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**NEWS RELEASE**

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**Exploration Success Continues for Nautilus Minerals in Tonga**

*Toronto Ontario, February 18, 2009* - **Nautilus Minerals Inc. (TSX & AIM: NUS)** (the “Company” or “Nautilus”) announces a summary of its exploration results in Tonga for 2008, Nautilus’ first commercial deepwater exploration program in the Kingdom of Tonga’s exclusive economic zone.

During 2008, the combined exploration programs have identified ten new Seafloor Massive Sulphide (“SMS”) systems in Tonga. Six of these SMS discoveries were mapped by Nautilus itself during the program completed from MV *Norsky* in mid December 2008. A further six previously known SMS systems were also characterised during this work program. These results were in addition to the four new systems discovered by Teck as part of its contribution under the agreement with Nautilus. The results attest both to the strong resource upside on Nautilus’ tenements and the efficiency of Nautilus’ target generation and target testing methods.

Stephen Rogers Nautilus’ CEO commented: “There are three key findings from the combined 2008 exploration programs. Firstly, the high rate at which Nautilus can find and test SMS systems has now been demonstrated both in Papua New Guinea (“PNG”) and Tonga. Secondly, most of the 2008 work program focused on the testing of targets within a relatively short (100km) segment of the prospective spreading ridge; yet Nautilus’ Tongan tenements contain in-excess of 1,500km of prospective strike length. Whilst currently identified mineralisations are dominated by zinc, there are indications of significant precious metals, which would require further evaluation. We are aware also that SMS systems can be vertically zoned, with the higher temperature copper sulphides deeper in the system, so any indication of copper at the seafloor level is encouraging.”

For more information on Teck’s Tongan discoveries see the September 17, 2008 press release [www.nautilusminerals.com/s/Media-NewsReleases.asp?ReportID=319379](http://www.nautilusminerals.com/s/Media-NewsReleases.asp?ReportID=319379).

**Table 1 - Summary of MV Norsky 2008 sampling program in Tonga - Average Assay Results for Massive Sulphide and Semi-Massive Sulphide Samples by Prospect.**

Name	Ave. Zn% (1)	Ave. Cu% (1)	Ave. Pb% (1)	Ave. Ag g/t	Ave. Au g/t	No. of samples (2)	Easting (3)	Northing (3)	Depth mbsl
Tahi Moana 1	31.2	1.6	0.2	180	4.2	9	585035	7712635	2206
Tahi Moana 2	7.6	0.3	0.8	129	2.8	5	547880	7574650	1845
Tahi Moana 4 (Telve)	1.7	0.0	1.0	509	12.9	1	539480	7549305	1636
Tahi Moana 5 (Misiteli)	12.8	1.5	2.7	700	20.7	7	530520	7513790	2031
Tahi Moana 6 (Si'i Si'i)	27.2	0.4	1.1	239	7.5	3	538070	7535020	1895
White Church	19.3	0.6	0.4	87	3.0	6	552085	7583560	1907
NVFR Site 2	23.7	0.7	0.2	128	5.7	4	549895	7579705	1796
NVFR Site 3	22.5	1.8	0.4	115	3.3	12	547185	7572570	1843
Mariner	24.0	3.7	0.3	80	3.8	3	541060	7547080	1907
Hine Hina 1	22.5	6.4	0.1	177	5.8	9	529150	7507810	1828
Tui Malila 1	21.8	0.9	0.5	84	4.1	5	544625	7568460	1834

(1) Average analyses from laboratory

(2) Semi-massive and massive sulphide material only

(3) UTM South Zone 1 coordinates, WGS 1984 datum.

Note - Tahi Moana 3 - no sulphide sample collected, Abe - no samples collected

Nautilus Minerals' MV Norsky 2008 exploration cruise to Tonga was focused on rapid evaluation of SMS targets using a Remotely Operated Vehicle ("ROV"). Features indicative of SMS mineralisation were identified from real-time video observations and were confirmed by geological logging and analysis of recovered samples. Geological observations and geophysical data collected during the ROV dives, is being processed to identify further potential.

The new SMS systems are named Tahi Moana 1 through to Tahi Moana 6.

**Tahi Moana 1** is 480 m long with an average across strike width of approximately 90m. It lies at a water depth of 2200m and assay results from nine sulphide samples report maximum zinc up to 45.1% (upper detection limit), copper up to 5.0%, silver up to 331g/t and gold up to 7g/t (see Table 1, Table 2 and Figure 2).

**Tahi Moana 2** contains two sub-areas of 350 by 160m and 250 by 130m surface exposure separated by approximately 100m of volcanic rock outcrop. It lies in a water depth of 1850m and assay results from five sulphide samples report zinc contents up to 26.8%, copper up to 1.1%, silver to 289g/t and gold up to 4.9g/t (see Table 1, Table 2 and Figure 3).

**Tahi Moana 3** contains two exposed sub-areas of 320 by 60m and 270 by 60m. It lies in a water depth of 2000m. Hydrothermal material in this area is strongly oxidized and very soft; no samples of mineralisation could be recovered (see Figure 4).

**Tahi Moana 4** contains a small area of mineralisation from which a single sample assayed 1.7% zinc, 509g/t silver and 12.9g/t gold. It lies in a water depth of 1650m (see Table 1, Table 2 and Figure 5).

**Tahi Moana 5** contains seven sub-areas with indications of SMS mineralisation, the largest of which is approximately 230 by 50m in area. It lies in a water depth of 2050m and assay results from seven sulphide samples report zinc contents up to 21.1%, copper up to 7.1%, silver up to 1690g/t and gold up to 44.1g/t (see Table 1, Table 2 and Figure 6).

**Tahi Moana 6** contains discontinuous mineralised outcrop 175m by 75m in area. It lies in a water depth of 1900m and assay results from three massive sulphide samples report zinc contents of up to 49.5%, copper up to 1.0%, silver up to 334g/t and gold up to 11.2g/t (see Table 1, Table 2 and Figure 7).

Six SMS occurrences previously reported by marine science research organisations, were evaluated by Nautilus during the MV Norsky 2008 cruise and found to host significant mineralisation.

- The **White Church** occurrence <sup>(1)</sup> is approximately 470m long by up to 145m. It lies in a water depth of 1900m and assay results from six massive sulphide samples report zinc up to 32.6%, copper up to 1.1%, silver up to 126g/t and gold up to 3.7g/t (see Table 1, Table 2 and Figure 8).
- The **North Valu Fa Ridge Site 2** <sup>(1)</sup> contains a zone with indications of mineralisation over approximately 200 by 20m. It lies in water depth of 1790m and assay results from four sulphide samples report zinc up to 26.0%, copper up to 1.0%, silver up to 189g/t and gold up to 7.4g/t (see Table 1, Table 2 and Figure 9).
- The **North Valu Fa Ridge Site 3** <sup>(1)</sup> contains three sub-areas of mineralisation. The largest sub-area contains indications of SMS mineralisation within a zone approximately 450 by up to 150m in extent. It lies in water depth of 1800m and assay results from 12 samples of semi-massive to massive sulphide report zinc 48.5%, copper up to 11.9%, silver up to 326g/t and gold up to 10.2g/t (see Table 1, Table 2 and Figure 10).
- The **Mariner** site <sup>(2)(3)</sup> is a curved feature approximately 360 by 70m with indications of mineralisation. It lies in water depth of 1900m and assay results from three samples of semi-massive to massive sulphide report zinc up to 35.8%, copper up to 10.5%, silver up to 145g/t and gold up to 7.4g/t (see Table 1, Table 2 and Figure 11).
- The **Hine Hina** site <sup>(1)(4)</sup> contains mineralisation within a main area of approximately 300 by 100m. It lies in a water depth of 1850m and assay results from nine massive sulphide samples report zinc up to 49.0%, copper up to 13.0%, silver up to 295g/t and gold up to 12.6g/t. Significant areas of sediment at this site may conceal further areas of mineralisation (see Table 1, Table 2 and Figure 12).
- The **Tui Malila** site <sup>(3)</sup> contains two mineralised areas of approximately 220 by 85 m and 80m by 110m. It lies in a water depth of 1850m and assay results from five massive sulphide samples indicate zinc up to 27.1%, copper up to 1.6%, silver up to 142g/t and gold up to 5.6g/t (see Table 1, Table 2 and Figure 13).
- The **Abe** site <sup>(3)(5)</sup> contains indications of mineralisation over approximately 80 by 25m. No samples were recovered (see Figure 14).

## Links for Figures and Table 2

Figure 1: [http://www.nautilusminerals.com/i/misc/Figure\\_1\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_1_Tonga.pdf)

Figure 2: [http://www.nautilusminerals.com/i/misc/Figure\\_2\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_2_Tonga.pdf)

Figure 3: [http://www.nautilusminerals.com/i/misc/Figure\\_3\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_3_Tonga.pdf)

Figure 4: [http://www.nautilusminerals.com/i/misc/Figure\\_4\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_4_Tonga.pdf)

Figure 5: [http://www.nautilusminerals.com/i/misc/Figure\\_5\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_5_Tonga.pdf)

Figure 6: [http://www.nautilusminerals.com/i/misc/Figure\\_6\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_6_Tonga.pdf)

Figure 7: [http://www.nautilusminerals.com/i/misc/Figure\\_7\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_7_Tonga.pdf)

Figure 8: [http://www.nautilusminerals.com/i/misc/Figure\\_8\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_8_Tonga.pdf)

Figure 9: [http://www.nautilusminerals.com/i/misc/Figure\\_9\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_9_Tonga.pdf)

Figure 10: [http://www.nautilusminerals.com/i/misc/Figure\\_10\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_10_Tonga.pdf)

Figure 11: [http://www.nautilusminerals.com/i/misc/Figure\\_11\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_11_Tonga.pdf)

Figure 12: [http://www.nautilusminerals.com/i/misc/Figure\\_12\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_12_Tonga.pdf)

Figure 13: [http://www.nautilusminerals.com/i/misc/Figure\\_13\\_Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure_13_Tonga.pdf)

Figure 14: [http://www.nautilusminerals.com/i/misc/Figure 14 Tonga.pdf](http://www.nautilusminerals.com/i/misc/Figure%2014%20Tonga.pdf)

Table 2: <http://www.nautilusminerals.com/i/misc/Table2Tonga.pdf>

## **Sampling Procedure**

Sulphide mineralisation observed during the MV Norsky 2008 cruise to Tonga was mapped visually with a T200 ROV and confirmed by grab sampling.

The majority of ROV dives conducted during the Tongan geology phase were planned as traverses on a series of parallel lines, each with a separation of 200m, cutting across the general structure of the ridge section under investigation. When hydrothermal chimney structures were observed the area was followed up by either closer-spaced traverses or by mapping along geological features.

In each case a polygon indicating the outer limits of potential SMS mineralisation was mapped. This polygon includes areas of chimneys, hydrothermal mounds, vent-proximal fauna, geophysical anomalies and other such features indicative of possible mineralisation. Areas covered by thin sediment immediately adjacent to identified mineralisation were included in these outlines, as were minor areas of potentially barren volcanic outcrop or sub-crop.

Samples were collected from the seafloor using a manipulator arm mounted on the ROV. Samples averaging 19.7kg (from 0.2 to 103kg) were placed in number sample containers for recovery to the ship where they were then sub-sampled on board the ship. Sample selection targeted material exposed at surface across different parts of the SMS system. Sub-samples averaging 4.7kg (from 0.21 to 14.5kg) were taken for analysis from each of the samples using a pneumatic hammer. The remaining portions of each sample were retained for reference purposes.

## **Laboratory Analysis:**

All analysis was carried out by ALS Laboratory Group in Brisbane, Australia. ALS operates quality systems based on international standards ISO/IEC17025:1999 "General requirements for the competence of calibration and testing laboratories" and ISO9001:2000 "Quality Management Systems - Requirements".

## **Qualified Person**

The exploration results reported in this announcement have been compiled under the supervision of Anthony O'Sullivan, Chief Operating Officer of Nautilus. Mr. O'Sullivan is a member of the Australasian Institute of Mining and Metallurgy, has more than 20 years experience in mining and exploration geology, and is a qualified person as defined under National Instrument 43-101. He consents to his name being used in this release.

## **Footnotes**

- (1) reported previously by the Nautilus (1989)
- (2) reported by Sweep Vents (2004)
- (3) reported by TUIMO5MV (2005)
- (4) reported by SO-67 (1990)
- (5) reported by KM0417 (2004)

## **Acknowledgements**

The Tahiti Moana discoveries result from systematic evaluation of historical marine scientific research (MSR) data, collected over the past two decades; in particular Nautilus would like to acknowledge data acquired by the Hawaii Institute of Geophysics and Planetology (HIGP), the National Oceanic and Atmospheric Administration (NOAA), the Nautilus Group and contributors to the Ridge2000 project.

The representations in Figures 2 to 14 are in part derived from Mini Autonomous Plume Recorder (MAPR) data made available by Dr Edward Baker of NOAA (KM0804, 2008). These instruments map the level of turbidity of the sea water, at different altitudes above the seafloor; they are useful for identifying possible hydrothermal events that are injecting particles into the seawater.

#### **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 currently developing its first project. 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 (6.8%) and Anglo American (11.1%). Metalloinvest, one of the largest and fastest growing mining and metallurgical holding companies in Russia, beneficially owns 21.0% of its shares through Gazmetall Holding (Cypress) Limited.

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

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