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News Release

MANICOUAGAN MINERALS PROVIDES UPDATE ON PICKLE LAKE GOLD PROJECTS AND REPORTS RESULTS OF FIRST PHASE OF SUMMER 2010 GOLD EXPLORATION PROGRAM

TORONTO, August 24, 2010 - Manicouagan Minerals Inc. (TSXV – MAM) provided today an exploration update on its Pickle Lake Gold Properties in northwestern Ontario.

Pickle Lake East Property

The Pickle Lake East Property covers approximately 15 kilometres of the projected northwestern strike extension of the Pickle Crow-Central Patricia Mine trend. Manicouagan recently completed a six-hole (1,214 metre) diamond drilling program on the Pickle Lake East Property. The drill holes were designed to test selected I.P. Resistivity Anomalies identified from the geophysical survey carried out in late 2009 and, at the same time, complete a fence of holes across the Pickle Crow – Central Patricia Gold Mine trend where it crosses onto the Pickle Lake East Property (see *MAM Press Release dated March 9, 2010*).

The drill program was successful in identifying what is interpreted to be the gold-bearing structure(s) which host the Pickle Crow and Albany Mines, located several kilometres to the south west. Diamond drill holes PLE-10-01 and 02 encountered broad zones of alteration including two 10 to 20 metre wide zones of intense carbonate-sericite +/- green mica alteration containing anomalous (>100 ppb gold).

Joseph Baylis, Manicouagan's President and CEO, said, "*With these first holes we have achieved an initial objective of confirming that the Pickle Lake East Property lies on the Pickle Crow-Central Patricia Mine trend and that the property warrants further exploration. We believe that the property covers some 15 kilometres of the Pickle Crow-Central Patricia Mine trend. We are reviewing these results along with the results from our other field activities to determine where to focus our efforts in the funded second phase of our 2010 exploration program. Given our large land package, we plan to prioritize our drill target selection to focus on the areas of highest potential.*"

A summary of the significant assay results from the drill program is given in the table below.

Pickle Lake East Summary of Significant Intersections				
Hole	From (m)	To (m)	Length (m)	Au gpt
PLE-10-01	41.0	45.0	4.0	0.53
and	56.5	58.0	1.5	0.76
and	256.7	269.0	12.3	0.45
and	303.8	305.0	1.2	2.88
PLE-10-02	32.8	35.0	2.2	0.45
PLE-10-03	22.1	22.8	0.7	0.95
and	179.0	182.0	3.0	0.84

Note: true widths are currently estimated at 70-80% of drilled widths

Additional work is being considered for the Pickle Lake East Property along the Pickle Crow – Central Patricia Gold Mine trend near Firstloon Lake where historical drilling by UMEX (1988) and Major General (1991) encountered gold values in their respective drill programs including the report of visible gold in UMEX Hole FL-97-1.

Dorothy-Dobie Lake Property: Tonsil Zone

The Dorothy-Dobie Lake Property ties on to the western boundary of the historical Golden Patricia Mine property (which produced 0.45 million ounces at 19.9 gpt gold) and includes three previously identified zones of gold mineralization: the Dorothy Main Zone, the Dobie Zone and the Tonsil Zone.

In late 2009, Manicouagan drilled 16 holes (2,292 metres) on the Dorothy Main Zone (7 holes DOR-09-01 to 07) and the Dobie Zone (9 holes DOB-09-08 to 16) (*see MAM Press Release dated January 19, 2010*). Assay results included 31.5 metres grading 1.39 gpt incl. 1.5 metres grading 6.48 gpt from hole DOB-09-11 at the Dobie Zone and 1.8 metres grading 5.15 gpt from hole DOR-09-05 at the Dorothy Main Zone.

In the third quarter of 2010, Manicouagan resampled some of the historic drill core from the Tonsil Zone that was drilled by Bond Gold Canada Inc. in 1990. Although the drill logs were filed for assessment, many of the assay results for the Tonsil Zone, especially where visible gold was noted, were not included in the drill logs that were filed.

The Tonsil Zone hosts a narrow, locally gold bearing quartz vein that was interpreted by Bond Gold to possibly represent the strike extension of the Golden Patricia Vein, which hosted the Golden Patricia Mine located about 10 kilometres to the southeast. The Tonsil Zone has been drill tested by 62 drill holes over a strike length of 1,100 metres and to a depth of approximately 200 metres. Much of the drill core from the Tonsil Zone was not available for sampling, however, 45 samples from twenty holes were taken for analysis. Highlights from the sampling program, as well as some selected results from previous drilling, are given in the table below.

Tonsil Zone Dorothy-Dobie Lake Project Highlights of Significant Intersections				
Manicouagan 2010 Sampling				
Hole	From (m)	To (m)	Length (m)	Au gpt
MD-90132	81.87	82.27	0.40	10.25
MD-90-144	104.02	104.42	0.40	6.84
Previous Results				
Trillium North 2007				
07-DOR-05	111.40	111.84	0.40	153.30
Bond Gold 1990				
MD-90-113	54.12	54.52	0.40	17.48
MD-90-119	60.34	60.66	0.32	26.40
MD-90-136	41.21	41.63	0.42	9.94

note: true widths are currently estimated at 70-80% of drilled widths

Note: Historical Results are from Public Archives and have not been verified by a qualified person on behalf of Manicouagan

Kasagiminnis Property

The Kasagiminnis Property hosts a gold-bearing zone associated with a sulphide-bearing iron formation. Between 1985 and 1988 Moss Resources and Power Exploration Inc. drilled 25 holes on the zone. No additional work is reported to have been completed on the property since then.

This summer's exploration program was designed to advance the Kasagiminnis Property to a drill stage. A grid was established over the known gold zones to act as control for ground geological, geophysical, and geochemical surveys. Soil sampling was successful in outlining the historic gold zone, and also outlined a potential new 400 metre long zone located approximately 700 metres to the south west that is coincident with an untested magnetic and conductive zone.

Currently, a ground Horizontal Loop Electromagnetic Survey is being completed on the Kasagiminnis Property.

Manicouagan holds directly, or has under option, approximately 132 square kilometres within the Pickle Lake Greenstone Belt. The Pickle Lake Greenstone Belt is part of the prolific Uchi Geological Sub-province, which hosts the Pickle Lake, Red Lake and Rice Lake gold camps. Production to date, from these camps has amounted to over 25 million ounces of gold. The Pickle Lake Greenstone Belt includes four past producing mines: Pickle Crow (1,450,000 ounces grading 16.1 grams per tonne gold), Central Patricia (650,000 ounces grading 12.0 grams per tonne gold), Golden Patricia (450,000 ounces grading 19.9 grams per tonne gold) and Dona Lake (200,000 ounces grading 8.6 grams per tonne gold).

Manicouagan has earned a 51 percent interest in the Pickle Lake East Property. Pursuant to an option agreement with Trillium North Minerals, Manicouagan can increase its interest to 70 percent in this property and the Dorothy-Dobie Lake and Kasagiminnis gold properties by incurring the next \$1.5 million of exploration expenditures on the properties. (See *MAM Press Release dated April 15, 2010.*)

A sketch showing the location of the properties is available at www.manicouaganminerals.com.

Manicouagan continues to consult with the Cat Lake, Mishkeegogamang and Slate Falls First Nations with respect to its activities in the Pickle Lake Area.

Sample Preparation, Analyses and Security

For the Pickle Lake East Property the assay and sample information as well as geological descriptions are taken from drill logs as prepared by the project geologists for the drill program. All drill cores are NQ in size and assays are completed on split or sawed half-cores, with the second half of the core kept for future reference. For the resampling of the Tonsil Zone core the remaining split half of the core was taken. In both cases the samples are put into rice bags which are sealed with security locks for shipping directly to Accurassay Laboratories, an accredited assay laboratory, in Thunder Bay, Ontario. The samples are analysed using standard fire assay procedures with an AA/ICP finish. Assay results greater than 1.00 gram per tonne are rerun using a gravimetric finish. In addition to the standard quality control of the laboratory, a series of blanks and standards are inserted in every shipment for quality control purposes.

Qualified Person

Exploration programs on Manicouagan's Pickle Lake Gold Projects are carried out under the supervision of Mr. Bruce W. Mackie, P. Geo., Mr. Mackie, a professional geologist, has reviewed and verified the technical content of the information contained in this release and qualifies under the definition of "Qualified Person" set out in National Instrument 43-101.

About Manicouagan

Manicouagan Minerals Inc. is a Canadian based exploration company focused on advancing its gold projects in the Pickle Lake Gold Belt, Ontario. Manicouagan also has a pipeline of commodity projects including the Brabant Lake Zinc deposit in Saskatchewan, and the HPM/Forgues Nickel/Copper/Cobalt project in Québec.

Additional information about Manicouagan and its exploration projects can be found at www.manicouaganminerals.com.

Une traduction française de ce communiqué de presse est disponible à www.manicouaganminerals.com.

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Forward Looking Statements

All statements other than statements of historical fact, included in this release, including, without limitation, statements regarding potential mineralization and reserves, exploration results, and future plans and objectives of the Company, are forward-looking statements that involve various risks and uncertainties. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from the Company's expectations are exploration risks detailed herein and from time to time in the filings made by the Company with securities regulators.

Neither the TSX Venture Exchange nor its Regulation Services Provider accepts responsibility for the adequacy or accuracy of this release.