# ASX Release



30 April 2015

Market Announcements Platform **ASX Limited** Exchange Centre, 20 Bridge Street Sydney NSW 2000

# **QUARTERLY ACTIVITIES REPORT** FOR THE PERIOD ENDED 31 MARCH 2015

#### **MARCH QUARTER HIGHLIGHTS**

- Large-scale, multi-phase gravity survey completed at the Plumridge Nickel Project .
- Initial 3D inversion modelling has identified near-surface dense bodies linked to possible mantle • tapping structures feeder zones (magma chambers)
- Plumridge tenements consolidated Segue now owns 100% of over 3,000km<sup>2</sup> of tenements .
- Diamond hole PAD001 completed at Pardoo Project (EIS co-funded drill hole)

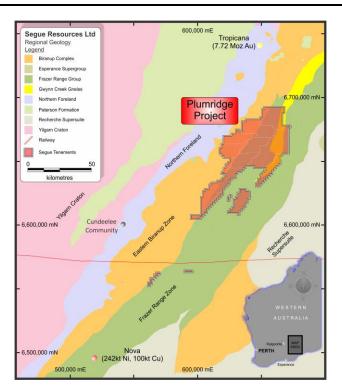


Figure 1: Plumridge Nickel Project location map

#### Key Facts:

**Segue Resources Limited** 

ASX Code:	SEG
Share price (30/4/15):	0.5¢
52 week range:	0.4¢-1.8¢
Shares on issue:	2,055.6m
Market cap.:	\$10.3m

#### **Plumridge Nickel Project**

Location:	Fraser Range, WA
Primary commodity:	Nickel-copper
Tenement holding (100%)	): 3,140km <sup>2</sup>

#### **Board and Management**

Steven Michael	Managing Director
Dr Frazer Tabeart	Non-Exec. Director
Nicholas Ong	Non-Exec. Director
Matthew Foy	Company Secretary
Peter Langworthy	Consulting Geologist





### PLUMRIDGE NICKEL PROJECT Fraser Range Province, Western Australia

Segue continued to explore, expand and consolidate its exploration tenement package at the Plumridge Project in the Fraser Range. During the quarter, Segue completed the acquisition of its minority partner in the Plumridge East Joint Venture. Segue now controls 3,140km<sup>2</sup> of granted exploration licences at Plumridge and has a further 535km<sup>2</sup> of exploration licence applications. Segue owns a 100% interest in all of its tenements and is one of the largest ASX-listed tenement-holders in the Fraser Range Province.

#### Project-Wide Gravity Survey Complete

In December 2014, Segue commenced one of the largest gravity surveys in the Fraser Range, with a projectwide survey to be completed at a spacing of 1,600 metre lines with 100 metres stations. A more detailed survey was to be completed at the E21 Target at a spacing of 800 metre lines with 100 metre stations (**Figure 1**). In addition, Segue reprocessed its existing 100m line spaced aeromagnetic dataset to identify NW-SE trending structures which cross-cut the predominant SW-NE magnetic fabric of the Fraser Range.

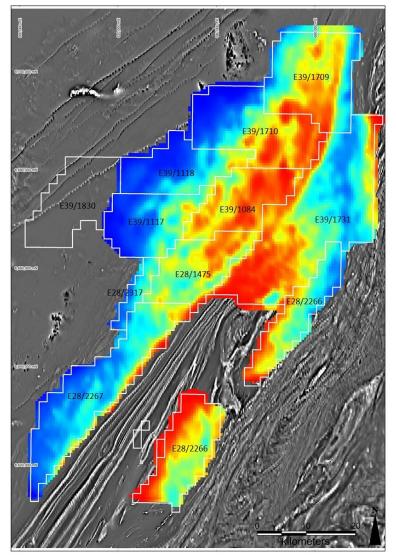


Figure 1 – Regional ground gravity survey 1VD (colour) over regional aeromagnetic TMI 1VD (grey)



During the quarter, Segue completed the majority of the gravity survey and was able to generate an interim 3D inversion model combining the detailed gravity and magnetic datasets. Subsequent to the end of the quarter, Segue advised that the data acquisition for the entire gravity survey had been completed. In total, the gravity survey consisted of 19,406 stations covering an area of over 3,000km<sup>2</sup>.

The 3D inversion modelling is designed to provide insight into the tectonic architecture of the area to better understand likely mechanisms and pathways for large scale intrusive events of fertile maficultramafic magmas. The modelling will also identify gravity anomalies (dense bodies) in near surface positions that may represent mafic intrusions capable of hosting nickel sulphides. A particular focus will be given to dense bodies that are associated with ovoid magnetic features or major structural intersections that provide magma pathways to deeper feeder bodies.

Exploration to date in Fraser Range has highlighted the proliferation of graphitic schists throughout the region which can provide electromagnetic responses (ie. false positive conductors). The gravity modelling will provide a useful primary filter to remove the large number of false positive conductors, reducing costs to delineate prospective drilling targets.

The modelling and interpretation work undertaken on the gravity and magnetic data demonstrates that the gravity survey has met its stated aims. The 3D inversion models have led to a better understanding of the critical macro-scale controls that make the Plumridge Nickel Project a highly prospective exploration project whilst at the same time providing a key dataset that allows for a more informed next phase of "prospect scale" target generation.

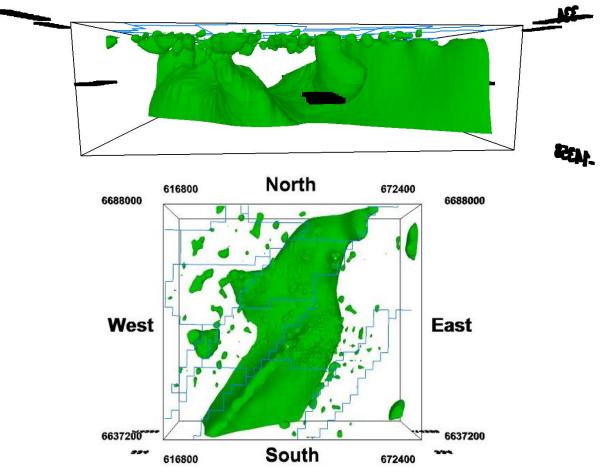


Figure 2: 3D Inversion Modelling of Gravity Data (long and plan views)



The key outcomes of the interim 3D inversion modelling include:

- Confirmation of a major gravity high that "under-plates" the Plumridge Project. This is consistent with the existing regional gravity work (**Figure 2**);
- The geometry of this deep gravity high indicates the presence of crustal scale dislocations in the Fraser Range which have been interpreted to represent possible mantle tapping structures;
- The near-surface dense bodies are linked to much deeper dense bodies by a number of discordant pipe-shaped features which are interpreted to represent feeder zones between mafic to ultramafic magma chambers (**Figure 3**);
- A major zone of complexity has been identified which is interpreted as a "Transfer Graben Zone" (**TGZ**). This zone is reflected in the near surface magnetic data that clearly shows a major northwest trending corridor containing numerous sub-linear faults (**Figure 4a & 4b**).
- Intersections of sub-vertical faults (such as those in the TGZ) with the major thrust faults are likely to be preferential pathways for large-scale mantle derived magma chambers. These have the potential to be the feeders for the higher-level intrusions that may host nickel-copper sulphide mineralisation;
- Preliminary 3D inversion modelling has identified a number of dense near-surface bodies, which may represent such mineralised mafic to ultramafic intrusions; and
- There appears to be a grouping of gravity targets within and immediately adjacent to the TGZ that supports the interpretation of this being a focus of crustal scale magmatic activity.

The gravity dataset now provides critical support to the detailed magnetic data that Segue has previously collected, and allows for discrimination of targets prior to the application of more detailed electromagnetic or drilling techniques. The targeting process will now focus on identifying prospective magnetic features (domes, thrust faults, disruption of stratigraphy and magnetic destruction) that are associated with discrete gravity features that potentially represent mafic-ultramafic intrusions.

An initial assessment of the integrated gravity and magnetic data has identified a series of targets that will be further assessed in the immediate future. The key areas currently defined lie largely within or adjacent to the "Graben Transfer Zone". Specific targets include (see **Figures 5 & 6**):

- Coincident magnetic and gravity features a number of these targets also have aircore drilling that has confirmed the presence of mafic intrusive rocks (gabbro rocks); and
- A number of coincident magnetic-gravity targets that have poorly defined moving loop electromagnetic features present.

Data from the completed gravity survey has been sent to Segue's geophysical consultants for processing and final 3D inversion modelling of the magnetic and gravity data, which will form the basis for targeting the Company's next phase of exploration. It is anticipated that a portfolio of high priority targets for nickel-sulphide mineralisation will be generated by mid-May, each one with a tailored follow-up work programme planned for subsequent execution.

The completed regional gravity survey extends approximately 20 kilometres further north than the interim model and shows the interpreted continuation of the western parallel gravity high off the TGZ through Segue's tenements E39/1710 and E39/1709. Minimal exploration work has been conducted to date on these two tenements.



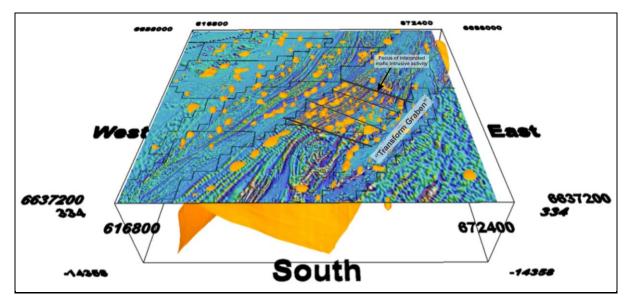


Figure 3: 3D Gravity Inversion (+1.0g/cc shell) with overlain magnetic image (RTP 1VD NE shade)

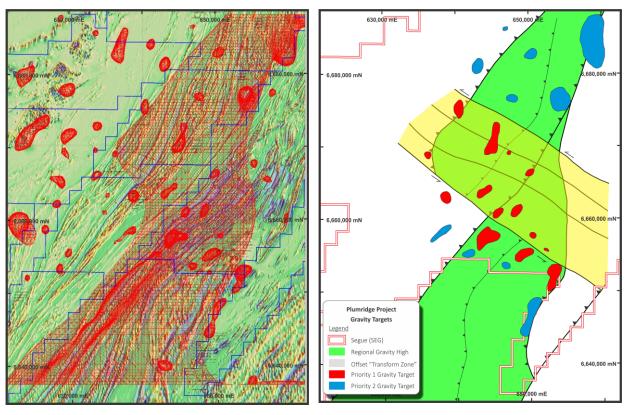


Figure 4a – 3D Gravity Inversion Model over magnetics (RTP 1VD NE Share)

Figure 4b – Geological Interpretation of 3D Gravity Inversion Model



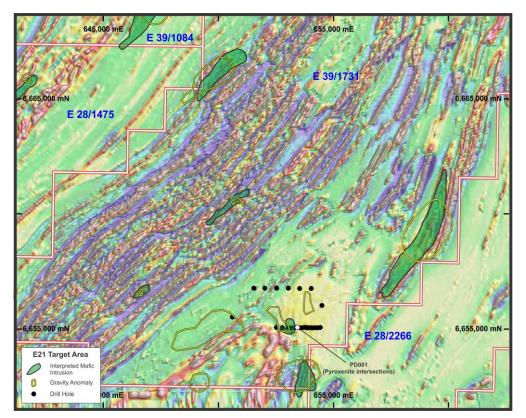


Figure 5: E21 Target and E39/1731 preliminary targets

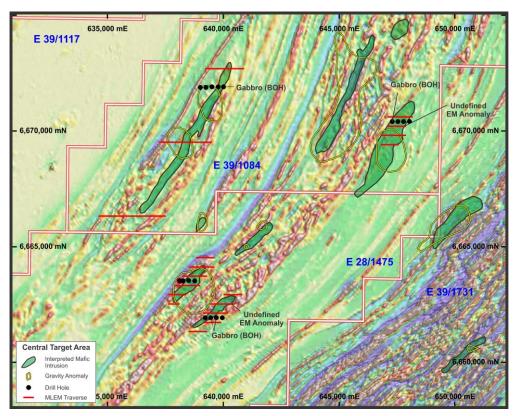


Figure 6: Central area preliminary targets



# PARDOO NICKEL PROJECT Pilbara Region, Western Australia

#### Pardoo Nickel Project Joint Venture Agreement

During the quarter Segue advised that it had entered into a binding term sheet (**Term Sheet**) to enter into a joint venture with Port Exploration Pty Ltd (**Port**) over the Company's Pardoo Project in the Pilbara Region of Western Australia.

The key points of the Term Sheet are:

- Segue will receive a non-refundable fee of \$50,000 within 60 days;
- Segue and Port have agreed to enter into a Farmin and Joint Venture Agreement (**Agreement**) within 90 days and Port must become a subsidiary of an ASX-listed company or assign its interest to an ASX-listed company within six months;
- Port can acquire a 51% interest in the Pardoo Project by spending \$250,000 on exploration within 12 months of signing the Agreement (**Stage 1 Interest**);
- Port can acquire an additional 29% interest in the Pardoo Project (increasing its interest to 80%) by spending a further \$250,000 on exploration by no later than 12 months after earning the Stage 1 Interest (Stage 2 Interest); and

Upon Port earning the Stage 2 Interest, Segue has the right for a period of 18 months to sell its 20% Joint Venture interest to Port for shares in Port (or any listed head company of Port), subject to necessary shareholder, ASX and other regulatory approvals.

The transaction is proceeding in line with the Term Sheet and, subsequent to the end of the quarter, Segue received \$25,000, being half of the non-refundable fee. The balance of the fee, \$25,000, is due to be paid by the end of May 2015.

#### CORPORATE AND FINANCIAL

During the quarter, Segue raised \$110,000 though share issues to Acuity Capital (under an existing Controlled Placement Agreement, see announcement on 19 September 2014) and Segue's geological consultant, Omni GeoX. Subsequent to the end of the quarter, the Company raised an additional \$150,000 through the Controlled Placement Agreement (see announcement on 8 April 2015).

Segue has received (during and subsequent to the quarter) the proceeds of an Exploration Incentive Scheme grant for diamond hole PAD001 at the Pardoo Project, totalling \$60,000.

#### Share Capital

At the end of the quarter the Company had 2,055,650,985 ordinary shares on issue. The Company also had 15,000,000 options exercisable at \$0.01 on or before 18 February 2018 and 76,500,000 options exercisable at \$0.018 on or before 31 January 2016 outstanding.

For further information visit <u>www.segueresources.com</u> or contact:

Segue Resources Limited Mr Steven Michael Managing Director T: +61 8 9383 3330 E: info@segueresources.com



#### **Competent Persons Statement**

The information in this report that relates to Exploration Results is based on information compiled by Mr Peter Langworthy who is a Member of The Australian Institute of Geoscientists. Mr Langworthy has more than five years' 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, Minerals Resources and Ore Reserves". Mr Langworthy consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### Appendix A – Schedule of Tenements as at 31 March 2015

Tenement ID	Status	Interest at beginning of quarter	Interest acquired or disposed	Interest at end of quarter
			-	-

#### **Plumridge Project**

E28/1475	Granted	100%	0%	100%
E28/2266	Granted	100%	0%	100%
E28/2267	Granted	100%	0%	100%
E28/2317	Granted	0%	100%	100%
E28/2387	Granted	100%	0%	100%
E28/2388	Granted	100%	0%	100%
E28/2391	Granted	100%	0%	100%
E39/1084	Granted	100%	0%	100%
E39/1117	Granted	100%	0%	100%
E39/1118	Granted	100%	0%	100%
E39/1709	Granted	0%	100%	100%
E39/1710	Granted	100%	0%	100%
E39/1731	Granted	0%	100%	100%
E28/2385	Granted	0%	100%	100%
E28/2390	Granted	0%	100%	100%
E28/2392	Pending	0%	0%	0%
E28/2393	Pending	0%	0%	0%
E39/1830	Granted	0%	100%	100%



Tenement ID Status Interest beginning of the second	
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# Deralinya Project

E63/1521	Granted	100%	0%	100%
E63/1522	Granted	100%	0%	100%
E63/1523	Granted	100%	0%	100%
E63/1524	Granted	100%	0%	100%
E63/1736	Pending	0%	0%	0%

# Pardoo Project

E45/1866 <sup>1</sup>	Granted	100%	0%	100%
E45/3383	Granted	100%	(100%)	0%
E45/4279	Granted	0%	100%	100%

<sup>1</sup> During the quarter the Company reduced the tenement size from 34 graticular blocks to 28 graticular blocks.

# JORC Code, 2012 Edition – Table 1 report template

# **Section 1 Sampling Techniques and Data**

#### (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg 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.	
	<ul> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	Sampling consisted of 3m composite samples of quarter core from all core. Samples were cut using a diamond blade core saw. Duplicate samples were collected every ~20th sample for QAQC purposes.
	• Aspects of the determination of mineralisation that are Material to the Public Report.	Sampling is considered to be comprehensive and representative. Remaining core was retained as a
	In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.	permanent reference Assay results and Down Hole Electro-magnetic (DHEM) results are outstanding at the time of writing this report.



Criteria	JORC Code explanation	Commentary
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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 was undertaken. Core sizes collected were HQ and NQ in 3m intervals. Core was orientated.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	Core recovery was routinely recorded every metre by a trained geologist. Core recovery was deemed poor through the sedimentary Callawa Fm, 65% recovery, whilst from 55.4m (Arcaean) onwards
	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.	recovery typically ranged between 98-100%. At this stage it is unsure whether a relationship exists between grades and core loss.
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.	All holes were logged by a qualified and experienced geologist. All logging included descriptions of geotechnical, mineralisation, structural and lithological aspects of the core and
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	was digitally recorded using an industry standard code system. Core was formally photographed. Data collected offers sufficient detail for the purpose of interpretation and further studies.
	• If core, whether cut or sawn and whether quarter, half or all core taken.	
Sub-sampling techniques and sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	Quarter core was cut using a diamond core saw
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	and collected for assay. 3 metre composite sampling was deemed to be comprehensive and representative for the style/type of mineralisation
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	under investigation. Duplicate samples were taken (remaining quarter core) approximately every ~20th
	<ul> <li>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.</li> </ul>	sample for QAQC purposes



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	Samples were submitted to ALS laboratories (Perth). Samples will be pulverised to 80 microns. Samples will dissolve with 4 acids and analysed via ICP with Mass spectrometer. The laboratory procedures are considered to be appropriate for reporting multi-element assays The insertion of CRM's and duplicates every ~20 samples by SEG will be used as an internal means of QAQC of laboratory standards. No issues were encountered.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Significant intersections have been verified by consulting geologists to the group, OMNI GeoX Pty. Ltd. No holes have been twinned. All data has been captured digitally upon logging and stored digitally securely within the Perth head office database.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	All XYZ surveying was collected using a handheld Garmin GPS accurate to $\pm$ 4m. Projection and Grid system used: GDA94 MGAZ50.
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	A single hole exploration hole was undertaken.



Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced</li> </ul>	The orientation of the drilling is not expected to introduce sampling bias.
Sample security	<ul> <li>a sampling bias, this should be assessed and reported if material.</li> <li>The measures taken to ensure sample security.</li> </ul>	Samples were packaged and stored in secure storage from the time of gathering through to submission. Laboratory best practice methods were employed by the laboratory upon receipt.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	An audit of the sampling technique and data was carried out by consulting geologists to the group, OMNI GeoX Pty. Ltd. and deemed to have been satisfactory.
Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to	o this section.)	
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.	<ul> <li>Work was undertaken upon permit E45/1866</li> <li>The tenements are located in the North Pilbara of Western Australia, 100km East of Port Hedland within the Pardoo pastoral lease.</li> <li>Tenements are held 100% by Segue (Pardoo) Pty. Ltd. A wholly owned subsidiary of Segue Resources Ltd.</li> <li>No overriding royalties are in place</li> <li>There is no native title agreement required</li> </ul>
	• 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.	<ul> <li>There is no native title agreement required</li> <li>Tenure does not coincide with any historical sites or national parkland</li> <li>Semi-arid, thinly vegetated, relatively flat to low lying hills with sub-cropping rock.</li> <li>Tenements are currently secure and in good standing.</li> </ul>



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	Various phases of exploration by CRA, Mithril and Segue focussing upon the Pardoo Fault Zone and Highway Resource.
Geology	• Deposit type, geological setting and style of mineralisation.	Geologically, the project is located on the northern edge of the Achaean East Pilbara Granite- Greenstone terrane. The DeGrey structural zone (known at a project scale as the Pardoo Fault), a large regionally pervasive structure, runs through the project and is believed to be integral to mineralisation at the Highway Deposit. The relatively thin (0-100m), flat lying, Mesozoic aged Callawa Formation covers nearly all prospective stratigraphy. Style of mineralisation under investigation is Ni-Cu sulphide hosted within mafic- ultramafic intrusions.
	• 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:	
Drill hole Information	o easting and northing of the drill hole collar	
	o elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar	
	o dip and azimuth of the hole	
	o down hole length and interception depth	Refer to table within text.
	o hole length.	
	• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	



Criteria	JORC Code explanation	Commentary	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	To be stipulated once results are received.	
	• 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.		
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>		
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	Most drilling has intersected mineralised zones at a near perpendicular angle and as so true widths can inferred by the reader.	
	<ul> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> </ul>		
	<ul> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>		
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 within 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.	Representative reporting of low and high will be effected within future report.	
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.	All previous exploration reported within previous ASX releases.	
		Assay and DHEM results followed by potential gravity and or FLEM surveys over key targets.	



Criteria	JORC Code explanation	Commentary	
Further work		<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>		