COMPANY INFORMATION

NAUTILUS Minerals Inc.

**NAUTILUS MINERALS INC.**
Registered Office:
10th Floor
595 Howe Street
Vancouver, British Columbia
V6C 2T5

**NEWS RELEASE**

**Number 2007–51**

**World First Seafloor Massive Sulphide Resource**

*Vancouver B.C., December 20, 2007* - **Nautilus Minerals Inc. (TSX & AIM: NUS)** (the "Company" or "Nautilus") is pleased to announce that Golder Associates Pty Ltd., ("Golder") have completed the world's first NI 43-101 compliant resource estimate for a seafloor massive sulphide ("SMS") system at the Company's Solwara 1 Prospect, located in the territorial waters of Papua New Guinea ("PNG") (http://www.nautilusminerals.com/i/pdf/FIGURE1Solwara1_ResourceHoles_Dec07.pdf):

- **Indicated Mineral Resource: 870 kt @ 6.8% Cu, 4.8 g/t Au, 23 g/t Ag, 0.4% Zn.**
- **Inferred Mineral Resource: 1,300 kt @ 7.5% Cu, 7.2 g/t Au, 37 g/t Ag, 0.8% Zn.**

The estimate from Golder is based on the following:

- results of 111 core drill holes drilled from the seafloor in 2007,
- surface mapping and sampling (133 samples),
- supporting information from 35 core holes drilled in 2006.

The estimate is further supported by an electromagnetic ("EM") survey which very effectively outlines the surface extent of massive sulphide mineralisation. A cut-off of 4.0% Cu was used.

David Heydon, Nautilus' CEO, commented: "We are pleased that our mine plan drilling of a portion of the Solwara 1 Deposit, trialling new remotely operated deep sea drills, has been accepted as competent to qualify for a NI 43-101 resource. This is a big step forward for this new industry. We are focused on outlining a pipeline of mineral deposits which we could aggregate over time using a mobile ship supported mining system. Apart from the Solwara 1 Deposit, we have to date, identified seven other prospects in PNG and have title over at least 10 mineralised areas in territorial waters of the Kingdom of Tonga.

The Solwara 1 Resource is a subset of the Solwara 1 Deposit. The resource is

- open to the west and
- at depth where 38% of holes drilled this year finished in mineralisation (http://www.nautilusminerals.com/i/pdf/FIGURE2Solwara1_Schematic_Cross_Section_01.pdf);.

- The mineralised system is exposed at the surface and well supported by the EM survey which effectively maps the surface expression of copper-rich mineralisation. This provides us with confidence in the extent and continuity of the resource.

- Indicated and inferred resources are categorised based on drilling density and drill core recovery with no fundamental geological difference between mineralisation in the different resource classes. We are confident that additional drilling could quickly upgrade the resource in the inferred category if desired."

The area drilled in 2007 was constrained by the time available for drilling as a result of the vessel contract term, and the depth limitations of the new Remote Operated Vehicle (ROV) rigs. As a result, it was not possible to pursue the western extensions of the system, nor test a number of interesting EM anomalies in the vicinity. The revolutionary ROV drill technology developed and employed this year resulted in a step change improvement in core recovery (73% in massive sulphide) from previous subsea drilling systems. However, the design capability of this new system was limited to drilling to a maximum of 19 metres. Currently the Company is working with its partners on developing drilling systems with extended depth capability to effectively evaluate the deeper potential in 2008.

This completes a very busy year of milestones for the Company, including;

- Nautilus's first offshore program, incorporating two vessels completing 200 operating days of offshore operations with no lost time injuries

- discovery of four new mineralised areas offshore of Papua New Guinea

- world first commercial electromagnetic survey of a seafloor massive sulphide ("SMS") deposit

- world first drill out using remote operated drill rigs of an SMS deposit

- world first NI 43-101 drill resource for an SMS deposit

- completion of baseline environmental surveys at Solwara 1

- raised US$214 million in equity capital in 2007

- awarded a contract to build the world's first remote operated SMS mining machines

Nautilus is now planning for a major exploration and development program for 2008. The 43-101 resource report being compiled by Golder will be posted on SEDAR within 45 days.

**About Nautilus Minerals Inc.**

Nautilus is the first company to commercially explore the ocean floor for gold and copper seafloor massive sulphide deposits and is positioned to become an emerging producer in 2010. The Company's main focus for 2008 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 three of the world's leading international resource companies, including Epion (22.9%), Anglo American (5.8%) and Teck Cominco (5.3%).

For more information please refer www.nautilusminerals.com or contact:

Investor Relations
Nautilus Minerals Inc. (Toronto)
Email: investor@nautilusminerals.com
Tel: +1 (416) 551 1100

Australian Project Office
Tel: +61 (7) 3318 5555

Numis Securities Limited (NOMAD)
John Harrison/James Black
Tel: + 44(0) 20 7260 1000

Conduit PR Ltd (UK Financial PR)
Arabella Hobbs/ Ed Portman
Tel: + 44(0) 20 7429 6610 / +44(0) 7833 926 694

**Basis of the Resource Estimate**

Golder Associates Pty Ltd ("Golder") has estimated resources for the Solwara 1 seafloor massive sulphide ("SMS") deposit based on:

- the results of 111 core drill holes drilled from the seafloor in 2007
- surface mapping and sampling (133 samples), with additional supporting information from 35 core holes drilled in 2006
- an electromagnetic survey

The Mineral Resources estimated by Golder used a 4% Cu cut-off grade.

- The Solwara 1 deposit is located on a volcanic sea mount. It consists of a zone of massive sulphides overlain by a thin zone of barren or weakly mineralised sediments. Base-metal rich chimneys occur above much of the massive sulphide deposit. The massive sulphide zone exhibits strong geological continuity and correlates well with a distinct electromagnetic anomaly on the sea floor.
- Drilling and sampling was observed during three separate site visits to the operations vessel by Ian Lipton, the nominated Qualified Person.
- Core recovery averaged 73% in the massive sulphide zone, which forms the Indicated Resources and the majority of the Inferred Resources. Core recovery in the units above and below the massive sulphide zone was lower and highly variable and hence these zones are classified as Inferred Resources.
- The core, all of 52 mm diameter, was sawn in half and sampled over intervals of approximately 1 m with breaks at lithological boundaries.
- Samples were analysed by multi-acid digestion and ICPAES by ALS Laboratory Group in Brisbane and Townsville Australia. Analysis of quality control data, including blanks, certified reference materials and duplicate samples indicates that the Cu, Au, Ag and Zn data are satisfactory.
- All drill holes were vertical and were registered to the bathymetry, which has a 20 cm by 20 cm resolution over the majority of the resource area, and 1 m by 1 m resolution in some peripheral parts.

- A wireframed model of the sub-chimney mineralisation was constructed using the main lithological boundaries observed in the core: base of unconsolidated sediments, base of lithified sediments and base of the massive sulphide zone.

- The chimney material volume was estimated from 20 cm by 20 cm bathymetry data.

- A computer block model was constructed by filling between the wireframe surfaces to the base of the chimneys with 10 m by 10 m by 0.5 m blocks. Sub-blocking was not employed, with whole blocks assigned to geological domains on a maximum proportion basis. Blocks representing the chimney volume were superimposed over the top.

- Grades of Cu, Au, Ag, Pb and Zn were estimated into the blocks by ordinary kriging using unfolding techniques. Search distances for the first estimation pass were 50 m laterally and 3 m vertically, with a minimum of 7 and a maximum of 12 samples used to estimate each block. Search distances for the second estimation pass were 500 m laterally and 5 m vertically, with a minimum of 1 and a maximum of 12 samples used to estimate each block. No more than 3 samples were selected from a single hole. Hard boundaries were used between all lithological zones. Chimney zone blocks were estimated effectively in two-dimensions.

- Appropriate high-grade capping to outlier values was applied on a zone by zone basis.

- Measurements of dry bulk density were determined on over 300 samples of drill core using two water displacement methods. The average dry bulk density for the massive sulphide mineralisation was 3.4 $t/m^3$ and for the semi-massive was 3.1 $t/m^3$. The average dry bulk density of the chimneys (86 measurements) was 2.2 $t/m^3$. Average dry bulk density values were assigned to each logged lithology prior to block grade estimation by ordinary kriging.

- All resources lie within the area of massive sulphide accumulation indicated by chimneys and an electromagnetic anomaly. Resources have been classified as Indicated or Inferred based on the drill hole spacing and core recovery. In many locations the base of the massive sulphide zone was not intersected by drilling and the resource remains open.

- The zone of mineralisation classified as Indicated Mineral Resources was tested by drill holes spaced from <10 m to a maximum of around 50 m. Within this zone, most of the blocks were estimated in the first pass and the core recovery in the intercepts used to estimate the blocks was generally greater than 70%. In the area classified as Inferred Resources the drill hole spacing ranges up to 200 m, but is generally <100 m, and the core recovery was variable.

- Nautilus advised Golder that the 4% Cu cut-off grade is comfortably above those indicated by previous preliminary scoping studies reported in 2006, and that metallurgical test work on recovered material from Solwara 1 has indicated that economic recoveries are likely to be achieved.

These mineral resource estimates are based upon and accurately reflect data compiled by Mr Ian Lipton, Principal Geologist, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a full time employee of Golder Associates Pty Ltd. The Ontario Securities Commission has advised that Mr Lipton has sufficient experience that is relevant to the style of mineralisation and the type of deposit under

consideration and to the activity which he has undertaken to qualify as a Qualified Person as defined in NI43-101. Mr. Lipton consents to the inclusion of this information in the form and context in which it appears in this report.

Golder resource statement (http://www.nautilusminerals.com/i/pdf/ResourceStatement.pdf)