

5 July 2010

Company Announcements Office  
 Australian Securities Exchange  
 10th Floor, 20 Bridge Street  
 Sydney NSW 2000

Dear Sir,

## **TOUQUOY DEFINITIVE FEASIBILITY STUDY RESULTS**

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Atlantic Gold NL (ASX: ATV) is pleased to announce results of the Touquoy Definitive Feasibility Study ("DFS") as Stage 1 of the Touquoy-Cochrane Hill Gold Project in Nova Scotia, Canada. The DFS will provide Atlantic Gold with the basis to further advance discussions with potential financiers for the Project funding.

The Touquoy-Cochrane Hill Gold Project represents potential production of approximately 900,000 ounces over a 10-year mine life with net surplus cash of over C\$300 million (*A\$350 million*), as previously announced.

### **SUMMARY OF THE TOUQUOY DFS RESULTS (Stage 1 of the Touquoy-Cochrane Hill Gold Project)**

As 100% of the Touquoy cashflows will first be required to service and repay project debt and to repay all Atlantic Gold's exploration, pre-production, development and interest costs, the summary DFS results are reported below on 100% basis (*refer to Endnote for ownership details*).

Ore reserves ( <i>see page 2</i> )	9.59 Mt @ 1.48 g/t for 454,000 contained ounces
Total production*	422,000 ounces
Annual production rate	84,000 ounces
Plant	All new, 2.0 Mtpa conventional gravity/CIL plant
Mine life	5.0 years
Pre-production capital cost**	C\$123M ( <i>A\$136M</i> ). Includes C\$9M ( <i>A\$10M</i> ) of working capital
Cash operating cost	US\$505/oz. Includes royalties of US\$25/oz

\*Production excludes 26,000 ounces of in-pit Inferred Resources, and any input from the Touquoy West satellite deposits (previously reported Indicated and Inferred Resources of 2.0 Mt @ 1.5 g/t for 99,000 ounces).

\*\*The DFS is prepared in Canadian dollars. Exchange rates of A\$1 = C\$0.90 and C\$1 = US\$0.95 are used in the Study.

The Touquoy DFS was compiled in association with Merit Engineers Pty Ltd and Ausenco Limited. It commenced in December 2009 and has considered all aspects related to development of Touquoy including ore reserve definition, mining, metallurgical, processing and engineering, economics and environmental.

Mr Ron Hawkes, Chairman of Atlantic Gold, said "Completion of this successful DFS and the encouraging Cochrane Hill analysis, provide additional incentive to accelerate our productive discussions with bankers and investment bankers."

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## ***TOUQUOY DEFINITIVE FEASIBILITY STUDY***

### **1. Ore Reserves**

Pit optimisation, design and scheduling have been developed by Australian Mine Design and Development Pty Ltd (AMDAD). Based on the estimated Mineral Resource the following Ore Reserve estimate has been determined:

	TONNES millions	GRADE g/t	CONTAINED GOLD ounces
Proved Ore Reserves	2.49	1.48	118,000
Probable Ore Reserves	7.10	1.47	336,000
<b>Total</b>	<b>9.59</b>	<b>1.48</b>	<b>454,000</b>

There are an estimated 26,000 additional ounces of gold identified as Inferred Resources within the final pit and which do not form part of the Ore Reserves.

### **2. Mining**

The pit is to be developed in two stages with a cutback to the final pit limits in Year 3. The final pit will be 760 m long x 400 m wide with a maximum depth of 140 m. Waste-to-ore ratio over life-of-mine is 2.6:1 Mining is planned to be carried out using a leased, owner-operated fleet of eight 91-tonne payload trucks and two 110-tonne excavators at a projected daily rate of approximately 15,000 tonnes of ore and waste.

### **3. Processing**

Design, operation and estimation of capital and operating costs of the Touquoy processing plant have been developed by Ausenco Limited, and based on comprehensive comminution and metallurgical investigations previously undertaken by Orway Mineral Consultants (WA) Pty Ltd, SGS Lakefield Research Limited, Peter Lewis & Associates and Ammtec Limited.

The processing plant is designed to treat free milling gold ore at a rate of 2.0 million tonnes per annum using conventional technology. Free gold is recovered using gravity concentration and intensive cyanidation, with the remaining gold recovered by cyanidation in a hybrid carbon-in-leach (CIL) process. Leach residues are detoxified before delivery to the tailings

management facility. The process plant design is based on a flow sheet with unit operations that are well proven in the gold industry.

The main areas in the flow sheet include:

- three-stage crushing of run-of-mine ore
- single-stage ball milling of crushed ore to a  $P_{80}$  of 150 micron
- centrifugal gravity concentration of gold followed by high intensity cyanidation of the gravity concentrate
- thickening of CIL feed
- hybrid leach–CIL using one leach tank and six adsorption tanks
- desorption of precious metals from carbon using a pressure Zadra elution circuit
- destruction of cyanide in CIL tailings
- pumping of tailings to the tailings management facility for storage.

Excess site water is treated, for arsenic removal, at a dedicated effluent treatment plant.

#### **4. Infrastructure**

The mine site is readily accessible by road being located at the settlement of Moose River Gold Mines 70 minutes drive along sealed roads from Halifax, the provincial capital. No on-site accommodation is necessary and with numerous vacant and usable buildings in place, temporary construction facilities will be relatively minimal. During operation the workforce will commute to site from nearby communities. The site is now serviced by landline telephone and broadband wireless internet.

Maximum power demand is 6MW, with annual power consumption of 42,000MWh. Connection of 25 kV grid power to site will require construction of 6km of new line and upgrade of 5 km of existing line to site from single phase to three phase power.

A positive water balance prevails at the site. Sufficient process water is therefore available by recycling from the Tailings Management Facility. The minimal fresh and potable water requirement will be sourced from the Moose River.

Site facilities will include an administration office, a mobile equipment workshop–warehouse building, reagent storage area, laydown yard, laboratory and miscellaneous process plant buildings.

## 5. Capital cost estimate

The capital cost estimate for the project, managed by Merit Engineers Pty Ltd, and prepared by AMDAD, Atlantic Gold, Ausenco Limited and Gemell Mining Engineers, is A\$136 million and the accuracy of the estimate is  $\pm 15\%$ .

### *Capital cost estimate*

ITEM	C\$M	A\$M
Mine	5	5
Process plant	56	62
Tailings management facility	9	10
Site infrastructure	18	20
Owner's costs	9	10
EPCM (Engineering, Procurement, Construction Management)	17	19
Sub-total	114	126
Working Capital	9	10
<b>Total</b>	<b>123M</b>	<b>136M</b>

The capital cost estimate is based on all new equipment and local subcontract rates with Touquoy Project experience used for estimating owner's costs. It includes cost contingency. All capital cost estimates have a base date of Q2 2010.

Local services and materials are to be used to the maximum extent feasible. Installation of used plant remains a viable and realistic option to substantially lower the capital costs and expedite project implementation. This option is being actively pursued.

## 6. Operating costs

The Operating Cost estimate for the Project, managed by Merit Engineers and prepared by AMDAD (mining) and Ausenco (processing) with input from Gemell Mining Engineers and Atlantic Gold has been estimated to an accuracy of  $\pm 15\%$ , and is summarised below.

	TOTAL LIFE-OF-MINE		UNIT COSTS*		
	C\$	A\$	C\$/tonne	A\$/tonne	US\$/oz
Mining	120	133	11.46	12.72	247
Processing	89	99	8.50	9.44	183
Site administration	22	24	2.09	2.33	45
Off-site costs	2	2	0.21	0.24	5
Sub-total	233	258	22.26	24.73	480
Royalties	11	13	1.15	1.28	25
<b>TOTAL</b>	<b>244</b>	<b>271</b>	<b>23.41</b>	<b>26.01</b>	<b>505</b>

\* Specified unit costs include pre-production costs

The estimate includes site operating cost contingency. A site-based production workforce of 149 is represented.

## 7. Environmental

Environmental Assessment Approval was granted by Nova Scotia Environment for the Project in February 2008 and this approval remains in force. Documentation has been prepared for the Mining Lease and Industrial Approval applications. These approvals, by the Nova Scotia Departments of Natural Resources and Environment respectively, are subject to Atlantic Gold's securing of all surface land titles which is presently in progress.

## 8. Implementation Schedule

The strategy for project implementation contemplates development under an Engineering, Procurement and Construction Management ("EPCM") contract. The project implementation schedule indicates a duration of 83 weeks from contract award to practical completion. Critical path for the project is delivery of the grinding mill which is presently approximately 50 weeks from placement of order.

Yours sincerely,



**Wally Bucknell**  
Executive Director

## **ENDNOTES:**

### ***A. Property ownership details***

Atlantic Gold as operator of the **Touquoy** project sole funds all pre-production, capital and exploration expenditure and receives 100% of cashflow until all expenditure plus interest is recouped. Thereafter Atlantic Gold receives 60% of profits. A third party holds 3% royalty of which two-thirds can be purchased for C\$2.5 million.

**Cochrane Hill** is subject of an option agreement with TSX-listed Scorpio Mining Corporation (SMC). Under the terms of the agreement with SMC, once Atlantic Gold (through its wholly-owned Canadian subsidiary) has completed expenditure of C\$4.75 million on exploration and development (C\$3.5 million now remaining) within 4 years, extendable for a further 2 years (by cash payment of C\$50,000 for each year), and has made aggregate cash payments of C\$100,000 to SMC (\$70,000 now remaining), then at SMC's election Atlantic Gold will have earned either a 60% Joint Venture interest (with SMC retaining a 40% Joint Venture interest) or 100% interest subject to a 20% free carried interest retained by SMC. Atlantic Gold may withdraw at any time. The property is subject to an underlying 3% production royalty in favour of a third party, of which two-thirds can be purchased for C\$1.5 million.

### ***B. Attribution***

The geological information in this report relating to Mineral Resources has been compiled by W R Bucknell who is a director of Atlantic Gold and a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Bucknell has consented to the inclusion of this information in the form and context in which it appears. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person in respect of the 2004 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

The ore reserve estimates for Touquoy described in this report were completed by Mr John Wyche, an employee of Australian Mine Design and Development Pty Ltd. Mr Wyche is a Member of the AusIMM and qualifies as a Competent Person in respect of the 2004 JORC Code by virtue of having sufficient experience which is relevant to the development of the Touquoy style of mineralisation and deposit type. Mr Wyche has consented to the inclusion of this information in the form and context in which it appears in this report.

### ***C. About Atlantic Gold NL***

Atlantic Gold is an ASX listed company (Code ATV) which aims to develop open pit gold deposits in Nova Scotia, the Touquoy-Cochrane Hill Gold Project being the starting point. The extensive goldfields of Nova Scotia have never before been systematically approached in this way. The Company's skills are derived from 15 years of such work in Western Australia, where its principals, as executives and directors of the highly successful Plutonic Resources Limited, discovered more than 11 million ounces of gold and operated up to five gold mines, three of which are still in production, and now owned by Canada's Barrick Gold Corporation. The Company principals have considerable previous experience in exploration in Atlantic Canada.