**ASX Code: IPT** 

# **ASX ANNOUNCEMENT**

Date: 29 January 2016 No. 448/290116

# Market Cap

A\$19.13m (0.027 p/s)

# DECEMBER 2015 QUARTERLY REPORT SUMMARY

- 1. BROKEN HILL PROJECT, N.S.W. (Impact 100% and 80%)
  - 1,900 m drill programme completed at Red Hill.
    - Continued high grade Pt+Pd Au results:

3.3 metres at 7.4 g/t Pt+Pd+Au in RHD014

3.9 metres at 8.3 g/t Pt+Pd+Au
1.4% copper, 0.3% nickel and 19 g/t silver
including
0.5 metres at 20.6 g/t Pt+Pd+Au
5.2% copper, 0.7% nickel and 50 g/t silver in RHD015

16 metres at 2.9 g/t Pt+Pd+Au 0.3% copper, 0.3% nickel, 9 g/t silver in RHD017

6.3 metres at 4.3 g/t Pt+Pd+Au 0.9% copper, 0.5% nickel and 13.8 g/t silver in RHD019

- Discovery of significant Broken Hill style mineralization including exceptional zinc-lead-silver grades in RHD018:
  - 1 metre at 26.8% zinc, 2.8% lead, 133 g/t (4 ounces) silver; and 1 metre at 21.4% zinc, 0.8% lead, 31 g/t (1 ounce) silver
  - 82.5 metres at 0.3% zinc, 0.2% lead and 1.5 g/t silver including2.9 metres at 2.8% zinc, 0.4% lead and 3.7 g/t silver in RHD09
  - 0.3 metres at 4.2% copper, 114 g/t (3 ounces) silver, 0.2 g/t gold, 0.1% zinc and 0.1% lead in RHD016
- Maiden drill programme completed at Platinum Springs.
  - 60 cm thick unit of massive nickel-copper-sulphide intersected. Assays expected next week.

# **Issued Capital**

708,679,401

## **Directors**

Peter Unsworth Chairman

**Dr Michael Jones** Managing Director

Paul Ingram
Non-Executive Director

Markus Elsasser
Non-Executive Director

Aaron Hood
Non-Executive Director

James Cooper-Jones
Company Secretary

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Ministerial approval received for acquisition of E7390 giving Impact 100% of the PGM-nickel-copper rights and 80% of the zinc-lead-silver rights.

mpact.

MINERALS

Follow up ground geophysical surveys, mapping and sampling to continue in Q1 2016.

#### 2. COMMONWEALTH Au-Aq-Base Metal PROJECT, N.S.W. (Impact 100%)

- A mapping and soil sampling programme of 319 samples completed east of the Commonwealth Mine including the Welcome Jack, Stringers and Walls Prospects.
- A review of the previous downhole and ground EM surveys and new downhole surveys in three holes has identified two new modest conductors close to the Commonwealth deposit.
- A study of the alteration minerals and geochemistry around the Commonwealth deposit has identified a possible outer halo that extends up to 10's of metres away from the mineralisation and may provide a vector to ore.
- An interpretation of a ground gravity survey has identified a number of high density anomalies that may represent possible massive sulphide bodies.
- Preliminary metallurgical test work on the Commonwealth ore using the Kell Process indicates encouraging recoveries for both precious and base metals.

#### 3. MULGA TANK Ni-Cu-PGE PROJECT, W.A. (Impact 100%)

Detailed interpretation and synthesis of geophysical and geochemical data is in progress.

#### 4. CORPORATE

Cash balance at the end of December 2015 Quarter: \$4.1 million.



# BROKEN HILL PLATINUM-NICKEL-COPPER PROJECT, N.S.W. (Impact 100% OF PGM-Ni-Cu rights)

Impact's maiden drill programme at the Platinum Springs Prospect and a follow up drill programme at the Red Hill Prospect were completed during the Quarter.

A 60cm thick unit of massive nickel-copper sulphide was intersected at Platinum Springs (assays expected next week) and further high grade platinum group metal (PGM)-copper-nickel mineralisation as well as a first significant intercept of zinc-lead-silver mineralisation were returned from Red Hill.

#### 1.1 Massive Sulphide at Platinum Springs

A 60 cm thick unit of massive sulphide containing extensive copper and nickel sulphides was intersected in Hole PSD02 at the Platinum Springs Prospect located about 20 km north east of Broken Hill.

The massive sulphide unit is close to previous high grade PGM-nickel-copper intersected in massive sulphide in two drill holes completed by previous explorers (Figure 1 and see announcement dated <u>11 November 2015</u>). These previous drill holes, which were not surveyed and whose precise location is unknown, returned:

2 metres at 10.9 g/t platinum, 23.6 g/t palladium, 0.9 g/t gold, 6.1% copper, 4.5% nickel and 35 g/t silver from 45 metres in Hole DD4; and

2.3 metres 8.4 g/t platinum, 3.6% copper and 3% nickel from 47.7 metres; including

0.9 metres at 18.8 g/t platinum, 8.1% copper and 7.5% nickel from 48.2 metres in Hole GMS-06

(palladium and gold not assayed).

The massive sulphide unit occurs at the base of the host ultramafic unit (green unit at top of photograph) at the contact with underlying metasedimentary rocks and are interpreted as being magmatic in origin.

Holes PSD01 and PSD02 were drilled to test an electromagnetic (EM) conductor identified by Impact during the Quarter in a down hole survey of a previous drill hole (Figure 1). The anomaly was modelled to be a narrow and strongly conductive (>5,000 siemens) unit.

PSD02 confirmed that the massive sulphide unit is the source of the EM conductor.

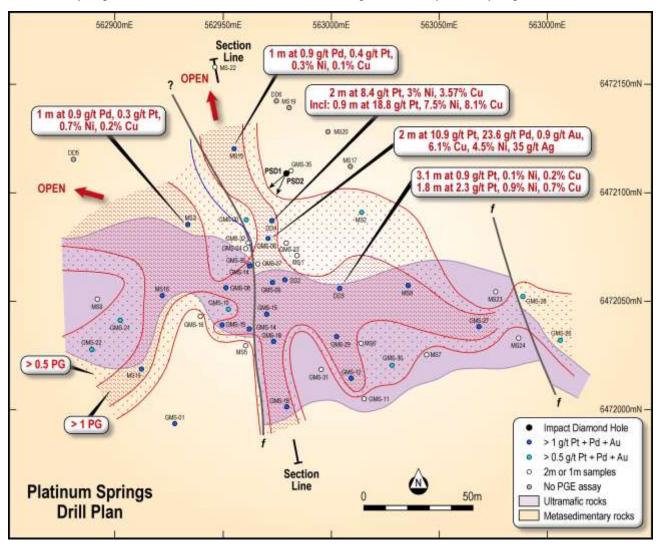
The orientation and geometry of the EM conductor has proved difficult to model. An EM survey of PSD02, has now been completed and the data is being processed ready for interpretation.

Assays for PSD02 are expected in the first week of February.



#### **Next Steps at Platinum Springs**

The results of the down hole EM survey will be interpreted and integrated with the results of ground EM surveys completed by previous explorers. Detailed mapping and sampling of the area is in progress. This work will be used to design follow up work programmes.



**Figure 1.** Geology and location of PSD01 and PSD02, previous drill holes and contoured data of previous drill assays for platinum, palladium and gold (summed from down hole intervals). The location of previous drill holes DD4 and GSM06 with high grade intercepts is not known precisely because collar positions were not surveyed and have been rehabilitated.

#### 1.2 Further high grade PGM Copper-Nickel Assays at Red Hill

Good to extremely high grades of PGM-copper-nickel mineralisation over robust widths and within 50 m of surface have been found in 10 out of the 11 drill holes completed by Impact at Red Hill. The mineralisation is open along trend and at depth and further drilling is warranted.

During the Quarter assay results for all remaining holes were received including the spectacular results from RHD012 and reported in the <u>September Quarterly Report</u>. In addition assays were received for Holes RHD014, RHD015, RHD017, RHD019 and RHD010.

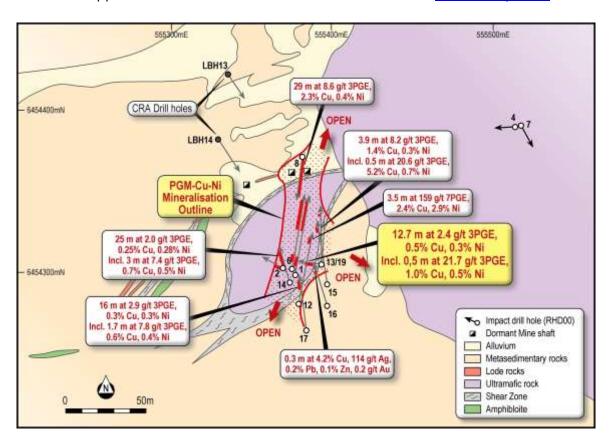


**Drill hole RHD014** tested the western part of the ultramafic unit at Red Hill and underlying metasedimentary rocks (Figure 2, Table 1). The hole returned:

25.4 metres at 0.6 g/t platinum, 1.3 g/t palladium and 0.1 g/t gold (2.0 g/t Pt+Pd+Au), 0.3% copper and 0.3% nickel from 11 metres down hole; including

3.3 metres at 2.1 g/t platinum, 4.9 g/t palladium and 0.4 g/t gold (7.4 g/t Pt+Pd+Au), 0.7% copper and 0.6% nickel from 32.4 metres down hole.

The mineralisation occurs within and immediately below the host ultramafic intrusion and also within a layer of metasedimentary rocks several metres thick within the ultramafic. The hole is close to similar near-surface mineralisation intersected in Hole RHD002 (16 metres at 1.4 g/t Pt+Pd+Au, 0.2% copper and 0.3% nickel, see announcement dated 23 January 2015).



**Figure 2.** Geology and drill hole locations at Red Hill showing the seven significant assays of the 2016 drill programme in holes RHD008, 012, 014, 015, 016, 017 and 019 (in yellow call out box).

**Drill hole RHD015** tested the eastern part of the ultramafic unit at Red Hill and underlying metasedimentary rocks (Figure 2, Table 1). The hole returned:

3.9 metres at 4.2 g/t platinum, 3.8 g/t palladium and 0.3 g/t gold (8.3 g/t Pt+Pd+Au), 1.4% copper and 0.3% nickel from 58.1 metres down hole; including

0.5 metres at 14.2 g/t platinum, 6.2 g/t palladium and 0.2 g/t gold (20.6 g/t Pt+Pd+Au), 5.2% copper and 0.7% nickel and 50 g/t (1.6 ounces) silver from 60.1 metres down hole.



**Drill hole RHD017** was designed to test a small conductor identified in a down hole EM survey in Hole RHD012 that returned extremely high grade PGM-copper-nickel-silver mineralisation (see announcement dated <u>23 October 2015</u> and Figure 3). Although no explanation for the conductor was found, the hole intersected a zone of mineralisation that returned:

16 metres at 1.4 g/t platinum, 1.4 g/t palladium, 0.1 g/t gold (2.9 Pt+Pd+Au) 0.3% copper, 0.3% nickel and 8.7 g/t silver from 39 metres down hole; including

1.7 metres at 3.6 g/t platinum, 3.9 g/t palladium, 0.2 g/t gold (7.7 g/t Pt+Pd+Au) 0.6% copper, 0.4% nickel and 20 g/t silver from 41.9 metres down hole; and also including

0.6 metres at 3.2 g/t platinum, 3.9 g/t palladium, 0.1 g/t gold (7.3 g/t Pt+Pd+Au) 1.7% copper, 0.8% nickel and 80 g/t (2.6 ounces) silver from 43.6 metres down hole.

The mineralisation in both RHD015 and 017 is associated with a single ultramafic dyke within the metasedimentary rocks.

A down hole EM survey of RHD017 refined the position of the conductor and Hole RHD019 was drilled to test this conductor. Again, no explanation for the conductor was found. However a zone of weathered copper-nickel mineralisation associated with an ultramafic dyke was intersected at about 40 metres down hole. The zone returned:

12.7 metres at 0.9 g/t platinum, 1.4 g/t palladium, 0.5 g/t gold (2.4 g/t 3PGM)
0.5% copper, 0.3% nickel and 9.5 g/t silver; including

6.3 metres at 1.6 g/t platinum, 2.5 g/t palladium, 0.3 g/t gold, (4.3 g/t 3PGM) 0.9% copper, 0.5% nickel and 13.8 g/t silver from 37.4 metres; and including

0.5 metres at 10 g/t platinum, 11.1 g/t palladium, 0.6 g/t gold (21.7 g/t 3PGM), 1% copper, 0.5% nickel and 41.5 g/t silver (1.3 ounces) from 37.4 metres.

Assays were also returned from Hole RHD010 drilled to test the north east part of the main Red Hill intrusion. Numerous anomalous platinum and palladium assays of between 10 and 220 parts per billion were returned from the upper 60 metres of the unit. This confirms the relatively high background levels of these metals in these ultramafic rocks, which are normally less than 10 parts per billion in similar rocks around the globe, and is encouraging for the formation of deposits of PGM's.

A synthesis and interpretation of all the data from Red Hill is now in progress with the aim of identifying follow up drill targets. A detailed ground IP survey will be completed as part of this work to help identify targets at depth beneath the mineralisation discovered thus far.



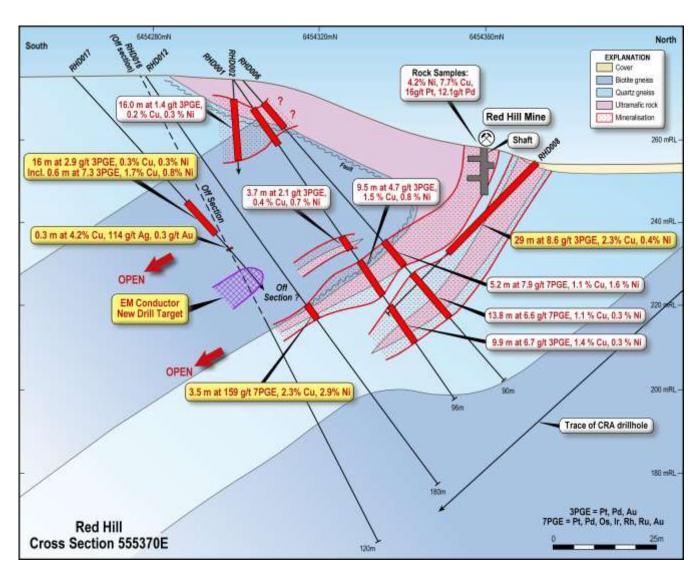


Figure 3. Cross section through the Red Hill Prospect.



### 1.3 High grade zinc-lead-silver mineralisation at Red Hill (Impact 80%)

Three drill holes at Red Hill also returned, for the first time, significant intercepts of zinc-lead-silver in so called "Broken Hill-style mineralisation" hosted by "Lode Rocks" similar to those that surround, and are integral to, the world class Broken Hill zinc-lead-silver deposit located 15 km north west of Red Hill.

The style of mineralisation is distinct from, and separate to, the platinum-copper-nickel mineralisation associated with ultramafic rocks that has been the focus of Impact's work thus far at the project.

In **Hole RHD018**, the Broken Hill-style Lode Rocks comprise variably disseminated, vein and massive iron, zinc, copper and lead sulphides hosted in garnet-bearing metasedimentary rocks and two amphibolite units (Figure 5).

The lower amphibolite unit contains a five metre thick zone of massive and disseminated zinc and lead sulphide mineralisation including two separate one metre intervals of high grade zinc sulphides that returned (Figure 4):

5.1 metres at 10% zinc, 0.8% lead, 40.4 g/t silver from 148.4 metres *including* 1 metre at 26.8% zinc, 2.8% lead, 133 g/t silver (4 ounces) from 148.9 metres; and 1 metre at 21.4% zinc, 0.8% lead and 31.5 g/t silver (1 ounce) from 152.5 metres



High grade zinc sulphide (sphalerite - bronze metallic coloured mineral)

This high grade mineralisation lies within a thicker zone of lower grade mineralisation that returned:

22.7 metres at 2.4% zinc, 0.2% lead and 9.5 g/t silver from 138.9 metres down hole.

The upper amphibolite and surrounding metasedimentary rocks contain a 30 metre thick zone of patchy iron, copper, zinc and lead sulphides from about 100 metres down hole (Figure 2). One zone of selectively sampled copper sulphide mineralisation within this thicker zone returned:

0.15 metres at 1.5% copper, 1.3% zinc and 22 g.t silver from 113.6 metres down hole.

A follow up drill hole, RHD020 successfully tested the up-dip extension of the mineralisation (Figure 4). Assays are expected in early February.



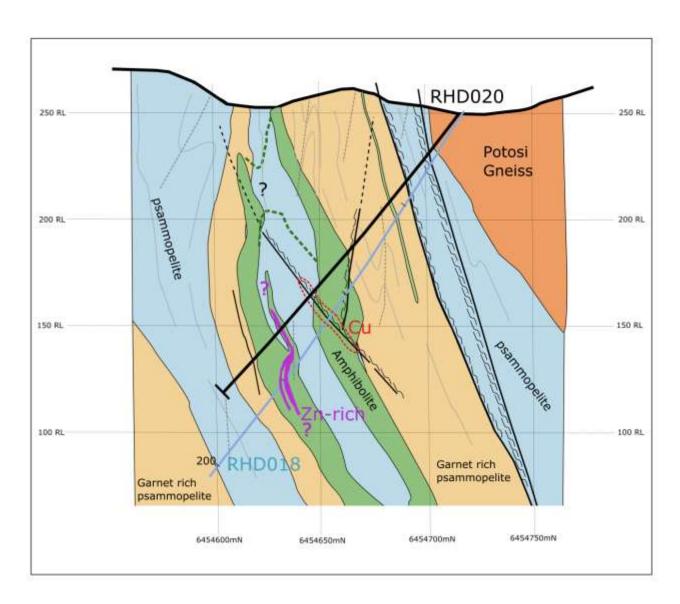
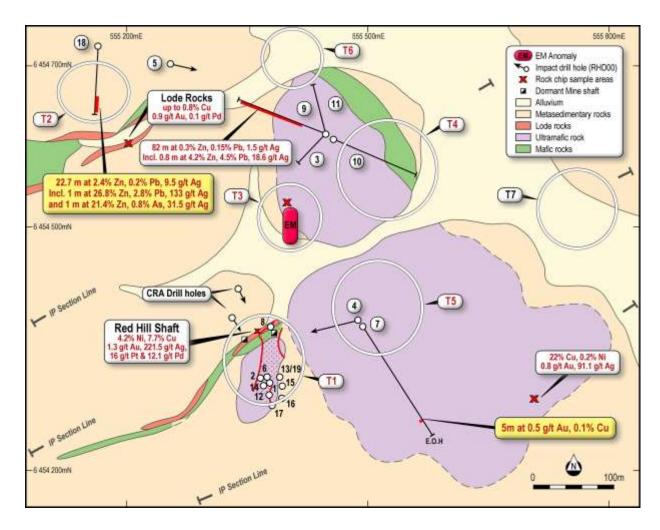


Figure 4. North-south cross-section along RHD018 and RHD020, looking west.





**Figure 5.** Geology and drill hole locations in the greater Red Hill area.

**Drill hole RHD009** was drilled to test a modest gravity anomaly immediately north west of the main Red Hill intrusion (Figure 5). The hole intersected the lower contact of the ultramafic unit with an underlying sequence of metasedimentary rocks including garnet bearing units, amphibolites and pegmatites at 88.5 metres down hole.

A thick interval of disseminated and vein-hosted zinc and lead mineralisation occurs mostly within the metasedimentary rocks and returned assays of:

82.5 metres at 0.3% zinc, 0.2% lead and 1.5 g/t silver from 91 metres down hole; including 0.8 metres at 4.1% zinc, 4.6 % lead and 18.6 g/t silver from 132 metres; and 2.9 metres at 2.8% zinc, 0.4% lead and 3.7 g/t silver from 141 metres.

This footwall sequence of rocks are part of a regional package of rocks colloquially called the "Broken Hill Sequence" which are similar to the host rocks at the world class zinc-lead-silver Broken Hill Mine. The sequence is prospective for similar mineralisation and two of these sequences have been mapped at surface at Red Hill (Figure 5).



**Drill hole RHD016** was also drilled to test the eastern part of the ultramafic unit and underlying metasedimentary rocks. The hole intersected a 17 metre thick zone of variably anomalous base and precious metals within metasedimentary rocks. Ultramafic rocks were not intersected.

The best intercept came from a narrow vein with visible copper sulphide that returned:

0.3 metres at 4.2% copper, 114 g/t (3 ounces) silver, 0.2 g/t gold, 0.1% zinc and 0.1% lead from 44.4 metres down hole.

The style and significance of this mineralisation in RHD016 is uncertain and detailed core logging is in progress. However, the mineralisation may be in part related to Broken Hill-style mineralisation. If this is the case, then zones where such mineralisation are cross-cut by the ultramafic dykes may be good targets for high grade PGM-copper-nickel mineralisation.

These results are all extremely encouraging for the discovery of a significant zinc-lead-silver deposit. In particular the mineralisation discovered may represent a halo to a larger massive zinc sulphide body along trend or at depth.

Further drilling is warranted and a follow up work programme is being designed.

#### About the PGM mineralisation at Red Hill

At Impact's Red Hill Prospect, PGM-copper-nickel mineralisation, including the rare PGM's rhodium, iridium, osmium and ruthenium has now been found from surface to a depth of at least 50 metres over at least 50 metres of trend and which is open in several directions (see announcements dated 23 October 2015 and 9 November 2015).

The width of the mineralised zones has yet to be established. However Hole RHD019 has established that the strike of one of the main ultramafic units is NE. Thus the true widths of the mineralised intercepts are likely to be thinner than quoted.

Significant structural and lithological (rock type) controls on the high-grade PGM-copper-nickel mineralisation have been identified, in particular in

Hole RHD012 (see announcement dated 23 October 2015) that returned:

3.5 metres at 159 g/t (5.3 ounces) 6PGE+gold 2.9% nickel, 2.3% copper and 14.5 g/t silver from 67.3m down hole (50 m below surface) where the 6PGE+gold equals

1.7 g/t rhodium, 2.6 g/t iridium, 2.0 g/t osmium and 1.1 g/t ruthenium 5 g/t platinum, 6 g/t gold, 144 g/t (4.6 ounces) palladium.



The mineralisation is related to dykes of ultramafic rock that have intruded along structures and veins that cross-cut metasedimentary rocks and pegmatites (coarse quartz-feldspar rocks). The fractures and veins that control the higher grade mineralisation are commonly better developed in the more competent pegmatites and detailed logging and mapping of these units is in progress.

### About the Broken Hill Project (see also announcement dated 23rd October 2015)

The Broken Hill Project comprises three exploration licences that cover a 40 km trend of rocks prospective for two distinct styles of mineralisation (Figure 6):

- 1. PGE-copper-nickel associated with ultramafic rocks; and
- 2. Zinc-lead-silver in "Broken Hill-style" deposits hosted mostly by metasedimentary rocks and amphibolites.

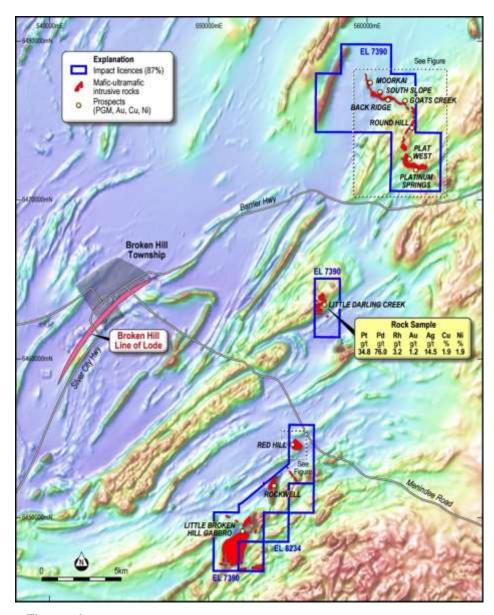


Figure 6. Impact's Broken Hill Project showing granted licences.



The mineral rights for one of the licences, E7390, were split in the early 2000's into the two different styles of mineralisation and these were the subject of two separate joint ventures between the original licence owner, Golden Cross Resources, and Endeavour Minerals Pty Limited and Silver City Minerals Limited respectively. Impact purchased Endeavour Minerals Pty Limited in 2013.

Impact has now acquired E7390 (via its 100% owned subsidiary Siouville Pty Limited), from Golden Cross Resources which entitles Impact to 100% of the nickel-copper-PGE rights, previously in joint venture with Golden Cross.

Golden Cross has a 1% gross production royalty on all metals to which Impact and/or Siouville has the rights for. At its election, Impact also has the right to buy back the royalty for \$1.5 million at anytime up to a Decision to Mine, or leave the royalty uncapped during any production.

In addition, Impact has also moved to an 80-20 joint venture for Broken-Hill style mineralisation on E7390 with Silver City Minerals Limited and free-carry Silver City's 20% interest to a Decision to Mine.

Squadron Resources Pty Limited has the right to invest \$1 million for a 19.9% interest in the nickel-copper-PGE rights under the terms of an investment into Impact as outlined in the announcement to the ASX dated <u>17 July 2015</u>. However, Squadron is not liable for any payment of the royalty to Golden Cross.

Squadron Resources Pty Limited has no rights to earn into the Broken Hill style mineralisation.

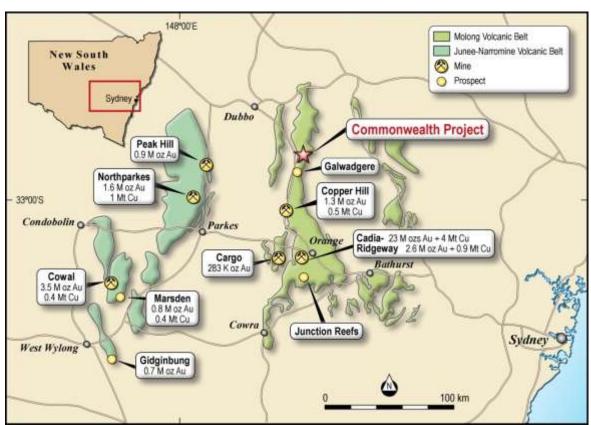


#### 2. COMMONWEALTH GOLD-SILVER-BASE METAL PROJECT (IPT 100%)

The Commonwealth Project comprises three exploration licences that cover about 315 sq km of the highly prospective Lachlan Fold Belt about 100 km north of Orange in NSW. The belt is host to many major gold-silver-copper mines including the Cadia-Ridgeway deposits that contain 25 million ounces of gold and 12 million tonnes of copper (Figure 7).

A significant amount of work was completed during the Quarter with the aim of identifying targets for a drill programme likely to be undertaken in Q2-Q3 2016.

- A mapping and soil sampling programme of 319 samples was completed that has
  extended the prospect area around the Commonwealth Mine eastwards by 1,000 m
  and now includes the Welcome Jack, Stringers and Walls Prospects. The soil
  samples will be submitted for assay in February.
- A review of the previous downhole and ground EM surveys was completed and which lead to new downhole surveys in three holes. This work has identified two new modest conductors close to the Commonwealth deposit. Final interpretation is in progress.



**Figure 7.** Location of the Commonwealth Project within the Lachlan Fold Belt of NSW, home to many significant gold and copper mines.

 A study of the alteration minerals and geochemistry around the Commonwealth deposit was completed utilising an extensive database of assay data and measurements from a handheld XRF instrument. Preliminary results indicate that there is a possible outer halo that extends up to 10's of metres away from the mineralisation and which may provide a vector to ore.



- An interpretation of a ground gravity survey carried out in early 2015 was completed.
   A number of high density anomalies have been identified that may represent possible massive sulphide bodies.
- The results of preliminary metallurgical test work on the Commonwealth ore using the Kell Process indicate encouraging recoveries for both precious and base metals.

All of the results of this work are being reviewed and synthesized and will be used to prioritise areas for drilling. Detailed interpretations of the data will be released in due course.

#### About the Commonwealth Project

On <u>19 February 2015</u> Impact announced a maiden Inferred Mineral Resource for the Commonwealth project, prepared in accordance with the JORC 2012 Code by independent resource consultants Optiro at a 0.5 g/t gold cut off, of:

720,000 tonnes at 2.8 g/t gold, 48 g/t silver, 1.5% zinc, 0.6% lead and 0.1% copper.

The resource, which is open along trend and at depth, contains both massive sulphide mineralization at the Main Shaft prospect and disseminated, vein and lesser massive sulphide mineralization at the Commonwealth South prospect. It extends from surface to an average depth of 90 m, has a strike length of 400 m and is up to 25 m thick.

A separate Inferred Mineral Resource (included within the overall resource) has also been calculated for the massive sulphide lens at Main Shaft to demonstrate the high grade nature of such deposits that are the principal target for Impact's exploration programme.

The Main Shaft Inferred Resource is:

145,000 tonnes at 4.3 g/t gold, 142 g/t silver, 4.8% zinc, 1.7% lead and 0.2% copper.



#### 3. MULGA TANK NICKEL-COPPER-PGE PROJECT (IPT 100%)

Impact owns 100% of 13 exploration licences that cover 425 sq km of the highly prospective Minigwal greenstone belt, 200 km east of Kalgoorlie in the emerging mineral province of the south east Yilgarn Block, Western Australia (Figure 9).

An intensive and extensive three month exploration programme at Impact's 100% owned Mulga Tank Project 200 km east of Kalgoorlie in Western Australia was completed during the Quarter.

Exploration for nickel and gold has been re-invigorated on the project with the completion of three major surveys: an airborne magnetic and radiometric survey covering most of the 425 sq km project area; an innovative combined ground and airborne electrical survey and the collection of 2,500 soil geochemistry samples.

The data generated from this work will be mostly used to help define drill targets identified at the Mulga Tank Dunite and Panhandle Prospects in the western part of the project area.

## Airborne Magnetic and Radiometric Survey

The airborne magnetic and radiometric survey was completed at a line spacing of 50 metres, four times greater detail than previously available data (Figure 8).

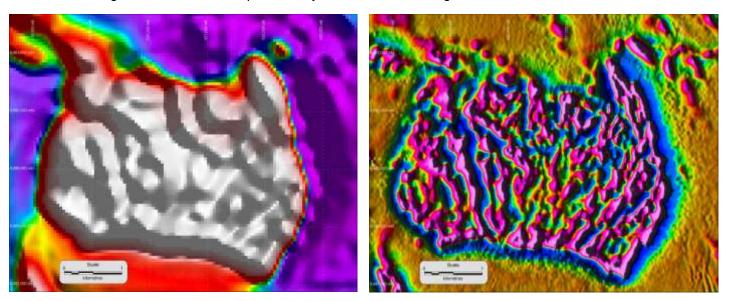


Figure 8. Comparison of previous magnetic data (left) and new magnetic data (right) over the Mulga Tank Dunite showing the increased resolution of units within it.

This new data has greatly improved the geological understanding of the entire project area and in particular over the Mulga Tank Dunite which is highly prospective for large deposits of nickel sulphide, where individual geological layers can now for the first time be mapped out (Figure 8). This is important because the entire project lies under deep sand cover at least 50 metres thick in most places. A detailed interpretation of this data is in progress.



#### Ground and Airborne Electrical Survey

A innovative combined airborne and ground electrical survey was completed between and including the Panhandle and Mulga Tank Dunite Prospects that covers about 15 km of strike of nickel prospective rocks for a total area of about 70 square kilometres.

The survey was completed by GAP Geophysics and involved the HeliSAM ground-air system in a variety of configurations.

The purpose of the survey was to help identify units of metasedimentary rocks under the thick sand cover that contain massive iron sulphides (pyrite-pyrrhotite) that are generally barren of nickel (or copper-zinc-lead) sulphide. These units generate a significant number of false anomalies for nickel sulphides in conventional electromagnetic surveys.

### Soil Geochemistry Survey

Approximately 1,000 soil samples were taken over the eastern half of the Mulga Tank Dunite at a spacing of 200 m by 50 m and 1,500 samples have been taken over the Panhandle Prospect at a spacing of 100 m by 50 metres.

Selected samples from areas of interest identified in the new geophysical data will be sent for assay at an appropriate time.

#### About the Mulga Tank Project

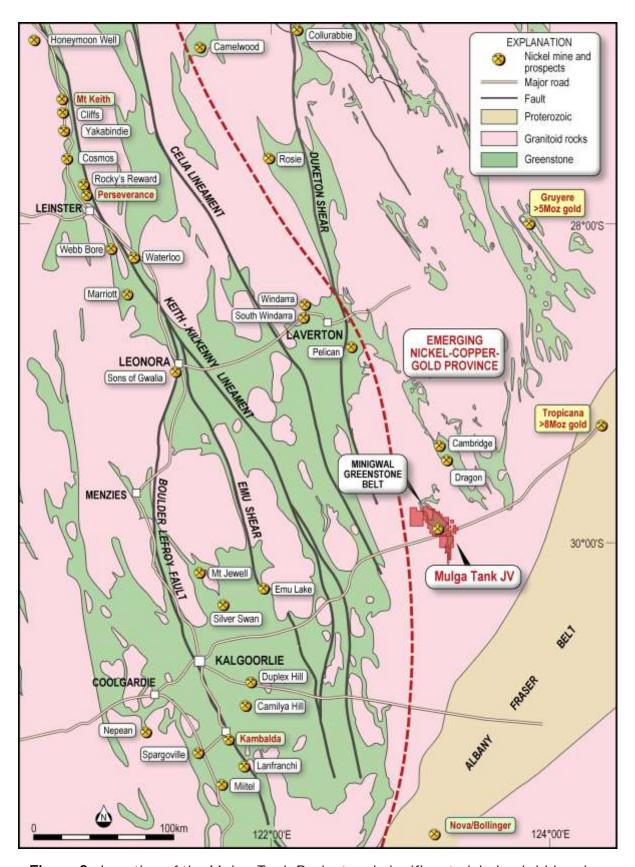
Impact has discovered three styles of nickel sulphide mineralisation within the Mulga Tank Dunite and surrounding rocks (see announcement dated <u>29<sup>th</sup> January 2014):</u>

- High tenor veins at the base of the Mulga Tank Dunite with drill results of:
   0.25 m at 3.8% nickel, 0.7% copper and 0.7 g/t PGE and 0.3 m at 0.7% nickel.
- 2. High tenor nickel sulphide in multiple komatiites in a flow channel with drill results of:
  - 0.75 m at 0.85% nickel, 0.35% copper and 0.28 g/t PGE (Pt+Pd+Au); and 6.7 m at 0.5% nickel.
- 3. Extensive disseminated nickel in the Mulga Tank Dunite with drill results of: 2 m at 1.3% nickel including 1 m at 2% nickel and multiple zones of 0.5 m at 0.5% to 1.2% nickel within an intercept of 115 m at 0.3% nickel; other thick intercepts of 21 m at 0.4% nickel and 59 m at 0.3% nickel.

The style of mineralisation and the nature of the ultramafic rocks are similar to those that host the significant nickel deposits found at the Perseverance (45 Mt at 2% nickel), Rocky's Reward (9.6 Mt at 2.4% Ni) and Mt Keith >2 Mt of contained nickel) mines near Leinster in Western Australia (Figure 9).

Impact's results come from one 15 sq km area within a very large greenstone belt that extends for 20 km along strike and which has not been explored for nickel. The area is also highly prospective for gold deposits.





**Figure 9.** Location of the Mulga Tank Project and significant nickel sulphide mines and prospects including Perseverance and Rocky's Reward and with new nickel-copper-PGE discoveries in the emerging nickel-copper province to the east.



#### 4. CORPORATE

Cash balance at the end of Quarter was \$4.1 million.

Dr Michael G Jones Managing Director

Michael for

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 2012 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.

The information in this report which relates to Mineral Resources is based upon information compiled by Ian Glacken, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Ian Glacken is an employee of Optiro Pty Ltd 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 Person as defined in the 2012 edition of the Australasian Code for Reposting of Exploration Results, Mineral resources and Ore Reserves. Ian Glacken consents to the the inclusion in the release of a summary based upon his information in the form and context in which it appears.



Table 1. Significant Intercepts from Red Hill from Phase 2 Drilling

				3PGE								Pb	
Hole ID	From	То	Interval	g/t	Pt g/t	Pd g/t	Au g/t	Cu %	Ni %	Ag g/t	Zn %	%	Cut-off
RHD007	364	369	5	0.63	0.02	0.02	0.59	0.09	0.14	0.80			0.1 g/t Au
													0.5 g/t
RHD008	0	29	29	8.61	2.66	5.45	0.50	2.35	0.45	57.77			3PGE 10 g/t
including	7	9	2	22.70	1.71	20.55	0.45	2.47	0.46	55.83			3PGE
also		_				_				_			10 g/t
including also	18.6	24	5.4	16.09	7.55	7.81	0.73	3.79	0.52	58.55			3PGE 10 g/t
including	27.7	28.3	0.6	29.12	14.44	13.21	1.46	12.17	0.53	28.30			3PGE
RHD009	91	173.5	82.5	NSA	NSA	NSA	NSA	0.01	NSA	1.55	0.33	0.15	0.05% Zn
including	100	104.9	4.9	NSA	NSA	NSA	0.01	0.09	NSA	6.34	0.60	0.15	0.5% Zn
including	104.2	104.9	0.7	NSA	NSA	NSA	0.03	0.34	NSA	19.64	1.69	0.37	1% Zn
also								0.00		10.00			40/ =
including also	132	132.8	8.0	NSA	NSA	NSA	0.01	0.03	NSA	18.60	4.22	4.57	1% Zn
including	141	143.9	2.9	NSA	NSA	NSA	0.01	0.02	NSA	3.69	2.83	0.36	1% Zn
also													
including also	156	158.1	2.1	NSA	NSA	NSA	NSA	NSA	NSA	2.83	1.21	0.34	1% Zn
including	166	173	7	NSA	NSA	NSA	NSA	0.02	NSA	1.47	0.45	0.05	0.5% Zn
				155.0									0.5 g/t
RHD012	67.3	70.8	3.5	4 314.9	5.04	143.98	6.02	2.31	2.91	19.40			3PGE 10 g/t
including	68.5	69.7	1.2	9	10.37	293.77	10.85	1.78	7.36	14.50			3PGE
RHD015	58.1	62	3.9	8.26	4.25	3.76	0.25	1.44	0.28	13.44			1 g/t 3PGE
													10 g/t
including	61	61.5	0.5	20.61	14.20	6.16	0.24	5.16	0.66	49.80			3PGE
RHD017	39	55	16	2.94	1.36	1.47	0.11	0.28	0.32	8.71			1 g/t 3PGE
including	41.9	43.6	1.7	7.77	3.61	3.93	0.23	0.62	0.37	19.89			5 g/t 3PGE
RHD018	20.7	21.7	1	NSA	NSA	NSA	1.38	NSA	NSA	3.40	0.04	NSA	1 g/t Au
	27.9	28.9	1	NSA	NSA	NSA	1.46	0.03	NSA	0.80	0.01	0.02	1 g/t Au
	113.65	113.8	0.15	NSA	NSA	NSA	0.05	1.55	NSA	22.80	1.33	0.01	1% Zn
	138.9	161.6	22.7	NSA	NSA	NSA	NSA	NSA	NSA	9.50	2.42	0.22	1% Zn
including	148.4	153.5	5.1	NSA	NSA	NSA	0.02	0.02	NSA	40.43	10.08	0.79	1% Zn
including also	148.9	149.9	1	NSA	NSA	NSA	0.01	0.02	NSA	133.60	26.76	2.77	10% Zn
including	152.5	153.5	1	NSA	NSA	NSA	NSA	0.01	NSA	31.50	21.40	0.82	10% Zn
RHD019	31	43.7	12.7	2.40	0.89	1.36	0.15	0.51	0.30	9.21	0.13	0.10	0.5 g/t 3PGE
including	37.4	43.7	6.3	4.33	1.61	2.45	0.27	0.91	0.46	13.76	0.20	0.09	1 g/t 3PGE
also									20			2.00	10 g/t
including	37.4	37.9	0.5	21.68	10.05	11.08	0.55	1.01	0.48	41.52	0.13	0.05	3PGE



Table 2. Summary of Completed Phase 2 Drill Holes

Collar ID	Drill type	Easting	Northing	Dip	Azimuth	Depth
RHD007	Diamond	555517	6454391	-70	150	420.9
RHD008	Diamond	555381	6454371	-45	178	50
RHD009	Diamond	555434	6454599	-55	300	195.3
RHD010	Diamond	555443	6454596	-45	110	168.4
RHD011	Diamond	555440	6454604	-50	345	96.5
RHD012	Diamond	555379	6454279	-55	10	120.5
RHD013	Diamond	555394	6454303	-51	10	108.5
RHD014	Diamond	555373	6454292	-50	345	96.5
RHD015	Diamond	555397	6454292	-54	353	102.3
RHD016	Diamond	555397	6454280	-61	342	90.5
RHD017	Diamond	555383	6454263	-46	355	90.6
RHD018	Diamond	555193	6454716	-60	200	207.5
RHD019	Diamond	555392	6454303	-75	270	153.8



#### **BROKEN HILL APPENDIX 1 - SECTION 1 SAMPLING TECHNIQUES AND DATA**

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Random rock samples were taken at surface which represented favourable geology and alteration to known mineralisation in the region. Samples are variably weathered.  Soil Samples  Soil samples were taken at 50 m intervals from a hole 15-20 deep and sieved to -2mm to collect about 250 g of material.  Diamond Drilling  Diamond drilling was used to produce drill core either with a diameter of 63.5 mm (HQ) or 47.6 mm (NQ). A handheld XRF instrument was used to analyse the drill core at 50 cm intervals.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Rock Chip Samples Representative rock chip samples at each sample site weigh between 0.8 and 1.2 kg. Soil samples are taken at a consistent depth below surface and sieved.  Soil Samples and Drill Samples Sample representivity was ensured by a combination of Company Procedures regarding quality control (QC) and quality assurance / testing (QA).  Examples of QC include (but are not limited to), daily workplace and equipment inspections, as well as drilling and sampling procedures.  Examples of QA include (but are not limited to) collection of "field duplicates", the use of certified standards and blank samples approximately every 50 samples.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	Rock Chip and Diamond Drill Samples Rock samples and split diamond core were sent to Intertek Adelaide where they were crushed, dried and pulverised (total prep) to produce a 25-30 g sub-sample for analysis by four acid digest with an ICP/AES finish for ore grade base metal samples and either lead collection or nickel sulphide fire assay with AAS or MS finish for gold and the PGMs. Weathered samples contained gossanous sulphide material. Soil samples were sent to SGS Perth for analysis by the MMI digest.  The XRF data is qualitative only. A comparison between the XRF results and wet chemical assay data will be completed on receipt of final results.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Diamond Drilling comprises NQ (47.6 mm diameter) and HQ (63.5 mm diameter) sized core. Impact diamond core is triple tube and is oriented. Historical diamond core was not oriented.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Diamond core recoveries for all holes are logged and recorded. Recoveries are estimated to be approximately >97% for the Red Hill Prospect. No significant core loss or sample recovery problems are observed in the drill core.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the driller.



Criteria	JORC Code explanation	Commentary
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No sample bias has been established.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Geological logging of samples followed company and industry common practice. Qualitative logging of samples included (but not limited to); lithology, mineralogy, alteration, veining and weathering. Diamond core logging included additional fields such as structure and geotechnical parameters.  Magnetic Susceptibility measurements were taken for each 0.5 m diamond core interval.
		For diamond core, information on structure type, dip, dip direction, texture, shape and fill material has been recorded in the logs. RQD data has been recorded on selected diamond holes. Handheld XRF analysis was completed at 50 cm intervals on diamond core.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	All logging is quantitative, based on visual field estimates. Systematic photography of the diamond core in the wet and dry form was completed.
		All diamond drill holes were logged in full.
	The total length and percentage of the relevant intersections logged	Detailed diamond core logging, with digital capture was conducted for 100% of the core by Impact's on-site geologist.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	All core samples were sampled by half core. Selected intervals of quarter core will be selected for check assays if required.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No RC drilling results are reported.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Company procedures were followed to ensure sub-sampling adequacy and consistency. These included (but were not limited to) daily work place inspections of sampling equipment and practices, as well as sub-sample duplicates ("field duplicates").
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Laboratory QC procedures for rock sample and diamond drill core assays involve the use of internal certified reference material as assay standards, along with blanks, duplicates and replicates.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Rock and Soil Samples Field duplicates were taken at selected sample sites.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Diamond Core Samples  Quarter core duplicate samples are taken randomly every 50 samples. Sample sizes at Red Hill are considered adequate due to mineralisation style.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	An industry standard fire assay technique for samples using lead collection with an Atomic Absorption Spectrometry (AAS) finish was used for gold and aqua regia digest for base metals and silver.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools were used to determine material element concentrations. A handheld XRF was used for qualitative analysis only.



Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Rock Chip Samples  For the rock chips, quality control procedures for assays were followed via internal laboratory protocols.  Accuracy and precision are within acceptable limits.  Diamond Drill Samples  Reference standards and blanks are routinely inserted into every batch of samples at a rate of 1 in every 50 samples.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	The results have not been verified by independent or alternative companies. This is not required at this stage of exploration.
	The use of twinned holes.	No drilling results are reported.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary assay data for rock chips has been entered into standard Excel templates for plotting in Mapinfo. All historical drill data has been entered digitally by previous explorers and verified internally by Impact.
	Discuss any adjustment to assay data.	There are no adjustments to the assay data.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Sample locations and drill holes were located by hand held GPS.
	Specification of the grid system used.	The grid system for Broken Hill is MGA_GDA94, Zone 54.
	Quality and adequacy of topographic control.	Standard government topographic maps have been used for topographic validation. For the diamond holes, down-hole single shot surveys were conducted by the drilling contractor. Surveys were conducted at 15 m, 30 m and then approximately every 30 m down-hole.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Sample spacing for the soil survey was on a 50 m by 50 m grid.  Reconnaissance drill spacing is approximately 200 m.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Estimations of grade and tonnes have not yet been made.
	Whether sample compositing has been applied.	Sample compositing has not been applied.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Not relevant to soil and rock chip results. The orientation of mineralisation in RHD001 yet to be determined.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Not relevant to soil and rock chip results or early stage exploration drill results.
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by Impact Minerals Ltd. Samples for Broken Hill are delivered by Impact Minerals Ltd by courier who transports them to the laboratory for prep and assay. Whilst in storage, they are kept in a locked yard. Tracking sheets have been set up to track the progress of batches of samples.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	At this stage of exploration a review of the sampling techniques and data by an external party is not warranted.



#### **SECTION 2 REPORTING OF EXPLORATION RESULTS**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Broken Hill Project currently comprises 1 exploration licences covering 100 km². The tenement is held 100% by Golden Cross Resources Ltd. Impact Minerals Limited is earning 80% of the nickel-copper-PGE rights in the licence from Golden Cross. No aboriginal sites or places have been declared or recorded over the licence area. There are no national parks over the license area.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenement is in good standing with no known impediments.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	There has been no significant previous work at this prospect.
Geology	Deposit type, geological setting and style of mineralisation.	Nickel-copper-PGE sulphide mineralisation associated with an ultramafic intrusion.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  • easting and northing of the drill hole collar  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  • dip and azimuth of the hole  • down hole length and interception depth  • hole length.	See Table in text.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assays have been length weighted. No top cuts have been applied. A cut-off of approximately 0.1% Cu, 0.4% Cu and 1.0% Cu has been applied for reporting of exploration results.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	High grade massive sulphide intervals internal to broader zones of disseminated sulphide mineralisation are reported as included intervals.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents have been reported.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.  If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The orientation of mineralisation in RHD001 is yet to be determined.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.



Criteria	JORC Code explanation	Commentary
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results reported are representative
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Assessment of other substantive exploration data is not yet complete however considered immaterial at this stage.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Follow up work programmes will be subject to interpretation of results which is ongoing.

#### COMMONWEALTH APPENDIX 1 - SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	RC Drilling
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	Representative samples at each sample site weigh between 0.8 and 1.2 kg. Sample sites were chosen due to historic rock and soil assay results and the geophysical surveys conducted on the Commonwealth Project. Historic rock sample methods are unknown but are considered immaterial.  Soil Samples and Drill Samples  Sample representivity was ensured by a combination of Company Procedures regarding quality control (QC) and quality assurance / testing (QA).  Examples of QC include (but are not limited to), daily workplace and equipment inspections, as well as drilling and sampling procedures.  Examples of QA include (but are not limited to) collection of "field duplicates", the use of certified standards and blank samples approximately every 50 samples



Criteria	JORC Code explanation	Commentary
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	Rock chip samples Rock samples were sent to SGS Perth where they were crushed, dried and pulverised (total prep) to produce a 25-30 g sub-samples for analysis initially by Aqua Regia digest with ICP-MS finish for base metals then by four acid digest with an ICP/AES finish for ore grade base metal samples and lead collection fire assay with AAS finish for gold.  Soil Samples Soil samples were sent to ACME Laboratories in Vancouver for analysis by aqua regia digest or to SGS Laboratories in Perth for analysis by the MMI digest.  RC and diamond drill samples RC samples and cut samples of core were submitted to ALS in Orange, NSW. Laboratory sample preparation involved: sample crushed to 70% less than 2mm, riffle/rotary split off 1 kg, pulverise split to >85% passing 75 microns. RC samples analysed by MEICP41 or MEOG46 for ore grade samples, aqua regia digest with ICP OES analysis and AA24 fire assay with AAS finish.  Historical diamond and RC samples were sent to Fox Anamet, Brookvale NSW where gold was determined by fire assay, base metals by DCP and AAS methods.  Weathered samples contained gossanous sulphide material and fresh samples containing visible pyrite, galena, sphalerite and chalcopyrite.
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Diamond drilling accounts for about 50 % of the drilling and comprises NQ (47.6 mm diameter) and HQ (63.5 mm diameter) sized core. Impact diamond core is triple tube and is oriented. Historical diamond core was not oriented. RC drilling accounts for about 50% of the drilling and comprises 4 inch hammer.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Diamond core recoveries for all holes are logged and recorded. Recoveries are estimated to be approximately >97% for the Commonwealth Project. No significant core loss or sample recovery problems are observed in the drill core or historic reports. RC samples were visually checked for recovery, moisture and contamination.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the driller.  The RC samples are collected by plastic bag directly from the rig-mounted cyclone and laid directly on the ground in rows of 10. The drill cyclone and sample buckets are cleaned between rod-changes and after each hole to minimise down-hole and/or cross contamination.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No sample bias has been established.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Geological logging of samples followed company and industry common practice. Qualitative logging of samples included (but not limited to); lithology, mineralogy, alteration, veining and weathering. Diamond core logging included additional fields such as structure and geotechnical parameters.  Magnetic Susceptibility measurements were taken for each 1m RC sample and each 1m diamond core interval.  For diamond core, information on structure type, dip, dip direction, texture, shape and fill material has been recorded in the logs. RQD data has been recorded on selected diamond holes. Handheld XRF analysis was completed at 50 cm and 1 m intervals on diamond core and for every metre for RC samples.



Criteria	JORC Code explanation	Commentary
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	All logging is quantitative, based on visual field estimates. Systematic photography of the diamond core in the wet and dry form was completed.
	, , , , , , , , , , , , , , , , , , , ,	Chip trays with representative 1m RC samples were collected and photographed then stored for future reference.
		All diamond drill holes were logged in full.
	The total length and percentage of the relevant intersections logged	All RC chips samples were geologically logged by Impact's on-site geologist on a 1m basis, with digital capture in the field.
		Detailed diamond core logging, with digital capture was conducted for 100% of the core by Impact's on-site geologist.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	All core samples were sampled by half core. Selected intervals of quarter core will be selected for check assays if required.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were split using a riffle splitter.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Company procedures were followed to ensure sub-sampling adequacy and consistency. These included (but were not limited to), daily work place inspections of sampling equipment and practices, as well as sub-sample duplicates ("field duplicates").
	Quality control procedures adopted for all sub-sampling stages to	Laboratory QC procedures for rock sample assays involve the use of internal certified reference material as assay standards, along with blanks, duplicates and replicates.
	maximise representivity of samples.	The QC procedure for historical diamond and RC samples is unknown but is assumed to have been minimal; however, the impact of historical samples has been somewhat mitigated by recent drilling.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Sample duplicates from the historical drilling were taken from selected intervals and compared to the original assay. Quarter core was taken for diamond samples and riffle resplits for RC samples.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The samples sizes at Commonwealth are considered appropriate since gold has been identified as predominantly fine-grained by thin section analysis which would indicate the nugget effect is minimal.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered	An industry standard fire assay technique for samples using lead collection with an Atomic Absorption Spectrometry (AAS) finish was used for gold and aqua regia digest for base metals and silver.
	partial or total.	The quality of historical drill sample assays is unknown; however it is reasonable to assume that core samples were representative of the mineralisation.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools were used to determine material element concentrations. A handheld XRF was used for qualitative analysis only.



Criteria	JORC Code explanation	Commentary
		For the rock chips, quality control procedures for assays were followed via internal laboratory protocols. Accuracy and precision are within acceptable limits.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels	Reference standards and blanks are routinely inserted into every batch of samples at a rate of 1 in every 25 samples in the Impact drilling. Impact's inserted standards in general showed results within expected ranges. The calculated means for Lab standards are very close to expected for the majority of standards and are within industry expectations.
	of accuracy (i.e. lack of bias) and precision have been established.	Laboratoy repeat checks and original samples correlated very well.
		There is minimal quality control of historical drill sample assays. Twin holes have been drilled to verify historical drilling.
		The QAQC results indicate that the assays used for resource estimation are a fair representation of the material that has been sampled.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections from drilling have not been verified by independent or alternative companies or by Impact.
	The use of twinned holes.	Two twin diamond holes versus historic RC holes have been drilled at Commonwealth South and Main Shaft.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary assay data for rock chips has been entered into standard Excel templates for plotting in Mapinfo and Target. All historical drill data has been entered digitally by previous explorers and verified internally by Impact.
	Discuss any adjustment to assay data.	No significant adjustments have been required.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Recent drill holes have been located by DGPS. Historical drill holes and mine shafts have been verified by DGPS.
	Specification of the grid system used.	The grid system for Commonwealth is MGA_GDA94, Zone 55.
		Standard government topographic maps have been used for topographic validation. The DGPS is considered sufficiently accurate for elevation data.
	Quality and adequacy of topographic control.	For the diamond holes, down-hole single shot surveys were conducted by the drilling contractor. Surveys were conducted at 6m, 18, 30m and then approximately every 30m down-hole.
		For the RC drill holes, downhole dip surveys were taken at approximately 30m intervals and at the bottom of the hole.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drill spacing of drill holes ranges between 10 and 30 m which is considered adequate for Exploration Results.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Spacing of drill holes ranges between 10 m and 50 m on section and are considered adequate for Mineral Resource estimation procedures.
	Whether sample compositing has been applied.	Sample compositing has been applied for quoting drill composite results only.



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Drilling is oriented sub-perpendicular to the mineralised trend and stratigraphic contacts as determined by field data and cross section interpretation.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No significant sample bias has been identified from drilling due to the optimum drill orientation described above. Where present, sample bias will be reported.
Sample security	The measures taken to ensure sample security.	For rock samples, chain of custody is managed by Impact Minerals Ltd. Samples for Commonwealth are delivered by Impact Minerals Ltd personnel to ALS in Orange, NSW or to SGS Perth for prep and assay. Whilst in storage, they are kept in a locked yard. Tracking sheets have been set up to track the progress of batches of samples.  Security of historic drill samples is unknown however is considered immaterial.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	A review of the sampling techniques and data both of historic drill holes and of Impact's procedures has been completed by Optiro Consultants of Perth, WA.

#### **SECTION 2 REPORTING OF EXPLORATION RESULTS**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	A total of 66 drillholes have been completed over 300 m strike between the Commonwealth main shaft and Commonwealth South by previous explorers to an average depth of 53 m.
Geology	Deposit type, geological setting and style of mineralisation.	The Commonwealth and Commonwealth South deposits are considered gold-rich volcanic hosted massive sulphide (VMS) deposits that occur at and below the contact with a porphyritic rhyolite and overlying volcanic sedimentary rocks. The mineralisation may have been overprinted by epithermal mineralisation.



Criteria	JORC Code explanation	Commentary
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  • easting and northing of the drill hole collar  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar  • dip and azimuth of the hole  • down hole length and interception depth  • hole length.	See Table in text.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assays have been length weighted. No top cuts have been applied in the reporting of the drill assays. A nominal cut-off of approximately 0.5 g/t Au has been applied.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	High grade massive sulphide intervals internal to broader zones of disseminated sulphide mineralisation are reported as included intervals.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	Gold equivalent values have been used in the long section and in the resource calculation. Australian metal prices used for the gold equivalent were \$1,580/oz gold, \$22/oz silver, \$2,740/t zinc, \$2,396/t lead and \$7,320/t copper. Given the high grade results, it is assumed that very high recoveries will be achieved. However no metallurgical studies have been completed to verify this. Such studies will be done as and when appropriate.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.  If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	Historical drill holes to date have been sub-perpendicular to the mineralised trend and stratigraphy so intervals are close to true width or otherwise stated.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results reported are representative



Criteria	JORC Code explanation	Commentary
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Assessment of other substantive exploration data is not yet complete however, it is not considered material at this stage to a Mineral Resource Estimate.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Follow up work programmes will be subject to interpretation of recent and historic results which is ongoing.

#### **SECTION 3 ESTIMATION AND REPORTING OF MINERAL RESOURCES**

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.	A visual comparison is completed between assay results and original logs (if hand drawn/logged) and detailed print outs and down hole logs for each hole. All errors are corrected.
	Data validation procedures used.	Impact's database has industry standard protocols to ensure that only valid data is accepted. For example, only geological codes that form part of the Impact logging code system can be accepted into the database.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits.	The geology competent person, Dr Mike Jones has been with Impact since its inception and is closely involved in the Commonwealth project. He was present during a significant part of the drill programme and helped supervise the geological interpretation of the deposit. The majority of the work was compiled by Mr Leo Horn who is also a Competent Person for the reporting of Exploration Results and has been responsible for all aspects of the exploration programmes at the Commonwealth Project.
	If no site visits have been undertaken indicate why this is the case.	
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.	There is a high level of confidence in the geological interpretation due to the historical operating experience and the readily identifiable stratigraphic control on mineralisation.  Wireframes are used to constrain the estimation and are based on drill hole intercepts and geological boundaries. All wireframes are constructed to 0.5 g/t Au cut-off grades for shape consistency.
	Nature of the data used and of any assumptions made.	The mineralisation is generally quite consistent and drill intercepts clearly define the shape of the mineralised body with limited options for large scale alternate interpretations.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	The controls on and interpretation of mineralisation is relatively straightforward and no alternative interpretations have been considered.



Criteria	JORC Code explanation	Commentary	
	The use of geology in guiding and controlling Mineral Resource estimation.	Wireframes are used to constrain the estimation and are based on drill hole intercepts and geological boundaries.	
	The factors affecting continuity both of grade and geology.	Wireframes are constructed to 0.5 g/t Au cut-off grade for shape consistency.	
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource	The mineral resource at Commonwealth comprises two main areas, being Main Shaft and Commonwealth South, which have a total strike length of 400 m and extend vertically for approximately 120 m below surface. Main Shaft has been historically mined from surface to 40 m below surface.	
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.	Grade estimation using Ordinary Kriging (OK) was completed using Datamine software for six elements; Au, Ag, Cu, Pb, Zn and As. Drill grid spacing was between 10 m and 30 m.  Variogram orientations were largely controlled by the strike of mineralisation and downhole variography. Variograms for estimation were determined individually for each element.  Other estimation parameters, such as search distance, minimum and maximum sample numbers was derived from KNA. Search	
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	distances varied depending on the element being estimated.  There has been no previous resource estimation on the Commonwealth Project, hence no comparisons are available.  The resource model has not been compared to any reconciliation data.	
	The assumptions made regarding recovery of by-products.	No assumptions have been made regarding recovery of any by-products.	
econo charac In the	Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).	Arsenic was the only deleterious element estimated.	
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The block model dimensions and parameters were based on the geological boundaries and average drill grid spacing. Sub-blocks were used to ensure that the block model honoured the domain geometries and volume. Block estimates were controlled by the original parent block dimensions.  The individual parent block dimensions were 5 mE by 15 mN by 10 mRL, with sub-blocking allowed.	
		Estimation into parent blocks used a discretisation of 5 (X points) by 10 (Y points) by 8 (Z points) to better represent estimated block volumes.	
	Any assumptions behind modelling of selective mining units.	No selective mining units were modelled in this estimate. It is assumed that the SMU is equal to the block model parent cell or smaller.	
	Any assumptions about correlation between variables.	Multi-element analysis was conducted on the composites. There was a strong correlation between silver and lead and between lead and zinc.	
	Description of how the geological interpretation was used to control the resource estimates.	Drillhole sample data was flagged using domain codes generated from three dimensional mineralisation domains. Sample data was composited to a one metre downhole length.  Mineralisation domains were treated as hard boundaries in the estimation process.	



Criteria	JORC Code explanation	Commentary
	Discussion of basis for using or not using grade cutting or capping.	Top cuts were established by investigating univariate statistics and histograms of sample values. A top cut level was selected if it affected outliers, reduced the sample variance and did not materially change the mean value.
	The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.	Model validation was carried out using visual comparisons between composites and estimated blocks, checks for negative or absent grades, and statistical comparison against the input drillhole data and graphical profile (swath) plots.
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated on a dry basis.
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied	The resource model is modelled to a nominal wireframe cut-off grade of 0.5 g/t Au with a minimum width of 1 m to encapsulate the entire mineralised body. The edges of the resource shapes may be narrower than potential minimum mining widths, which suggests that a small proportion of the shape is unlikely to be mineable; however the inclusion of these zones adds to the orebody continuity and the ore/waste discrimination of the Reserve process.
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	No minimum mining assumptions were made during the resource wire framing or estimation process. Mining parameters, including minimum width assumptions, will be applied during the conversion to Ore Reserves.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	No metallurgical factors or assumptions are made during the resource estimation process as this will be addressed during conversion to Ore Reserve. The resource block model has been populated with multi-element data which is required for the metallurgical analysis during the Ore Reserve process.



Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made	The Commonwealth Project is a historic brown-fields mine with a 20 year operating history. No environmental factors or assumptions are made during the resource estimation process.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.	Bulk density (specific gravity) measurements are taken using conventional weight in air vs weight in water methodology.
	The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit,	All drill core within the mineralisation is in fresh rock and solid, so no coatings are applied to reduce water penetration.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	A zinc grade vs. density regression formula was used to assign specific gravity (SG) values to the block model. The regression formula of "SG = (0.0815*Zn%)+2.67" was used.
Classification	The basis for the classification of the Mineral Resources into varying confidence categories	Classification of the resource models is based primarily on drill density and geological understanding, in conjunction with increased confidence from areas of historic mining.
	Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	The classification takes into account the relative contributions of geological and data quality and confidence, as well as grade confidence and continuity.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The classification reflects the view of the Competent Person.
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	This is the maiden Mineral Resource estimate, therefore no audits or reviews have been carried out.
Discussion of relative accuracy/confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate	The relative accuracy of the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as per the guidelines of the 2012 JORC Code. The statement relates to global estimates of tonnes and grade.



Criteria	JORC Code explanation	Commentary
	The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used	The estimate is considered to be relevant to a global report of tonnage and grade.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available	The resulting estimates are supported by limited historical production.

#### MULGA TANK APPENDIX 1 - SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	The soil samples were taken at a depth of 15 – 20 cm below surface and sieved to -2mm mesh size. The targets at Mulga Tank have been drilled by Reverse Circulation (RC) and diamond drill holes (DD). Eight holes for 3,025 m were completed.  A hand held Olympus XRF machine was used to take multi-element readings on the samples bags from the RC drill pre-collars (I reading every I metre) and at 25 cm to 50 cm intervals on the diamond core. These readings are a guide only and do not constitute an accurate or precise assay. Impact has conducted a number of quality control experiments to determine the optimal reading time and number of readings per sample site. A correlation of these readings against the assay data suggests that at values greater than 1% nickel, the XRF analyser gives a good approximation to the chemical assay value.  Drill holes were oriented to intersect the dip of electromagnetic conductors as interpreted by Impact's consultants Newexco.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	RC samples have been collected by riffle splitter. Diamond core was used to obtain high quality samples that were logged for lithological, structural, alteration and other attributes. Sampling was carried out under Impact Minerals Ltd protocols and QAQC procedures as per industry best practice. A combination of mapping, soil geochemistry, airborne magnetic data and ground EM surveys identified the Mulga Tank target.
	Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information	Diamond core is mostly NQ2 size, sampled on geological intervals cut into half core to give sample weights under 3 kg. Reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised. Samples were crushed, dried and pulverised (total prep) to produce a sub-sample for analysis by four acid digest with an ICP/OES finish for base metals and lead collection fire assay with AAS finish for precious metals.  The main sulphide types are expected to be pentlandite and chalcopyrite, with pyrite, and minor sphalerite. Non-sulphide nickel species in weathered and transitional material have not yet been identified.



Criteria	JORC Code explanation	Commentary
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Diamond drilling accounts for 75 % of the drilling and comprises HQ and NQ2 sized core. Pre-collar depths range from 50 m to about 150 m and hole depths range from 300 m to 570 m. The core was oriented using a down-hole orientation tool at the end of every run with 70% of orientations rated as "good".  RC drilling in the pre-collar accounts for 20 % of the total drilling and comprises 140 mm diameter face sampling hammer drilling.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	Diamond core and RC recoveries are logged and recorded in the database. Overall recoveries are >95% for Mulga Tank and there are no core loss issues or significant sample recovery problems.
	Measures taken to maximise sample recovery and ensure representative nature of the samples	Diamond core at Mulga Tank is reconstructed into continuous runs on an angle iron cradle for orientation marking. Depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers. RC samples were visually checked for recovery, moisture and contamination.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No sample bias has been established because an insufficient number of samples have been assayed.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape and fill material is stored in the structure table of the database.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging of diamond core and RC samples at Mulga Tank recorded lithology, mineralogy, mineralisation, structural (DDH only), weathering, colour and other features of the samples. Core was photographed in both dry and wet form.
	The total length and percentage of the relevant intersections logged	All drillholes were logged in full, apart from rock roller diamond hole pre-collar intervals of between about 50 m and 70 m depth.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Core for Mulga Tank was cut in half onsite using an automatic core saw. All samples were collected from the same side of the core.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples were split using a riffle splitter.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	The sample preparation of diamond core for Mulga Tank follows industry best practice in sample preparation involving oven drying, coarse crushing of the half core sample down to ~10 mm followed by pulverisation of the entire sample (total prep) using Essa LM5 grinding mills to a grind size of 85% passing 75 micron. The sample preparation for RC samples is identical, without the coarse crush stage.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Field QC procedures involve the use of certified reference material as assay standards, along with blanks, duplicates and barren washes. The insertion rate of these averaged 1:50.
	Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	Field duplicates are done every 50 samples.



Criteria	JORC Code explanation	Commentary
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample sizes are considered to be appropriate to correctly represent the sulphide mineralisation at Mulga Tank based on the disseminated style of mineralisation, the thickness and consistency of the intersections, the sampling methodology and percent value assay ranges for the primary elements.
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	See optiro. An industry standard fire assay technique using lead collection with an Atomic Absorption Spectrometry (AAS) finish was used for Au, Ag, Pt, Pd.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	No geophysical tools were used to determine material element concentrations.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Quality control procedures for assays are as per Impact Minerals protocols. Accuracy and precision are within acceptable limits.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections have yet to be returned and therefore verification is not required.
	The use of twinned holes.	No twin holes have been drilled at Mulga Tank.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data was collected using a set of standard Excel templates on Toughbook laptop computers using lookup codes. The information was sent to IOGlobal/Reflex for validation and compilation into a SQL database server.
	Discuss any adjustment to assay data.	
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Drill holes and soil sample sites were located by hand held GPS.  Down-hole surveys used single shot readings have been completed during drilling at least at 50 m intervals.
	Specification of the grid system used.	The grid system for Mulga Tank is MGA_GDA94, Zone 51.
	Quality and adequacy of topographic control.	Standard government topographic maps and hand held GPS have been used for topographic control. The land surface is flat and increased accuracy and precision for topographic contours is not required at this stage.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	This is a first pass reconnaissance drill programme designed to test geochemical and geophysical anomalies. Drill spacing is adequate for that and will change according to on-going results.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	This is a first pass reconnaissance drill programme designed to test geochemical and geophysical anomalies. Drill spacing is adequate for that and will change according to on-going results.
	Whether sample compositing has been applied.	Samples will be composited to one metre lengths and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit).
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The targets have been drilled sub-perpendicular to mineralisation within the stratigraphy, but subparallel to the orientation of some veins in the mineralised trend. Structural logging based on oriented core to determine the controls on mineralisation are on-going.



Criteria	JORC Code explanation	Commentary
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	No orientation based sampling bias has been identified at Mulga Tank in the data at this point, although the vertical sulphide veins may cause hole orientations to be changed in future drill programmes.
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by Impact Minerals Ltd. Samples for Mulga Tank are stored on site and delivered by Impact Minerals Ltd personnel to Kalgoorlie for initial sample preparation by Genalysis who then transport the samples to Perth for assay. Whilst in storage, they are kept in a locked yard. Tracking sheets have been set up to track the progress of batches of samples.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	At this stage of exploration a review of the sampling techniques and data by an external party is not warranted. An internal review of the sampling techniques and data will be completed at the end of the current programme.

#### **SECTION 2 REPORTING OF EXPLORATION RESULTS**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	The Mulga Tank Project comprises 13 exploration licences covering 425 km². Mulga Tank is located wholly within Exploration Licence E39/988. Impact Minerals Ltd (IPT) has a 20% interest in the tenement with Golden Cross Resources Limited (GCR: 80%). There is no Native Title Claim over the licence.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	The tenement is in good standing with no known impediments. IPT has the right to earn 70% ownership with \$1.9M expenditure commitment before November 2017.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Limited bedrock-cover interface percussion drilling completed by previous explorers focused on the southern contact of the dunite, a circular, strongly magnetic feature 3.5 km by 4 km in diameter that is interpreted to represent a flat-lying ultramafic sill. A total of 28 RC and 4 diamond holes were completed.
Geology	Deposit type, geological setting and style of mineralisation.	Mulga Tank is interpreted as an ultramafic hosted primary magmatic nickel sulphide deposit, similar in style to the Perseverance and Rocky's Reward nickel mines at Leinster in Western Australia. The Mulga Tank Dunite is also similar to the unit that hosts the Mount Keith disseminated nickel sulphide deposit. There are two prospective units (Upper and Lower) that host the initial sulphide intersections at a depth of 300 and 350 metres vertically (respectively).
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:  • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • down hole length and interception depth • hole length.	Refer to Table 2 in body of text. Further details are not material for this early stage of exploration.



Criteria	JORC Code explanation	Commentary
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.	All reported assays have been length weighted. No top outs have been applied. A nominal cut-off of 0.3% to 0.5% nickel has been applied.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	High grade massive sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values are used for reporting exploration results.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.  If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The Mulga Tank deposit is a flat lying ultramafic sill. Holes to date have been sub-vertical and whilst this is perpendicular to stratigraphy, steeply dipping sulphide veins are at a sub-optimal orientation to the drillhole.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Refer to Figures in body of text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results reported are representative
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	The drill targets at Mulga Tank have been ranked on the basis of soil geochemistry and ground EM results.  Information on structure type, dip, dip direction, alpha angle, beta angle, texture, shape, roughness and fill material is stored in the structure table of the database.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive	Follow up work programmes will be subject to interpretation of assay results which is ongoing.

Rule 5.3

# **Appendix 5B**

# Mining exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10

Name	$\alpha f$	entity
ranne	OI	CITCICY

IMPACT MINERALS LIMITED		
ABN	Quarter ended ("current quarter")	
52 119 062 261	December 2015	

# Consolidated statement of cash flows

C1- (		Current quarter	Year to date (6
Cash flows related to operating activities		\$A'000	months) \$A'ooo
1.1	Receipts from product sales and related debtors		<i>\$1</i> ,000
1.2	Payments for (a) exploration & evaluation (b) development	(1,338)	(1,782)
	<ul><li>(c) production</li><li>(d) administration*</li></ul>	(544)	(020)
1.3	(d) administration." Dividends received	(544)	(920)
1.4	Interest and other items of a similar nature received	24	31
1.5	Interest and other costs of finance paid		
1.6	Income taxes paid		
1.7	Other (R&D tax concession)		1,205
	Net Operating Cash Flows	(1,858)	(1,466)
1.8	Cash flows related to investing activities Payment for purchases of: (a) prospects (b) equity investments (c) other fixed assets		
1.9	(d) environmental bonds Proceeds from sale of: (a) prospects (b) equity investments (c) other fixed assets		
1.10	Loans to other entities		
1.11	Loans repaid by other entities		
1.12	Other		
	Net investing cash flows	-	-
1.13	Total operating and investing cash flows (carried forward)	(1,858)	(1,466)

<sup>+</sup> See chapter 19 for defined terms.

# Appendix 5B Mining exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(1,858)	(1,466)
1.14	Cash flows related to financing activities Proceeds from issues of shares, options, etc.	1,000	2,968
1.15 1.16 1.17	Proceeds from sale of forfeited shares Proceeds from borrowings Repayment of borrowings		2,000
1.18	Dividends paid Other		
	Net financing cash flows	1,000	4,968
	Net increase (decrease) in cash held	858	3,502
1.20	Cash at beginning of quarter/year to date	4,931	571
1.21	Exchange rate adjustments to item 1.20		
1.22	Cash at end of quarter	4,073	4,073

Payments to directors of the entity and associates of the directors Payments to related entities of the entity and associates of the related entities

		Current quarter \$A'000	
1.23	Aggregate amount of payments to the parties included in item 1.2		97
1.24	Aggregate amount of loans to the parties included in item 1.10		_

1.25	Explanation necessary for an understanding of the transactions
	1.23 Director Fees

2.1	Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows		
2.2	Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest		

# Financing facilities available

Add notes as necessary for an understanding of the position.

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<sup>+</sup> See chapter 19 for defined terms.

		Amount available \$A'000	Amount used \$A'000
3.1	Loan facilities (Squadron Convertible Note)	2,000,000	2,000,000
3.2	Credit standby arrangements		

# Estimated cash outflows for next quarter

		\$A'000
4.1	Exploration and evaluation	624
4.2	Development	-
4.3	Production	-
4.4	Administration	157
	Total	781

# **Reconciliation of cash**

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.		Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	4,073	4,931
5.2	Deposits at call	1	-
5.3	Bank overdraft	1	-
5.4	Other (provide details)	-	-
	Total: cash at end of quarter (item 1.22)	4,073	4,931

# Changes in interests in mining tenements

		Tenement	Nature of interest	Interest at	Interest at
		reference	(note (2))	beginning	end of
				of quarter	quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed				
			T		1
6.2	Interests in mining				
	tenements acquired or				
	increased				

<sup>+</sup> See chapter 19 for defined terms.

# **Issued and quoted securities at end of current quarter**Description includes rate of interest and any redemption or conversion rights together with prices and dates.

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Preference +securities (description)			<i>3</i> , <i>C</i> ,	<i>3</i> , \ ,
7.2	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buybacks, redemptions				
7.3	<sup>+</sup> Ordinary securities	708,679,402	708,679,402		
7.4	Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buybacks	47,619,048	47,619,048	\$0.021	\$0.021
7.5	*Convertible debt securities (description)	2,000,000	-	\$1.00	\$1.00
7.6	Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted	2,000,000	-	\$1.00	\$1.00
7.7	Options (description and conversion factor)	Number 15,450,000 45,000,000 28,000,000	Number quoted - - -	Exercise price 10 cents 3.25 cents 3.67 cents	Expiry date 30/11/2016 07/07/2018 29/09/2018
		14,000,000 14,000,000 26,428,572		4.5 cents 7 cents 3.25 cents	29/09/2019 29/09/2020 21/10/2015
7.8 7.9	Issued during quarter Exercised	26,428,572	-	3.25 cents	21/10/2018
7.10	during quarter Cancelled during quarter	8,000,000 18,700,000	8,000,000	20 cents 6 cents	30/11/2015 30/11/2015

<sup>+</sup> See chapter 19 for defined terms.

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7.11	<b>Debentures</b> (totals only)	NIL	
7.12	Unsecured notes (totals only)	NIL	

# **Compliance statement**

- This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- This statement does give a true and fair view of the matters disclosed.

Print name: James Cooper-Jones

#### **Notes**

- The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- Issued and quoted securities The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- The definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report.
- Accounting Standards ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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<sup>+</sup> See chapter 19 for defined terms.