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POSITIVE FLOTATION TEST RESULTS FROM IRVINE ISLAND

February 5, 2010, Melbourne: Pluton Resources Limited ("Pluton") (ASX: PLV) has received the final report from the CSIRO on upgrading iron concentrates using flotation.

The test results show that flotation produces high quality concentrates from both the Yampi Member and Wonganin Sandstones from Irvine Island, Western Australia (E04/1172).

Highlights

- Low grade Wonganin Sandstones were previously considered as overburden to the main iron mineralised Yampi Member but have yielded concentrates assaying at about 66% iron (Fe).

- The Wonganin Sandstones are now considered a viable exploration target in addition to the Yampi Member.

Background

Flotation is an end-stage process designed to boost iron grade and recovery. Test work on iron mineralised samples collected during the 2008 drilling program aimed to determine if 'Reverse Cationic Flotation' (flotation) could improve iron grades and iron recoveries by removing silica from both the lower grade parts of the main iron mineralised Yampi Member, as well as from iron mineralised sandstones (Wonganin Sandstones) that overly the Yampi Member on Irvine Island.

Only the lower grade parts of the Yampi Member were used for testing. Higher grade parts of the Yampi Member have not been included because this material is thought better suited to Direct Shipping.

Results

Flotation has proven effective in rejecting silica in both the lower grade parts of the Yampi Member and the Wonganin Sandstones on Irvine Island.

Flotation of material generated from the lower grade portions of the Yampi Member by magnetic separation produced a final concentrate assaying 66.24% iron (Fe) and 3.21% silica (SiO2), with an iron recovery of about 81%. Grade improved even further with additional processing.

Tests on Wonganin Sandstone samples after magnetic separation produced a final concentrate (Figure 1) with an iron content of 65.62% iron (Fe) and 2.49% SiO2, with an iron recovery of 83.7%. Importantly, high quality concentrates were produced from the Wonganin Sandstones *irrespective of initial feed grade*.

The results confirm the excellent liberation characteristics of all the Irvine Island Iron mineralization tested.

> Pluton's Managing Director, Tony Schoer, said "This is an excellent result and confirms earlier work by the CSIRO showing how well the iron liberates from the silica. It also shows that the process is effective at extracting iron and is not sensitive to input grades. Less effort in preparing material prior to flotation ultimately means a lower production cost."

The results of earlier tests using Low Intensity Magnetic Separation (LIMS) and Wet High Intensity Magnetic Separation (WHIMS), and the results of this present flotation study demonstrate that low grade feeds from both the Yampi Member and Wonganin Sandstones on Irvine Island are amenable to beneficiation (concentration).

> Tony Schoer, "The test work completed to date demonstrates the amenability of the iron mineralisation on Irvine Island to beneficiation. This is critical marketing information in communicating the benefits of the ore type to potential customers."

Drilling is presently targeting up to 130Mt of iron ore within the Yampi Member on Irvine Island. The current Inferred Resource within the Yampi Member is 54Mt @ 49% Fe (including 25Mt @ 54% Fe).

The Wonganin Sandstone overlies the Yampi Member. The Wonganin Sandstones now constitute an additional resource target for the current drilling program. To this end, work is now underway to better define geological and grade variations within the Wonganin Sandstone.

Flotation test results are included in full in Appendix 1.

Figure 1. An iron concentrate produced from Wonganin Sandstones, Irvine Island.

For more information contact Managing Director, Mr. Tony Schoer, on 0411 232 711 or tschoer@plutonresources.com.

Tony Schoer
Managing Director and Chief Executive Officer

Information in this statement that relates to Exploration Results and Targets is based on information compiled by Dr Alistair Reed who is an employee of the company. Dr Reed is a Member of the Australian Institute of Geoscientists and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.'

About Pluton: Pluton Resources Limited is listed on the Australian Stock Exchange (ASX Code "PLV"). Pluton has assembled a diversified portfolio of interests in tenements in Western Australia and Tasmania. Tenements in Western Australia are 100% owned by Pluton, which includes the Irvine Island iron ore project. Tenements located in Tasmania are prospective for high grade or bulk tonnage copper, gold and silver. Further details on Pluton can be found at www.plutonresources.com.

Appendix 1

Yampi Member

Table 1. Calculated results for the final concentrate from the combined rougher and scavenger tests for the Yampi Member (without grinding).

Products	Wt%	Grade		Fe Recovery (%)
		%Fe	$\%SiO_2$	
Rougher concentrate	62.9	66.31	3.27	72.8
Scavenger concentrate	7.2	65.44	2.74	8.4
Combined Concentrate	**70.1**	**66.24**	**3.21**	**81.2**

Table 2A. Calculated results for the combined final concentrate from rougher and scavenger tests for the Yampi Member (after grinding and desliming).

Products	Wt%	Grade		Fe Recovery (%)
		%Fe	$\%SiO_2$	
Rougher concentrate	50.4	66.86	2.48	58.6
Scavenger concentrate	12.4	64.35	2.58	14.2
Combined Concentrate	**62.8**	**66.36**	**2.50**	**72.8**

Table 2B. Calculated results for the combined final concentrate from rougher and scavenger tests for the Yampi Member (after grinding and desliming).

Products	Wt%	Grade		Fe Recovery (%)
		%Fe	$\%SiO_2$	
Rougher concentrate	61.5	66.46	2.77	72.0
Scavenger concentrate	13.2	65.96	2.33	15.4
Combined Concentrate	**74.6**	**66.37**	**2.69**	**87.5**

Wonganin Sandstone

Table 3. Calculated results for the final concentrate from the combined rougher and scavenger tests for the Wonganin Sandstone (without grinding).

Products	Wt%	Grade		Fe Recovery (%)
		%Fe	$\%SiO_2$	
Rougher concentrate	62.1	65.93	2.29	75.3
Scavenger concentrate	6.9	62.80	4.24	8.4
Combined Concentrate	**69.0**	**65.62**	**2.49**	**83.7**