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## Mirasol Reports Trench Results from the Newly Discovered Titan Gold System in the Miocene Belt of Chile

VANCOUVER, BC, January 21, 2013 – Mirasol Resources Ltd. (TSX-V: MRZ, Frankfurt: M8R) "Mirasol". Mirasol is pleased to announce the discovery of a new high-sulphidation gold system on the Titan project, which is at one of its recently staked, 100%-owned properties in the Miocene belt of northern Chile. A mechanical trenching program has outlined a 700 by 660 metre zone of anomalous gold which hosts length-wise weighted-average trench channel results of up to 194 metre at 0.41 gram per tonne (g/t) gold, and higher-grade intervals including 31 metres at 1.36 g/t gold and 10 metres at 2.13 g/t gold, within which are higher-grade intervals of up to 1 metre at 17.0 g/t gold. The gold anomalous zone is believed to remain open in all directions under shallow, post-mineral cover. Titan's alteration signature has characteristics which suggest the current outcrop level may be near the top of a mineralized, gold-bearing high sulfidation epithermal (HSE) system.

The Titan project is a new gold system discovered by Mirasol Resources while following-up high priority alteration targets in a key structural zone located in the Miocene Arc some distance north of the world class Maricunga gold belt in Chile. The Maricunga belt contains a series of multi-million ounce, Miocene-age porphyry gold and high-sulphidation epithermal gold mines. Mirasol believes there exists good potential to discover additional large, gold deposits in the underexplored extensions of this belt (see news release of January 17, 2013). In many respects, the Titan project has good infrastructure with regularly maintained gravel roads passing within 5 kilometres of the target zone, at workable altitudes which allow access to the project during most of the year.

Initial reconnaissance samples from Mirasol's Titan project returned assays up to 1.60 g/t gold from outcrops and small hand-dug pits. Mirasol recently completed a 3,285 metre mechanical trenching program (Figure 1) which defined the large, coherent surface gold anomaly at Titan in excess of 700 metres by 660 metres in dimension. Uncut assays from the trenches (Table 1) define multiple intervals in-excess of 100 metres in length of anomalous gold mineralization, with the best interval being 194 metres at 0.41 g/t gold. Applying a 0.1 g/t gold cut-off to these results (Table 1), returned better intervals of 132 metres at 0.55 g/t gold, 80 metres at 0.56 g/t gold, 24 metres at 0.95 g/t gold and 10 metres at 2.93 g/t gold.

Mirasol resampled the initial trench intervals for samples with assays exceeding 0.5 g/t gold in-order to reduce the original sample interval from 2 to 4 metres, down to a one metre interval. This generally returned similar or improved gold grades. Better results from the resampling (Table 1, Figure 2) at a cut-off of 0.25 g/t gold include 31 metres at 1.36 g/t gold, 18 metres at 1.20 g/t gold, 4 metres at 4.52 g/t gold and 10 metres at 2.13 g/t gold.

Outcropping gold mineralization at the Titan project is oxidized with no sulphides recognised at surface. Mineralization is hosted by brecciated, and intense advanced argillically-altered andesitic volcanics and possible domes, including large areas of "powdery" alunite-opal alteration containing local native sulphur. The outcropping alteration at Titan is typical of the upper steam-heated levels of high-

sulphidation epithermal (HSE) deposits, which in most mineralized systems of this type, may cap higher-grade gold mineralization which is hosted by underlying vuggy- and massive silica zones (see Figure 2, Mirasol press release January 17, 2013).

Trace-level gold mineralization can occur within the steam-heated zone of high-sulphidation epithermal (HSE) systems, especially in "telescoped systems" where the steam leach cap overprints pre-existing silica-alunite (examples: Pierina deposit and San Jose Sur, Yanacocha deposits in Peru). At Titan, the presence of strongly elevated gold anomalies within the interpreted steam heated cap, suggests there may have been late-stage telescoping (collapse) of the hydrothermal system onto the top of a pre-existing gold zone. Trace-element geochemical results from the Titan trenches (Figure 3) show a multi-element signature of anomalous antimony, arsenic, mercury and tellurium at concentrations indicative of the epithermal level in a strong mineral system. Also evident in the trench assays are coherent zones of anomalous molybdenum to 2260 ppm and copper up to 652 ppm.

From our current mapping and sampling, the gold mineralization at Titan appears to form a crescent shape surrounding a "core" of magnetite- veins in advanced argillically-altered porphyritic andesite host rock. This type of magnetite-bearing alteration is also found in the upper alteration zones of porphyry systems.

Exploration of the large alteration system within the Titan project and other nearby Mirasol-controlled properties is ongoing. The Titan alteration system is exposed through a window in post-mineral cover, which suggests the system may be larger than currently known. Mirasol has initiated geophysical surveys including electrical methods and high-resolution ground magnetics to assist in defining the dimensions of the Titan mineral system and the evaluate the potential for dual shallow epithermal gold and possibly deeper porphyry-style targets.

Mirasol is very pleased that its generative program has led to staking of high quality gold targets on open ground, such as the Titan project, in mining- and investment-friendly Chile. Mirasol plans to accelerate its exploration efforts at Titan and at other 100%-owned Mirasol properties in the Chilean Miocene Arc, and looks forward to reporting progress as results come to hand.

Stephen C. Nano, Vice President of Exploration for Mirasol, is the Qualified Person under NI 43-101 who prepared and approved the technical content of this news release.

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## **Quality Assurance/Quality Control:**

Exploration at the Chile exploration program is supervised by Stephen C. Nano, Vice President of Exploration, who is the Qualified Person under NI 43-101. All technical information for the Company's projects is obtained and reported under a formal quality assurance and quality control (QA/QC) program. All Drill Rock chip and stream sediment samples are collected under the supervision of Company geologists in accordance with standard industry practice. Samples are dispatched via commercial transport to an ISO 9001:2000-accredited laboratory in Chile for analysis. All rock chip and drill samples are submitted to the Laboratory with independently sourced, accredited standard and blanks and where appropriate duplicate samples to facilitate monitoring of laboratory performance. Certified Results are examined by an independent qualified consultant to ensure laboratory performance meets required standards.

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