TSX: **IMG** NYSE: **IAG**

IAMGOLD PROVIDES AN EXPLORATION UPDATE ON THE MONSTER LAKE PROJECT – BEGINNING 5,000-METRE SECOND PHASE OF DIAMOND DRILLING

Toronto, Ontario, August 20, 2014 – IAMGOLD Corporation ("IAMGOLD" or the "Company") today provided an update from its ongoing exploration program at its newly optioned Monster Lake project located 50 kilometres southwest of Chibougamau, Quebec, Canada.

IAMGOLD initiated the current exploration program on the project at the end of 2013 pursuant to an Earn-In Agreement finalized with TomaGold Corporation, in which IAMGOLD may earn a 50% interest in each of the Monster Lake, Winchester and Lac à l'eau jaune properties, collectively referred to as the Monster Lake Project. To earn its interest IAMGOLD must complete scheduled cash payments and exploration expenditures totaling US$17.6 million over five years.

As previously reported in a news release dated May 27, 2014, the Company had completed a phase one diamond drilling program totaling 4,528 metres (nine holes) targeting mainly the direct down-dip and lateral extensions of the 325-Megane mineralized zone previously drilled by TomaGold. All assay results have now been received and validated for the entire phase one drilling program and are provided in Table I below. A drill hole plan map and longitudinal section are attached to this news release.

Highlights from the last four holes of the phase one program include:

- 2.12 metres grading 2.30 g/t Au from 422.50 metres depth and 5.86 metres grading 2.62 g/t Au from 426.10 metres depth (including 2.21 metres grading 6.21 g/t Au from 426.94 metres) in hole ML-14-115 (325-Megane Zone),
- 3.15 metres grading 2.42 g/t Au from 278.07 metres depth in hole ML-14-116 (325-Megane Zone)

The phase one program has provided encouraging results as it expanded the 325-Megane Zone and identified two additional mineralized zones: the Upper 325-Megane Zone, a newly intersected zone, and the Lower 325-Megane Zone which was tested only in a few areas by previous drilling. The three zones appear sub-parallel and are spaced approximately 100 to 400 metres apart. Initial results reported last May also included: 10.47 metres grading 11.55 g/t Au from 457.0 metres depth (including 48.90 g/t Au over 2.0 metres) in hole ML-14-108 (325-Megane Zone), and an intersection of a footwall zone referred to as the Lower 325-Megane Zone and grading 13.65 g/t Au over 3.77 metres from 636.86m depth, including 46.0 g/t Au over 1.08 metres in hole ML-14-110. The newly discovered Upper 325-Megane Zone is systematically anomalous in gold where intersected to date.

A summer field program comprised of geologic mapping, aided by a shallow penetrating electromagnetic survey (Beep Mat of GDD Instrumentation Inc.) to detect potentially sub-cropping conductive shear zones, is currently in progress to help delineate structural trends and confirm priority targets in the central core of the Monster Lake property and in the regional extension of the deformation corridor on the Lac à l'eau jaune and Winchester properties. Detailed structural and lithological mapping on well exposed historic gold occurrences will be used to assist the final targeting for the next drill program currently being finalized.

Craig MacDougall, Senior Vice President, Exploration for IAMGOLD, stated, "Our involvement in the Monster Lake Project was based on the potential to delineate high grade mineralization in a prospective area possibly hosting several gold zones. These first drill results on the 325-Megane Zone are positive and confirmed the presence of several mineralized structures as well as high grades. The ongoing exploration program is progressing well and we look forward to next round of drilling once the targets are finalized.."

The Monster Lake project is underlain by Archean volcanic rocks of the Obatogamau Formation and is traversed by an important deformation corridor and gold-bearing mineralized structures. Historical drilling and recent success by TomaGold have identified at least a four-kilometre long mineralized structure hosting most of the gold surface showings and diamond drilling intersections, including the 325-Megane Zone.

Next Steps

The summer field program continues and is expected to include a limited outcrop stripping and trenching program to expose key areas identified from the ongoing mapping and geophysical surveys. A property scale glacial till sampling survey and some specific ground geophysical surveys are also in progress over selected areas. A second phase of diamond drilling totaling approximately 5,000 metres is scheduled by the end of October 2014 to test selected target areas along the main mineralized corridor and the down plunge of the 325-Megane zone. The first diamond drill rig mobilizes today and the second rig by the end of the week.

Technical Information and Quality Control Notes

The drilling results contained in this news release have been prepared in accordance with National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101").

The "Qualified Person" responsible for the supervision of the preparation and review of this information is Marie-France Bugnon, P. Geo., General Manager Exploration. Marie-France is considered a "Qualified Person" for the purposes of National Instrument 43-101 with respect to the technical information being reported on. The technical information has been included herein with the consent and prior review of the above noted Qualified Person. The Qualified person has verified the data disclosed, and data underlying the information or opinions contained herein.

The sampling of, and assay data from, drill core is monitored through the implementation of a quality assurance - quality control (QA-QC) program designed to follow industry best practice. Drill core (NQ size) samples are selected by the IAMGOLD geologists and sawn in half with a diamond saw at the project site. Half of the core is retained at the site for reference purposes. Sample intervals may vary from half a metre to one and a half metres in length depending on the geological observations.

Samples are transported in sealed bags to the AGAT Laboratory prep lab facility in Val-d'Or, Québec. Samples are coarse crushed to a -10 mesh and then a 1000 gram split is pulverized to 95% passing -150 mesh. Analytical pulps are forwarded for analysis at the AGAT Laboratories (ISO / IEC 17025 Certified by the Standards Council of Canada) in Mississauga, Ontario. Samples are analyzed using a standard fire assay with a 50 gram charge with an Atomic Absorption (AA) finish. For samples that return assay values over 5.0 grams per tonne (g/t), another pulp is taken and fire assayed with a gravimetric finish. Core samples showing visible gold or samples which have returned values greater than 10.0 g/t are re-analyzed by pulp metallic analysis. IAMGOLD inserts blanks and certified reference standard in the sample sequence for quality control.

CAUTIONARY STATEMENT ON FORWARD-LOOKING INFORMATION

All information included in this news release, including any information as to the Company's future financial or operating performance, and other statements that express management's expectations or estimates of future performance, other than statements of historical fact, constitute forward looking information or forward-looking statements and are based on expectations, estimates and projections as of the date of this news release. Forward-looking statements contained in this news release include, but are not limited to, statements with respect to: the Company's guidance for production, exploration, rock hardness, grade, strip ratios, the future price of gold, the estimation of mineral reserves and mineral resources, the realization of mineral reserve and mineral resource estimates, the timing and amount of estimated future production, costs of production, permitting timelines, requirements for additional capital, government regulation of mining operations, environmental risks, unanticipated reclamation expenses and title disputes or claims. Forward-looking statements are provided for the purpose of providing information about management's current expectations and plans relating to the future. Forward-looking statements are generally identifiable by, but are not limited to the, use of the words "may", "will", "should", "could", "intends", "potential", "continue", "expect" or "anticipate" or the negative of these words or other variations on these words or comparable terminology. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by management, are inherently subject to significant business, economic and competitive uncertainties and contingencies. The Company cautions the reader not to place any reliance whatsoever on forward-looking information or forward-looking statements. Forward- looking information and

forward-looking statements involve risks, uncertainties and other factors that may cause the actual financial results, performance or achievements of IAMGOLD to be materially different from the Company's estimated future results, performance or achievements expressed or implied by those forward-looking statements, and the forward-looking statements are not guarantees of future performance. Risks and unknowns inherent in all projects include the inaccuracy of estimated reserves and resources, metallurgical recoveries, capital and operating costs of such projects, and the future prices for the relevant minerals. The capital expenditures and time required to develop new mines or other projects are considerable, and changes in costs or construction schedules can affect project economics. Actual costs and economic returns may differ materially from IAMGOLD's estimates or IAMGOLD could fail to obtain the governmental approvals necessary for the operation of a project; in either case, the project may not proceed, either on its original timing or at all.

The Company disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise except as required by applicable law.

About IAMGOLD

IAMGOLD (www.iamgold.com) is a mid-tier mining company with five operating gold mines (including current joint ventures) on three continents and one of the world's top three niobium mines. A solid base of strategic assets in Canada, South America and Africa is complemented by development and exploration projects and continued assessment of accretive acquisition opportunities. IAMGOLD is in a strong financial position with extensive management and operational expertise.

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Please note:
This entire news release may be accessed via fax, e-mail, IAMGOLD's website at www.iamgold.com and through CNW Group's website at www.newswire.ca. All material information on IAMGOLD can be found at www.sedar.com or at www.sec.gov.

Si vous désirez obtenir la version française de ce communiqué, veuillez consulter le
http://www.iamgold.com/French/Home/default.aspx.

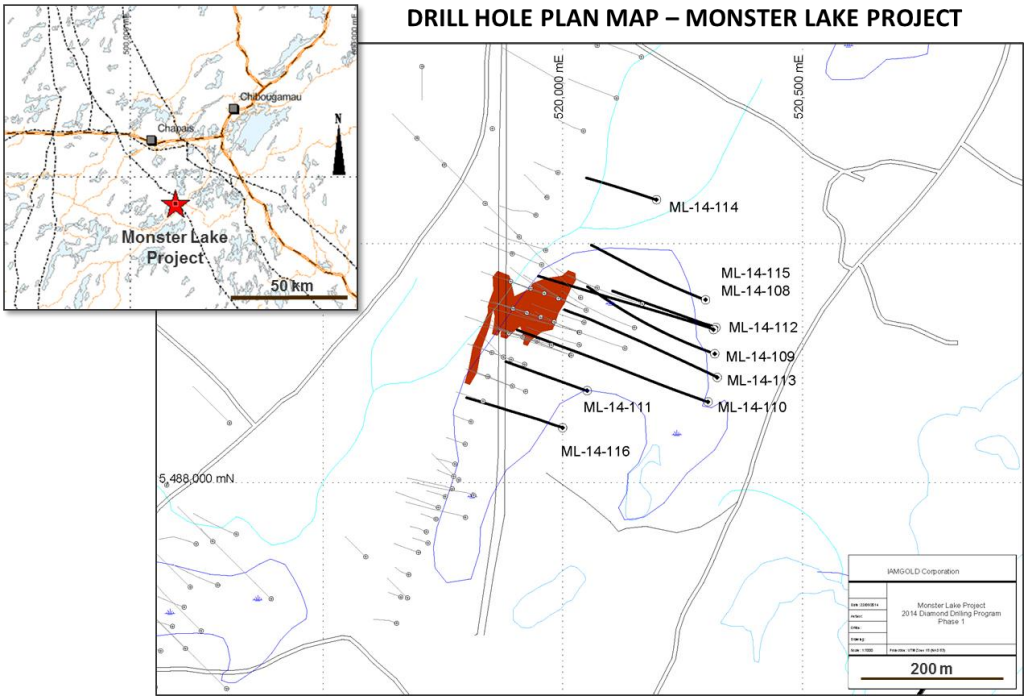
Table 1

Monster Lake Project Drilling Final Results - 2014 Winter Drilling program												
Hole No.	UTMNAD83Zone18[1]			AZ	DIP	EOH	from	To	Interval	True Width[2]	Au	NOTE
	Easting	Northing	Elevation			(m)	(m)	(m)	(m)	(m)	(g/t)	
ML-14-108	520296	5488383	370	290	-55	480	56.1	58	1.9	1.65	1.81	Upper 325-Megane Zone
							445.25	446.5	1.25	1.08	6.44	
							457	467.47	10.47	9.07	11.55	325-Megane Zone
Including[3]							458	460	2	1.73	48.9	
Including[3]							466	467.47	1.47	1.27	11.1	
ML-14-109	520316	5488270	370	290	-55	582	66	71.16	5.16	4.47	1.3	Upper 325-Megane Zone
Including[3]							69	71.16	2.16	1.87	1.64	Upper 325-Megane Zone
							559.77	560.41	0.64	0.55	0.95	325-Megane Zone
ML-14-110	520302	5488169	370	290	-50	667	210.1	211.26	1.16	1.00	1.04	
							508	509.45	1.45	1.26	0.71	325-Megane Zone
							636.86	640.63	3.77	3.26	13.65	Lower 325-Megane Zone
Including[3]							638.8	639.88	1.08	0.94	46.17	
ML-14-111	520318	5488324	370	290	-60	454	59.59	60.13	0.54	0.47	3.48	Upper 325-Megane Zone
							300.92	301.92	1	0.87	1.4	325-Megane Zone
							420.18	421.16	0.98	0.85	1.85	Lower 325-Megane Zone
ML-14-112	520315	5488321	370	291	-53	652	480.9	489.27	8.37	7.25	1.32	325-Megane Zone
Including[3]							485.18	487.27	2.09	1.81	2.97	
							596.51	597.65	1.14	1.00	1.48	Lower 325-Megane Zone
ML-14-113	520322	5488221	370	295	-51	550	514	518.47	4.47	3.87	1.50	325-Megane Zone
ML-14-114	520195	5488592	370	290	-60	313	273.8	274.99	1.19	1.03	1.89	325-Megane Zone
ML-14-115	520296	5488383	370	290	-50	304	53.62	54.86	1.24	1.07	1.58	Upper 325-Megane Zone
							422.5	424.62	2.12	1.84	2.30	325-Megane Zone
							426.1	431.96	5.86	5.07	2.62	
Including[3]							426.94	429.15	2.21	1.91	6.21	
ML-14-116	520000	5488115	370	291	-61	451	83.92	84.46	0.54	0.47	5.84	Upper 325-Megane Zone
							278.07	281.22	3.15	2.73	2.42	325-Megane Zone

Notes:

1. Drill hole intercepts are calculated with a lower cut of 0.50 g/t Au and represents the best results associated to the intersected structure.
2. True widths of intersections are approximately 85-90% of the core interval.
3. Assays are reported uncut but high grade sub-intervals are highlighted.

DRILL HOLE PLAN MAP – MONSTER LAKE PROJECT



MONSTER LAKE 2014 WINTER DRILLING PROGRAM - FINAL RESULTS

