



**ASX: IPT** 

# **ASX ANNOUNCEMENT**

Date: 19 November 2013 Number: 320/191113

# DRILL PROGRAMME UPDATE: MULGA TANK NICKEL PROJECT W.A.

Conductor 1: Down-hole EM survey identifies two significant undrilled conductors near Hole MTD004

Conductor 2: MTD005 intersects 50 m thick zone of weak copper-zinc mineralisation

Impact Minerals (ASX:IPT) is pleased to announce the results of on-going work at the Mulga Tank Project 200 km northeast of Kalgoorlie in Western Australia where the company is drill testing seven EM anomalies within E39/988 (Figures 1 and 2).

The drill programme, which is in part funded by a \$134,000 grant from the W.A. State Government, will comprise 4,000 m of reverse circulation and diamond drilling to test all seven targets.

Impact owns 20% of E39/988 and is earning a further 50% in joint venture with Golden Cross Resources Limited for 70% in total (Figure 3).

Impact is exploring for high grade nickel-copper sulphide deposits at the base of ultramafic rocks similar to those at the Rocky's Reward and Perseverance Mines in WA (Figures 1 and 4).

#### Down-hole EM Survey at Conductor 1 identifies two off-hole conductors

Preliminary results from the down-hole EM survey in Hole MTD005 at Conductor 1 indicate that there are two off-hole conductors that were missed by the drill hole at about 290 m and 340 m depth. Detailed interpretation of the data is in progress to determine the optimal orientation for follow up drilling.

These conductors are close to the Upper and Lower Ultramafic Units, each 20 m thick, which contain high grade (tenor) disseminated and remobilised massive nickel-copper sulphides interpreted as being lateral to a channel of massive nickel-copper sulphides (see announcement dated <u>14 November 2013</u>). Such channels may be the source of the newly identified conductors.

The drill rig is now at Conductor 3, a very strong conductor, to the immediate northwest of the Mulga Tank Dunite and is expected to reach the target depth of about 400 m in a few days (Figure 3). The drill rig will then return to Conductor 1 to test the new conductors.

#### MTD005 at Conductor 2 identifies extensive weak copper and zinc sulphide mineralisation

Drill hole MTD005 to test a low to medium strength EM conductor (Conductor 2) at a depth of about 160 m below surface has been completed. The hole, which ended at a depth of 236 m, intersected the Mulga Tank Dunite and an underlying sequence of sedimentary rocks and basalts.



A 50 m thick zone of widespread and locally abundant late fractures and veinlets of chalcopyrite (copper sulphide), pyrite and lesser sphalerite has been intersected from about 165 m (Figures 5a and 5b). No significant nickel sulphides have been identified.

The top 20 m of this copper-zinc zone comprises a 20 metre wide zone of extensive pyrrhotite (iron sulphide) that occurs in narrow veins and breccia zones and also as disseminations throughout the sedimentary rocks and basalt (Figure 5c). This is the source of Conductor 2.

The zone of copper veining extends for a further 30 m down hole and at 180 m depth is coincident with a second 10 m thick zone of disseminated pyrrhotite within a unit of black shale.

A review of previous assays from hole MTD003 drilled by previous explorers 200 m to the south east of Hole MTD005 indicates a similar 50 m thick zone of copper occurs below the Mulga Tank Dunite with numerous assays up to 0.5% copper over 1metre intervals in places.

Accordingly late stage extensive and widespread copper sulphide has now been found in the immediate footwall of the Mulga Tank Dunite over at least 200 metres of strike and which is open in all directions.

A one metre wide zone of silica alteration containing a narrow quartz-sphalerite vein occurs in the centre of the pyrrhotite zone at a depth of 167.5 m (Figure 5b). The zone may be prospective for gold and a one metre sample has been sent for priority assay. Results are expected by Friday.

## Mineralisation in the Mulga Tank Dunite

The weathered zone in the dunite in MTD005 has returned 15 m at 0.8% nickel from 80 m depth as measured with a hand held XRF analyser. This is strongly anomalous and follow-up work along strike and down dip into fresh rock is warranted. This zone is interpreted to be the along strike extension of the zone of disseminated magmatic nickel sulphides in Hole MTD003 that returned a best intersect of 11 m at 0.37% nickel including 1 m at 1.12 % nickel from 220 m (Figure 2)

In addition a 10 metre wide zone of anomalous sulphur occurs in fresh rock from 110 m depth towards the base of the dunite. This zone, which was drilled by reverse circulation (RC), is in a similar position to a zone of elevated PGE values of up to 0.34 g/t PGE and 0.1 g/t gold in Hole MTD003 located 200 m to the southeast.

Samples are being prepared for assay with results expected in about 4 weeks.

#### Discussion

Two of the key features of major nickel-copper sulphide deposits are:

- 1. the presence of sulphide rich sedimentary rocks in the immediate footwall to the parent intrusion and which act as a source of sulphur, and
- 2. significant and extensive late stage remobilisation of copper and other metals into the footwall immediately beneath the parent intrusion.

Both of these features have now been found on the western side of the Mulga Tank Dunite and this, together with Impact's previous discovery of disseminated and remobilised nickel-copper sulphides in MTD004 on the eastern side of the dunite, further supports the view that the Mulga Tank Project is very prospective for the discovery of a high grade nickel-copper sulphide deposit.



A review of the soil geochemistry data from the Mulga Tank Project is also underway following the recognition of the extensive copper mineralisation in the area.

Dr Michael G Jones Managing Director

The review of exploration activities and results contained in this report is based on information compiled by Dr Mike Jones, a Member of the Australian Institute of Geoscientists. He is a director of the company and works for Impact Minerals Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2004 edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mike Jones has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.

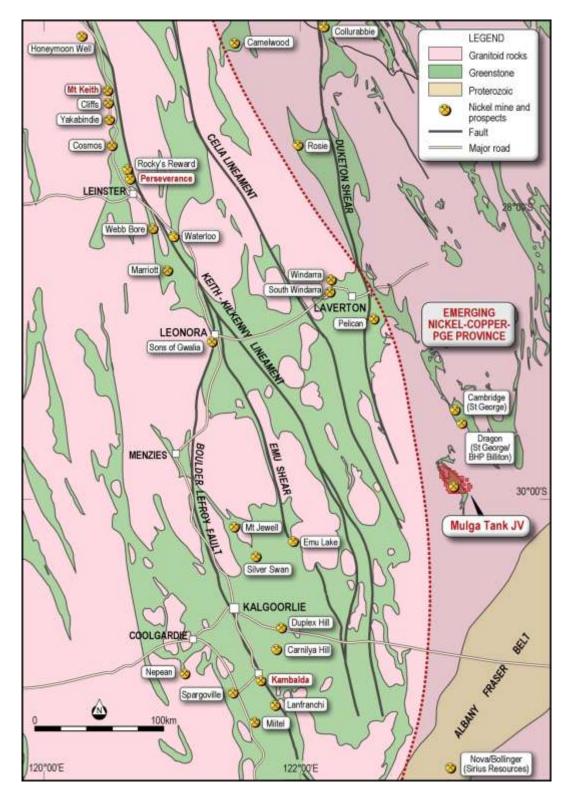
### Summary of the tenement ownership in the Mulga Tank Project

Impact's Mulga Tank Project comprises 13 exploration licences covering 425 km<sup>2</sup> of the Minigwal greenstone belt and surrounding area in the eastern part of the Yilgarn Craton (Figure 5).

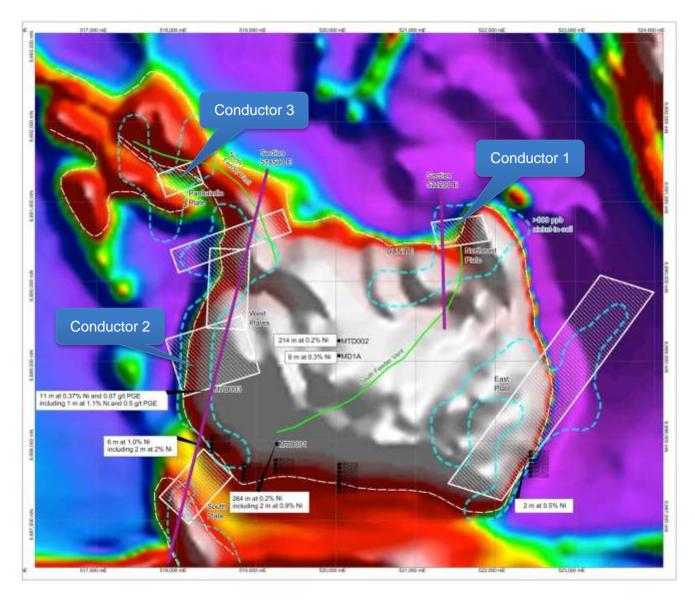
Of the 13 licences, Impact:

- owns 100% of six licences (E39/1632 and E39/1633 with another four under application);
- owns 20% of E39/988, with Golden Cross 80%. Impact has the right to earn a further 50% from Golden Cross to move to 70% ownership;
- owns 25% of E39/1072, with Golden Cross 75%. Impact has the right to earn a further 50% from Golden Cross to move to 75% ownership; and
- is earning a 50% interest from Golden Cross in five other licences E39/1439, E39/1440, E39/1441, E39/1442 and E39/1513 (Figure 5).

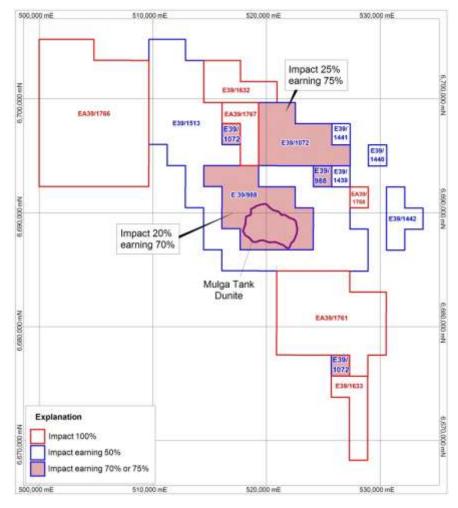
A further \$1.9 million must be spent by Impact before November 2017 to complete the earn-in from Golden Cross.



**Figure 1:** Location of Impact's Mulga Tank Project and significant nickel sulphide mines and prospects including Perseverance and Rocky's Reward deposits with new nickel-copper-PGE discoveries in the emerging nickel-copper province to the east.

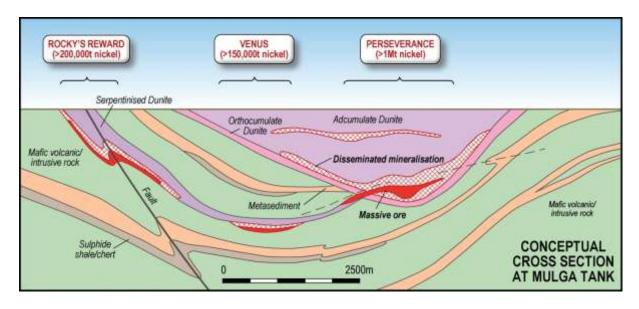


**Figure 2.** Image of the Total Magnetic Intensity from airborne magnetic data over the Mulga Tank Dunite (white outline) showing the location and modelled geometry of all seven of the priority EM targets. Note the coincidence with the nickel-in-soil geochemistry.



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**Figure 3.** Tenement ownership at the Mulga Tank Project.



**Figure 4.** Conceptual cross-section for the Mulga Tank Dunite and surrounding area showing the Perseverance and Rocky's Reward exploration model.

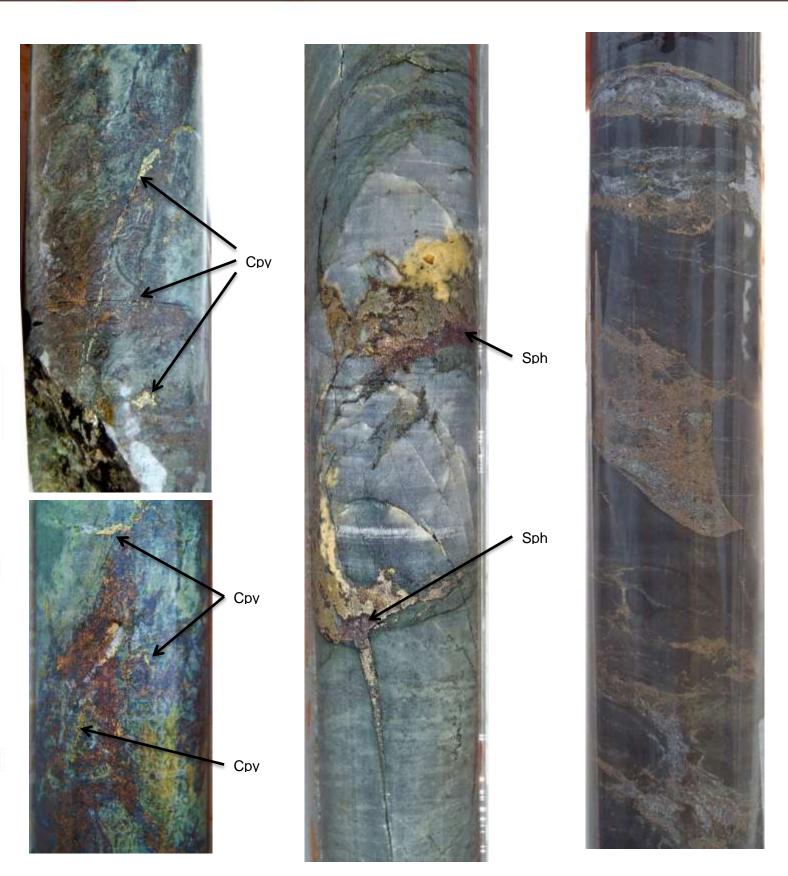


Figure 5. Photographs of vein textures from Conductor 2.
Figure 5a. Two examples of late stage chalcopyrite veins, blebs and disseminations (cpy)
Figure 5b. Late stage quartz-sphalerite vein (sph)
Figure 5c. Pyrrhotite in veins and breccia zones and fine disseminations in sedimentary rock