

**NEWS RELEASE****September 3, 2010**

Trading Symbols:

AMM :TSX, AAU : NYSE: AMEX

www.almadenminerals.com

**IXTACA DRILLING TO RECOMMENCE**

**Almaden Minerals Ltd. (“Almaden” or “the Company”; AMM:TSX; AAU:NYSE)** is pleased to report that a phase II diamond drilling program is set to recommence at the newly discovered Ixtaca zone on its 100% owned Tuligtic Project located in Puebla State, Mexico. Almaden geology staff and drilling personnel are on site and drilling is expected to commence in the coming days. Almaden plans several holes to confirm the orientation of the vein system before systematic step-out drilling, to explore the strike and depth extent of the vein system, commences. Over the past few weeks Almaden has acquired all the surface access rights and permissions necessary to carry out the current drill program. In addition Almaden has reviewed its exploration database for the Tuligtic project and, in areas of previous work to the north and east of the Ixtaca zone, identified several other targets on the property. Defining these targets are high gold and silver in stream sediment and soil that are in some cases coincident with high resistivity and chargeability IP geophysical responses similar to those now known to be associated with mineralisation in the Ixtaca zone. Almaden awaits the results of more detailed soil sampling that was carried out in the past few weeks to help better define these zones. During the present drill program these new targets will be field examined in detail for the purposes of designing future drilling to test them. IP geophysical surveys are also scheduled to commence shortly with survey lines designed to explore the strike extent of the Ixtaca zone and to help plan future drilling.

Previously in August of this year (see Almaden news releases of August 9<sup>th</sup> and August 17<sup>th</sup>, 2010) Almaden reported results of the first ever and discovery drilling results from the Ixtaca zone including 302.41 m of 1.01 g/t Au and 48 g/t Ag (1.7 g/t AuEq, 114 g/t AgEq) in hole TU-10-1 and 232.30 meters of 0.36 g/t gold and 34 g/t silver (0.9 g/t AuEq., 57 g/t AgEq.) in hole TU-10-3. Hole TU-10-1 was drilled with an azimuth of 110 degrees and a dip of -55 degrees and is considered to be oriented oblique to the vein zone. Hole TU-10-3 was drilled at an azimuth of 150 degrees with a dip of -50 degrees. Hole TU-10-2 was drilled away from TU-10-1 with an azimuth of 330 degrees and a dip of -55 degrees and intersected 32.69 meters of 0.15 g/t gold and 32 g/t silver (0.6 g/t AuEq., 41 g/t AgEq.). Of the three holes, TU-10-1 is believed to have most completely crossed the core of the vein zone while holes TU-10-2 and TU-10-3 are thought to have been collared closer to the hangingwall and footwall respectively. Accordingly hole TU-10-3 is interpreted to have intersected the vein system at shallower depths than that at which high grades were intersected in hole TU-10-1. The phase II program drilling will be designed to test the entire vein system across the depths interpreted to be most permissive for gold and silver mineralisation.

J.D. Poliquin, Chairman of Almaden commented, “We are excited to be recommencing diamond drilling and look forward to reporting the results of the phase II program.”

Morgan J. Poliquin, Ph. D., P. Eng., the President and CEO of Almaden, and a qualified person under the meaning of National Instrument 43-101, reviewed the technical information in this news release. The analyses reported were carried out at ALS Chemex Laboratories of North Vancouver using

industry standard aqua regia, ICP and fire assay techniques. Blanks, field duplicates and certified standards were inserted into the sample stream as part of Almaden's quality assurance and control program which complies with National Instrument 43-101 requirements. Gold equivalent ("AuEq.") and silver equivalent ("AgEq.") values were calculated using a silver to gold ratio of 65 to 1. Metallurgical recoveries and net smelter returns are assumed to be 100% for the purposes of these gold and silver equivalent calculations. Intervals that returned assays below detection were assigned zero values.

### **About Almaden**

Almaden is a well-financed mineral exploration company working in North America. The company has assembled mineral exploration projects, including the Ixtaca Zone, through its grass roots exploration efforts. While the properties are largely at early stages of development they represent exciting opportunities for the discovery of significant gold and copper deposits as evidenced at Ixtaca. Currently five projects (Caballo Blanco, Tropicico, Nicoamen River, Matehuapil and Merit), are optioned to separate third parties who each have the right to acquire an interest in the respective project from Almaden through making certain payments and exploration expenditures. Four further projects are held in joint ventures. Almaden also holds a 2% NSR interest in 11 projects. Almaden's business model is to find and acquire mineral properties and develop them by seeking option agreements with others who can acquire an interest in a project by making payments and exploration expenditures. Through this means the company has been able to expose its shareholders to discovery and capital gain without the capital that would be required if the company were to have developed these projects without a partner. The company intends to expand this business model, described by some as prospect generation, by more aggressively exploring several of its projects including the Ixtaca Zone.

On Behalf of the Board of Directors

"Morgan Poliquin"

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Morgan J. Poliquin, M.Sc., P.Eng.  
President, CEO and Director  
Almaden Minerals Ltd.

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