

IRVINE RESOURCE INCREASES 54% TARGETING UP TO 150 Mt @ 66% IRON CONCENTRATE

September 14th, 2010, Melbourne: The Directors of Pluton Resources Limited ("Pluton") (ASX:PLV) are pleased to announce an upgrade of the Inferred Mineral Resource reported in accordance with the JORC Code¹, for the Hardstaff Peninsula on Irvine Island incorporating the latest available Phase II drilling results.

HIGHLIGHTS

Yampi Member

- Existing Inferred Mineral Resource of 90Mt @ 46% Fe at a cut-off grade of 30% Fe (ASX announcement, June 4th, 2010) has been upgraded to **103 Mt @ 45% Fe** using a cut-off grade of 30% Fe.
- The Inferred Mineral Resource for the Yampi Member includes a higher grade component of **58 Mt @ 52 % Fe** using a cut-off grade of **50% Fe**.

Wonganin Sandstone

- The existing Inferred Mineral Resource of 204Mt @ 23% Fe (ASX announcement, June 4th, 2010) has been upgraded to **349 Mt @ 21% Fe**.

Managing Director Tony Schoer said: "We continue to expand our existing Inferred Mineral Resource beyond our initial expectations. To be able to announce an upgraded Inferred Mineral Resource of **452 Mt** is outstanding and further supports our belief that we are dealing with a project of significance. In addition, based upon results from beneficiation testing by the CSIRO, the new Inferred Mineral Resource estimate could produce up to **150 Mt of concentrate at > 66% Fe**".

"We are also intersecting areas of haematite mineralisation that visually appear to be suitable as Direct Ship Ore at the Isthmus Region and eagerly await the assay results from drill hole 10DDH026."

Inferred Mineral Resource

An updated resource estimate for the Hardstaff Peninsula at Irvine Island has been completed by AMC Consultants Pty Ltd, Melbourne. Drilling is continuing at the project and further mineral resource upgrades will be announced as drilling progresses.

¹Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2004 Edition, prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia.

The total Inferred Mineral Resource for the Hardstaff Peninsula has been increased to **452 Mt** based on updated resource estimates for both the Yampi Member and Wonganin Sandstone. The existing Yampi Member Inferred Mineral Resource of 90 Mt @ 46% Fe, at a cut-off grade of 30% Fe (ASX announcement, June 4th, 2010) has been upgraded to **103 Mt @ 45% Fe** using a cut-off grade of 30% Fe.

This also includes a higher grade component of **58 Mt @ 52% Fe** using a cut-off grade of 50% Fe for the Yampi Member.

In addition, the Company is also pleased to announce an upgrade of the Inferred Mineral Resource for the Wonganin Sandstone to **349 Mt @ 21% Fe**.

A resource statement has been prepared by AMC Consultants Pty Ltd of Melbourne and is summarised in Tables 1 and 2.

Table 1: Yampi Member Inferred Mineral Resource, Hardstaff Peninsula, Irvine Island, Western Australia (E04/1172)

Classification	Tonnage (M)	CoG Fe (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	S (%)	P (%)
Inferred >40% iron (Lens 1)	4	40	46	31.1	1.21	0.17	0.03
Inferred >50% iron (Lens 2)	58	50	52	23.8	0.45	0.09	0.02
Inferred >30% and <50% iron (Lens 2)	41	30	35	44.6	1.61	0.23	0.02
Total Inferred	103		45	32.3	0.94	0.15	0.02

Table 2: Wonganin Sandstone Inferred Mineral Resource, Hardstaff Peninsula, Irvine Island, Western Australia (E04/1172)

Classification	Tonnage (M)	CoG Fe (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	S (%)	P (%)
Inferred	349	-	21	60.3	4.11	0.10	0.03
Total Inferred	349	-	21	60.3	4.11	0.10	0.03

Notes

1 The Mineral Resource is reported in accordance with the JORC Code¹

2 All resources have been rounded to the nearest 1 million tonnes

3 CoG is defined as cut-off grade

4 No cut-off grade has been applied to the Wonganin Sandstone Inferred Mineral Resource estimation

The current Inferred Mineral Resource does not include outcropping iron mineralisation from the Isthmus Region of Irvine Island. One drill hole at the Isthmus region intersected 8m @ 62.5% Fe from 10m below the drill hole collar (ASX announcement, February 9th, 2009). Drill hole 10DDH026 has been recently completed at the Isthmus Region and contains approximately 60 metres of iron mineralisation in the first 85 metres of core that visually appears to be suitable for Direct Shipping (ASX announcement, September 6th, 2010). Core samples have been sent to Ultra Trace Laboratories in Perth, Western Australia for assaying.

Ongoing Exploration

The Phase II drilling programme at the Hardstaff Peninsula and Isthmus Region is continuing with two rigs operating on a double shift basis.

One diamond drill rig is currently drilling 10DDH027 in the northern area of the Hardstaff Peninsula at site 21 outside the updated Inferred Mineral Resource envelope. Drilling has been completed at site 10 and assays are pending for two holes, 10DDH023 and 10DDH024.

The second diamond drill rig is drilling at site 12 at the Isthmus Region. Angled drill hole 10DDH026 was completed with a final depth of 274.20 m. A second, short length angled drill hole has been completed from the same site to provide sufficient core of PQ diameter size (83 mm) for metallurgical test work to examine the lump/fine ore characteristics of the haematite ore. An additional vertical hole is also planned from the same site to provide further geological and assay data to assist with the interpretation of the area.

Said Managing Director Tony Schoer – “Our exploration approach is to continue to build our existing mineral resource base at the Hardstaff Peninsula and continue exploration at the Isthmus Region in sufficient detail that will allow us to complete our first resource estimate for the area.

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

Competent Person Statement

The information in this statement that relates to mineral resource estimates prepared by AMC Consultants Pty Ltd for the Irvine Island Iron Ore Deposit, is based on information compiled by Miss T L Burrows, who is a member of the Australasian Institute of Geoscientists and Mr R L Webster, who is a member of The Australasian Institute of Mining and Metallurgy, both are full time employees of the AMC Consultant Pty Ltd. The estimates were based on exploration data provided by Pluton Resources Limited which is responsible for its accuracy and completeness. Mr Webster has sufficient experience 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 Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'

The information in this statement relates to Exploration Results and Targets for the Irvine Island Project is based on information compiled by Mr A Griffith, who is a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of the Company. Mr A Griffith 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 Person 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.
