



magnetic resources<sup>NL</sup>

## QUARTERLY REPORT for the Quarter Ended 30 September 2015

### HIGHLIGHTS

**Magnetic Resources NL**  
ABN 34 121 370 232

**ASX Codes:** MAU and MAUCA

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**Issued Capital:**  
**Shares - Quoted:**

97,936,814 ordinary shares.  
20,418,862 partly paid shares (\$0.20  
unpaid).

**Options – Unquoted**

- 2,145,000 options exercisable at  
\$0.4607 by 21 December 2015  
-12,757,143 options exercisable at  
\$0.1499 by 27 December 2016  
- 4,000,000 options exercisable  
at \$0.17 on or by 31 December 2017  
- 150,000 options exercisable at  
\$0.18 on or by 31 December 2017

**Cash:** \$0.49 m

**Directors:**

**Gavin Fletcher**  
Managing Director

**Eric Lim**  
Non-Executive Director

**John Blanning**  
Non-Executive Director

**Company Secretary**  
Ben Donovan

- During the last quarter, the Company applied for a large tenement holding close to Northam known as Mt Joy and Kingston Park
- Over 30,000 Ha and 100km accumulated BIF strike of regional 40 km.
- The newly acquired Mt Joy and Kingston Park tenements are located within 6km of the town of Northam and the Trans Australian Railway Line which links to the Port of Kwinana.
- The tenements were acquired to build on the Company's vision of securing prospective ground to feed future mine developments in the area.
- Initial discussions with three key landholders at Mt Joy resulted in 41.8 line kilometres of ground geophysics at 100m and 50m line spacing carried out this quarter.
- Key drilling targets are identified from the geophysical survey.
- Further drilling of the Mt Joy target MJ1 will not be pursued until further agreement with the landholders can be reached.
- Data acquired to date has been invaluable to the Company's goals and in its research and development progress to achieve a low cost high grade magnetite deposit.
- The Company has reverted to re-assess a number of other existing magnetic anomalies including Kauring which has a secured land holder agreement, whilst remaining open minded to alternative opportunities for developing a project elsewhere.

## **INTRODUCTION:**

Magnetic Resources NL (**Magnetic or the Company**) is very pleased to announce that the Company has continued with its exploration effort by carrying out ground magnetic surveys over three separately owned farmland areas in the Mt Joy region for a total of 41.8 line kilometres.

The results of this additional work outlined favourable geophysical data and target mineralisation for the basis of calculating a resource of the dimensions that the Company is seeking for a start-up mine with a 10+ year mine life.

The Company has advanced exploration to the point of preparing a resource estimate at MJ1, however, given the recent position of discussion with the farmers, the Company is now reviewing that estimate on the basis of access to the land, which the Company believes is a significant modifying factor as set out in clause 12 of the 2012 JORC code. Until these factors can be reviewed, the Company does not feel it can release any estimates.

The Company continues to maintain dialogue with land holders where suitable targets exist and has accrued a land holder network in project regions.

As outlined in an announcement on 30 March 2015, an agreement being reached over the MJ1 target is now retrospectively withheld.

With a number of targets and land holder discussions continuing, further opportunity could arise which would deflect from the planned reassessment of Kauring.

*(\*) [Magnetic Resources Kauring Report Release 19 December 2013 update/Magnetic Resources Kauring Report Release 19 February 2014/Magnetic Resources Kauring Report Release 04 & 20 March 2014/Magnetic Resources Kauring Report Release 07 April 2014/Magnetic Resources Quarterly Report to 30 September 2014/Magnetic Resources Kauring Report 24 November 2014/Magnetic Resources Half Yearly Report Release 13 March 2015].*

## **Historical Drilling at Mt Joy - Research and Development:**

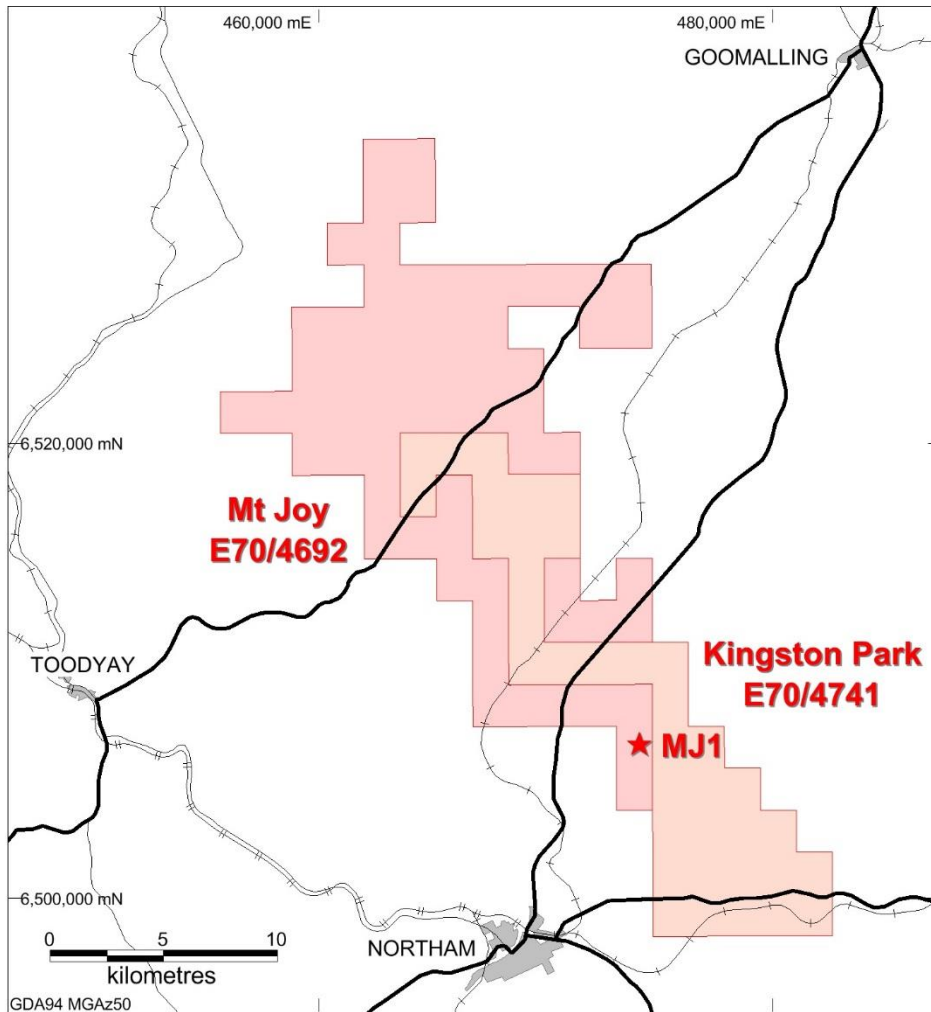
The historical diamond core purchased by the Company will remain as a data base to refer to from time to time and for research purposes.

Validation of the diamond core is ongoing and to date a number of drill holes have been identified which has proved to be invaluable in research and development (R&D) of the Mt Joy region and for also conducting initial engineering design test work, which remains commercially sensitive. These engineering tests provide the key parameters to design and cost a processing facility in the future. The diamond core can also be used for pit design test work as the project is further developed.

## **Consultation with the Landholders:**

The Company has been very proactive in the area since making the Mount Joy and Kingston Park tenement applications and has met with many of the farmers to negotiate land access agreements.

The reverse circulation drilling undertaken over the MJ1 target area reinforced historical drilling, which added confidence in the decision making process about the validity of the historical diamond core for future use on other drill core other than MJ1 and for R&D purposes.



**Figure 1: Mt Joy tenement location and Target MJ1**

**Tenement Applications:**

The Company made an application for 103 sub blocks over two Exploration Licence areas (19,306 Ha and 10,823 Ha) with Exploration License application EL 70/4692 and Exploration License application E70/4741, giving the Company access to a greater area of geophysical targets previously held by competitors.

Figure 1 outlines the location and relationship of the 2 tenement applications.

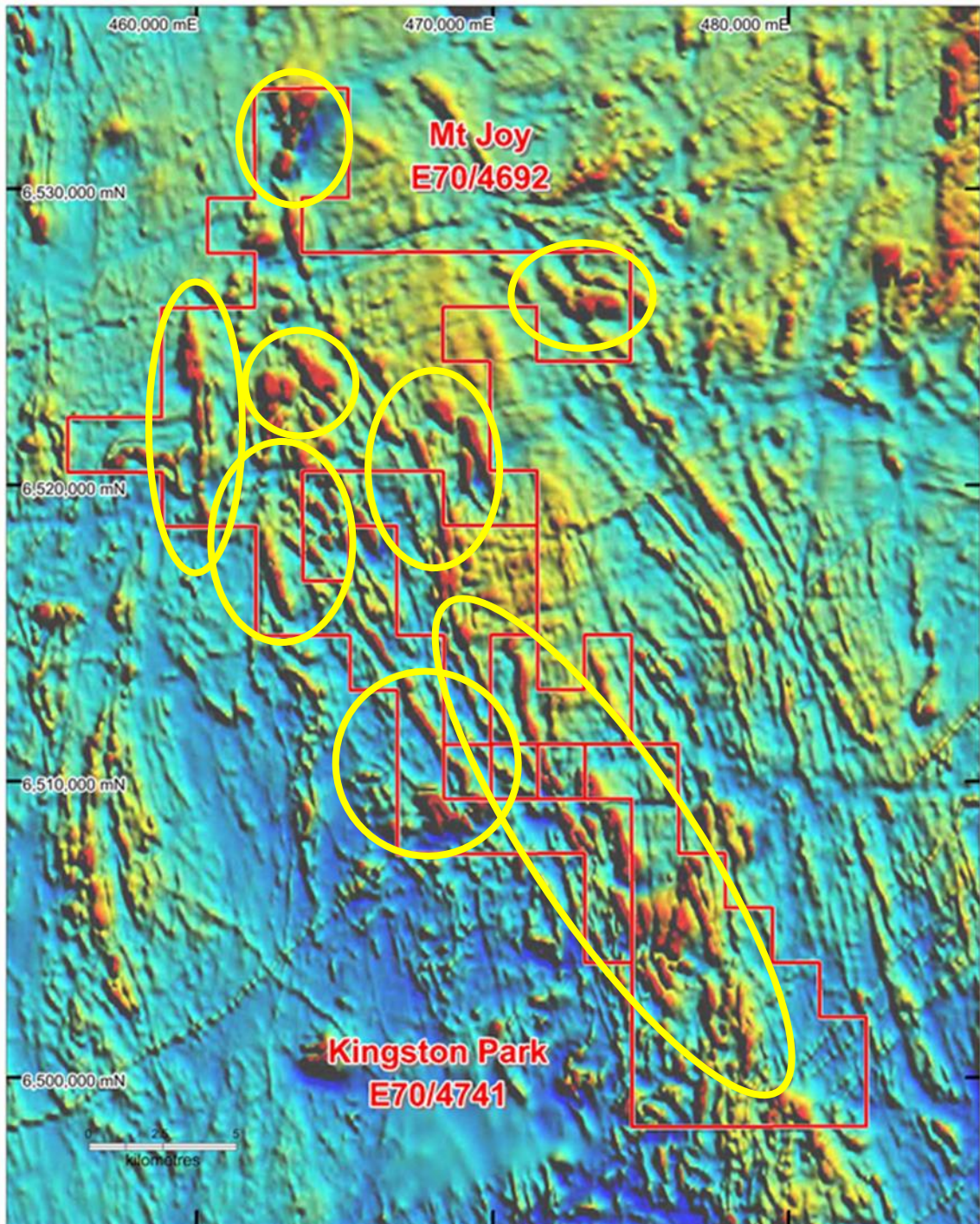
**Prospectivity of the Mt Joy and Kingston Park areas:**

The Company has stated the potential of the area, given that the magnetic anomalies are generally more pronounced, wider and more continuous than many other areas within the same metamorphic belt of geology.

Another project, Kauring also represents a large magnetic anomaly already drill tested and occurs to the east of York.

At the Kauring project drilling has intersected numerous very thick and high yielding BIF zones, giving the Company strong belief that the Mt Joy and Kingston Park area will be complementary.

Figure 2 below outlines a number of significant anomalies totalling some 100 km of accumulated BIF strike at the Mt Joy-Kingston Park area.



**Figure 2: Mt Joy E70/4692 and E70/4741 with anomalies and BIF strike delineation**

**SUMMARY:**

Commenting on the Mt Joy tenement, Managing Director Gavin Fletcher said “the Company is very pleased to have secured the Mt Joy and Kingston Park tenements. Both tenements are highly prospective, very close to infrastructure and choices can be made over a wide area. Where an agreement had already been reached over target MJ1 it was determined to also work with surrounding landholders who are also showing a great deal of interest in working with the Company.



**GENERAL:****RAGGED ROCK PROJECT:** (Magnetic 100%)

Further to previous quarter outlining several ground magnetic surveys as future exploration targets, drilling will be subject to agreements with land holders.

**JUBUK PROJECT:** (Magnetic 100%)

Application for retention and extension status has been granted for the Jubuk coarse grained magnetite deposit near Corrigin. This will allow Magnetic to focus on evaluating its other advanced projects. The Company has been advised of a 5 year extension of exploration licence was granted in early 2015. Retention approval is reviewed annually.

**KAURING PROJECT:** (Magnetic 100%)

The Company advised that results of additional reverse circulation drilling in its December 2014 Quarterly Report and will further advise on any significant changes to the Exploration Target as a result of additional drilling. The is considering a program to drill the Eastern BIF to an Inferred JORC resource category over the next 2 quarters.

**OTHER TENEMENTS:**

Magnetic has rationalised its tenement holdings in order to focus on the newly acquired Mt Joy tenement and Kingston Park projects. As a result of this focus, no exploration was carried out on Magnetic's other tenements during the quarter.

**CORPORATE:**

During the quarter, Magnetic continued to evaluate various options for the development of its assets, and explored proposed funding options.

**TENEMENT SCHEDULE:**

Tenement Schedule in accordance with ASX Listing Rule 5.3.3

Tenements held at the end of the Quarter

Location	Tenement	Nature of Interest	Project	Equity (%) held at start of Quarter	Equity (%) held at end of Quarter
WA	E70/3536	Retention	JUBUK	100%	100%
WA	E70/4243	Granted	RAGGED ROCK	100%	100%
WA	E70/4384	Granted	MT MARY	100%	100%
WA	E70/4478	Granted	COLLINS HILL	100%	100%
WA	E70/4508	Granted	KAURING	100%	100%
WA	E70/4528	Granted	KAURING	100%	100%
WA	E70/4598	Granted	LATHAM ROCK	0%	100%
WA	E77/2035	Granted	LAKE SEABROOK	Gold Rights Only	Gold Rights Only
WA	E70/4692	Application	MOUNT JOY	100%	100%
WA	E70/4741	Application	KINGSTON PARK	100%	100%

Mining Tenements disposed during the Quarter

WA	nil	nil	nil	0%	0%
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For more information on the Company visit [www.magres.com.au](http://www.magres.com.au)

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### **Competent Person's Statement**

The information in this report that relates to exploration results is based on information compiled or reviewed by Mr Cyril Geach BSc (Hons-Geology) who is a member of the Australian Institute of Geoscientists. Cyril Geach is an independent consultant with his own business, Cyril Geach - Geologist 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 Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Cyril Geach consents to the inclusion of this information in the form and context in which it appears in this report.

### **About Magnetite**

Magnetite is a major source of iron and accounts for about 30% of global iron furnace feed for steel production. The largest producer of iron ore and iron is China and its main iron ore source is magnetite. North America is the sixth largest producer and is also mostly a magnetite producer.

Magnetite (Fe<sub>3</sub>O<sub>4</sub>) is a magnetic mineral, an important property in aiding discovery using magnetic surveys and in ore processing. Ore can be crushed, passed over a magnet and the magnetite extracted to produce a clean, high grade iron product.

Magnetite ore grades are usually lower than commercially exploited hematite ores but after processing, a product with much higher iron grades and much lower costly impurities is derived.

Section 1 Sampling Techniques and Data	
(Criteria in this section apply to all succeeding sections)	<p><b>Magnetic Resources Kauring Report Release 19 December 2013 update with</b>  <b>Magnetic Resources Kauring Report Release 19 February 2014 update with</b>  <b>Magnetic Resources Kauring Report Release 04 &amp; 20 March 2014 update with</b>  <b>Magnetic Resources Kauring Report Release 07 April 2014 update with</b>  <b>Magnetic Resources Quarterly Report to 30 September 2014 update with</b>  <b>Magnetic Resources Kauring Report 24 November 2014</b>  <b>Magnetic Resources Half Yearly Report Release 13 March 2015 update with</b>  <b>Magnetic Resources Mount Joy Strategic Release 30 March 2015 update with</b>  <b>Magnetic Resources Mount Joy Proposed JORC Drilling Release Report 28 April 2015</b>  <b>Magnetic Resources Quarterly Report to 30 June 2015 update with</b>  <b>Magnetic Resources Annual Report to 30 June 2015</b></p>
Sampling techniques	Kauring Reverse Circulation Drilling collected at 1m , 2m and 4m interval and sub sample split through a cyclone rotary splitter
	Kauring Duplicates taken using a 75:25 riffle splitter at every 20-30m and standards introduced at every 30-40m
	Susceptibility readings taken at each 1m from larger sample collected using a Georadus K10 magnetic susceptibility meter x10-3SI
	Hand held Delta Dynamic XRF Model DP-4000-C Serial No 510246 used to test every 5-7 metres of collected sample for early recognition of Fe content. Error 5-10%Fe to assay expected.
Drilling techniques	Reverse Circulation Drill Rig owned by Orbit Drilling Pty Ltd, Breakthru Drilling PL using a 150mm RC hammer drill bit, pre-collar to 6m
Drill sample recovery	Visual observation and noted where water occurs - water was minimal and 90% of sample recovery water free
	Drilling companies engaged ensure the efficiency is acceptable and audit of machine efficiency through Duplicates carried out.
	It is assumed minimal bias to sample recovery and grade and if so expect at the 1m interface between geological horizons bias to occur backed up where susceptibility and duplicates are a measure of down-hole consistency. Duplicate results indicate in a number of samples that future improved recovery at the rig is required, but as this is an exploratory drill program results are deemed acceptable at this initial level, but would need to improve QA/QC consistency for JORC purposes at MR level when testing the weathered horizon in particular.
Logging	Logging at 1m intervals to assess the geological interpretation.
	RC sampling at 1m interval is quantitative using Hand Held XRF and will become qualitative after assaying is carried out.
Sub-sampling techniques and sample preparation	<p>RC sampling at 1m, 2m and 4m interval is quantitative using Hand Held XRF and became qualitative after assaying data is to be released.</p> <p>Composite sub sampling was on a volumetric method taking a scoop &lt;1kg from a shaken calico sub sample of 1m collected drill material and combined repeatedly equally as a scoop sub sample with other samples for 2 or 4m combined. Portable XRF assays are recorded of the sub samples in the field to be compared v lab assay to detect any major errors. Duplicate samples are 1m samples only.</p>
	Rotary Split at rig at 1m intervals into Calico for 0.5-2.0kg sub samples and riffle split at 75:25 for duplicates >3Kg
	Dry samples into calico bags for assay vary with size of collected sample between 0.5-2.0kg weight - expect the sample to be homogenous over the 1m collected
	Cyclone cleaned regularly at every 5-10m to prevent cross contamination or cleansed more if clayey or damp conditions prevailed however minimal <10%
	Duplicate at every 20-30m to measure continuity of the drill rig and sample recovery, particularly the BIF. Duplicate results indicate in a number of samples that future improved recovery at the rig is required, but as this is an exploratory drill program results are deemed acceptable at this initial level, but may need to improve QA/QC consistency for JORC purposes at MR level when testing the weathered horizon in particular.
	Grain size mostly fine powdery in weathered zone and fresh zone

Quality of assay data and laboratory tests	Total digest and XRF methods employed for Fe suite elements when assaying to be employed. Hand Held XRF used as quantitative tool not qualitative.
	Hand held XRF self-calibrating specific for Fe and limited to testing a portion of the calico sub sample. Susceptibility readings an average reading across a 1m sample not all the sample able to be read. Hand held XRF tested against known standards to determine any start, middle and end bias.
	Quality control methods using at least 3 x Geostats CRM standards and duplicates. Duplicates to be tested at 2 laboratories for umpire testing in later rounds of drilling. No blanks used. Internal checks and standards satisfy control of lab methods Fire Assay Fe suite XRF / ICP /MS methods by certified laboratory Bureau Veritas.
Verification of sampling and assaying	At this juncture no independent verification of geology apart from personnel involved in recovery of samples and log chip tray observation by third parties and management.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols carried out
	Discuss any adjustment to assay data not carried out. Weighted assays for composite samples not viable in the field taken as a volumetric scoop size. Weighted in the lab.
Location of data points	No surveys or verification of drill holes apart from GPS located. Magnetic variation occurs which has potential to throw out magnetic bearing by up to 10 degrees and noted.
	GPS grid system to date
	GPS topographic control and located data from GSWA airborne survey
Data spacing and distribution	Data spacing for reporting of Exploration Results and Exploration Target not provided at this juncture leading to a MR.
	Data spacing adequate along cross section enables appropriate geological control for Mineral Resource use at present requires further drilling to ascertain a MR.
Orientation of data in relation to geological structure	n/a
	Mineralised structures and sample bias - too early to understand this affect
Sample security	Samples personally delivered to the laboratory and also stored on site for repeat sampling if necessary
Audits or reviews	Sample audits at this stage are duplicate and standards taken.
<b>Section 2 Reporting of Exploration Results</b>	
(Criteria listed in the preceding section also apply to this section.)	
Criteria	JORC Code explanation
Mineral tenement and land tenure status	E70/4692, E70/4741 applications 100% to Magnetic Resources no third party arrangement apart from standard Department of Mines and Energy requirement access agreements with farm owners on Minerals to Crown land. No Native Title or extricated land apart from the Avon Valley water catchment. Land ownership is private used as farm land. Future end agreements will have to be entered into with farmers and discussions begun with a select few. One 5 year option agreement in November 2014 has been signed with the farm owner over the Central Target at Kauring and an option to purchase agreement entered into. Land owner agreements over Mount Joy land holdings are a pre-requisite to access and future mining opportunity before any serious exploration carried out.
	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 is subject to a Program of Work approval by DMP and granted for reconnaissance drill holes over Minerals to Crown land. Remnant bush may require a DEC survey in the future for flora and fauna. Minerals to Owner title may exist requiring agreements separate to DMP requirement.
Exploration done by other parties	No search for Fe by other parties known at Ragged Rock and Kauring. Mount Joy and Kingston Park - late 1960's drilling not on public file.
Geology	Outcropping Banded Iron Formation (BIF) comprising weathered BIF and fresher BIF at depth within a gneissic strati-form layered succession steeply dipping NE including orthopyroxenite –



	hornblendite in western BIF that differs from the eastern BIF which is a quartzite BIF at Kauring. Weathered BIF is partial weathered to goethite, hematite, and martite after magnetite at Kauring. Minor sulphide noticed in volcanics and testing to see if sulphide in fresh BIF in the eastern BIF can be separated by DTR analysis at Kauring. Work is ongoing with regard to understanding the relationship of weathered (hematite and martite) alteration over magnetite BIF at Kauring.
Drill hole Information	Kauring data summary forms part of an ASX release dated 19 December 2013 and 19 February 2014 and ASX quarterly reports for December 2013, March 2014 and November 2014.
	o easting and northing of the drill hole collar provided N/A
	o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar estimated not outlined N/A
	o dip and azimuth of the hole provided N/A
	o down hole length and interception depth provided N/A
	o hole length provided N/A
	azimuths are submitted with an error to 10% over the magnetic BIF until further accurate data can be submitted but not critical at such an early stage of reporting of ER or ET
Data aggregation methods	The use of Hand Held XRF data taken at 5-7m intervals is purely quantitative with expected errors of <1%Fe against known standards and Si / Al not reported until assay data is available and further reported
	Susceptibility readings taken at each 1m RC drill sample from larger sample collected using a Georadus K10 magnetic susceptibility meter x10-3SI vary across a wide and reported only an average until assay results are posted which will project a better understanding of the Fe% and susceptibility measured at 1m intervals or as composited samples that are yet to be determined.
	The assumptions used for any reporting of metal equivalent values should be clearly stated not undertaken or represented. Not used for this purpose.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results as outlined in the numerous ASX releases to June 2015. Fresh BIF sampled at 1m, 2m intervals whilst weathered BIF sampled at 2m and 4m composite levels on composites unreleased in current drill program. Incompatible elements in head grade by XRF on fresh BIF further determined using Satmagan and then if positive - Davis Tube Recovery to see if they are removed. Results provided in 3 <sup>rd</sup> quarter of 2014-2015.
Diagrams	N/A
Balanced reporting	N/A
Other substantive exploration data	N/A
Further work	Further work will require further drilling to improve the geological model being reported broader ground magnetic survey, infill ground magnetics and drilling.
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