



Pelangio Exploration Inc.
440 Harrop Dr., 2nd Floor
Milton, Ontario L9T 3H2
Phone (905) 875-3828
Fax (905) 875-3829

NEWS RELEASE

PELANGIO EXPLORATION IDENTIFIES SIGNIFICANT NEW GOLD SHOWINGS ON THE OBUASI MAIN MINE TREND

TORONTO, Ontario, (September 3, 2009) – Pelangio Exploration Inc. (PX:TSX-V) (“Pelangio” or the “Company”) is pleased to announce its 2009 prospecting and surveying results to date and to provide an update on the Company’s Obuasi property (the “Obuasi Property”) in Ghana:

- New gold showings from grab samples grading up to 6.6 g/t
- New MMI anomalies measuring up to 100m x 1000m
- 2009 VTEM survey extends Main Obuasi Mine Trend by 7kms
- Preliminary 7,000m drill program planned for fourth quarter

Prospecting and Surveying Results Identify New Gold Showings

The Company has identified six new gold showings, with the best grab samples grading 2.1 g/t to 6.6 g/t, from outcrops on the extension of the Obuasi Main Mine Trend. The showings are located in the eastern portion of the Obuasi Property bordering AngloGold Ashanti’s Obuasi Mine. The Company has also identified two new MMI (mobile metal ion) anomalies in the Mount Kate area of the Obuasi Main Mine Trend, measuring 1000 metres by 100 metres and 500 metres by 200 metres, respectively. These new gold showings and MMI anomalies are indicated in the following link:

http://www.pelangio.com/i/pdf/2009-09-03_NRF1.pdf

“Finding gold occurrences on surface within five kilometres of a mine with more than 24 million ounces in measured and indicated resources is very promising,” commented Warren Bates, Senior Vice President Exploration of Pelangio. “We continue to find gold by prospecting in areas indicated by our geophysical and geochemical surveying, which bodes well for the 7,000 metre drill program we plan to commence early in the fourth quarter and for our future drill programs.”

The gold-bearing grab samples were found by prospecting near conductor axes established during the 2007 VTEM helicopter-borne electromagnetic survey. Similarly, the new MMI anomalies were sampled on grids derived from the 2007 VTEM survey and magnetic data.

Encouraging Results From 2009 VTEM Aerial Survey

Pelangio is also pleased to announce that the results and analysis of the Company’s 2009 VTEM aerial survey (announced April 7, 2009) have confirmed that the Obuasi Main Mine Trend extends a further seven kilometres through the Obuasi Property.

“Today’s VTEM results confirm that the structures running from the Obuasi Mine onto our property cross almost 50% more of our property than was previously recognized,” commented Mr. Bates. “Most significantly, our previous drilling has confirmed that these structures are gold-bearing.”

The following link provides a map of the latest VTEM survey:

http://www.pelangio.com/i/pdf/2009-09-03_NRF2.pdf

The Company has now confirmed that the Obuasi Main Mine Trend traverses a minimum of approximately 15 kilometres of the Obuasi Property from the southwest to the northeast. It has not yet been determined whether the granitic intrusion delineated by the survey pre-dates or post-dates gold mineralization in the region, which determination could increase the known extent of the Trend through the Obuasi Property.

Pelangio has also been working throughout the summer with SRK Consulting (Canada) Inc. and Condor Consulting Inc. on a detailed structural analysis of geophysical surveying conducted to date. The resulting interpretation accords closely with the results of the Company's prospecting and geochemical surveying and defines numerous priority drill targets on the Obuasi Main Mine Trend, as well as elsewhere on the Obuasi Property.

The following link provides an image that collates certain results from Pelangio's prospecting, drilling, geophysical and geochemical surveying and structural analysis:

http://www.pelangio.com/i/pdf/2009-09-03_NRF3.pdf

The ore at the Obuasi Mine is contained within a series of shallow-plunging shoots, which plunge and trend towards Pelangio's Obuasi Property (see Pelangio's website at www.pelangio.com for an animation of the local geology). The shoots are hosted in conductive sheared argillites, which are visible in VTEM surveys such as those completed by Pelangio in 2007 and 2009. The Company has used the results of these surveys as a structural mapping tool to locate areas of the Obuasi Property with higher potential for gold mineralization. The Company's goal is to locate Obuasi Mine-style shoots within the Obuasi Property's boundaries.

Pelangio currently has bids from nine drill contractors and expects to commence a preliminary 7,000 metre drill program early in the fourth quarter focusing on the portion of the Obuasi Main Mine Trend closest to the Obuasi Mine.

Quality Assurance/Quality Control and Qualified Person

All prospecting grab samples were collected in the field by contractors working for Pelangio under the supervision of Chris Pegg, P.Geo. The locations of grab samples were provided by Garmin GPS Map60CX GPS receivers carried by geologists in the field. Grab samples vary in size from 1 to 4 kg. A representative of each grab was stored for reference – generally about one quarter of the mass of the sample and stored in a secure location at the Pelangio compound in Brofoyedru, Ghana. The other portion was shipped in sealed bags and stored at the site until it was shipped to Transworld Laboratories in Tarkwa, Ghana. The samples were dried and crushed by Transworld and a 150-gram pulp was prepared from the coarse crushed material. Routine gold analysis was conducted by Transworld, using a 50-gram charge and fire assaying with atomic absorption finish. Quality control procedures included the systematic insertion of blanks, duplicates and sample standards into the sample stream at the rate of one per every 30 samples. In addition, Transworld inserted one preparation blank and certified reference material for every 20 samples and one duplicate analysis every 20 samples.

The exploration program at the Obuasi Property is managed by Mr. Chris Pegg, P. Geo., a Qualified Person within the meaning of National Instrument 43-101. Mr. Pegg has verified and approved the data disclosed in this release, including the sampling, analytical and test data underlying the information.

About Pelangio

Pelangio is a gold exploration company active in the top-ranked mining jurisdictions in the world, Canada and Ghana. The Company's main focus is to advance its exploration programs on its premier land position in Ghana totaling 290 square kilometres, located on strike and adjacent to AngloGold Ashanti's Obuasi gold mine.

For additional information, please visit our website at www.pelangio.com or contact:

Ingrid Hibbard, President & CEO or
Warren Bates, Senior Vice President Exploration
Tel: 905-875-3828 / Toll-free: 1-877-746-1632 / Email: info@pelangio.com

Forward Looking Statements

Certain statements herein may contain forward-looking statements and forward-looking information within the meaning of applicable securities laws. Forward-looking statements or information appear in a number of places and can be identified by the use of words such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate" or "believes" or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. With respect to forward-looking statements and information contained herein, we have made numerous assumptions. Forward-looking statements and information include statements regarding our exploration plans and exploration results with respect to our Obuasi property, and are subject to forward-looking risks, uncertainties and other factors which may cause our actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statement or information. Such risks include gold price volatility, changes in equity markets, political developments in Ghana, increases in costs, exchange rate fluctuations and other risks involved in the gold exploration industry. See our annual and quarterly financial statements and management's discussion and analysis for additional information on risks and uncertainties relating to the forward-looking statement and information. There can be no assurance that a forward-looking statement or information referenced herein will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements or information. Also, many of the factors are beyond the control of the Company. Accordingly, readers should not place undue reliance on forward-looking statements or information. We undertake no obligation to reissue or update any forward-looking statements or information except as required by law. All forward-looking statements and information herein are qualified by this cautionary statement.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.