ENTERPRISE METALS LIMITED

ASX ANNOUNCEMENT **7 July 2009**

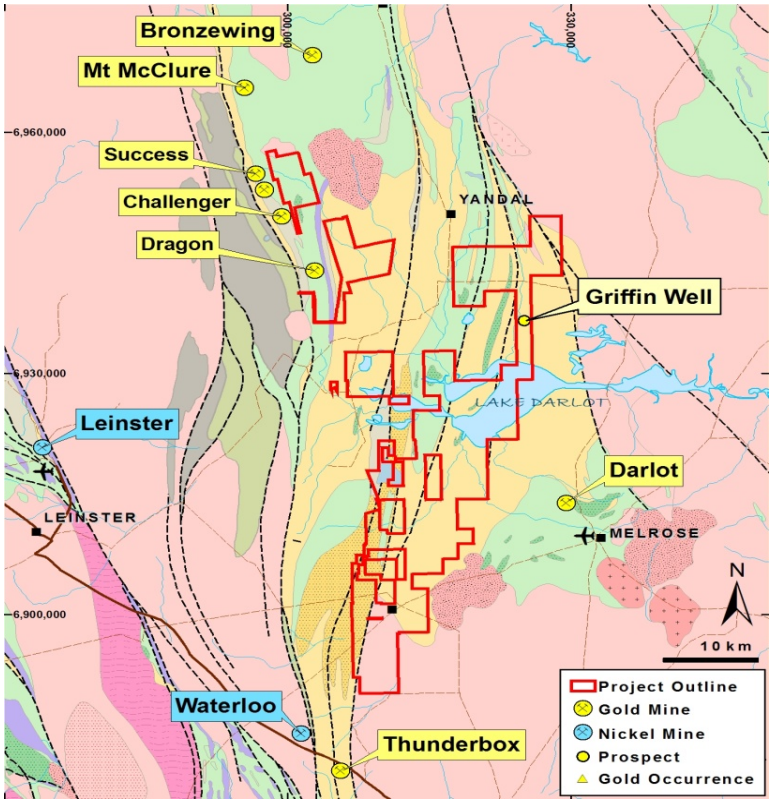
GOLD TARGETS DEFINED BY IP SURVEY AT GRIFFIN WELL

SUMMARY

Enterprise Metals Limited ("Enterprise" or "the Company", ASX:ENT) wishes to advise that it has completed a detailed Induced Polarisation ("IP") survey at **Griffin Well,** within its **Darlot Project**, some 23 km north of the Darlot gold mine in the Yandal Greenstone belt of Western Australia. The survey was undertaken to search for zones of quartz veining, silica alteration and massive and disseminated sulphides beneath anomalous gold in historical shallow drill holes.

A strong IP response has been located on **Line 325,000mE (at ~6938,250N),** below anomalous gold in historical shallow RAB holes. The modelling of the IP data suggests that the source is greater than 100 metres depth, and infill IP suggests that the zone deepens to the south and west. RC drill testing of this promising gold target is planned to commence in mid July 2009.

Historical RAB and RC drilling at Griffin Well defines a 1,500m long zone of anomalous gold in regolith, on the western margin of a diorite* intrusion. There is little historical deep drilling, but one diamond core hole by Newmont contained considerable alteration and anomalous gold (~0.2 g/t Au) over the entire 338m length of the hole. Enterprise considered these to be good indicators of a large gold system, and applied the IP technique to define a focus for future drilling.



Regional Geology & Location Plan

BACKGROUND

The Company's Darlot Project covers an area of 750 km^2 over the southern portion of the Archaean Yandal Greenstone belt in Western Australia, and is centered approximately 40km east north east of Leinster. The Project area lies approximately midway between the Bronzewing and Darlot gold mines. The Company considers that the project area is prospective for high grade orogenic gold deposits and VMS style copper/zinc base metal deposits.

Enterprise has previously acquired and processed high resolution magnetic and radiometric data and compiled an extensive historical drilling database, most of which is shallow RAB and RC data from the late 1980's and early 1990's. A number of highly anomalous areas were identified by this work, including the **Griffin Well prospect**, which is a pronounced north-south oriented regolith gold anomaly extending over a strike of 1,500m. Fresh rock is interpreted from drilling to be an altered diorite unit.

As a general observation, the primary exploration technique in the late 1980's for gold in this and similar areas of deeply weathered poorly outcropping greenstone terrain was soil sampling, which found some deposits (eg the Mt McClure deposits from 1987 to 1990) but was ineffective in discovering more deeply weathered or buried deposits.

The "second wave" in the 1990's consisted of shallow RAB drilling over extensive areas, followed by limited RC drilling as follow up, and this method led to the discovery of "blind" (or non-outcropping) deposits such as Bronzewing in 1992.

Enterprise has concluded after careful re-examination of this accumulated historical data that the "third age" of exploration is **focused geophysical surveying** in areas of known shallow gold anomalism, to identify drilling targets below the heavily weathered and leached regolith profile.

IP was used successfully at Darlot after the Centenary Deposit was found by deep diamond core drilling, but to the best of our knowledge, IP not been extensively used to explore for gold elsewhere in the deeply weathered and highly prospective Yandal Greenstone belt.

At Griffin Well, only one deep diamond drill hole (GRFD1, to 338m) was drilled by Newmont into the Griffin Well diorite intrusion. Newmont noted that in the footwall to the diorite intrusion, a zone of quartz veining, silica alteration and massive and disseminated pyrite was intersected over several metres. This hole returned very broad gold anomalism with an average grade of nearly 0.2 g/t Au over the entire length of the hole. This style of alteration and sulphidation, in addition to extensive gold anomalism are considered good indicators for a potentially large gold system, and are ideally suited for delineation by Induced Polarisation techniques.

As a result of this, Enterprise commissioned an IP survey at Griffin Well to define drilling targets in fresh rock, which are likely to be below the reach of most of the historical shallow RAB and RC drill holes.

2009 GRIFFIN WELL IP SURVEY

In early July 2009 an Induced Polarisation (IP) survey was completed over the Griffin Well gold prospect by Zonge Engineering. The survey was undertaken to search for gold mineralization associated with zones of quartz veining, silica alteration and massive and disseminated pyrite as noted by Newmont (refer Figure 1a).

A total of 41.4 line km of data has been collected and a further 6 line kms are now planned. Initially three north – south orientation lines of 200m dipole-dipole IP were completed on lines 400 metres apart, which outlined some anomalous responses. Seven infill lines were planned to follow-up these responses, and to date four of these infill lines have been completed. The location

of these lines is shown superimposed over a first vertical derivative (1VD) magnetic image overleaf (Refer Figure 1b). All data have been modelled with the Zonge 2D Inversion software.

Results

The modelled data for the orientation lines 324,600mE, 325,000mE and 325,400mE are shown in Figures 3, 5 and 7 respectively (overleaf), with data from infill lines shown in Figures 2, 4, 6 and 8.

Griffin North is the strongest IP anomaly, and is located at the northern end of **line 324,600mE**. (Figure 3). Very little drilling has been done in this area. Further IP is planned to follow-up this strong response.

At **Griffin**, (line 325,000mE - Figure 5) a strong IP response is evident below anomalous gold in a shallow RAB hole at approximately 6938,250N. Modelling of the IP data suggests that the source is greater than 100m below surface. The previous drilling in this area has been too shallow to test this zone. The infill IP lines suggest that the IP zone deepens to the south and west.

At **Griffin South,** (line 325,600mE - Figure 8) the modelled IP data suggests that potential gold mineralisation is increasing in depth to the north (Figure 8). The IP surveying at this locality needs to be extended further north.

It is now Enterprise's intention to drill test these recently identified IP anomalies with deep RC drilling. The Company has a Program of Works (POW) for drilling at Griffin Well already approved by the Department of Mines and Petroleum.

Dermot Ryan
Managing Director

Contact: Telephone: 08 9436 9200 Facsimile: 08 9436 9299 Email:
admin@enterprisemetals.com.au

The information in this announcement that relates to Exploration Results has been reviewed by Mr Dermot Ryan, who is a Fellow of the Australian Institute of Geoscientists, a Fellow of the Australasian Institute of Mining and Metallurgy, a Chartered Professional and a full time employee of geological consultancy XServ Pty Ltd. Mr Ryan has sufficient relevant experience in the styles of mineralisation and types of deposit under consideration, and in the activity he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (the JORC Code), and consents to the inclusion of the information in the form and context in which it appears.

All co-ordinates quoted are MGA Zone 51, GDA94.

**Diorite: A medium- to coarse-grained igneous rock that is commonly composed of about two-thirds plagioclase feldspar and one-third dark-coloured minerals, such as hornblende or biotite.*

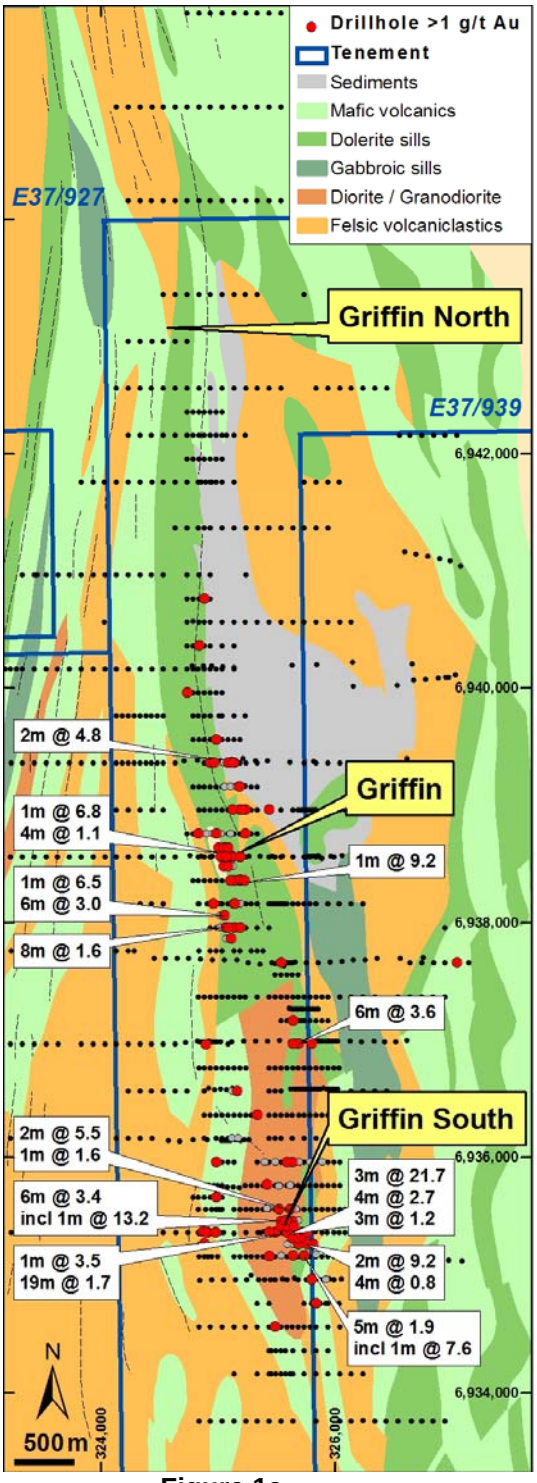


Figure 1a.

Griffin Well Prospect, showing local geology with historical drilling results

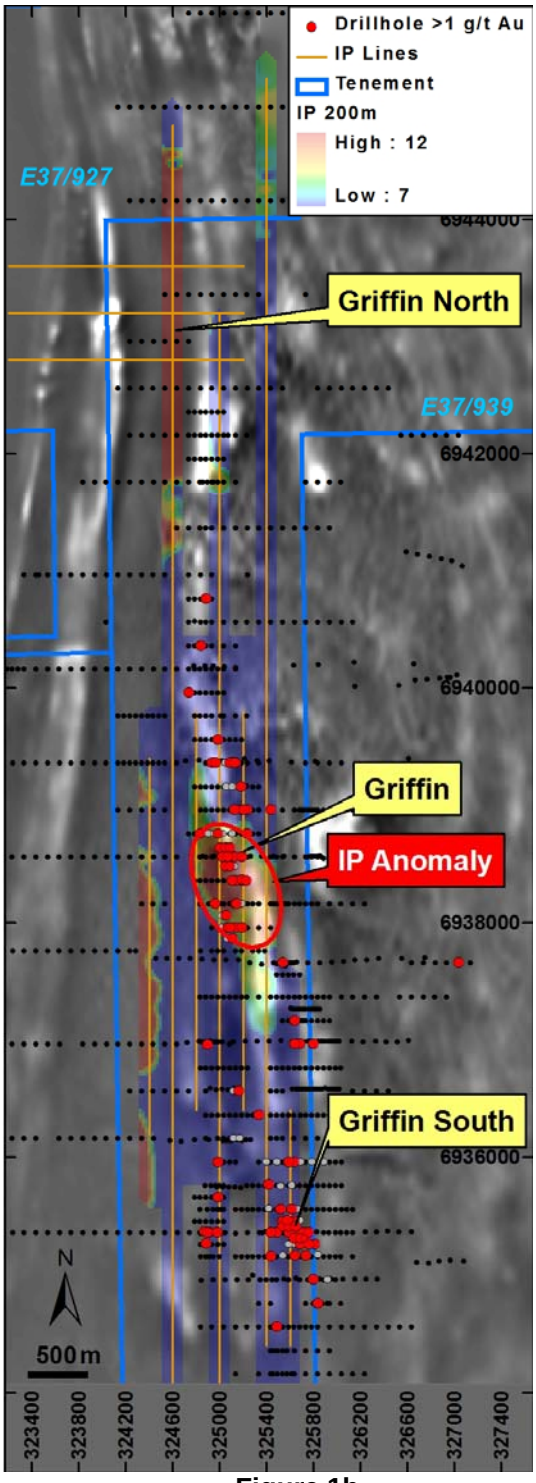


Figure 1b.

IP Phase Data, 200 metre Depth Slice over 1st VD Magnetic Image, Showing NW-SE striking Target Zone

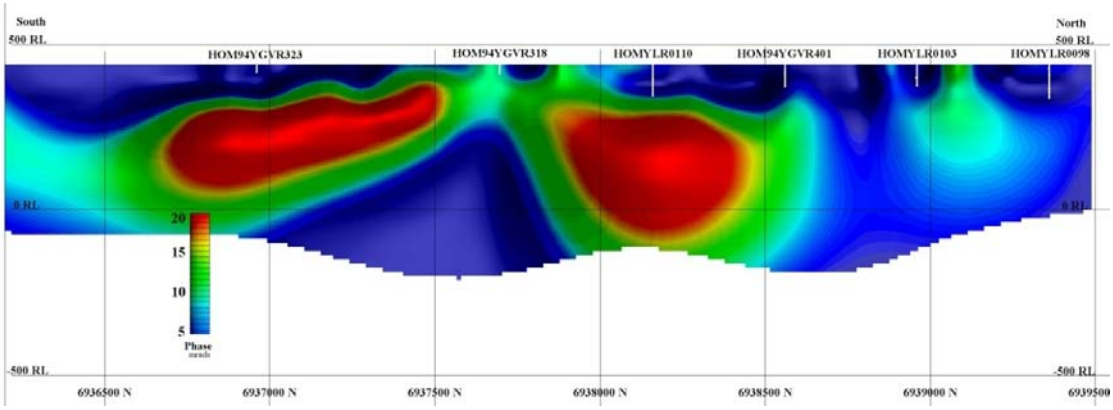


Figure 2. Line 324,400mE (Griffin North) – Depth Section IP Phase Data

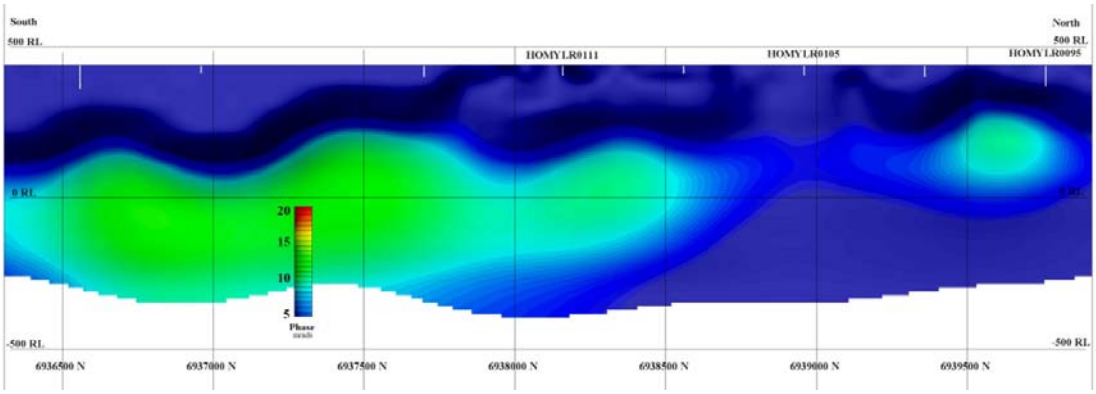


Figure 3. Line 324,600mE – Depth Section IP Phase Data with Historical Drilling

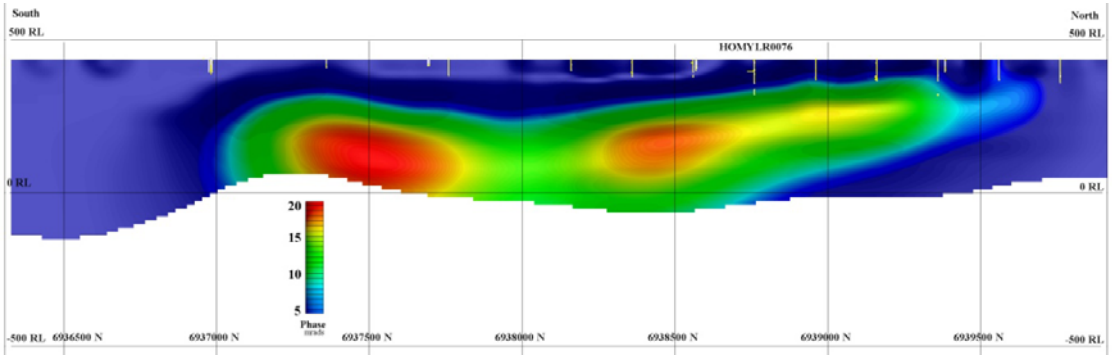


Figure 4. Line 324,800mE – Depth Section IP Phase Data with Historical Drilling

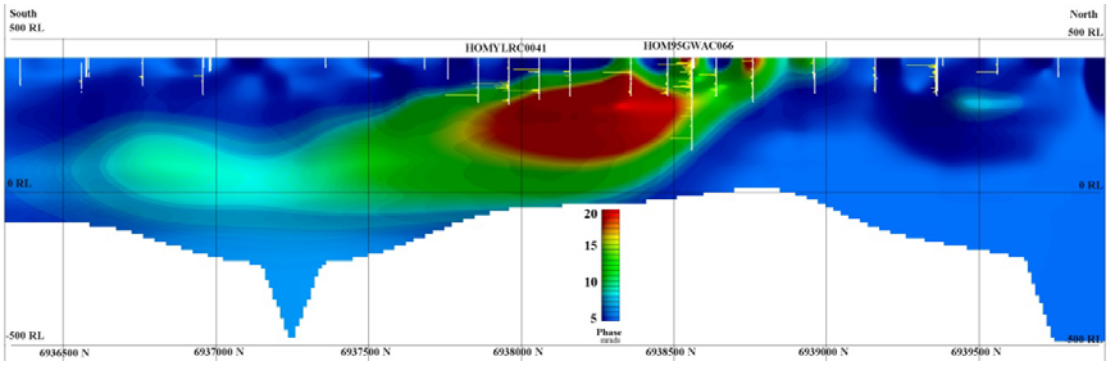


Figure 5. Line 325,000mE (Griffin) – Depth Section IP Phase Data with Historical Drilling

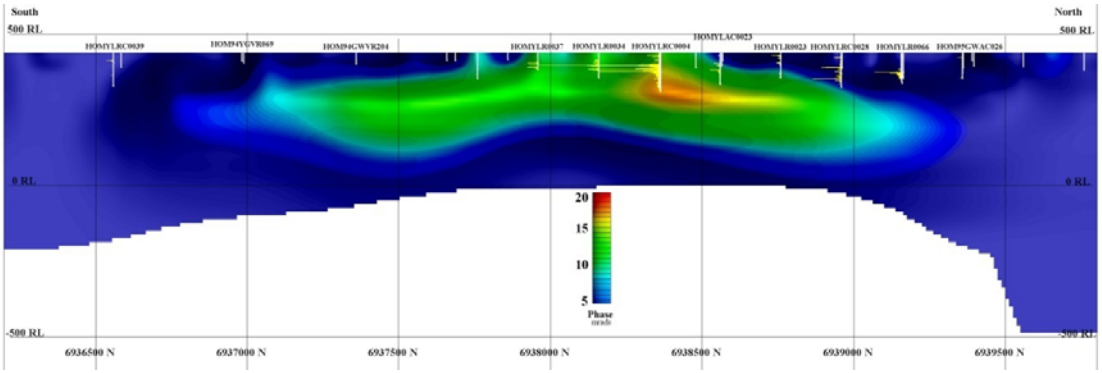


Figure 6. Line 325,200mE – Depth Section IP Phase Data with Historical Drilling

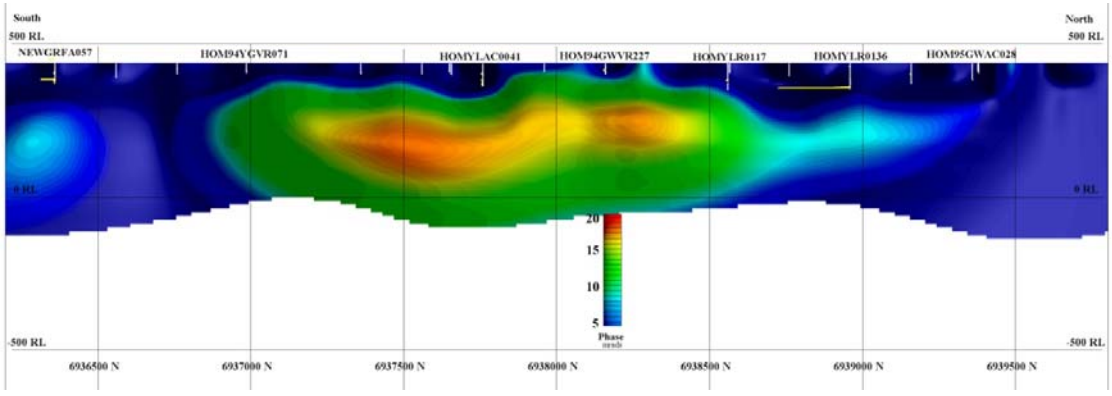


Figure 7. Line 325,400mE – Depth Section IP Phase Data with Historical Drilling

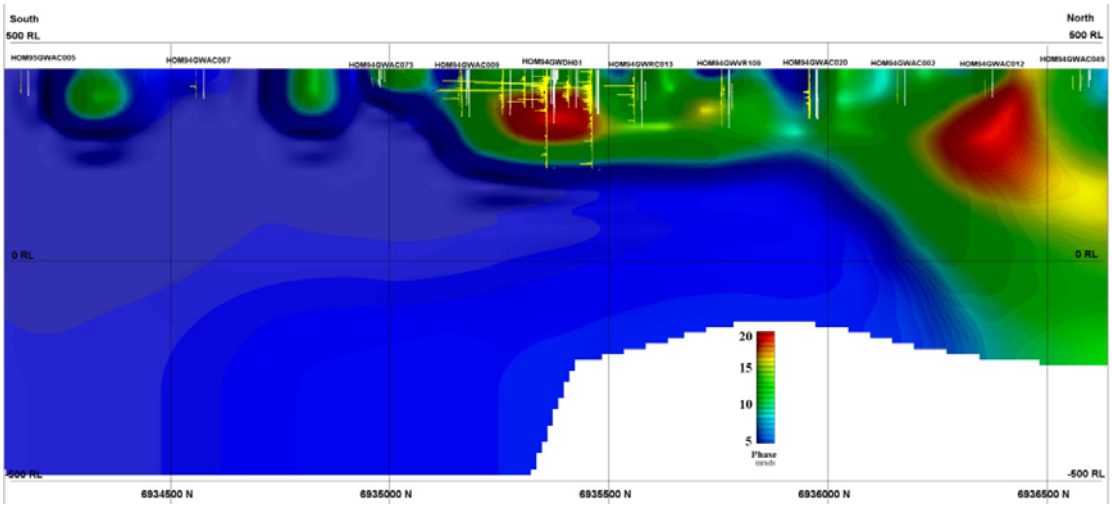


Figure 8. Line 325,600mE (Griffin South) – Depth Section IP Phase Data with Historical Drilling