

# ASX ANNOUNCEMENT

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## CONDUCTOR 1 EXPLORATION UPDATE: MULGA TANK PROJECT

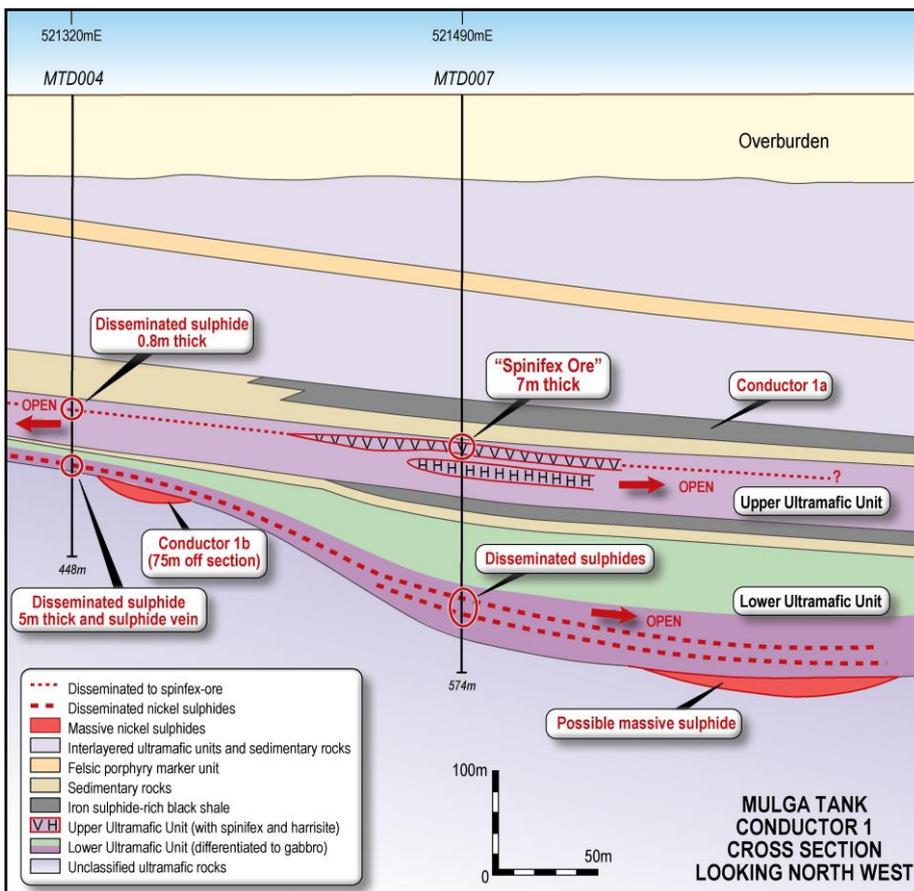
**Second disseminated nickel sulphide layer intersected over 150 m of strike**

**Mineralisation open in all directions and thickening to the east**

**Soil geochemistry suggests at least 2 km of strike potential**

**Drilling in progress at Conductor 5**

Impact Minerals (ASX:IPT) is pleased to announce that its fourth drill hole at the Mulga Tank Project, MTD007, has discovered a 20 metre wide zone containing variable amounts of disseminated nickel sulphides in an ultramafic unit at the Conductor 1 target within E39/988 (Impact 20% and earning 70% from Golden Cross Resources Limited).



This confirms the presence of two nickel-copper mineralised ultramafic units that extend for at least 150 m along strike and which both thicken considerably from west to east to define the south western edge of a “flow channel” (Figure 1 and see announcement [29 November 2013](#)).

Such channels are also an important control on nickel sulphide mineralisation at major nickel mines such as Kambalda, Perseverance-Rocky’s Reward and Forrestania in W.A.

**Figure 1.** Interpreted cross section looking north west, Conductor 1.

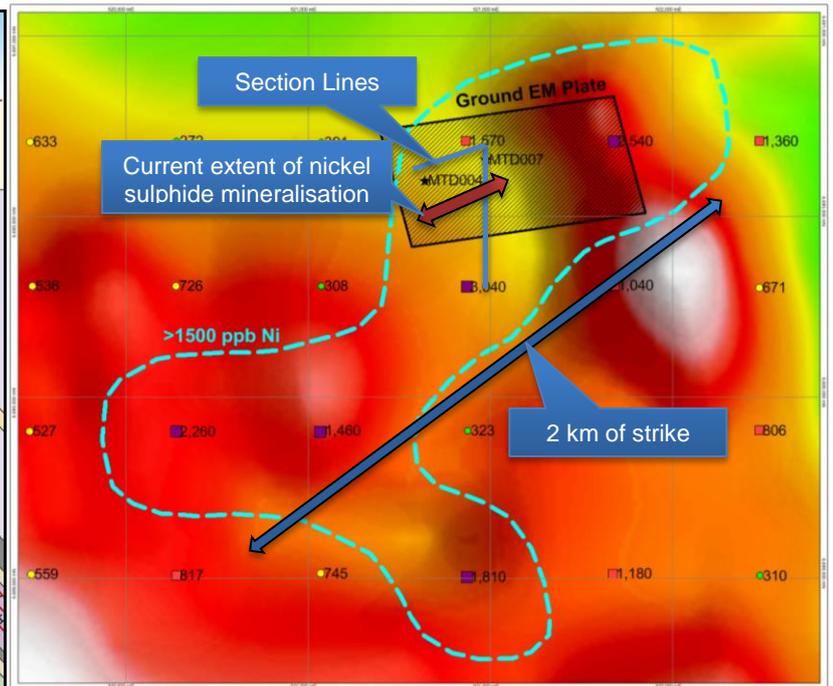
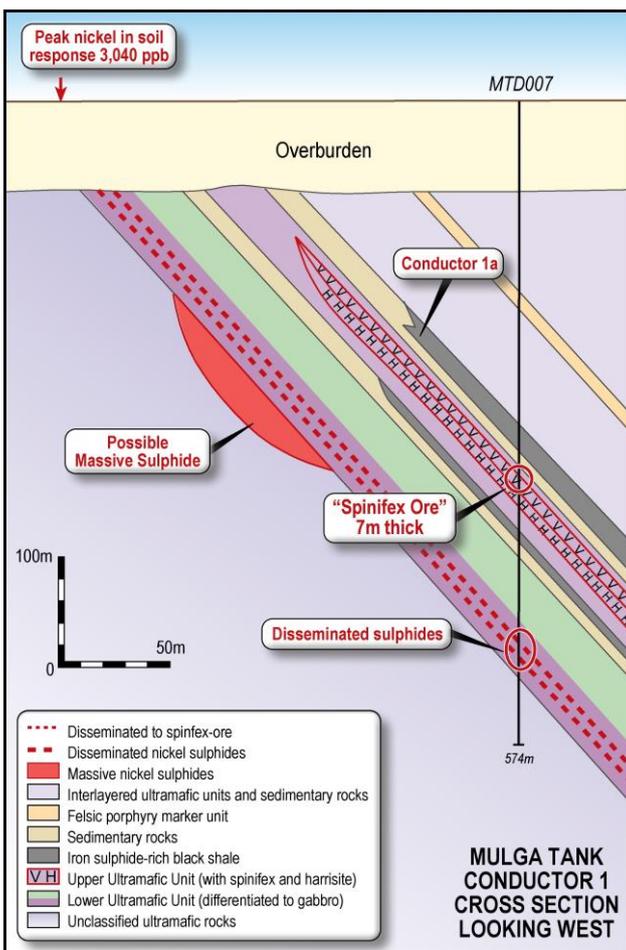
Drill core from both mineralised units is being prepared for priority assay.

The two mineralised units, called the Upper Ultramafic Unit and Lower Ultramafic Unit, dip at about 65 degrees to the northwest. The up-dip projection of the mineralised channel is coincident with strongly elevated nickel-in-soil geochemistry responses up to 3,040 ppb and indicates that the soil geochemistry is detecting the blind mineralisation (Figure 2 and Figure 3).

Nickel-in-soil responses greater than 1,500 ppb define a large area covering about 2 km of strike of the up-dip projection of the mineralised units (Figure 3).

The soil samples were taken on a wide spaced grid of 400 m between samples. Similarly the ground EM survey was a 400 m moving loop. These surveys are very broad spaced compared to those used in around major nickel deposits.

Together with the results from the drilling this indicates significant potential for the discovery of further significant mineralisation.



**Figure 2 (left).** Cross section looking west showing coincidence of the up-dip projection of mineralisation with the peak nickel-in-soil response.

**Figure 3 (above).** Image of magnetic data showing drill hole locations and extent of nickel-in-soil anomaly

Importantly the mineralised channel occurs 15 metres **below** a 10 m thick unit of iron sulphide-rich black shale (Figures 1 and 2). This shale is likely to have been the source of one of the two EM anomalies identified by the down hole survey in MTD004. However the shale may have masked the response of any underlying massive sulphide mineralisation and accordingly a down-hole EM survey of MTD007 will be completed as soon as possible.

Further details on these results can be found in Appendix 1 (JORC 2012).

### **Drilling in progress at Conductor 5**

Drilling now in progress at Conductor 5 (Figure 4). This Conductor is coincident with a magnetic unit interpreted as an ultramafic unit and a nickel-in-soil geochemical anomaly. The target is massive sulphides at the base of the ultramafic unit.

### **About Conductor 1**

Conductor 1 was first identified as a strong anomaly in a ground EM survey (Figure 2). Drill hole MTD004 drilled to test the anomaly identified two mineralised ultramafic units: the Upper and Lower Ultramafic Units that contained disseminated nickel-copper sulphides and a vein of high tenor remobilised nickel-copper sulphides (see announcement dated [14 November 2013](#)).

A subsequent down-hole EM survey in MTD004 resolved the anomaly into two separate anomalies at about 290 m and 340 m depth and now called Conductor 1a and Conductor 1b respectively. Hole MTD007 was targeted at Conductor 1a and discovered the extension of the two mineralised units 150 m along strike located possibly at the edge of an ultramafic channel (Figures 1, 2 and 3 and Table 1).

Impact is drill testing a number of ground electromagnetic (EM) and soil geochemical anomalies in an area of about 15 sq km centred on the Mulga Tank Dunite within E39/988 (Impact 20% and earning 70% from Golden Cross Resources Limited). To date Impact has drilled three of the priority EM targets and work to date is summarised in Table 1. The results of the current drill programme have upgraded the prospectivity of at least several other EM anomalies identified in the ground EM survey as well as elevated soil geochemistry results. A review of the data is on-going to identify further priority drill targets.

This is Impact's maiden drill programme at the project and is focussed on a small part of the entire Mulga Tank Project which covers about 425 sq km of the very poorly explored Minigwal greenstone belt, 200 km northeast of Kalgoorlie (Figure 5).



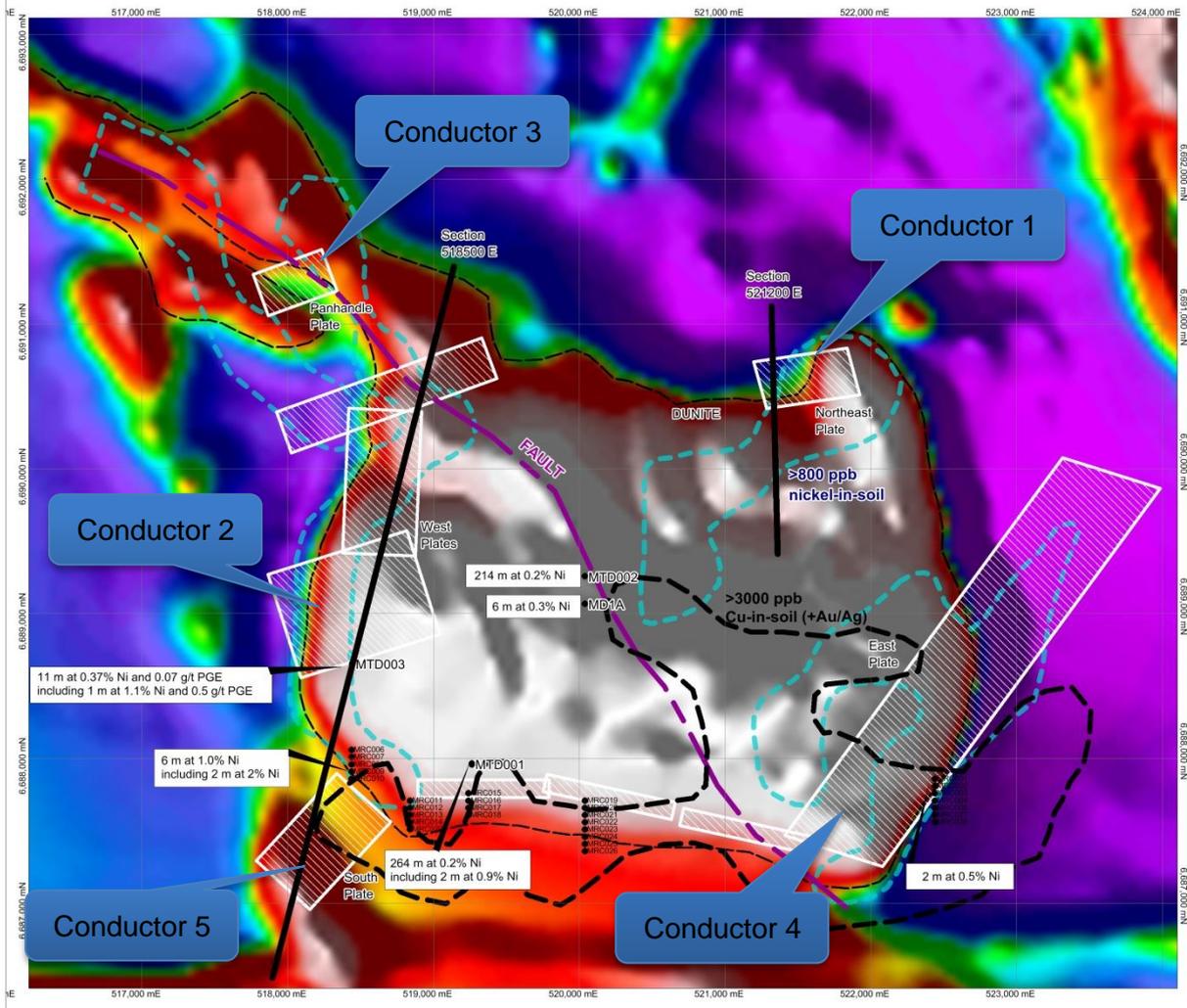
**Dr Michael G Jones**  
**Managing Director**

The review of exploration activities and results contained in this report is based on information compiled by Dr Mike Jones, a Member of the Australian Institute of Geoscientists. He is a director of the company and works for Impact Minerals Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 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.

**Table 1. Summary of Impact drill holes**

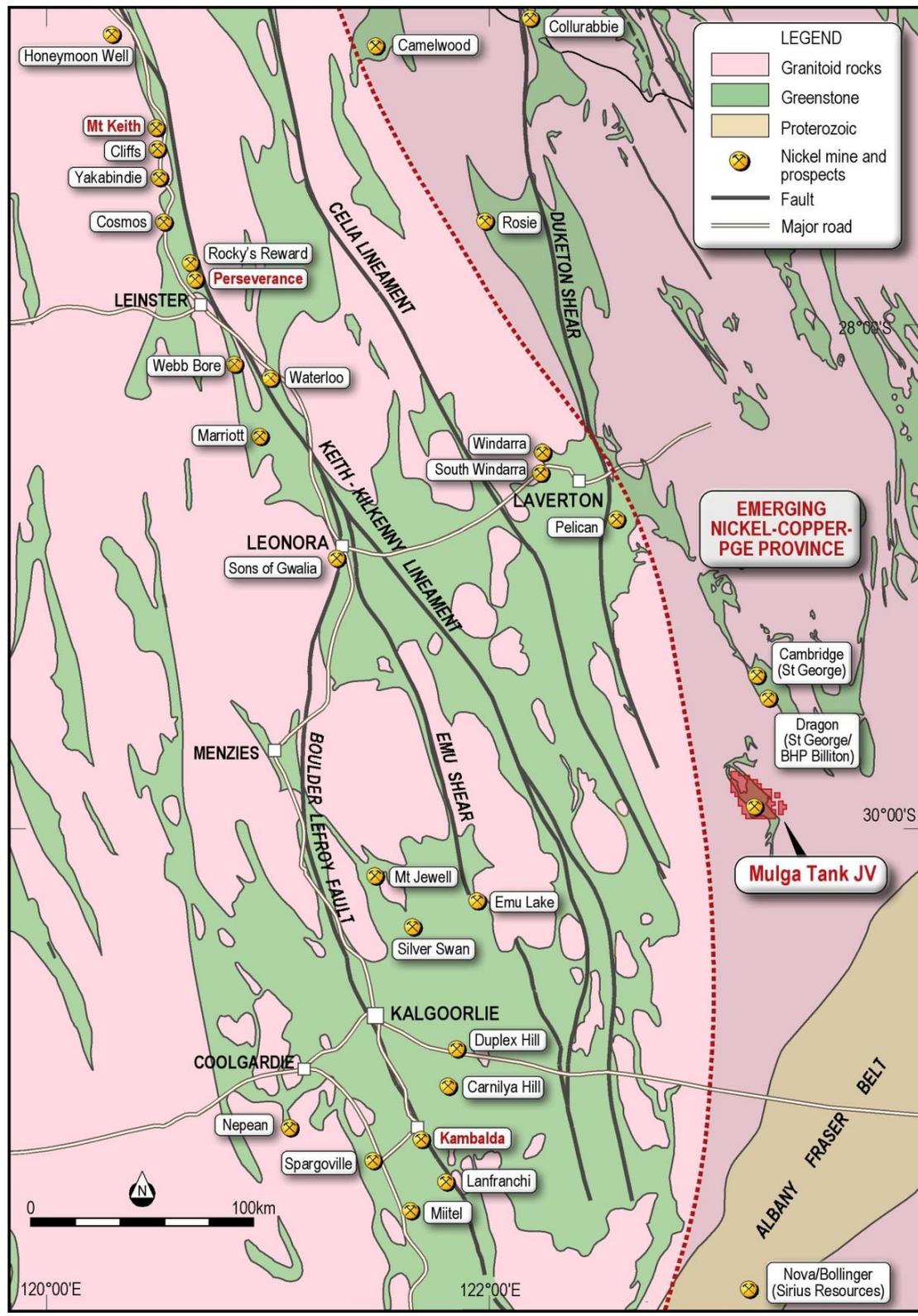
Conductor No	Conductor strength	Drill Hole ID	Key Results	Source of conductor
1	Strong	MTD004	Two zones of disseminated nickel-copper sulphides; remobilised massive sulphide vein	Single ground EM anomaly resolved into two off-hole conductors by down-hole EM
1a	Strong	MTD007	Two zones of disseminated nickel +/- copper sulphide	20 m thick sulphide-rich black shale. Overlies and masks nickel sulphide bearing units
1b	Strong		Not yet drilled	
2	Weak to medium	MTD005	50 m thick zone of disseminated and fracture controlled chalcopyrite	15 m thick unit of sulphide rich sandstone, minor black shale and basalt
3	Strong	MTD006	Anomaly unexplained	Anomaly off-hole at 300 m depth in metasedimentary rocks with chalcopyrite and some sulphide-rich black shale
5	Medium	MTD008	Drilling in Progress	

**Note: Holes MTD001 MTD002 and MTD003 were drilled by a previous explorer**



**Figure 4.** Image of the Total Magnetic Intensity from airborne magnetic data over the Mulga Tank Dunite (white outline) showing:

1. the location and modelled geometry of all seven of the priority EM targets;
2. the nickel-in-soil geochemistry contours at greater than 800 ppb; and
3. the copper in soil geochemistry contour at greater than 3,000 ppb to the south west coincident with Conductor 4.



**Figure 5.** Location of Impact’s Mulga Tank Project and significant nickel sulphide mines and prospects including Perseverance and Rocky’s Reward deposits with new nickel-copper-PGE discoveries in the emerging nickel-copper province to the east.

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## APPENDIX 1 - SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>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.</i>	<p>The targets at Mulga Tank have been drilled by Reverse Circulation (RC) and diamond drill holes (DD). Up to 10 holes are planned in this reconnaissance stage work.</p> <p>A hand held Olympus XRF machine has been used to take multi-element readings on the samples bags from the RC drill pre-collars (1 reading every 1 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 will be completed when the assay data is available.</p> <p>Drill holes have been oriented to intersect the dip of electromagnetic conductors as interpreted by Impact's consultants Newexco.</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used</i>	<p>RC samples have been collected by cone or riffle splitter. Diamond core was used to obtain high quality samples that were logged for lithological, structural, geotechnical, density and other attributes. Sampling was carried out under Impact Minerals Ltd protocols and QAQC procedures as per industry best practice.</p> <p>A combination of mapping, soil geochemistry, airborne magnetic data and ground EM surveys identified the Mulga Tank target.</p>
	<i>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</i>	<p>Diamond core is NQ2 size, sampled on geological intervals (X.X m to X.X m), 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 will be crushed, dried and pulverised (total prep) to produce a sub sample for analysis. The analytical method is yet to be decided.</p> <p>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.</p>
Drilling techniques	<i>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).</i>	<p>Diamond drilling accounts for 75 % of the drilling to date 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".</p> <p>RC drilling in the pre-collar accounts for 20 % of the total drilling and comprises 140 mm diameter face sampling hammer drilling.</p>
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed</i>	<p>Diamond core and RC recoveries are logged and recorded in the database. Overall recoveries are &gt;95% for Mulga Tank and there are no core loss issues or significant sample recovery problems.</p>

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	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples</i>	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.
	<i>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.</i>	Not applicable for this report.
<b>Logging</b>	<i>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.</i>	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.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	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.
	<i>The total length and percentage of the relevant intersections logged</i>	All drillholes were logged in full, apart from rock roller diamond hole pre-collar intervals of between about 50 m and 70 m depth.
<b>Sub-sampling techniques and sample preparation</b>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable for this report.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	Not applicable for this report.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Not applicable for this report.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Not applicable for this report.
	<i>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.</i>	Not applicable for this report.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Not applicable for this report.
<b>Quality of assay data and laboratory tests</b>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	Not applicable for this report.
	<i>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.</i>	Not applicable for this report.

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	<i>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.</i>	Not applicable for this report.
<b>Verification of sampling and assaying</b>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Not applicable.
	<i>The use of twinned holes.</i>	No twin holes have been drilled at Mulga Tank.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	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.
	<i>Discuss any adjustment to assay data.</i>	Not applicable.
<b>Location of data points</b>	<i>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.</i>	Drill holes have been located by hand held GPS. Down-hole surveys used single shot readings have been completed during drilling at x m, intervals.
	<i>Specification of the grid system used.</i>	The grid system for Mulga Tank is MGA_GDA94, zone 51. Local easting and northing are in MGA.
	<i>Quality and adequacy of topographic control.</i>	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.
<b>Data spacing and distribution</b>	<i>Data spacing for reporting of Exploration Results.</i>	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.
	<i>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.</i>	Not applicable for this early stage of exploration.
	<i>Whether sample compositing has been applied.</i>	Samples will be composited to one metre lengths and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit).
<b>Orientation of data in relation to geological structure</b>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	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.
	<i>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.</i>	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.

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Criteria	JORC Code explanation	Commentary
<b>Sample security</b>	<i>The measures taken to ensure sample security.</i>	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.
<b>Audits or reviews</b>	<i>The results of any audits or reviews of sampling techniques and data.</i>	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
<b>Mineral tenement and land tenure status</b>	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 452km <sup>2</sup> . 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 and no known impediments exist. IPT has the right to earn 70% ownership with \$1.9M expenditure commitment before November 2017).
<b>Exploration done by other parties</b>	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.
<b>Geology</b>	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).

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Criteria	JORC Code explanation	Commentary
<b>Drill hole Information</b>	<p>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:</p> <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	Refer to Annexure 1 in body of text.
<b>Data aggregation methods</b>	<p>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.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>Assay spot readings have been taken using an Olympus hand held XRF machine. The results reported are the result of the averages of a number of spot readings. Mineralisation does not occur over mineable widths. The hand held XRF results are a guide only and are not a substitute for chemical assays from a commercial laboratory. The XRF results are used as a guide to determine samples to be sent for assay.</p> <p>High grade massive sulphide intervals internal to broader zones of sulphide mineralisation are reported as included intervals.</p> <p>No metal equivalent values are used for reporting exploration results.</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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').</p>	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.
<b>Diagrams</b>	<p>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.</p>	Refer to Figures in body of text.
<b>Balanced reporting</b>	<p>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.</p>	All results are reported.

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<b>Other substantive exploration data</b>	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.
<b>Further work</b>	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	Drilling is continuing at E39/988 with a further 3 to 4 holes to be completed in this programme.

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