and mineralogical results reported in this announcement have been compiled under the supervision of Mr Peter Munro, a full time employee of Mineralurgy Pty Ltd and Dr N.W. (Bill) Johnson, a consultant for Mineralurgy Pty Ltd. Both are corporate members of the Australasian Institute of Mining and Metallurgy, with over 35 years experience in mining and metallurgical process engineering and are deemed to be qualified persons. Both members have consented to their names being used in this release.

#### **About Nautilus Minerals Inc.**

Nautilus is the first company to commercially explore the ocean floor for gold and copper seafloor massive sulphide deposits and subject to timely permitting is positioning itself to become an emerging producer in 2010. The Company's main focus is the Solwara 1 Project, which is located in the territorial waters of Papua New Guinea in the western Pacific Ocean. Nautilus is listed on the TSX and on AIM, and has among its largest shareholders two of the world's leading international resource companies, Teck

Cominco (7.2%) and Anglo American (5.7%). Epion (22.4%) is controlled by the founder of Metalloinvest one of the largest and fastest growing mining and metallurgical holdings in Russia.

For more information please refer [www.nautilusminerals.com](http://www.nautilusminerals.com) or contact:

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