

ASX ANNOUNCEMENT

RESA Group to Acquire High Grade Hematite Iron Project

Perth, Australia; 12 June 2020. RESA Group Limited (ASX:RE1) (Formerly iBuyNew Group Limited (ASX: IBN)).

RESA Group wishes to advise that it has entered into a binding agreement to acquire a high-grade hematite iron ore project based in Sento Se, Brazil.

Please refer to the attached announcement which outlines details of the project and the transaction.

Authorised for release by the board

Ends

Bill Nikolouzakis

CEO and Executive Director

RESA Group Limited (Formerly iBuyNew Group Limited)

P: 1300 851 017

RE1 TO ACQUIRE HIGH GRADE HEMATITE IRON PROJECT

- **High-quality hematite lump** product (Fe 66%).
- JORC (2012) high grade Hematite Mineral Resource estimate of **8Mt @ 67.3% Fe¹** at a 60% Fe cut-off.
- JORC (2012) talus Inferred Mineral Resource estimate of **2Mt @ 43.2% Fe** at a 20% Fe cut-off.
- JORC (2012) itabirite Mineral Resource estimate of **50Mt @ 33.7% Fe²** at a 20% Fe cut-off.
- Targeting commencement of **production of high grade DSO lump within 12 months** of funding.
- Project planning and licensing is well advanced.
- Open-cut mining via drill & blast / load & haul method with simple crush & screen processing. No tailings disposal required.
- **Multiple routes to local and export markets:** Paved roads to Aracaju or Aratu ports and to Brazilian steel mills.

RESA Group Limited (ACN 108 958 274) (ASX: RE1) (**RESA, RE1** or the **Company**) (to be renamed "Tombador Iron Limited") confirms that it has entered into a binding agreement (**Acquisition Agreement**) with the shareholders of Tombador Iron Singapore Pte Ltd (**TIS**) (the **TIS Shareholders**) to acquire 100% of the issued capital of TIS (**Acquisition**). TIS owns 100% of Tombador Iron Mineração Ltda (**TIM**). TIM is the titleholder of Brazilian National Mining Agency (**ANM**) exploration tenement number 872.431/2003 (**Tenement**) containing the high grade Tombador hematite iron ore deposit (Fe 67%) located in Bahia, Brazil (**Tombador Project** or **Project**). The Project has a total combined JORC Mineral Resource of 10.1Mt^{1,3} which includes a high grade Hematite Mineral Resource of 8.0Mt at **67.3% Fe¹** of DSO hematite.

The Project offers a potential near term low capex development opportunity which aims to satisfy the burgeoning demand for high grade, low impurity lump ore.

PROJECT TENURE & LOCATION

- TIM (wholly owned subsidiary of TIS) is the titleholder of exploration tenement ANM 872.431/2003.

¹ JORC (2012) high grade hematite Resource estimate consists of a Measured Mineral Resource estimate of 1.94Mt @ 67.04% Fe; an Indicated Mineral Resource estimate of 3.47Mt @ 67.30% Fe and an Inferred Mineral Resource of 2.58Mt @ 67.48% Fe, using a cut-off grade of 60% Fe.

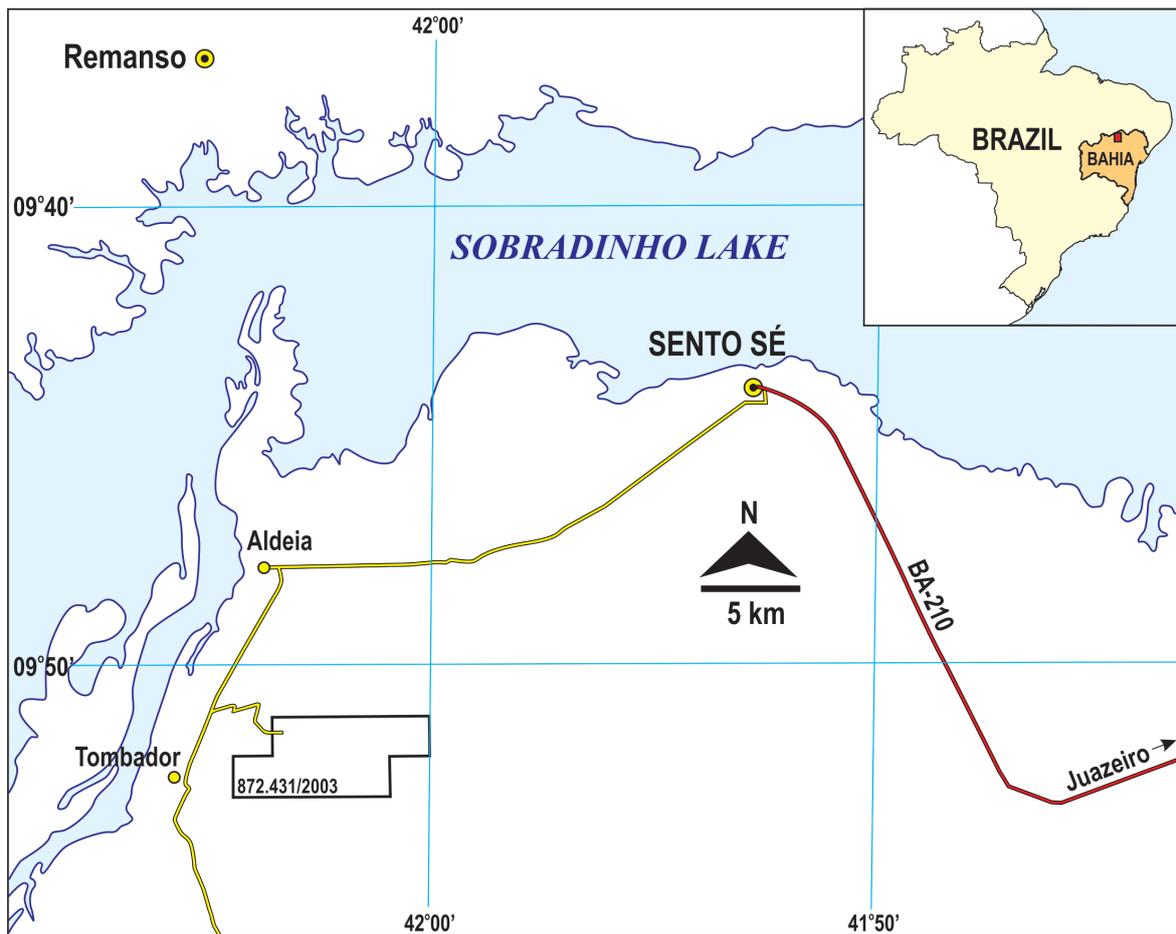
² JORC (2012) itabirite Mineral Resource estimate consists of an Indicated Mineral Resource estimate of 39.55Mt @ 34.28% Fe and an Inferred Mineral Resource estimate of 10.06Mt @ 31.59% Fe, using a cut-off grade of 20% Fe.

³ JORC (2012) talus Inferred Mineral Resource estimate of 2Mt @ 43.2% Fe at a 20% Fe cut-off.

- The Tenement is located in the Municipality of Sento Sé, in the state of Bahia, Brazil ~700km by road from the state capital of Salvador.
- Negotiations with the landholder with respect to surface rights (land access) are well advanced.
- The Final Exploration Report (**FER**) was approved and published in the Brazilian Federal Gazette on 17 February 2020. Following the approval of the FER, TIM is required to present the Project PAE Feasibility Study (**PAE**) to the National Mining Agency (**ANM**) before 16 February 2021 as a condition to obtaining the Mining Licence for the Tenement (see Figure 7).

Company	Municipality	Process No.	Area (Hectares)	Application Date	Exploration Permit N°	Status
Tombador Iron Mineração Ltda	Sento Sé	872.431/03	2000	16/12/2003	1315	Final Exploration Report approved on 17/02/2020. Submission of PAE required before 16/02/2021.

Figure 1 - Tenement Location



DEPOSIT & RESOURCES

There are two deposits with separate Mineral Resource estimates contained in the Tenement:

- a Mineral Resource estimate for compact hematite; and
- a Mineral Resource estimate for itabirite.

High grade Hematite JORC (2012) Mineral Resource

The Measured and Indicated Mineral Resource for the Tenement area has been estimated at **5.41Mt** with an average grade of **67.21% Fe** (a 60% Fe lower cut-off grade was applied). The Measured and Indicated Mineral Resource is estimated as:

- **1.94Mt of Measured Mineral Resources at 67.04% Fe;** and
- **3.47Mt of Indicated Mineral Resources at 67.30% Fe.**

Additionally, there is an estimated 2.58Mt of Inferred Mineral Resources at 67.48% Fe.

There is also an estimated talus Mineral Resource consisting of 2.06 Mt of Inferred Mineral Resources at 43.17%Fe with a 20% Fe cut-off grade.

Itabirite JORC (2012) Mineral Resource

The Tenement also contains an itabirite Mineral Resource, consisting of siliceous itabirite and dolomitic itabirite. The itabirite deposit is a JORC Mineral Resource which is not planned to be exploited as part of the Tombador Project and TIS is exploring the option of whether to divest the mineral rights for the itabirite Mineral Resource to a neighbouring tenement holder.

The siliceous itabirite Mineral Resource is estimated as:

- 27.52 Mt of Indicated Mineral Resources with an average grade of 37.65% Fe; and
- 3.77 Mt of Inferred Mineral Resources with an average grade of 39.90% Fe.

The dolomitic itabirite Mineral Resource is estimated as:

- 12.03 Mt of Indicated Mineral Resources with an average grade of 26.58% Fe; and
- 6.29 Mt of Inferred Mineral Resources with an average grade of 26.61% Fe.

For clarity, the itabirite Mineral Resource estimate of 50Mt is contained within tenement 872.431/2003. As shown in Figure 2 the majority of the itabirite deposit is north of tenement 872.431/2003 and is not included in the itabirite Mineral Resource estimate.

Note: Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve. While it would be reasonable to expect that most of the Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration, due to the uncertainty of Inferred Mineral Resources it should not be assumed that such upgrading will always occur. There is no direct link from an Inferred Mineral Resource to any category of Ore Reserves.

MATERIAL TERMS OF THE TRANSACTION

- 100% share-based consideration of 1.1b fully paid ordinary shares (**Share**) issued to the TIS Shareholders, all on a post Consolidation basis (proposed 1.9:2 consolidation – see below).
- The Company to undertake a re-compliance capital raising of up to \$15m at \$0.025 per Share (post Consolidation).
- The key terms of the Acquisition Agreement are set out in Annexure A.

PATH FORWARD

Following completion of the Acquisition (**Completion**), RE1 intends to apply funds raised under the Capital Raising to complete the following:

- Infilling drilling and detailed mine planning;
- Mobilisation of mining contractors to site;
- Site facilities construction (roads, buildings, crushing plant);
- Final permitting for operating and mining licence; and
- Commence production.

TOMBADOR PROJECT OVERVIEW

The Tombador Project is situated in the municipality of Sento Sé, in northern Bahia state, Brazil, 520km northwest from Salvador, the Bahia state capital.

The Tombador Project is a high grade hematite deposit contained within an itabirite deposit. The Tombador Mineral Resource, as reported in accordance with the 2012 JORC Code, includes 5.41Mt of Measured and Indicated Mineral Resource at an average grade over 67%Fe. There is also 2.58Mt of hematite Inferred Mineral Resource and 2.06Mt of talus Inferred Mineral Resource.

Metallurgical test work has shown a lump yield of 75% with the remainder reporting to fines. The fines are also saleable.

The itabirite deposit is a JORC Mineral Resource which is not planned to be exploited as part of the Tombador Project and TIS is exploring the option of whether to divest the mineral rights for the itabirite Mineral Resource to a neighbouring tenement holder.

The objectives of the Tombador Project are to achieve production in a short timeframe, minimise capital expenditure and environmental impact, establish a positive relationship with the local community and regulators and maximise dividend returns to shareholders.

The production methods for the Tombador Project assumes a simple drill, blast, load and haul open pit mining method.

The orebody outcrops at surface on the side of the Bicuda Hill. The topography of the Tombador deposit is ideal for open cut mining. The deposit lies on the back spine of a 180-metre-high hill whereby the hill slope and the overall plunge of the ore shoot are similar. This avails the Project of large high grade (67% Fe) tonnage with a relatively low life of mine waste to ore stripping ratio of 2.1 to 1 (tonnes to tonnes) with 5Mt of ore produced.

The run of mine hematite will be crushed and screened on site into high grade lump and high grade fines products. The products are “Direct Ship” and have the potential to be sold at the mine gate to Brazilian steel mills or transported by truck to the coast for the shipment to international markets. There are multiple port options including availability at Terminal Marítimo Inácio Barbosa (**TMIB**) at Barra dos Coqueiros, in Aracaju, Sergipe State.

The Tombador Project has obtained a Preliminary Licence and has submitted an application for an Installation Licence to the Bahia State Environment Department (**INEMA**) (see Figure 7). These licences provide for the following rights:

From INEMA

- | | |
|-----------------------|---|
| Preliminary Licence: | Provides a set of conditions for the owner to create appropriate plans and programs in preparation for the submission for the Installation Licence. |
| Installation Licence: | Provides the ability for the owner to commence construction and site works in preparation for mining operations. |
| Operating Licence: | Provides the ability for the owner to commence mining operations. |

From National Mining Agency (**ANM**):

Mining Licence: Provides the ability for the owner to mine and sell minerals from the Tenement.

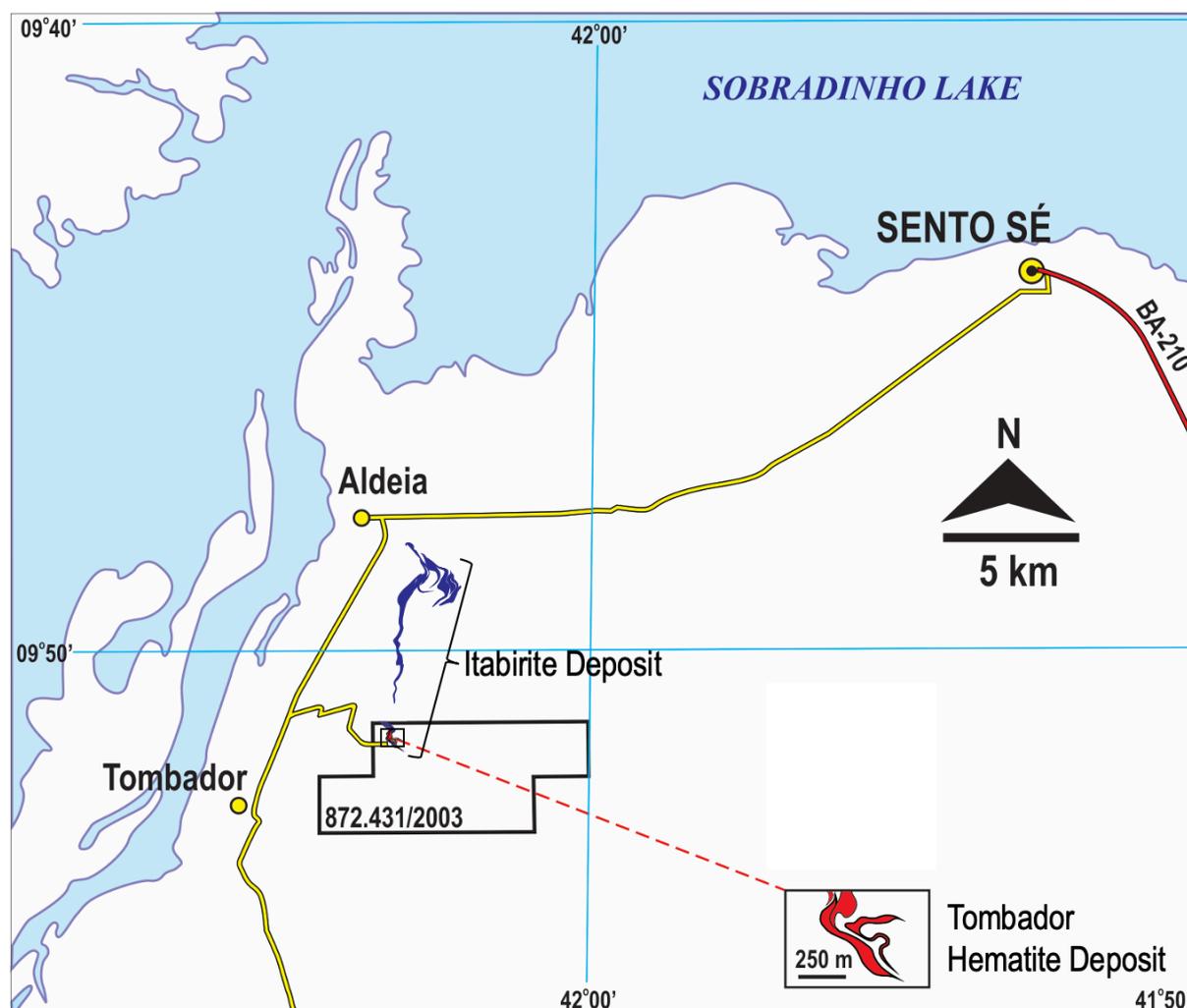
The Company expects that construction of site facilities will commence once funds have been raised from the Capital Raising and the Installation Licence is obtained. Production will then follow approval of a Mining Licence and an Operating Licence. Further details with respect to each of the licences required to be obtained for the viability of the Project are set out in the section titled “Licence to Operate” below.

GEOLOGICAL OVERVIEW

The Tombador high grade iron deposit is situated in the northern portion of Bahia state in Brazil within a sequence of early Proterozoic iron formations in the northwest limit of São Francisco Craton referred to as Colomis group. The iron ore type is predominately itabirite which is a metamorphosed iron formation largely consisting of various iron oxides. The compact hematite deposits occur in the itabirites and are related to the structural features in the Sento Sé block. The iron formations tend to be more resistant to erosion and therefore the topography is largely dominated by iron bearing structures.

The Tombador hematite deposit is a high grade (67% Fe) granulated iron ore deposit, located in the south of Bicuda itabirite deposit (Figure 2).

Figure 2 - Tombador Deposit Location

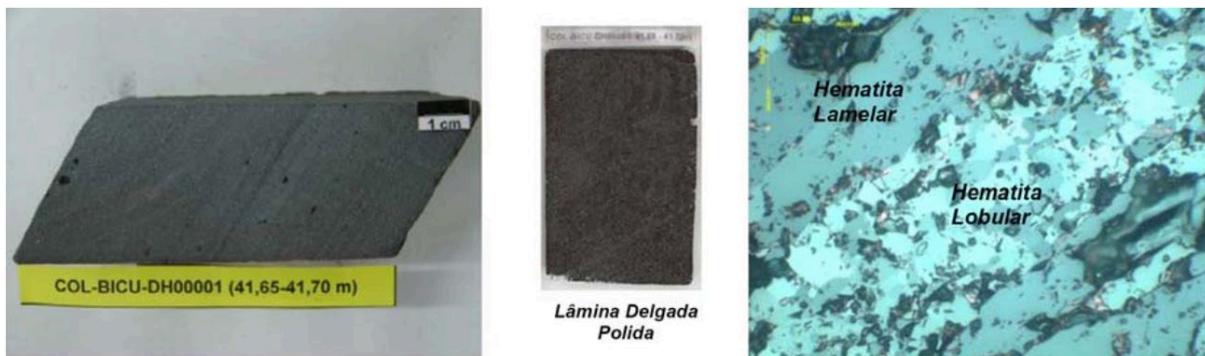


The hematite orebody occurs as a fold hinge in siliceous itabirite, with a 30° azimuth. Macroscopic features (outcrops and cores) and microscopic (petrography, MEV and cathode luminescence) strongly suggest hydrothermal leaching of gangue minerals (quartz and carbonates) from the itabirites, with corresponding iron enrichment (Figure 3).

Figure 3 – Tombador Hematite Outcrop



Figure 4 - Drill core hand sample (left), thin section (centre), and microscopic (right) images of Tombador hematite



EXPLORATION

Exploration was performed by the previous owner of the Tenement, Colomi Iron Mineração Ltda (**CIM**) in conjunction with VALE. CIM started exploration works in February 2004 when a topographic base grid was established and regional reconnaissance of the area was undertaken, including geological traverses and rock sampling.

Following the regional reconnaissance phase, aerial magnetic surveys of the Sento Sé block were performed in November 2006 by VALE. At the end of the same year six diamond exploratory drillholes were completed in the Bicuda deposit (**Sento Sé Block**).

A detailed geological mapping campaign was performed in January 2007, covering the entire study area, resulting in 1:5,000 scale maps (1:2,000 on a local level). Between November 2007 and August 2009, the topographical grid was refined using a total station survey.

In 2008, ground geophysical surveys of the Sento Sé Block were performed, using the previously opened topographic grid. This included the Tombador Project, Bicuda Norte and Bicuda Sul (magnetometry and gravimetry).

Mapping, trenching and channel sampling

In 2012 Professor Miguel Tupinamba, of the University of Rio de Janeiro, completed detailed surface mapping of the Tombador Project area. In addition to the geological mapping, CIM excavated trenches to identify the bedrock and outline the continuation of the outcropping hematite mineralization.

In 2014 outcrop samples were collected along marked channels supervised by Coffey aiming to improve the confidence on the Hematite Mineral Resource of the Tombador Project.

Drilling

Twenty-eight diamond drill holes totalling 3,542.7m were completed on the Tenement. There are 17 holes in the Tombador Project area. There are 8 holes within the Mineral Resource which intercept wide and continuous hematite mineralisation. These are drilled on an irregular 50m x 50m grid pattern. There are an additional 6 drill holes with narrow hematite mineralisation not included in the Mineral Resource estimate as they are below the cut-off grade of 60%Fe.

All diamond holes were HQ (6.35 cm) diameter. All drilled material was sampled, nothing being discarded. The holes were all vertical.

All drillhole collars were topographically surveyed by total station surveying campaign and drillhole collars have been properly identified.

Sampling & Testwork

Drilling Samples

Samples obtained from Tombador Project diamond drilling were prepared for granulo-chemical analysis due to the existence of hematite with potential to form direct shipping lump ore; this is a standard way of dealing with high grade massive hematite core intersections in Brazil. Granulo-chemical analysis consisted of crushing core and separation of size fractions as follows:

- 8mm to 31.5mm
- 1mm to 8mm
- 0.15mm to 1 mm
- < 0.15mm

The chemical composition of each size fraction was determined, and the mass of each size fraction was measured to determine the size distribution. Further detail is available in JORC Table 1 annexed to this announcement.

Channel Samples

Details of the samples taken from hematite outcrops and test work completed on the samples are available in JORC Table 1 (annexed to this announcement).

Metallurgical Testwork

Metallurgical tests were completed in 2013 by Modelo Operacional Ltda (MOPE) on 10 samples consisting of 3 drill core samples, 5 outcrop samples and 2 composite samples.

Samples were selected for:

- crushing and screening and detailed chemical analysis, to determine particle size distribution and grade,
- Quantitative Mineralogy, and
- Metallurgical analysis.

Results confirmed the prospect of producing lump product. No deleterious or contaminating substances were encountered.

MINERAL RESOURCE ESTIMATE

There are two deposits with separate Mineral Resource estimates contained in the Tenement:

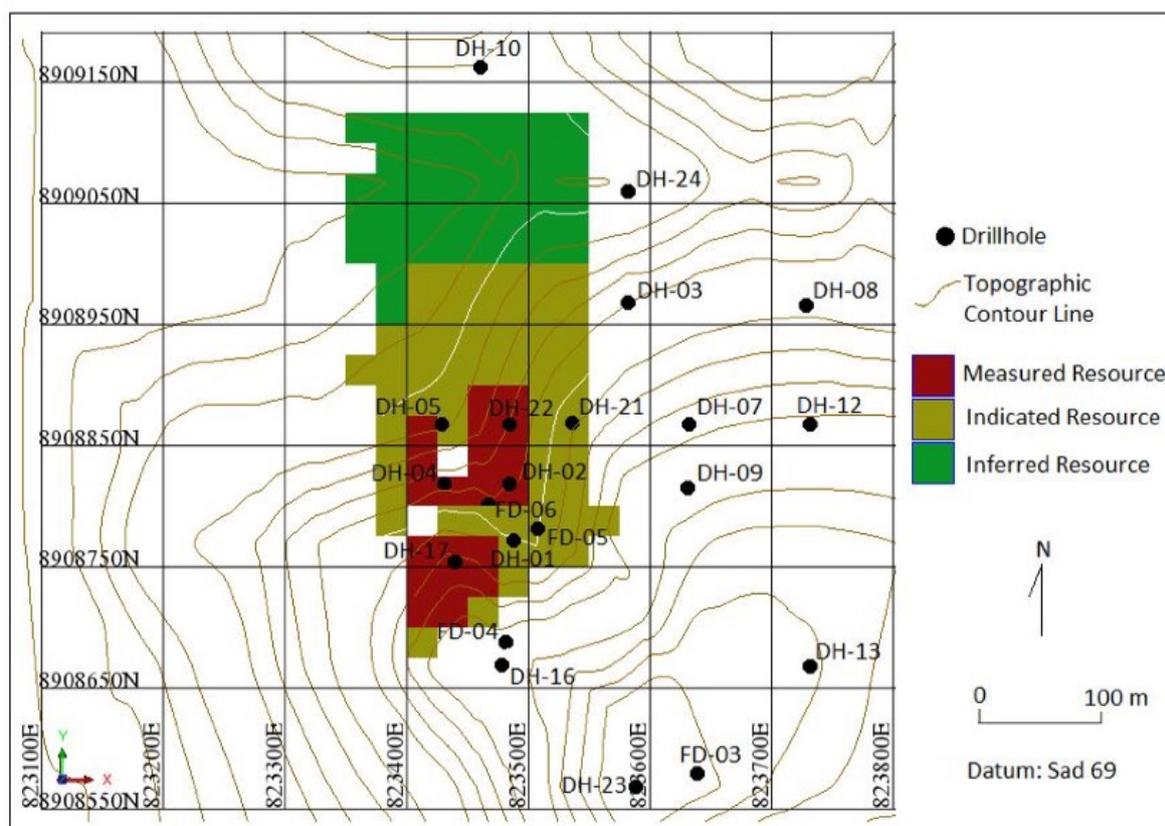
- a Mineral Resource estimate for Compact Hematite; and
- a Mineral Resource estimate for Itabirite.

The most recent Mineral Resource estimate for the Project was completed by Coffey in February 2014 for the Compact Hematite and in September 2011 for the Itabirite. In April 2020 TIM engaged GE21 Consultoria Ltda (GE21) to review and report the Mineral Resources in accordance with the JORC Code 2012 as shown in the tables below.

Compact Hematite Mineral Resource

Unit	Resource Class	Cut-off grade (% Fe)	Tonnes (Mt)	Fe (%)	SiO2 (%)	Al2O3 (%)	Mn (%)	P (%)	LOI (%)
Compact Hematite	Measured	60	1.94	67.04	1.95	0.47	0.037	0.101	0.44
	Indicated	60	3.47	67.3	1.65	0.56	0.029	0.092	0.31
	Inferred	60	2.58	67.48	1.54	0.62	0.027	0.086	0.28
Hematite Talus	Inferred	20	2.06	43.17	31.88	2.04	0.276	0.022	2.49

Figure 5 - Block Model Resource Classification for Compact Hematite and Drill Hole Locations



Note: there are cross sections and long sections of the geological model shown in Figure 5, available in the Diagrams section of the JORC Table 1 for the Compact Hematite Mineral Resource in Appendix 1.

Itabirite Mineral Resource

Unit	Resource Class	Cut-off grade (% Fe)	Tonnes (Mt)	Fe (%)	SiO2 (%)	Al2O3 (%)	Mn (%)	P (%)	LOI (%)
Talus	Inferred	20	0.73	42.39	33.04	2.02	0.259	0.019	2.54
Siliceous Itabirite	Indicated	20	27.52	37.65	41.9	1.09	0.327	0.051	1.43
	Inferred	20	3.77	39.90	37.59	0.66	0.311	0.032	2.25
Dolomitic Itabirite	Indicated	20	12.03	26.58	28.82	0.69	0.174	0.038	15.48
	Inferred	20	6.29	26.61	24.33	0.49	0.185	0.032	17.47

Note: Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve. While it would be reasonable to expect that most of the Inferred Mineral Resources would upgrade to Indicated Mineral Resources with continued exploration, due to the uncertainty of Inferred Mineral Resources it should not be assumed that such upgrading will always occur. There is no direct link from an Inferred Mineral Resource to any category of Ore Reserves.

Hematite and Itabirite Mineral Resources were estimated using ordinary kriging. The Mineral Resource for the Talus was estimated using Inverse Distance Weighting method.

The Mineral Resources were classified using the anisotropic average distance to samples from ordinary kriging estimation. Blocks with anisotropic average distance to samples lower than 50m were classified as a Measured Resource; blocks with anisotropic average distance to samples higher than 50m and lower than 150m were classified as an Indicated Resource; blocks with anisotropic average distance to samples higher than 150m and lower than 500m were classified as an Inferred Resource.

A cut-off grade of 60% Fe was applied to the hematite as this represents a DSO (direct shipping ore) hematite product. This cut-off grade defined a consistent and broad thick mineralized zone. Additional zones of mineralization below 60% Fe were not included. Areas where the mineralisation was pinching to widths of >5m, on the periphery (down dip) away from the bulk mineralized zone were included.

A cut-off grade of 20% Fe was applied to itabirite as a lower grade would typically be uneconomical.

A cut-off grade of 20% Fe was applied to the hematite talus and itabirite talus as the hematite or itabirite rocks in this type of deposit are mixed with other rocks and soil.

Further information for the Mineral Resource estimates is contained in the JORC Code 2012 Table 1 annexed to this announcement.

LOGISTICS

It is intended that any ore produced from the Tenement will be transported from the mine site to port by road. There are two port options; at Aracaju and at Aratu, which are both 700km from the mine site along predominantly Federal and State roads. A small section of municipal road will also be used.

Due to the scale of the hauling operation, TIM proposes to outsource the hauling operation to one or more Bahia based road haulage contractors and has received proposals. The road freight sector in Brazil is competitive with long road haulage distances of products typical in the resource and agricultural sectors. An example is the soybean export route which has a weighted average road haulage distance

of 945km⁴. In Bahia, the same state as the Tombador Project, the 861km West Extreme trucking route from São Desidério to Salvador had an average freight price of US \$0.0371 per tonne km for the first Quarter in 2020⁵. The ore haulage trucks will be loaded from the product stockpiles and truck loading has been costed as part of the mining contractor rates. Trucks will be weighed at the mine gate and again on delivery at the port gate.

A technical proposal was received from the operator of the Inácio Barbosa Maritime Terminal (**TMIB**), located in the city of Barra dos Coqueiros-SE, 27 km from the city of Aracaju.

The technical proposal outlines the berth, stockpile and loading capacity available at the terminal with an operation design based on shipments in Handysize vessels and a target loading rate of at least 8,400 tonnes per day.

Figure 6 - TMIB Port Facilities



LICENCE TO OPERATE

A summary of key licences provides for the following rights:

From Bahia State Environment Department (**INEMA**):

- Preliminary Licence: Provides a set of conditions for the owner to create appropriate plans and programs in preparation for the submission for the Installation Licence.
- Installation Licence: Provides the ability for the owner to commence construction and site works in preparation for mining operations.
- Operating Licence: Provides the ability for the owner to commence mining operations.

From National Mining Agency (**ANM**):

- Mining Licence: Provides the ability for the owner to mine and sell minerals from the tenement.

Environmental Licencing

TIM has obtained a Preliminary Environmental Licence. The submission for the Installation Licence which allows construction and site works to commence has been provided to the relevant authority, INEMA (see Figure 7).

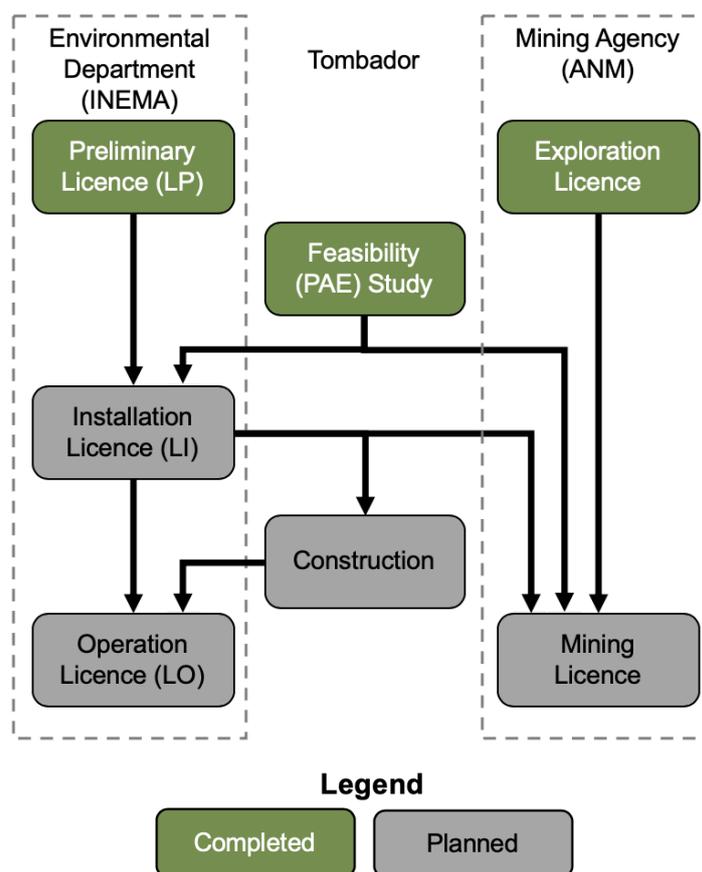
⁴ Page 13, United States Department of Agriculture, Brazil Soybean Transportation, First Quarter 2020 Published May 27, 2020, <https://www.ams.usda.gov/sites/default/files/media/Brazil1stQuarter2020.pdf> Accessed on 4th June 2020

⁵ Page 12, United States Department of Agriculture, Brazil Soybean Transportation, First Quarter 2020 Published May 27, 2020, <https://www.ams.usda.gov/sites/default/files/media/Brazil1stQuarter2020.pdf> Accessed on 4th June 2020

Mining Licence

ANM approved the Final Exploration Report (**FER**) for the Tenement and published the approval in the Federal Gazette on 17 February 2020. TIM is finalising the PAE feasibility study for ANM as a prerequisite to the approval of the Mining Licence for the Tenement (see Figure 7).

Figure 7 - Tombador Project Permitting Flow Chart



CAPITAL RAISING

Contemporaneously with the Acquisition, the Company will conduct a capital raising under a prospectus for the issue of 400,000,000 Shares at an issue price of \$0.025 per Share to raise \$10,000,000 (**Maximum Subscription**) with the ability to accept oversubscriptions of up to an additional 200,000,000 Shares at an issue price of \$0.025 per Share to raise up to an additional \$5,000,000 (for a total of \$15,000,000) on a post Consolidation basis (**Full Oversubscription**) (**Capital Raising**). The minimum subscription under the Capital Raising will be the same as the Maximum Subscription (**Minimum Subscription**). The Capital Raising will not be underwritten.

The funds raised will be used towards: infilling drilling and detailed mine planning, mobilisation of mining contractors to site, site facilities construction (roads, buildings, crushing plant), final permitting for operating and mining licence, commencement of production, expenses of the Capital Raising, corporate and administration costs and to provide working capital.

Further details of the proposed use of funds following Completion of the Acquisition and the Capital Raising will be set out in the Notice of Meeting.

Trident Capital Pty Ltd has been mandated to act as lead manager to the Capital Raising (**Lead Manager**). In consideration for its services, the Lead Manager or its nominees will receive 15,000,000 options, exercisable at \$0.035 each and expiring on that date which is 3 years from Completion of the Acquisition.

CONSOLIDATION

In connection with the Acquisition, the Company will undertake a consolidation of its existing capital on a 1.9 for 2 basis (**Consolidation**). All numbers in this announcement are expressed on a post-Consolidation basis unless stated otherwise.

INDICATIVE CAPITAL STRUCTURE

The indicative capital structure of the Company post Completion of the Capital Raising and the Acquisition is set out in Annexure B of this announcement.

The Company's market capitalisation on re-listing (at the Capital Raising price of \$0.025 and based on raising the Maximum Subscription of \$10m) will be approximately \$41.5m.

CONTROL ISSUES

Upon listing, Colomi Singapore Pte Ltd (a substantial shareholder of TIS) (**Colomi Singapore**) will have a relevant interest in excess of 20% of the securities of the Company. As such, approval of the Company's shareholders pursuant to section 611 (item 7) of the Corporations Act 2001 will be sought at the General Meeting for Colomi Singapore to acquire a relevant interest in the securities of the Company above 20%.

BOARD AND MANAGEMENT CHANGES

In connection with the Acquisition, it is proposed that Ms Anna Neuling, Mr Keith Liddell and Mr David Chapman will be appointed to the board of the Company (**Board**). A short professional biography for each is set out below:

Proposed Independent Non-Executive Chair – Ms Anna Neuling

Anna is currently an Executive Director of S2 Resources Ltd (ASX:S2R) which was demerged from Sirius Resources Ltd (Sirius) as part of its merger with IGO in 2015. She has held various roles at Sirius since its inception and was Executive Director – Corporate and Commercial at the time of the \$2.7bn merger.

Anna has 15 years of experience in financial and corporate roles in the resources industry with ASX listed companies including LionOre Mining International, Antipa Minerals Ltd and Avoca Resources Ltd. Prior to that, Anna worked at Deloitte in London and Perth.

A Fellow of the Institute of Chartered Accountants in England and Wales and a Graduate of the Australian Institute of Company Directors. Anna also holds a degree in mathematics from the University of Newcastle (UK).

Proposed Non-Executive Director – Mr Keith Liddell

Keith Liddell is an experienced metallurgical engineer, founder and chair of listed and unlisted companies including Founder Chairman of Sally Malay Mining Ltd. (now Panoramic Resources Ltd) and Mineral Securities Ltd. (resource investment house) and former Managing Director of Aquarius Platinum Ltd.

Mr Liddell has been involved with raising over \$1 billion of equity for resource projects and has taken numerous mining projects from exploration to production.

Proposed Independent Non-Executive Director – Mr David Chapman

Mr Chapman brings thirty-eight years resource industry experience as a geologist in senior and executive management roles with WMC Resources Ltd and the junior sector within Australia and overseas. His experience covers operations, exploration project management and construction, business development and project financing.

Mr Chapman has spent about half of his professional career on exploration and project development in Brazil and is a fluent Portuguese speaker. He was a Director of WMC Resources Brazil office from 1991 to 2000 where he was responsible for exploration programs for gold and base metals throughout Brazil and French Guiana. He was later involved in the financing and construction of a significant base metal operation in Brazil. Through these activities he has developed and retains a strong industry network within Brazil and South America.

Shareholders will be given the opportunity to vote on the appointment of Messrs Chapman, Liddell and Neuling at the upcoming General Meeting.

It is proposed that Mr Stephen Quantrill will continue in his capacity as Non-Executive Director and current directors Mr Vasilios (Bill) Nikolouzakis and Mr Andrew Jensen will resign immediately prior to Completion.

Subject to Shareholder approval and Completion, the Company is proposing to grant a total of 13m performance rights to be allocated amongst the current directors and the proposed new Board. The terms of the performance rights are set out in Annexure C to this announcement.

CHANGE OF NAME

Following Completion, the Company proposes to change its name to “Tombador Iron Limited”. Shareholder approval will be sought for the change of name at the General Meeting.

EFFECT OF THE ACQUISITION ON THE COMPANY’S CONSOLIDATED TOTAL ASSETS AND TOTAL EQUITY INTERESTS

A pro-forma statement of financial position will be included in the Notice of Meeting.

EFFECT OF THE ACQUISITION ON THE COMPANY’S REVENUE, EXPENDITURE AND PROFIT BEFORE TAX

The principal effects of the Acquisition on the Company's consolidated statement of financial performance for the financial year ended 30 June 2020 will be:

- The Company does not expect to generate revenues from operations or sale of assets during the relevant period.
- Expenditure will be increase by approximately \$500,000, comprised principally of expenses related to the Acquisition of the Project and increased corporate and administration costs relating to the re-compliance.
- Net profit (loss) is expected to be in line with the increased expenditure outlined above.

PROPOSED TIMETABLE

The indicative timetable for the Acquisition is as follows:

Item	Date
Dispatch Notice of Meeting	end June 2020
Lodgement of Prospectus for Capital Raising	mid July 2020
Opening date of Prospectus offer	

General Meeting of Shareholders	end July 2020
Closing date of Prospectus offer	early August 2020
Issue of Shares under the Prospectus Offer	
Completion of Acquisition	
Dispatch of Holding Statements	
Re-compliance with Chapters 1 & 2 of the ASX Listing Rules	end August 2020
Re-quotation on ASX	

*Please note that this timetable is indicative only and the directors of the Company reserve the right to amend the timetable as required.

PREVIOUS ISSUES OF SECURITIES

In the last 6 months the Company completed a working capital placement and debt-to-equity swap issuing a total of 129,598,022 Shares at \$0.02 per Share raising \$2,591,960 and 5,000,000 unlisted options exercisable at \$0.05 (on a pre-Consolidation basis) and may be exercised in the two-week period following the release of the Company's half-year and full-year results and expiring two weeks after the issue of the Company's FY25 full-year results) (**Debt Placement**). The Debt Placement was not underwritten. No other securities were issued during this period.

KEY DEPENDENCIES

The key dependencies influencing the viability of the Acquisition are:

- (a) the Company's ability to re-comply with Chapters 1 and 2 of the Listing Rules to enable re-admission to quotation of the Company's securities;
- (b) granting of the Installation Licence, Operating Licence and Mining Licence; and
- (c) raising sufficient funds to carry out effective exploration and development on the Project.

BOARD INTENTIONS UPON COMPLETION OF THE ACQUISITION

Following completion of the Acquisition, the Company's proposed business model will be to develop the Project and add to the Mineral Resource inventory on the Tenement. The Company's main objectives on completion of the Offer are:

- (a) targeting commencement of production on the Project within twelve (12) months from completion of the Acquisition;
- (b) focus on resource opportunities on the Tenement that have the potential to deliver growth for shareholders;
- (c) continue to pursue other acquisitions or ventures that have strategic fit for the Company; and
- (d) provide working capital for the Company.

KEY RISKS

A non-exhaustive list of the key risk factors affecting the Company following completion of the Acquisition and the Capital Raising will be included in the Notice of Meeting.

RE-COMPLIANCE WITH ASX LISTING RULES CHAPTERS 1 AND 2

The ASX has confirmed to the Company that because the Acquisition will amount to a significant change in the nature and scale of the Company's activities, the Company will be required to obtain Shareholder approval for the Acquisition and must re-comply with Chapters 1 and 2 of the ASX Listing Rules.

SHAREHOLDER APPROVALS

A notice of meeting seeking shareholder approval for the resolutions required to give effect to the Acquisition will be sent to shareholders in due course (**Notice of Meeting**). The Company will convene a general meeting in the near future to facilitate shareholder approval for the following matters in respect of the Acquisition (**General Meeting**). Those approvals will include:

- (a) the change in the nature and scale of the Company's activities;
- (b) the Acquisition and the issue of the Consideration Shares to the TIS Shareholders;
- (c) approval for Colomi Singapore to acquire a relevant interest in the Company in excess of 20%;
- (d) the 1.9 for 2 Consolidation;
- (e) the issue of Shares in connection with the Capital Raising;
- (f) the issue of Shares to related parties;
- (g) the issue of Options to the Lead Manager;
- (h) the issue of Performance Rights to Directors and key management personnel;
- (i) the appointment of Ms Neuling and Messrs Chapman and Liddell to the Board; and
- (j) change of the Company name to "*Tombador Iron Limited*".

Details of the number of securities proposed to be issued under the Acquisition and the Capital Raising are detailed in Annexure B.

The Company's securities will remain suspended from quotation on ASX until Completion has occurred and the Company has re-complied with Chapters 1 and 2 of the ASX Listing Rules.

ASX LISTING RULE WAIVERS

The Company has been granted the following waivers from the ASX in connection with the Acquisition:

- (a) Listing Rule 2.1 (Condition 2) to enable the Company to issue Shares under the Capital Raising below \$0.20 per Share, subject to:
 - (i) the issue price of the Shares issued under the Capital Raising being not less than \$0.02 per Share;
 - (ii) the terms of the waiver being disclosed to the market;
 - (iii) Shareholders approving the issue price of the Capital Raising Shares in conjunction with the Shareholder approval obtained under Listing Rule 11.1.2 in respect of the Acquisition; and
 - (iv) the Company completing the Consolidation.
- (b) Listing Rule 1.1 (Condition 12) to enable the Company to issue 15,000,000 Options to Trident Capital as part consideration for its services as corporate adviser and lead manager to the Capital Raising with an exercise price of less than \$0.20 (**Trident Options**) and to have 4,750,000 Options on issue with an exercise price less than \$0.20 (**Options**), subject to:
 - (i) the exercise price of the Trident Options and Options is not less than \$0.02 each;
 - (ii) the terms of this waiver being disclosed to the market;
 - (iii) the Company's shareholders approving the exercise price of the Trident Options in conjunction with the approval obtained under Listing Rule 11.1.2 for the Acquisition.

The waivers described in (a) and (b) above expire on 9 September 2020.

- (c) Listing Rules 6.1 and 6.2 approving the terms of the Performance Rights (set out in Annexure C) and for the creation of an additional class of security of the Company;

- (i) the Company obtains shareholder approval for the issue of the Performance Rights and the Notice of Meeting including sufficient information about the terms and conditions of the Performance Rights;
 - (ii) the Company making an announcement immediately upon the satisfaction of any milestones, the conversion of any of the Performance Rights and the expiry of any of the Performance Rights;
 - (iii) no change occurring to the terms of the Performance Rights;
 - (iv) the Prospectus issued in connection with the Capital Raising and the Notice of Meeting containing the full terms of the Performance Rights;
 - (v) the Company applying for quotation of the Shares issued upon conversion of the Performance Rights within the required time frame;
 - (vi) the Company disclosing in each annual report, annual audited financial statements, half-year report and quarterly cash flow report issued by the Company during the period in which the Performance Rights are on issue the number of performance rights on issue at that time, a summary of the terms and conditions of those performance rights, whether any performance rights were converted or cancelled during the relevant period and whether any milestones were met during the period;
 - (vii) the Company disclosing in Part 5 of each Appendix 2A lodged by the Company while any of the Performance Rights remain on issue (a) the number of Performance Rights on issue at the time of lodgement of the Appendix 2A and (b) the conversion ratio of the Performance Rights into ordinary shares upon achievement of a vesting condition.
- (d) Listing Rule 10.13.5 to allow the Company to issue Shares to permit the issue of:
- (i) up to 1,160,000 Shares to Mr Bill Nikolouzakis at the same issue price as the Capital Raising Shares pursuant to a debt to equity conversion; and
 - (ii) up to 2,000,000 Shares to each of Mr David Chapman and Anna Neuling pursuant to the Capital Raising,
- (Director Shares)** later than 1 month after the date of the General Meeting, subject to:
- (iii) the Director Shares being issued by no later date than the date the Capital Raising Shares are issued;
 - (iv) the Director Shares are issued on the terms and conditions set out in the Notice of Meeting;
 - (v) the circumstances of the Company, as determined by ASX, having not materially changes since the date of the General Meeting; and
 - (vi) the terms of this waiver are clearly disclosed in the Notice of Meeting and the Prospectus.

REGULATORY NOTICES

Investors should take account of the following uncertainties in deciding whether to buy or sell the Company's securities:

- (a) the Acquisition requires shareholder approval under the ASX Listing Rules and therefore may not proceed if that approval is not forthcoming;

- (b) the Company is required to re-comply with ASX's requirements for admission and quotation and therefore the Acquisition may not proceed if those requirements are not met; and
- (c) ASX has an absolute discretion in deciding whether to re-admit the Company to the Official List and to quote its securities and therefore the Acquisition may not proceed if ASX exercises that discretion.

The Company's due diligence investigations into TIS and its assets are ongoing, and it is noted that completion under the formal documentation of the Acquisition is conditional on the Company being satisfied with the results of its due diligence investigations. However, the Company has undertaken appropriate enquiries into the assets and liabilities, financial position and performance, profits and losses, and prospects of TIS for the Board to be satisfied that the Acquisition is in the interests of the Company and its shareholders.

The Company confirms that it is in compliance with its continuous disclosure obligations under ASX Listing Rule 3.1.

ASX takes no responsibility for the contents of this announcement.

Authorised for release to ASX by the Board.

Date: 12 June 2020

Bill Nikolouzakis
CEO and Executive Director
RESA Group Limited (formerly iBuyNew Group Limited)
P: 1300 851 017

COMPETENT PERSONS STATEMENT:

The information in this announcement that relates to Mineral Resources, Exploration Results/Exploration Targets is based on information compiled by Leonardo de Moraes Soares, a Competent Person who is a Member of The Australian Institute of Geoscientists registered with number AIG #5180. Mr. de Moraes Soares is a Geologist with fifteen years of continuous experience in the mining industry. Mr de Moraes Soares 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'. Mr de Moraes Soares consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Annexure A

The key commercial terms set out in the Acquisition Agreement are summarised below:

(a) Conditions Precedent

Completion of the Acquisition (**Completion**) is subject to a number of conditions precedent (**Conditions Precedent**), including but not limited to those set out below, being satisfied on or before 30 September 2020 or such later date as is agreed by the Company and TIS:

- i. (**Due Diligence**) both the Company and TIS being satisfied with its due diligence investigations on the other;
- ii. (**TIS Restructure**) completion of the corporate restructure of TIS, that is, conversion of outstanding notes in TIS to shares and the entry into a mineral rights agreement with former Tenement holder, Colomi Iron Mineracao Ltda, pursuant to which TIS (via its 100% owned Brazilian subsidiary, Tomador Iron Mineracao S.A.) will effectively own and have all the rights to mine and process the high-grade hematite resource located on the Project (including transitional hematite and any other high grade hematite found on the Project);
- iii. (**Placement**) the Company having issued up to 125,000,000 Shares at an issue price of \$0.02 per Share (on a pre Consolidation basis) (**Placement Shares**) to raise approximately \$2,500,000 (**Placement**), in two components, such that following the Placement the Company will have raised up to \$1,500,000 in cash and reduce its existing debt by up to \$1,000,000;
- iv. (**Capital Raising**) the Company receiving valid applications for the Minimum Subscription and completing the Capital Raising;
- v. (**Shareholder Approvals**) the Company obtaining all necessary Shareholder approvals required by the Corporations Act 2001 (Cth) (**Corporations Act**) and the ASX Listing Rules in relation to the Acquisition and the Company's re-compliance with Chapters 1 and 2 of the ASX Listing Rules, including without limitation, approval for the Company to undertake the Capital Raising; and
- vi. (**Regulatory Approvals**) the parties obtaining all necessary regulatory approvals to lawfully complete the Acquisition, including conditional approval by the ASX being granted to reinstate the Shares to trading on the Official List.

(b) Consideration

In consideration for acquiring 100% of TIS's issued share capital, the Company has agreed to issue the TIS Shareholders a total of 1,107,692,308 Shares (**Consideration Shares**). The TIS Shareholders acknowledge and agree that the Consideration Shares may be issued subject to any escrow provisions imposed by ASX (**ASX Escrow**) and the TIS Shareholders agree to execute, upon Completion, a restriction agreement pursuant to Chapter 9 of the ASX Listing Rules in accordance with the requirements of ASX. The Company will use its best endeavours to apply to the ASX for relief from ASX Escrow to the maximum extent possible on behalf of the TIS Shareholders.

(c) Board Changes

The Board will be reconstituted with effect from shortly after Completion so that existing directors, Mr Vasilios (Bill) Nikolouzakis and Mr Andrew Jensen will resign and Ms Anna Neuling, Mr Keith Liddell and Mr David Chapman will be appointed as directors of the Company.

The Acquisition Agreement otherwise contains standard terms (including standard warranties and indemnities given on behalf of the Company and the TIS Shareholders) customary of an agreement of this nature.

Annexure B – Proposed Capital Structure

Shares	Max. Sub \$	%	Full Overs. Sub \$	%
Existing Shares (Prior to Consolidation)	151,392,727	-	151,392,727	-
Existing Shares (Post Consolidation)	143,823,655	8.7%	143,823,655	7.7%
Acquisition of TIS	1,107,692,308	66.7%	1,107,692,308	59.5%
Debt-to-Equity Conversions (in RTO) ¹	9,426,853	0.6%	9,426,853	0.5%
Re-compliance Capital Raising	400,000,000	24.1%	600,000,000	32.2%
TOTAL	1,660,942,816	100%	1,860,942,816	100%

¹ This relates to existing debt to creditors (\$235,671.32) which will convert into Shares (subject to shareholder approval) at a deemed issue price of \$0.025 per Share and will be issued at the same time as those Shares issued at Completion of the Acquisition.

Options	Number	Terms
On issue prior to Capital Raising	5,324,750	574,750 unlisted options, exercisable at \$0.21, expiring on the date that is two weeks after the Company releases its FY20 full year results; and 4,750,000 unlisted options, exercisable at \$0.052 and may be exercised in the two-week period following the release of the Company's half-year and full-year results and expiring two weeks after the issue of the Company's FY25 full-year results.
Lead Manager	15,000,000	Unlisted options, exercisable at \$0.035, expiring on that date which is 3 years from completion of the Acquisition.
TOTAL	20,324,750	

Note: All Options in the above table are stated on a post Consolidation basis.

Performance Rights	Number	Terms
Proposed to be allocated to directors, employees and consultants	75,000,000	Refer to Annexure C for terms of the Performance Rights
TOTAL	75,000,000	

Annexure C – Terms of the Performance Rights

1. DEFINITIONS

For the purpose of these terms and conditions:

ASX means ASX Limited ACN 008 624 691 or, as the context permits, the securities exchange operated by that entity.

Business Day means a day that is not a Saturday, Sunday or public holiday in Western Australia.

Change of Control Event means

- (a) the occurrence of:
 - (i) the offeror under a takeover offer in respect of all Shares announcing that it has achieved acceptances in respect of 50.1% or more of the Shares; and
 - (ii) that takeover bid has become unconditional; or
- (b) the announcement by the Company that:
 - (i) shareholders of the Company have at a Court convened meeting of shareholders voted in favour, by the necessary majority, of a proposed scheme of arrangement under which all Shares are to be either:
 - (A) cancelled; or
 - (B) transferred to a third party; and
 - (ii) the Court, by order, approves the proposed scheme of arrangement.

Company means RESA Group Limited (to be renamed “Tombador Iron Limited”) (ACN 108 958 274).

Corporations Act means the Corporations Act 2001 (Cth).

Expiry Date has that meaning given to it in clause 2.

HOA means the Heads of Agreement between the Company, TIS and the vendors of TIS pursuant to which the shareholders of TIS have agreed to sell and the Company has agreed to purchase 100% of the issued capital of TIS.

Hematite Iron Rights has that meaning given to it in the Mineral Rights Agreement.

Hematite Resource has that meaning given to it in the Mineral Rights Agreement.

Holder means a holder of a Performance Right.

Listing Rules means the Listing Rules of the ASX.

Milestone means Milestone A, Milestone B, Milestone C and/or Milestone D (as applicable).

Mineral Rights Agreement means the document entitled Mineral Rights Agreement between TIS and Colomi Singapore Pte Ltd.

Performance Rights means a Class A Performance Right, Class B Performance Right, Class C Performance Right and/or a Class D Performance Right (as applicable).

Settlement Date has that meaning given to it under the HOA.

Share means a fully paid ordinary share in the Company.

Tenement means Tenement 872.431/03 located in Bahia, Brail held by Tombador Iron Mineração Ltda but only as it relates to the Hematite Iron Rights and the Hematite Resource granted exclusively to TIS in accordance with the Mineral Rights Agreement.

TIS means Tombador Iron Singapore Pte Ltd.

2. CONVERSION OF THE PERFORMANCE RIGHTS

(a) Milestones

- (i) 25% will vest on the achievement of 30,000 tonnes of cumulative iron ore production sold to third party customers from the Tenement with a cut-off grade greater than 62% Fe (**Milestone A**);
- (ii) 25% will vest on the achievement of 1,000,000 tonnes of cumulative iron ore production sold to third party customers from the Tenement with a cut-off grade greater than 62% Fe (**Milestone B**);
- (iii) 25% will vest on the Company achieving net positive operational cashflows for one financial quarter (as evidenced in the Company's Appendix 5B to the ASX) following the Settlement Date (**Milestone C**);
- (iv) 25% will vest on the achievement of at least 25,000 tonnes of cumulative iron ore production per month for a minimum of 3 months with a cut-off grade greater than 62% Fe and the Company's Shares achieving a volume weighted average price (VWAP) of \$0.05 or more for at least 20 consecutive trading days following the Company's reinstatement to trading on the financial market operated by ASX post the Settlement Date (**Milestone D**).

(b) Conversion Notice

A Performance Right may be converted by the Holder giving written notice to the Company (**Conversion Notice**) prior to the date that is five (5) years from the date of issue of the Performance Right (**Expiry Date**). No payment is required to be made for conversion of a Performance Right to a Share.

(c) Lapse

To the extent that the Performance Rights have not converted into Shares on or before the required date, then all such unconverted Performance Rights held by each holder will automatically lapse;

(d) Issue of Shares

The Company will issue the Share on conversion of a Performance Right within 10 Business Days following the conversion or such period required by the ASX Listing Rules.

(e) Holding Statement

The Company will issue the Holder with a new holding statement for any Share issued on conversion of a Performance Right within 10 Business Days following the issue of the Share.

(f) Ranking of shares

Each Share into which the Performance Rights will convert will upon issue:

- (i) rank equally in all respects (including, without limitation, rights relating to dividends) with other issued Shares;
- (ii) be issued credited as fully paid;
- (iii) be duly authorised and issued by all necessary corporate action; and
- (iv) be issued free from all liens, charges and encumbrances whether known about or not including statutory and other pre-emption rights and any transfer restrictions.

3. CONVERSION ON CHANGE OF CONTROL

If there is a Change of Control Event in relation to the Company prior to the conversion of the Performance Rights, then Milestone A, Milestone B, Milestone C and Milestone D will be deemed to have been achieved by the Milestone A Achievement Date, Milestone B Achievement Date, Milestone C Achievement Date and Milestone D Achievement Date respectively and each Performance Right will automatically and immediately convert into Shares, however, if the number of Shares to be issued as a result of the conversion of all Class A Performance Rights, together with the number of Shares to be issued as a result of the conversion of all Class B Performance Rights, Class C Performance Rights, Class D Performance Rights and all other performance shares on issue in the Company, due to a Change of Control Event in relation to the Company is in excess of 10% of the total issued share capital of the Company at the time of the conversion, then the number of Class A Performance Rights, Class B Performance Rights Class C Performance Rights and Class D Performance Rights to be converted will be prorated so that the aggregate number of Shares issued upon conversion of the Class A Performance Rights, Class B Performance Rights, Class C Performance Rights, Class D Performance Rights and all other performance shares on issue in the Company is equal to 10% of the total issued share capital of the Company.

4. TAKEOVER PROVISIONS

- (a) If the conversion of Performance Rights (or part thereof) under these terms and conditions would result in any person being in contravention of section 606(1) of the Corporations Act then the conversion of each Performance Right that would cause the contravention will be deferred until such time or times thereafter that the conversion would not result in a contravention of section 606(1) of the Corporations Act. Following a deferment under this paragraph, the Company will at all times be required to convert that number of Performance Rights that would not result in a contravention of section 606(1) of the Corporations Act.
- (b) The Holders will give notification to the Company in writing if they consider that the conversion of Performance Rights (or part thereof) under these terms and conditions may result in the contravention of section 606(1) of the Corporations Act, failing which the Company will assume that the conversion of Performance Rights (or part thereof) under these terms and conditions will not result in any person being in contravention of section 606(1) of the Corporations Act.
- (c) The Company may (but is not obliged to) by written notice request the Holders to give notification to the Company in writing within seven days if they consider that the conversion of Performance Rights (or part thereof) under these terms and conditions may result in the contravention of section 606(1) of the Corporations Act. If the Holders do not give notification to the Company within seven days that they consider the conversion of Performance Rights (or part thereof) under these terms and conditions may result in the contravention of section 606(1) of the Corporations Act then the Company will assume that the conversion of Performance Rights (or part thereof) under these terms and conditions will not result in any person being in contravention of section 606(1) of the Corporations Act.

5. RIGHTS ATTACHING TO PERFORMANCE RIGHTS

- (a) **Notice of satisfaction of Milestone**

The Company will give written notice to the Holder promptly following satisfaction of a Milestone or lapse of a Performance Right where the Milestone is not satisfied.

(b) **Entitlement**

Each Performance Right entitles the Holder to subscribe for one Share in the capital of the Company upon satisfaction of the Milestone and issue of the Conversion Notice by the Holder.

(c) **No voting rights**

A Performance Right does not entitle a Holder to vote on any resolutions proposed at a general meeting of shareholders of the Company.

(d) **No dividend rights**

A Performance Right does not entitle a Holder to any dividends.

(e) **No right to surplus profits or assets**

A Performance Right does not entitle a Holder to participate in the surplus profits or assets of the Company upon winding up of the Company.

(f) **No right to a return of capital**

A Performance Right does not entitle a Holder to a return of capital, whether upon winding up of the Company, upon a reduction of capital or otherwise.

(g) **Not transferable**

A Performance Right is not transferable.

(h) **Reorganisation of capital**

If there is a reorganisation (including, without limitation, consolidation or sub-division, but excluding a return of capital) of the issued capital of the Company, the rights of a Holder will be varied (as appropriate) in accordance with the Listing Rules which apply to reorganisation of capital at the time of the reorganisation.

(i) **Quotation of shares on conversion**

An application will be made by the Company to ASX for official quotation of the Shares issued upon the conversion of each Performance Right within the time period required by the Listing Rules.

(j) **Participation in entitlements and bonus issues**

A Performance Right does not entitle a Holder to participate in new issues of capital offered to holders of Shares, such as bonus issues and entitlement issues.

(k) **No other rights**

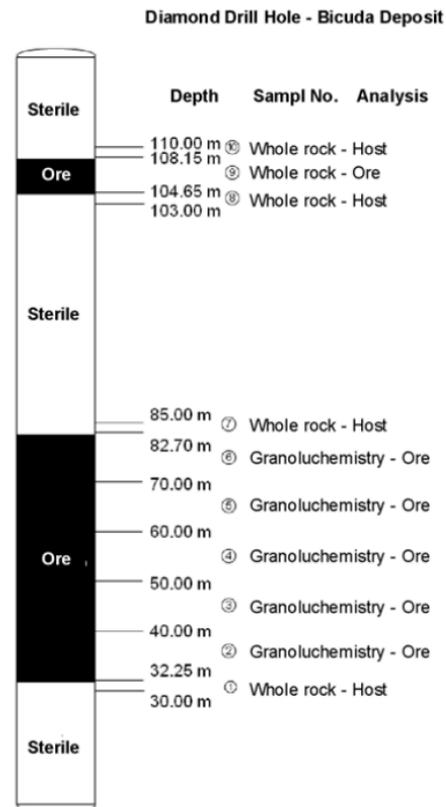
A Performance Right does not give a Holder any other rights other than those expressly provided by these terms and those provided at law where such rights at law cannot be excluded by these terms.

Appendix 1
JORC Code, 2012 Table 1 for Compact Hematite (HCO)

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • 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. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralization 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 mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> • Samples were taken from diamond drillhole HQ core, all drilled material was sampled, nothing being discarded. The holes were all vertical. All drillhole collars were topographically surveyed by total station and drillhole landmarks properly identified. This drill program was undertaken by VALE. Mineralization intervals chosen for splitting of the diamond drilling core was based on geological core description during drill core logging. • A chip sampling plan was prepared to test surficial samples to improve confidence on the hematite resource. During this stage, only the sampling of the HCO (compact hematite) was performed; sampling of the talus was left for a later date. The chips were collected from compact hematite outcroppings. The sampling was planned by the geologists and care was taken to avoid any contamination between neighbouring samples. The chip sampling points that were selected were correlated with the drillholes. Each chip sampling point was characterized according to its geodesic position and the geological description of the area where it was located. Photographs were also taken, and the area was cleared off. In cases where the mass of the samples was greater than that which was chosen to send for granulometric classification, these samples were split in the Jones splitter. • Industry standard work has been done. All drilling was diamond core drilling, drill core was logged for lithology, structure and magnetism. Core samples (HQ) were sawn in half using a diamond saw. HCO samples were prepared for granulo-chemical analysis due to the existence of hematite with potential to form direct shipping lump ore. Ore samples from half diamond core were collected using a 10 m intervals, (with minimum >5 m and maximum <15 m) obeying lithological and weathering contacts. To ensure a clear definition of the boundaries of mineralised zones, 2m samples of core were collected of the host rock above and below the mineralised intervals (as shown in the diagram below). One half of the material was sent for granulo-chemical analysis to the assay laboratory SGS Geosol - Vespasiano and the remaining half were filed in the purpose built core shed.



Each entire 10m composite sample (20-30kg) was metallurgically tested using granulochemical analysis which employs the following method. Coarse crushing and separation of size fractions as follows:

- 8mm to 31.5mm
- 1mm to 8mm
- 0.15mm to 1 mm
- < 0.15mm

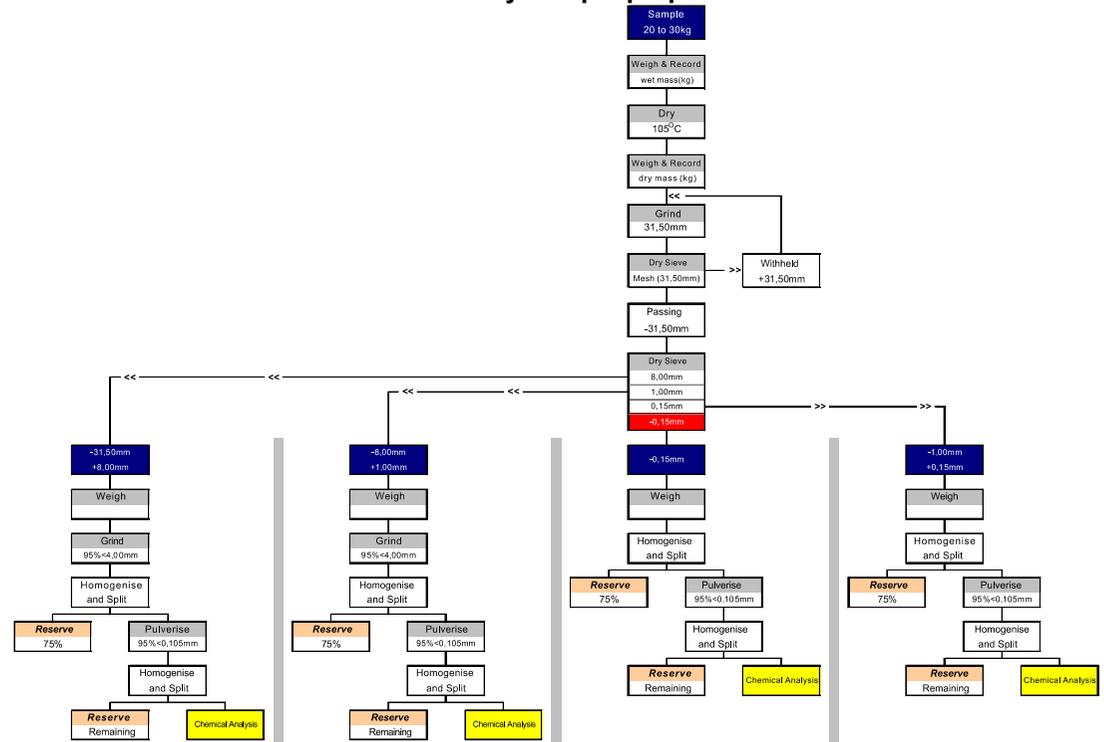
Once weighed, each interval was crushed, pulverized, mixed, split and assayed by:

- X-Ray fluorescence for the following elements and oxides: Fe, SiO₂, P, Al₂O₃, Mn, TiO₂, MgO, CaO, BaO, K₂O, Na₂O₃ & Cr₂O₃
- Volumetric analysis using potassium dichromate for FeO

- Loss on Ignition (LOI) at 1000°C

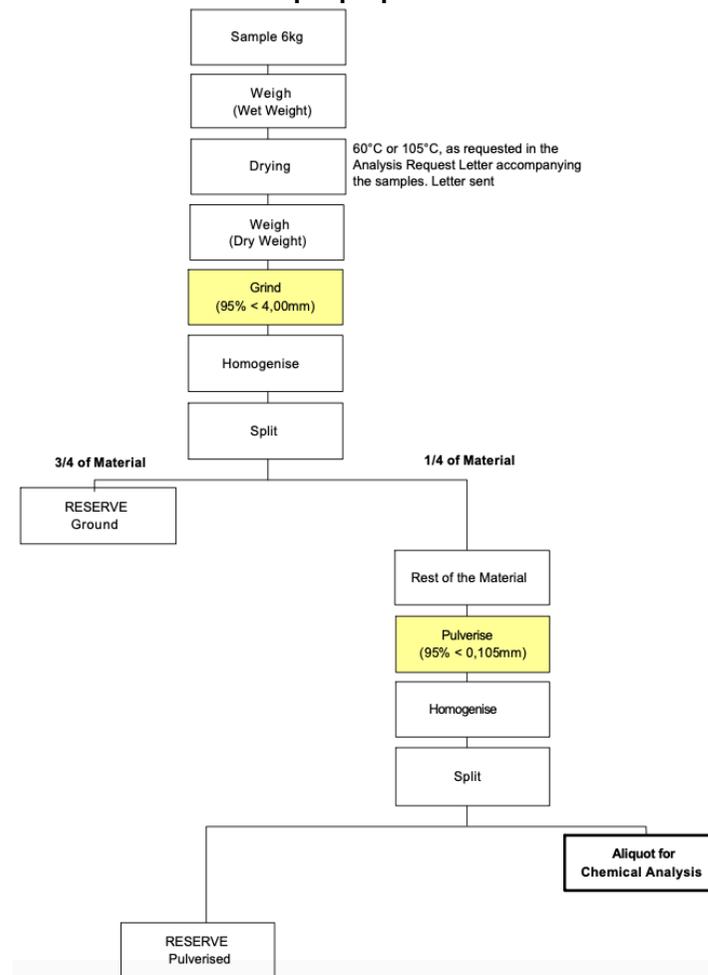
The assays and weights of each size fraction were used to calculate a weighted average assay for the global sample.

Granulo-chemical assay sample preparation flow chart



For samples less than five meters a simple total or whole rock analysis was used.

Whole Rock sample preparation for flowchart



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.).
- All of the Tombador deposit drill holes were HQ sized diamond drill holes. There were 17 diamond drill holes, totalling 2133m near the deposit and 28 holes totalling 3542.7m within the tenement. The drilling is a subset of the much larger drill program from Colomi (previous owner of the tenement). Diamond holes were undertaken in HQ size (6.35 cm) diameter triple tube.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. 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. 	<ul style="list-style-type: none"> The diamond drilling recovery conference (conference is the logging and sampling procedure set up by the Senior geologists) consisted of verifying advance and recoveries recorded in the core boxes and drilling bulletins. For Diamond Drilling, verification was undertaken by measuring with tapeline the core present in the boxes. Applied recovery control procedure and the recovery values was inside acceptable limits. The hematite was in most cases massive, providing excellent sample recoveries. Not applied because the core recoveries were inside acceptance limit and the mineralization is massive Hematite grading from 60 to 70% Fe.
Logging	<ul style="list-style-type: none"> 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. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Geotechnical description was performed on all diamond holes where they were classified by geotechnical parameters W (degree of change weathering), R (degree of resistance), spacing of fractures and RQD with degree of detail to one meter. The data was also collected directly onto PDA's using LogMate software. The author considers that the level of detail is sufficient for the reporting of Exploration Results and for future Mineral Resource Estimation. Lithological logging is qualitative in nature. Post assaying the lithology was re-classified into a new category called litho assay, prominent within the MS access database. Core is photographed prior to logging when geological codes were applied. Geological Description consisted of defining weathering levels, mineralogical lithological and structural data, in all holes with detail of one meter. All drillholes were fully logged.
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, 	<ul style="list-style-type: none"> VALE conducted the drilling and collected core samples which were sawn in half before being collected to allow half of the material to be sent for chemical analysis and the remaining half were filed in the core shed. The sampling was planned by the geologists and care was taken to avoid any contamination between neighbouring samples. Chip samples, from the surface sampling, were split in the Jones splitter. GAMIK / VALE, Physical Preparation Laboratory located in the CDM in Santa Luzia – MG was responsible for sample preparation. The procedures for sample preparations are defined above in Criteria: Sampling Techniques and the respective flowcharts. To ensure the accuracy of physical process duplicates were made of the crushed material DP2 on frequency of 1/30, after primary crushing (P 95%< 4 mm) and pulverized material DP3 on frequency of 1/20 after pulverization. Drill hole sample sizes were considered as appropriate by GE21, and chip sampling procedures has recommendations to future works to review chip sample sizes.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> including for instance results for field. duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> GE21 considers the Vale duplicate sampling to be appropriate for resource estimation JORC 2012. GE21 deems the sample sizes appropriate to the grain size of the material being sampled.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 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. 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. 	<ul style="list-style-type: none"> The assaying regime is considered to be the standard for the determination of lump Iron. Chemical analyses were conducted in the laboratory of SGS Geosol, Vespasiano-MG, while checking of 5% of the results were made in the laboratory of ALS Chemex. Sample pulps were assayed by X-Ray fluorescence for the following elements and oxides: Fe, SiO₂, P, Al₂O₃, Mn, TiO₂, CaO, MgO, BaO, K₂O, Na₂O and Cr₂O₃. FeO was also determined by Volumetric analysis using potassium dichromate, and Calcination (LOI) was at 1000 degrees C. The assay preparation technique used: granulo-chemical analysis, performs geochemical analysis by size fraction and the total rock chemical assay is calculated by weighted average of the size fractions. This is a standard technique within the Iron Ore industry for lump ore. Chemical analysis performed in total rock (samples with insufficient mass for granulo-chemical assay) were the same applied in granulo-chemical samples of Bicuda (Tombador) deposit, that is XRF, Volumetric, and LOI. Handheld geophysical tools were not used, sample preparation & assaying was completed within external laboratories The Loss on Ignition Determination (LOI) at 1000°C was also completed by SGS Geosol and Chemex. Quality control tools (standard samples and duplicates) were applied and monitored in chemical analysis performed on SGS Geosol and ALS Chemex laboratories. The quality control was restricted to the elements Al₂O₃, Fe, MgO, P, Mn, SiO₂ and to LOI (lost on Ignition). The monitored parameters were evaluated in each of the following QAQC tools: Field duplicates; crushing duplicates; pulverized duplicates (internal and independent laboratory); project standard samples; stoichiometry checks; and blank samples. Duplicates quality control results presented by VALE are, in general terms, inside acceptable limits. The evaluation of the chip sample duplicates shows results within acceptance limit and did not indicate that samples were swapped.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> GE21 approves the methodology applied by Vale in the preparation and execution of the Tombador Project QAQC Program, including the Tombador Project. GE21 does not judge the values presented in the report for not having access to QAQC data sheet, but has accompanied the VALE QAQC programs in other projects that used the same methodology and tends to agree with the recommendations of VALE, which concludes it's necessary to improve the QAQC program and some tools, as appropriate standard sample implementation. Not applied within the Tombador Hematite deposit. GE21 approves the methodology applied by Vale in the preparation and execution of the Tombador Project QAQC Program. According to GE21, results are inside acceptance limits of mineral industry. Data collection and verification and storage protocols are fully documented. Adjustment to assay data was neither required nor applied.
Location of data points	<ul style="list-style-type: none"> 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. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> All drillhole collars were topographically surveyed by total station surveying campaign and drillhole landmarks have been properly identified. SAD69 Datum for coordinate system. No issue was identified by GE21 in the field or in drilling data physical archive.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of 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. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> The holes were arranged in 50 x 50m grid. Diamond drillhole samples were produced at average length of 10 m length. Compositing was produced using these nominal lengths. GE21 judges that appropriate grid spacings and applied sampling and composition lengths were provided to establish the degree of geological continuity and classification reported by GE21. GE21 judges appropriate applied sampling and composition lengths to establish the degree of geological continuity and classification.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> • The geological layers are dipping approximately 30° and the holes are vertical. Sampling was performed almost perpendicular to the layers, which is the best condition. • No bias was introduced when using vertical drillholes.
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • GE21 approves the methodology applied by Vale in the preparation and execution of the Tombador Project QAQC Program. GE21 didn't have access to QAQC data sheet, but has accompanied the VALE QAQC programs in other projects that used the same technique. • The hematite chip sampling plan was prepared by Coffey, and Colomi was responsible for collecting and preparing the samples. • The core and chips were transported by the company's personnel from the drill site to the core storage facility in Sento Sé. Drill boxes are labelled with hole number and depth interval and the core is photographed prior to logging. • Note: GE21's evaluation of the chip sample duplicates were within acceptable limit and did not indicate that samples were swapped.
Audits or reviews	<ul style="list-style-type: none"> • The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> • In 2011 Coffey prepared the "Colomi Iron Project, Brazil Independent Technical Report on Exploration and Mineral Resources Estimation" which audited the entire Tombador Project database, including the Tombador Hematite data, the results being in that report. • There has been no specific audit on sampling techniques.

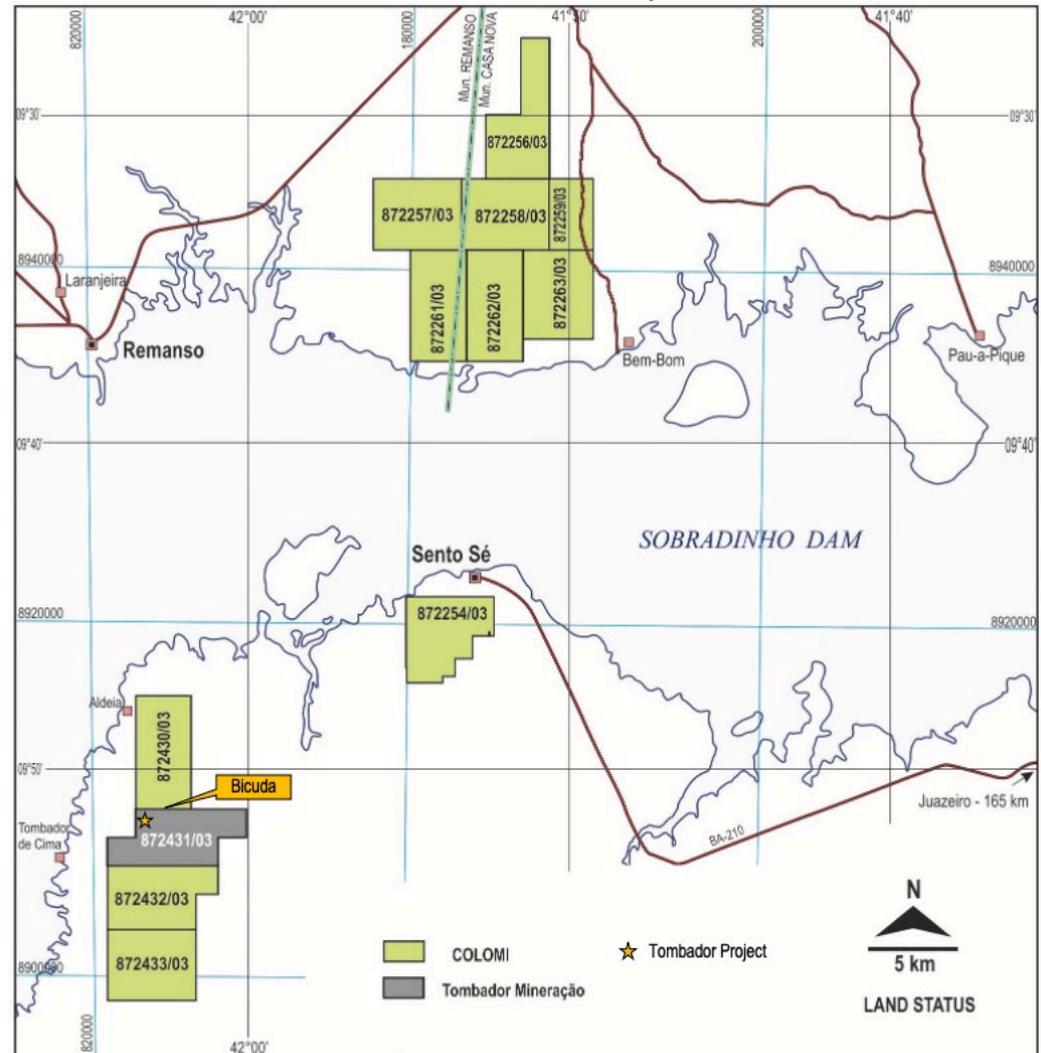
Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> 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 style="list-style-type: none"> Tombador Iron Mineracao Ltda. (TIM or the “Company”) is the titleholder of exploration lease 872.431/2003, which was transferred to TIM from Colomi Iron Mineracao Ltda. (CIM or “Colomi). The Final Exploration Report was approved and published at Brazilian Federal Gazette on February 17, 2020 and the tenement 872.431/2003 was transferred from Colomi Iron Mineração Ltda to Tombador Iron Mineração Ltda and published at Federal Gazette on 14th April 2020. Main exploration works was carried on by VALE a major iron ore mining company. The exploration program for the Tombador project was completed as part of a larger program covering all of CIM's tenements shown in figure below with Concession Area Map. The Principal Source of information was the Final Exploration Report (FER) to DNPM/ANM (Brazilian National Department of Mineral Production/National Agency of Mining) with description and evaluation of results obtained in the exploration work carried out by VALE in the areas related to TIM and Colomi Exploration Permits.

Tombador Project			
Summary of Concession Status in the Tombador Project			
Process No.	Area (Hectares)	Exploration Permit N°	Status
872.431/03	2000	1315	FER approved on 17/02/2020

Concession Area Map



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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. 	NA
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Main exploration works were carried on by VALE a major iron ore mining company. Principal source of information was the Final Exploration Report (FER) to DNPM/ANM (Brazilian National Department of Mineral Production/National Agency of Mining) with description and evaluation of results obtained in the exploration work carried out by VALE in the areas related to TIM's and Colomi's Exploration Permits.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralization. 	<ul style="list-style-type: none"> The talus deposits are represented by layers with thickness average of 3.50 m, formed mainly by itabirite blocks and, secondary blocks of quartzites, dolomites and shales, immersed in siltose mass. Hematite talus blocks are only found in the adjacencies of hematite deposit of Bicuda. Hematites represent the high grade granulated iron ore resources, restricted to the Bicuda. The hematite orebody occurs in the drag fold hinge in siliceous itabirite, showing an azimuth direction of 30°. This fold has been interpreted as being generated by a transfer fault, approximately N10E direction.

Criteria	JORC Code explanation	Commentary
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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.
- 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.

- The assay program included the sampling of chips from the compact hematite outcroppings which coordinates and assays are set out below.

SAMPLE	NEAR	Coffey	SAD 69 Coordinates		Fe	SiO2	Al2O3	P	Mn	LOI	Moisture
ID	Drill Hole	Section Code	N	E	%	%	%	%	%	%	%
193,411	DH-01	COL BICU CS 01	8,908,808	823,477	69.7	0.24	<0,1	0.051	0.02	0.01	<0,01
193,412					69.7	0.26	<0,1	0.020	0.01	0.05	<0,01
193,413					70.3	0.15	<0,1	0.029	0.01	0.06	<0,01
193,414					69.3	0.35	0.16	0.094	0.02	0.13	<0,01
193,415					69.4	0.38	0.17	0.031	0.02	0.35	<0,01
193,416			8,908,810	823,472	69.5	0.34	0.13	0.016	0.02	0.14	<0,01
193,417	DH-05	COL BICU CS 02	8,909,873	823,457	67.7	1.19	0.51	0.189	0.02	0.16	<0,01
193,418					67.9	1.51	0.53	0.148	0.02	0.22	<0,01
193,419					64.6	5.67	0.49	0.168	0.02	0.43	<0,01
193,420			8,908,870	823,456	66.5	1.78	0.93	0.102	0.04	0.27	<0,01
193,401	FD-06	COL BICU CS 03	8,908,834	823,480	68.1	0.90	0.25	0.078	0.03	0.62	<0,01
193,402					68.1	1.04	0.41	0.029	0.14	0.15	<0,01
193,403					68.7	0.79	0.36	0.017	0.03	0.13	<0,01
193,404			8,908,835	823,476	68.1	2.13	0.43	0.020	0.05	0.10	<0,01
193,405	DH-17	COL BICU CS 04	8,908,790	823,448	68.6	0.94	0.52	0.020	0.02	0.25	<0,01
193,406					68.6	0.94	0.43	0.050	0.02	0.04	<0,01
193,407					69.0	0.53	0.21	0.059	0.02	0.06	<0,01
193,408					69.1	0.64	0.26	0.025	0.02	0.07	<0,01
193,409					68.8	1.11	0.52	0.053	0.03	0.16	<0,01
193,410			8,908,791	823,442	69.3	0.53	0.23	0.018	0.02	0.04	<0,01

Criteria

JORC Code explanation

Commentary

- The sampling points that were selected were correlated with the drillholes or test trenches that had already been excavated, as shown in Table below:

hole_id	x	y	z	TENEMENT ID	max_depth	dip
COL-BICU-DH00001	823487.97	8908771.18	548.11	872.431/2003	96	-90
COL-BICU-DH00002	823484.4	8908818.26	534.73	872.431/2003	118.1	-90
COL-BICU-DH00003	823581.44	8908967.98	540.29	872.431/2003	58.5	-90
COL-BICU-DH00004	823431.26	8908818.2	527.05	872.431/2003	79.5	-90
COL-BICU-DH00005	823428.51	8908868.08	505.64	872.431/2003	72.3	-90
COL-BICU-DH00007	823631.73	8908867.61	584.81	872.431/2003	127.45	-90
COL-BICU-DH00008	823728.22	8908966.04	556.57	872.431/2003	160.2	-90
COL-BICU-DH00009	823630.55	8908814.88	602.75	872.431/2003	207.2	-90
COL-BICU-DH00012	823731.81	8908868.03	591.57	872.431/2003	132.3	-90
COL-BICU-DH00016	823478.39	8908668.24	606.2	872.431/2003	156.3	-90
COL-BICU-DH00017	823439.97	8908754.44	573.33	872.431/2003	79.6	-90
COL-BICU-DH00021	823536.16	8908868.62	557.35	872.431/2003	173.95	-90
COL-BICU-DH00022	823484.08	8908868.08	529.39	872.431/2003	145.5	-90
COL-BICU-DH00024	823581.9	8909060.02	491.12	872.431/2003	250	-90
COL-BICU-FD0004	823481.36	8908687.5	599.35	872.431/2003	104	-90
COL-BICU-FD0005	823507.88	8908781.59	547.56	872.431/2003	119.85	-90
COL-BICU-FD0006	823466.74	8908800.91	536.14	872.431/2003	52.8	-90

* There were a total of 28 diamond holes in the tenement. Drill holes not in the vicinity Tombador deposit have been excluded from this table

Summary of significant mineralized intercepts:

hole_id	depth_from	depth_to	sample_id	SiO2%	P%	AL2O3%	MN%	FE%	PF%	LITHOASSAY
COL-BICU-DH00001	2.95	10	COL-BICU-DH00001-0002	0.72	0.066	0.28	0.034	68.64	0.05	HCO
COL-BICU-DH00001	10	20	COL-BICU-DH00001-0003	0.76	0.123	0.47	0.036	67.77	0.17	HCO
COL-BICU-DH00001	20	30	COL-BICU-DH00001-0004	1.70	0.111	0.95	0.024	66.81	0.27	HCO
COL-BICU-DH00001	30	40	COL-BICU-DH00001-0005	0.43	0.123	0.18	0.023	68.75	0.05	HCO
COL-BICU-DH00001	40	54.7	COL-BICU-DH00001-0006	0.37	0.092	0.18	0.021	68.43	0.05	HCO
COL-BICU-DH00002	20	30	COL-BICU-DH00002-0005	4.68	0.077	0.30	0.031	65.29	0.11	HCO
COL-BICU-DH00002	30	40	COL-BICU-DH00002-0006	1.11	0.078	0.58	0.018	67.67	0.24	HCO
COL-BICU-DH00002	40	50	COL-BICU-DH00002-0007	0.87	0.086	0.54	0.019	68.75	0.28	HCO
COL-BICU-DH00002	50	60	COL-BICU-DH00002-0008	0.31	0.070	0.24	0.022	69.20	0.06	HCO
COL-BICU-DH00005	23	36.7	COL-BICU-DH00005-0006	4.49	0.063	1.72	0.029	63.37	0.86	HCO
COL-BICU-DH00017	3	10	COL-BICU-DH00017-0002	0.83	0.017	0.23	0.049	68.38	0.05	HCO
COL-BICU-DH00017	10	20	COL-BICU-DH00017-0003	0.47	0.035	0.21	0.026	68.53	0.02	HCO
COL-BICU-DH00017	20	30	COL-BICU-DH00017-0004	0.86	0.060	0.39	0.023	68.56	0.20	HCO
COL-BICU-DH00017	30	40.5	COL-BICU-DH00017-0005	0.74	0.063	0.24	0.016	67.87	0.22	HCO
COL-BICU-DH00021	101	110	COL-BICU-DH00021-0009	0.58	0.083	0.36	0.017	68.12	0.22	HCO
COL-BICU-DH00021	110	117.2	COL-BICU-DH00021-0010	0.14	0.033	0.12	0.018	69.56	0.01	HCO
COL-BICU-DH00022	18	27	COL-BICU-DH00022-0004	6.50	0.034	2.54	0.151	62.10	0.84	HCO
COL-BICU-DH00022	34.5	40	COL-BICU-DH00022-0007	13.31	0.110	0.33	0.091	60.22	0.17	HCO
COL-BICU-DH00022	40	52	COL-BICU-DH00022-0008	6.89	0.079	0.19	0.024	64.37	0.03	HCO
COL-BICU-DH00022	59.9	70	COL-BICU-DH00022-0011	0.83	0.082	0.43	0.023	67.87	0.18	HCO
COL-BICU-DH00022	70	80	COL-BICU-DH00022-0012	0.32	0.116	0.18	0.035	68.56	0.05	HCO
COL-BICU-DH00022	80	85	COL-BICU-DH00022-0013	3.40	0.074	0.51	0.064	65.59	0.46	HCO
COL-BICU-FD00005	15.75	30	COL-BICU-FD00005-0005	2.07	0.620	0.76	0.141	65.63	0.56	HCO
COL-BICU-FD00005	30	40	COL-BICU-FD00005-0006	1.14	0.102	0.52	0.031	67.58	0.44	HCO
COL-BICU-FD00005	40	50.7	COL-BICU-FD00005-0007	1.28	0.084	0.39	0.021	67.99	0.36	HCO
COL-BICU-FD00006	3.6	11.35	COL-BICU-FD00006-0002	0.75	0.090	0.31	0.037	69.00	0.42	HCO
COL-BICU-FD00006	33.7	46.2	COL-BICU-FD00006-0005	1.18	0.083	0.23	0.015	68.66	0.44	HCO

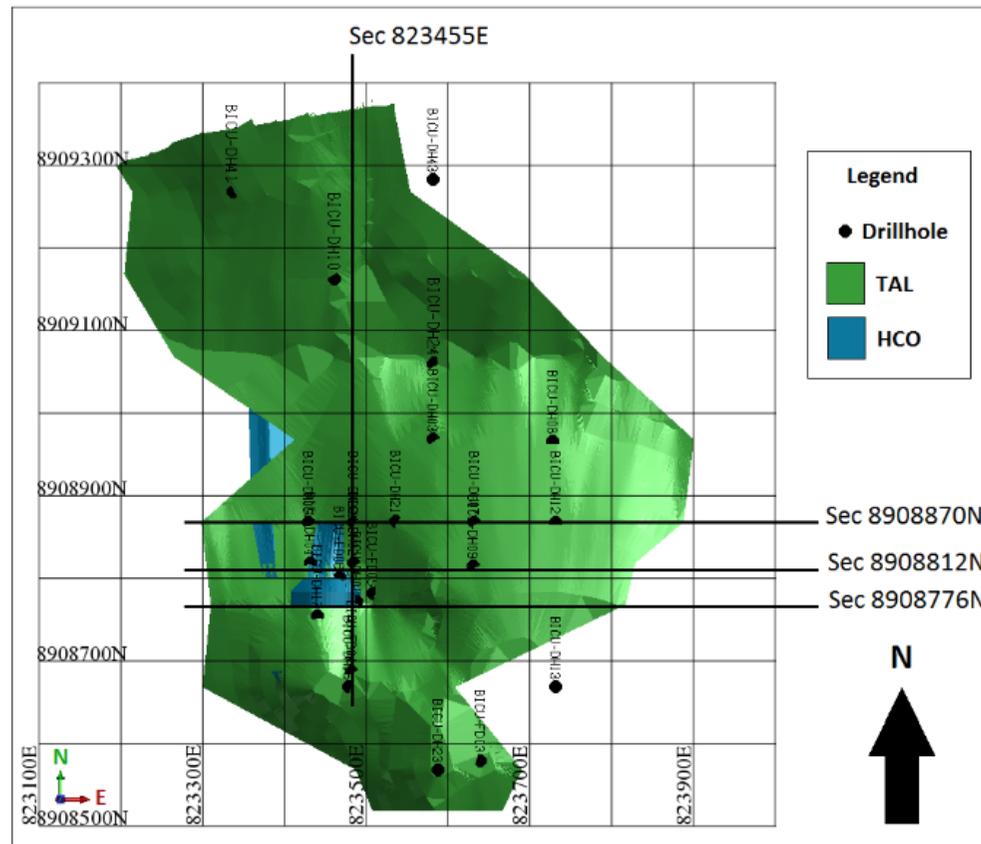
Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. 	<ul style="list-style-type: none"> Global sample grades of interval samples were aggregated by weighted average mass of each size fraction. There were 4 size fractions assayed for each granulo-chemical sample for all significant mineralized intervals. Mineralization intervals intersected by drilling was aggregated by weighted average length. There was no cuts or applied caps on grade estimate. A cut-off grade of 60% Fe was applied for Compact Hematite and 20% Fe for Talus.
	<ul style="list-style-type: none"> 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Samples from diamond drillings were collected using 10 m intervals, obeying the lithologic contacts. To ensure a clear definition of the boundaries of mineral zones, 2 m samples were also collected of the host rock above and below the mineralized intervals. Drill hole samples were composited to regular downhole lengths of 10m. Compositing was applied to the mineralized intervals inside the geological model. Channel samples has been submitted on variance volume adjustment to validate this samples to be used on grade estimate together with diamond drillhole samples. No metal equivalent was reported
Relationship between mineralization widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralization 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'). 	<ul style="list-style-type: none"> The resource modelling was carried out in 3D software and effect of apparent widths was accounted for estimation method. All holes were vertical and mineralization zone dipping at 30°. The Fe mineralization sits within foliation dipping at approximately 30 degrees to the east and plunging at approximately 30 degrees to the north. All diamond drillholes into the Tombador project were drilled vertically. NA
Diagrams	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Further diagrams necessary to describe the Project are included in "Independent Technical Report on Exploration and Mineral Resources Estimation – Update HCO Resources"- Prepared by GE21.

Criteria

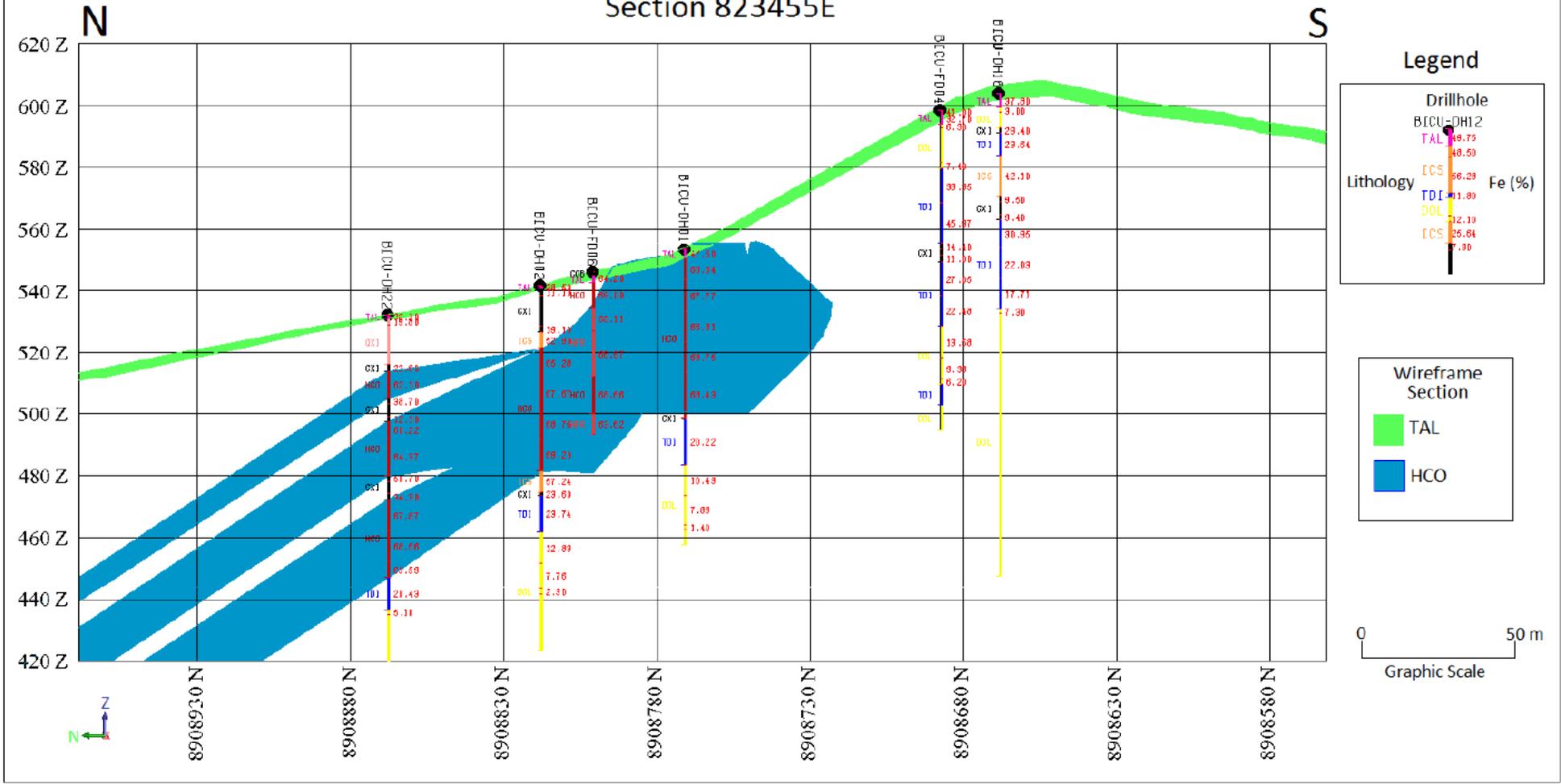
JORC Code explanation

Commentary

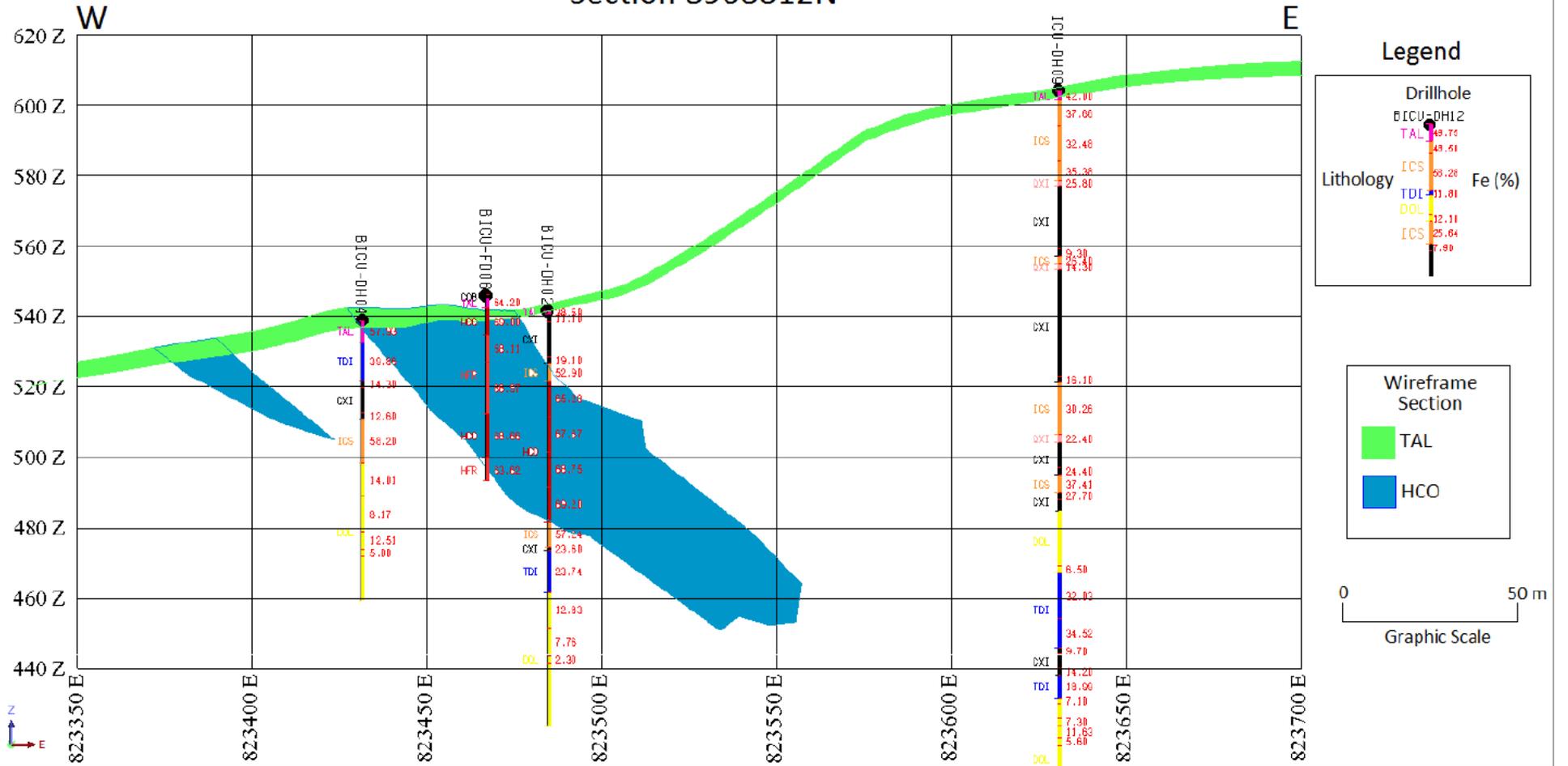
plan view of drill hole collar locations and appropriate sectional views.



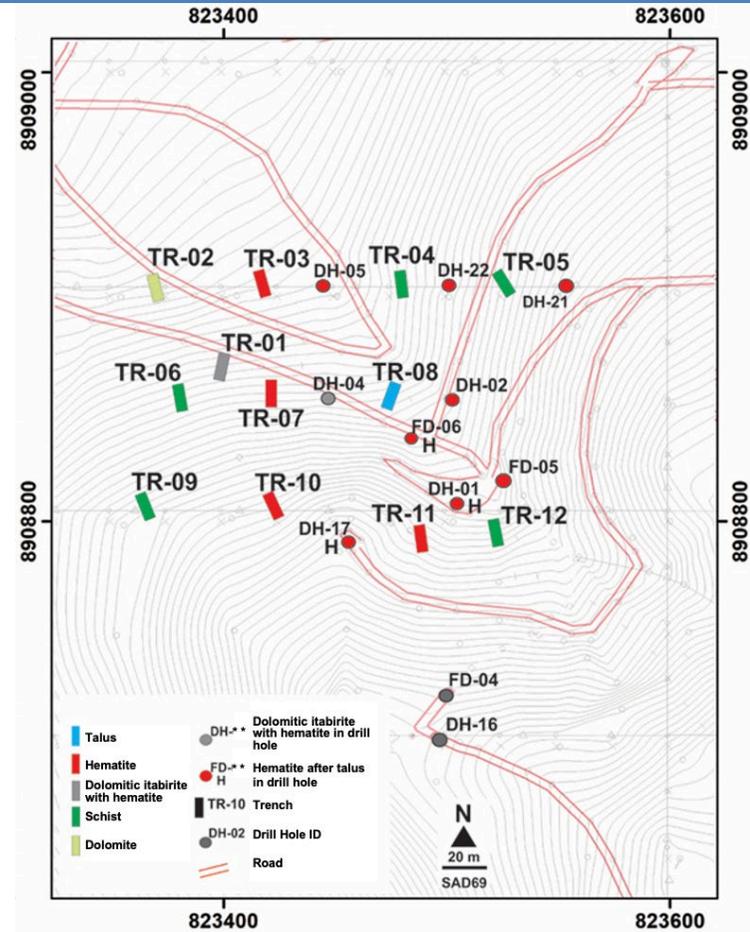
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Criteria	JORC Code explanation	Commentary
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> The drilling databases are highly organized with drilling Intercepts and grade x length reports properly stored and readily available within the drillhole database.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Tombador exploration was part of a larger VALE exploration and drilling program as mentioned in the report prepared by Coffey in 2011: “Colomi Project, Brazil Independent Technical Report on Exploration and Mineral Resources Estimation“. Other exploration data includes: <ul style="list-style-type: none"> Geological observations of additional Talus areas outside of Tombador; Geological Surface mapping by independent Professor Miguel Tupinamba. Trench excavation to identify bedrock by Colomi shown in the image below.



- Modest metallurgical tests were completed in 2013 by an external group “Mope” on 10 samples consisting of 3 drill core 5 outcrop and 2 composite samples. Results confirmed the prospect of producing lump product. No deleterious or contaminating substances were encountered. Sulphur results were less than 0.01%.
- An additional 4 surficial channel lines were sampled atop hematite outcrops by Coffey in 2013. The 5kg samples were taken at 1 meter intervals to total 20 lineal meters assayed. These have been considered by GE21 in their estimation.

Criteria	JORC Code explanation	Commentary
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). 	<ul style="list-style-type: none"> Additional topographic survey. Sampling for additional metallurgical and processing tests
	<ul style="list-style-type: none"> Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Extensions of HCO were not considered in the geological modelling. The geological modeling (GE21) was confined to the large central body of hematite mineralization. Additional narrow, <10m hematite foot wall and hanging wall occurrences of Hematite mineralization are known from geological mapping and drill hole logging. These were not included as additional drilling data to establish continuity was not available. Follow up drilling is planned for these areas.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> 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. Data validation procedures used. 	<ul style="list-style-type: none"> The Tombador deposit drilling data base was received excel format and GE21 produced the Access datasets. GE21 carried out an electronic validation of the databases with Gemcom Surpac software. No errors, as gaps or overlapping data, or other material inconsistencies were found.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> A site visit was undertaken by Mr Porfirio Rodriguez to the Tombador Project between 12th to 14th November 2013. Not Applied
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> There is high confidence in the geological interpretation as there is a semi-detail geological map to guide the modelling of the mineralization zone. The defined horizons are considered to be reasonably robust. The HCO model was built from as an extension of the original model presented in the previous Independent Resource Estimate, as prepared by Coffey on September 2013. The extended model was based on more detail field mapping and a new interpretation on downdip and down plunge considering a half distance between HCO mineralized and non-HCO mineralized holes. There are a total of 17 drill holes with 8 mineralized (with >60%Fe) holes used for the HCO mineral resource estimate. 8 mineralised drill holes have broad and consistent mineralized intersections (up to 50m) and are drilled at a reasonably close (irregular 50x50m grid) spacing refuting alternate mineral interpretations. Geology provided a guide to the ore shapes produced. The hematite orebody occurs in the drag fold hinge in siliceous itabirite, showing an azimuth direction of 30°. This fold has been interpreted as being generated by a transfer fault, approximately N10E direction. The fold hinge is the primary geological determining factor. Continuity of hematite mineralization is projected within the fold hinge.

Criteria	JORC Code explanation	Commentary
Dimensions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The mineralization outcrops. Within the drilled portion the mineralization is 30 to 50m in thickness and occurs at a length of approximately 150m down dip and is both wide and open 200m down plunge. The down plunge projection in the non-drilled “Inferred” portion of the resource is interpreted to thin to a thickness of 20m.
Estimation and modelling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Resource modelling was done with Geovia Surpac software. Three 3D block model were constructed for resource estimation purposes for the HCO orebody. The block dimensions were defined as 25m x 25m x 5m and sub-blocks of 12.5m x 12.5m x 2.5m, based on a quarter of the drilling grid dimensions. Sub-blocking was applied to assure a good adherence between the geological model and the lithological unit attitude. After examining the raw sample lengths of sampled intervals (Figure 3.4_1), and in consideration of the local geology, composites were generated using a nominal length of 10 meters (with 75% of range at end of intervals). Compositing was applied to the mineralized intervals inside the geological model. The Tombador HCO chip sampling produced 20 samples, 1m each, because of the nature of the samples, they were considered as punctual, (i.e. with only one dimension) characterized by their X,Y and Z coordinates. Aiming to be able and combine chip samples and drilling data, a Variance Volume, based on NScore GSLIB tool was done in order to transform all chip sample data as they were in the same support as drilling data, The downhole experimental variograms were calculated to establish the structures for composite grades. The omni-directional horizontal variograms were calculated for the purpose of determination of major axis variability for target HCO Orebody

Tombador Project HCO Orebody Variogram Model Summary							
Variable	Unit	C0	C1	A1	C2	A2	Horizontal/ Vertical Ratio
Fe	HCO	0.70	2.35	30	2.35	60	2
SiO ₂		0.43	0.4	30	1.04	60	2
Al ₂ O ₃		0.02	0.134	60	0	0	2
Mn		0.00	1.5E-04	30	6.18E-04	60	2
P		0.00	0.002	60	0	0	2
LOI		0.02	0.032	60	0	0	2

- The established Kriging plan, for all attributes, considered three estimation steps, as presented in the Table below:

Tombador Project Ordinary Kriging Strategy				
Step	Search Radius	Minimum Number of Samples	Maximum Number of Samples	Maximum Number of samples per Drillhole
HCO Unit				
Searching Parameters: Bearing=358; Plunge=-33; Dip=-35; Major/Semi-Major Ratio=1; Major/Minor Ratio=2				
1	50	3	10	2
2	150	3	10	2
3	500	1	10	2

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. 	<ul style="list-style-type: none"> Visual Validation for estimated grade was carried out with vertical sections. Visual validation by GE21 confirms the smoothing effect of the grade. Visual validation shows a good correlation between the blocks estimated and the original samples. Validation for estimated grade was carried out with a comparative Nearest Neighbouring estimation (NN). This validation consists in a comparative statistical analysis over global results for Fe%, SiO₂%, Al₂O₃%, Mn%, P% and LOI% variables to the mineralized intervals. The comparative analysis of estimation variable with the Nearest Neighbouring results showed different grade distributions. The relative smoothing in the kriging results are compatible with the kriging technique and is acceptable based on the resources classification and the data density and distribution. Local validation by the Swath Plot method was carried out with the verification of local bias from comparative graphs for resource estimation variable (Ordinary Kriging) and NN-Check, considering X, Y, or Z coordinates The comparative analysis of estimative variables with the Nearest Neighbouring results show the relative smoothing in the kriging results that are compatible with the kriging technique and is acceptable based on the resources classification and the data density and distribution. Considerable biases on depth end or in corners of block model are originated on the effect of small volume of blocks in boundary portions of mineralization zones and differences in estimation techniques Recovery of by-products were not considered. No deleterious or contaminating substances were encountered. Sulphur results were less than 0.01%. The block size was smaller than the average sample spacing, less than half. No assumptions were made regarding SMU (selective mining units). No assumptions were made by GE21 regarding the correlation between variables.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> The main controls to the hematite are lithological and structural. The hematite orebody occurs in the drag fold hinge in siliceous itabirite, showing an azimuth direction of 30°. This fold has been interpreted as being generated by a transfer fault, approximately N10E direction. The mineralization is thick and continuous hematite contained within 8 drill holes each exhibiting thick and continuous hematite mineralization from 30 to 50 m in thickness with consistent grade. Grade cutting or capping procedures are not common to be applied on this style of mineralization (iron hematite). GE21 didn't apply any of this methods on Tombador grade estimate. GE21 used internal peer review and created grade plans and sections to review the results. No erroneous zones were found.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> The resource was estimated in a dry basis.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> A 60%Fe COG was applied representing a DSO (direct shipping ore) hematite product. This cut off grade defined a consistent and broad thick mineralized zone. Additional zones of mineralization were not included. Areas where the mineralization was pinching to widths of >5m, on the periphery (down dip) away from the bulk mineralized zone were included.
Mining factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A conventional open pit mining operation was assumed for the Tombador project. The mineralization is known, from close spaced drilling, to be from 20 to 50m in thickness, and the external contacts are sharp and visually distinct to the lower grade peripheral transitional and waste rock. For this reason both internal and external dilution are predicted by GE21 to be modest.

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No metallurgical tests were considered in the estimation of resources. Modest metallurgical tests were completed in 2013 by an external group “Mope” on 10 samples consisting of 3 drill core 5 outcrop and 2 composite samples. No deleterious or contaminating substances were encountered. Sulphur results were less than 0.01%. This testwork, along with the 5 X 100kg surface samples collected by Mope in 2013 do provide additional confidence in the resource estimation completed by GE21, because results evidence the ore produces a high-grade lump product.
Environmental factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Company will be required to obtain the necessary environmental permits and comply with environmental laws.

Criteria	JORC Code explanation	Commentary								
Bulk density	<ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> The density applied in the block model was defined by the average of values obtained by the experimental specific gravity test with litho types by Vale. There were density determinations in three types of materials: drill core samples; weathered rocks; in field tests. Altogether, 1973 density determinations tests were carried out on all rotative drill holes made every 3 m depth in ore zones and every 10 m in waste zones by VALE in the Colomi project areas. The intervals were selected respecting geological contacts and weathering zone limits. The density determination was carried out in drill cores by the Jolly method. The weathered rock samples were oven dried and sealed with paraffin material. VALE applied to mineralized unit types an average density value individually in each target data. Vale didn't perform any spatial variability study on density data. The table below summarizes the density value applied on the Tombador resource block model. <table border="1" data-bbox="1243 702 1944 925"> <thead> <tr> <th colspan="2">Tombador Project Density Data</th> </tr> <tr> <th>Unit</th> <th>Density (g/cm³)</th> </tr> </thead> <tbody> <tr> <td>HCO</td> <td>4.62</td> </tr> <tr> <td>TAL</td> <td>1.80</td> </tr> </tbody> </table>	Tombador Project Density Data		Unit	Density (g/cm ³)	HCO	4.62	TAL	1.80
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Unit	Density (g/cm ³)									
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	<ul style="list-style-type: none"> Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<ul style="list-style-type: none"> Waste density was determined in previous works. Current work performed review on density values only in HCO lithotype. 								

Criteria	JORC Code explanation	Commentary																																																						
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. 	<ul style="list-style-type: none"> The resource was classified by the Competent Person as Measure, Indicated and Inferred based depending on the drilling grid spacing as explained below. <div style="border: 1px solid black; padding: 5px; text-align: center;"> <p>Tombador Project Resource Table – 26th Feb 2014</p> <p>Mineral Resources - Tombador Mineração Ltda - Tombador Project – HCO Resource</p> <p>Block Model: 25m X 25m X 5m (12.5m X 12.5m X 2.5m)</p> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Resource Class</th> <th>Cut-off Grade (Fe%)</th> <th>Tonnes (Mt)</th> <th>Fe (%)</th> <th>SiO2 (%)</th> <th>Al2O3 (%)</th> <th>Mn (%)</th> <th>P (%)</th> <th>LOI (%)</th> </tr> </thead> <tbody> <tr> <td colspan="9" style="text-align: center;">HCO – Compact Hematite</td> </tr> <tr> <td>Measured</td> <td>60</td> <td>1.94</td> <td>67.04</td> <td>1.95</td> <td>0.47</td> <td>0.037</td> <td>0.101</td> <td>0.44</td> </tr> <tr> <td>Indicated</td> <td>60</td> <td>3.47</td> <td>67.30</td> <td>1.65</td> <td>0.56</td> <td>0.029</td> <td>0.092</td> <td>0.31</td> </tr> <tr> <td>Demonstrated</td> <td>60</td> <td>5.41</td> <td>67.21</td> <td>1.76</td> <td>0.53</td> <td>0.032</td> <td>0.095</td> <td>0.36</td> </tr> <tr> <td>Inferred</td> <td>60</td> <td>2.58</td> <td>67.48</td> <td>1.54</td> <td>0.62</td> <td>0.027</td> <td>0.086</td> <td>0.28</td> </tr> </tbody> </table> <ol style="list-style-type: none"> Mineral resource effective date is 26 February 2014 Presented mineral resources are not exclusive of mineral reserves. All figures have been rounded to the relative accuracy of the estimates. Summed amounts may not add due to rounding. Mineral resources which are not mineral reserves do not have demonstrated economic viability. Mineral resources have been modeled with cut-off of 60% Fe Mineral resources have been estimated using ordinary kriging inside 25m by 25m by 5m block sizes. The mineral resource estimates were prepared in accordance with Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012) incorporating drilling data acquired until 2014. 	Resource Class	Cut-off Grade (Fe%)	Tonnes (Mt)	Fe (%)	SiO2 (%)	Al2O3 (%)	Mn (%)	P (%)	LOI (%)	HCO – Compact Hematite									Measured	60	1.94	67.04	1.95	0.47	0.037	0.101	0.44	Indicated	60	3.47	67.30	1.65	0.56	0.029	0.092	0.31	Demonstrated	60	5.41	67.21	1.76	0.53	0.032	0.095	0.36	Inferred	60	2.58	67.48	1.54	0.62	0.027	0.086	0.28
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Tombador Project Resource Table – 26th February 2014

Mineral Resources – Tombador Mineração Ltda - Tombador Project – TAL Resource

Block Model: 100m X100m X 5m (25m X 25m X 5m)

Resource Class	Cut-off Grade (Fe%)	Tonnes (Mt)	Fe (%)	SiO2 (%)	Al2O3 (%)	Mn (%)	P (%)	LOI (%)
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TAL_HCO – Compact Hematite Talus

Inferred	20	2.06	43.17	31.88	2.04	0.276	0.022	2.49
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1. Mineral resource effective date is 26th February 2014
2. Presented mineral resources are not exclusive of mineral reserves. All figures have been rounded to the relative accuracy of the estimates. Summed amounts may not add due to rounding. Mineral resources which are not mineral reserves do not have demonstrated economic viability.
3. Mineral resources have been modeled with cut-off of 20% Fe Mineral resources have been estimated using ordinary kriging inside 100m by 100m by 5m block sizes. The mineral resource estimates were prepared in accordance with Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012) incorporating drilling data acquired until 2014.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<ul style="list-style-type: none"> The anisotropic average distance to samples from ordinary kriging estimation was adopted as criteria to distinguish Indicated and Inferred resource classes. Blocks with anisotropic average distance to samples lower than 50m were classified as Measured Resource; blocks with anisotropic average distance to samples higher than 50m and lower than 150m were classified as Indicated Resource; blocks with anisotropic average distance to samples higher than 150m and lower than 500m were classified as Inferred Resource A pit scenario study was carried out in order to guide the future mining project implying that a reasonable prospect for an eventual economical extraction was tested for mineral resource classification. GE21 generated a schematic pit using physical and economic parameters of projects according to values practiced in the market, however with a reasonable sell price. The optimization was performed using the Geovia Whittle software including Itabirates of the Bicuda North deposit and the full extension of talus deposit. All the compact hematite (HCO) and the talus deposit associated with HCO outcropping (TAL_HCO) are located inside resultant pit shell, then it is able to be classified as mineral resource. The Competent Person believes the classification to be appropriate as mineral resource.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> In 2013 Coffey developed the "Tombador Project, Brazil Independent Technical Report on Exploration and Mineral Resources Estimation" which audited the entire Tombador Project database, including the Tombador Hematite data. Porfirio Rodriguez and Leonardo Soares who are the Competent persons for this report, were associated of Coffey (consultancy company), who provided consultancy on mineral resource estimate for Colomi during the period from 2011 to 2015, including site visits. Both are members of the Australian Institute of Geoscientists ("MAIG") and are independent of Colomi and Tombador mining companies.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> GE21 has estimated Measured, Indicated and Inferred Mineral Resources for the Tombador Project, a high-grade portion of the Tombador Project, in accordance with the guidelines as set out in the JORC Code (2012). The in-situ resources are wholly contained within the current license boundary and do not take into account any elements which may sterilize areas of the deposit for mining operations. The Tombador Iron Ore Project contains a representative prospective tonnage of iron mineralization. The Measured plus Indicated Mineral Resources for the project area has been estimated at 5.41 Mt at 67.21% Fe, 1.76% SiO₂, 0.53% Al₂O₃, 0.032% Mn, 0.095% P and 0.36% LOI, (with 60%Fe lower cutoff grade applied). The cut off value applied was based on economic criteria from study of other similar deposits.

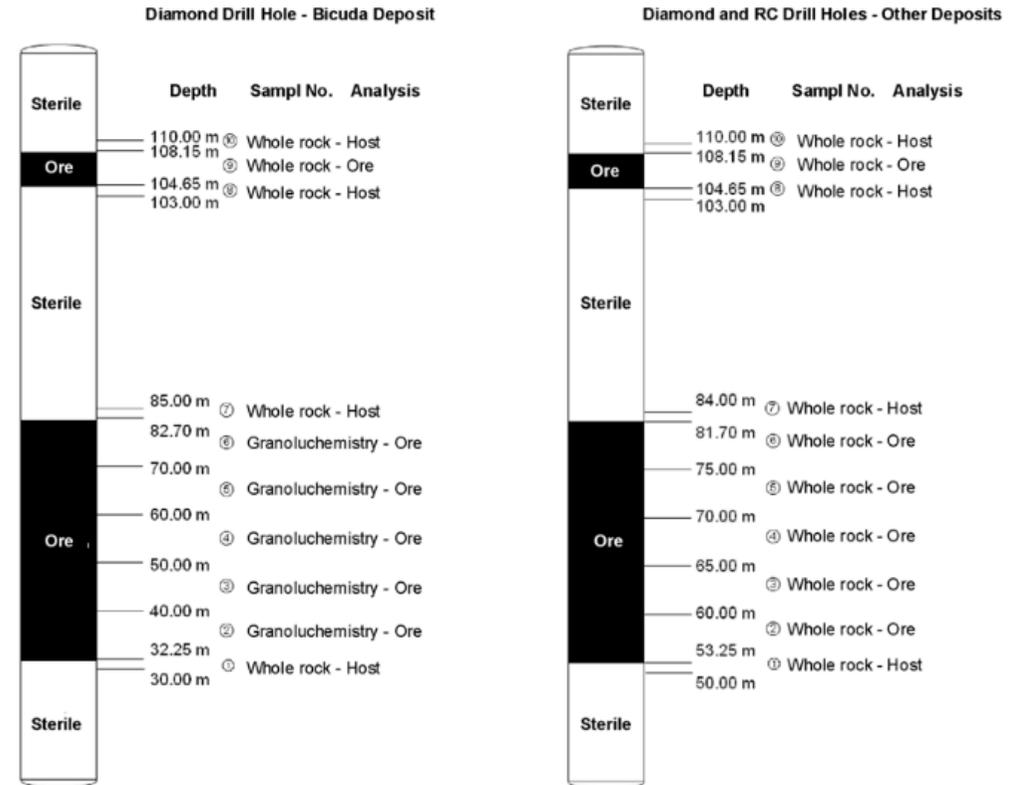
Criteria	JORC Code explanation	Commentary
	<p>affect the relative accuracy and confidence of the estimate.</p>	<ul style="list-style-type: none"> • The drilling grid spacing, (from 50m x 50m to punctual chip samples) was robust enough for Measured and Indicated Resource classification. However additional sampling is required for reclassification of Talus lithology to a higher category. GE21 concludes that additional exploration of talus is the main target to be investigated with further work. • Based on these positive geological indications, GE21 considers the Tombador Iron Ore Project to be prospective for hosting economic high-grade iron ore deposits. It is for this reason that Coffey recommends the continuation of the current follow up exploration program and an additional exploration budget to: <ul style="list-style-type: none"> ○ Perform an additional topographic survey of the adjacent areas to improve surface information for mining studies. ○ Conduct additional metallurgical and processing tests to confirm existing results on the feasibility of economically processing the Talus material existing within the deposit. ○ To continue and improve the current QAQC program ○ Pre-feasibility study to complete a comprehensive report for project development of small scale high grade production.
	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Tombador Iron Ore Project's grade estimate relates global estimates.
	<ul style="list-style-type: none"> • These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> • Tombador Iron Ore Project haven't any production history. • Historically, a Brazilian company, called Ferbasa, was known to have mined Hematite from Tombador in the early 1980's when the price was significantly lower. Production records are not known however a surface pit is remnant on the hill with visible outcrop of hematite.

JORC Code, 2012 Table 1 for Itabirite

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • 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. • Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralization 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 mineralization types (e.g. submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> • Samples were taken from diamond drillhole core, all drilled material was sampled, nothing being discarded. The assay program included the sampling of chips from the compact hematite outcroppings. This drill program was undertaken by VALE. Mineralization intervals chosen for splitting of the diamond drilling core was based on geological core description during drill core logging. Reverse circulation (RC) drilling samples were also produced according to industry standard procedures. • Measures to ensure sample representativity include occasional twinning of RC drill holes with diamond drillholes, setting up of a specific sampling procedure for and by geologist, having a dedicated on site full time survey team to pick up mapping sample sites and drilling locations, Assay QAQC at a second external laboratory Best practices as drillcore recovery and depth marks audits were performed during drilling campaign and sampling. The diamond drilling recovery conference consisted of verifying advance and recoveries recorded in the core boxes and drilling bulletins. For Diamond Drilling verification was undertaken by measuring with tapeline the core present in the boxes. For reverse circulation, the verification was undertaken by weighing of chip bags. • Industry standard work has been done. All drilling was diamond core drilling. Core samples (HQ) were sawn in half before being collected to allow half of the material to be sent for chemical analysis and the remaining half were stored in the core shed. The sampling was planned by the geologists and care was taken to avoid any contamination between neighbouring samples. • RC samples were also collected by following sampling plans specified by the geologists. The samples were prepared by splitting using a Jones splitter. Initially each one-meter interval was split into 2 samples of approximately 40kg each. One of them was temporary archived and used to make chip rulers and chip boxes. The other half was used for final archiving and creation of the sample intended for the chemical analysis. The sample intended for the final archiving and chemical analyses were split, generating two samples with approximately 10 kg each. One of these was duly registered with labels inside and outside the bag and filed in the core sheds in Sento Sé– BA. The second sample of 10 Kg was used in the composition of the sample sent for chemical analysis.



- **Sample collection for Granulo-chemical analysis**

Samples obtained from Bicuda diamond drilling were used for granulochemical analysis due to the existence of hematite in the southern area with potential to form direct shipping lump ore.

Ore samples from diamond drilling were collected using a 10 m intervals, (with minimum >5 m and maximum <15 m) obeying lithological and weathering contacts. To ensure a clear definition of the boundaries of mineralised zones, 2m samples of core were collected of the host rock above and below the mineralised intervals.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • Sample Collection for Total (Whole) Rock Analysis For samples from Bicuda of less than five meters a simple total or whole rock analysis was used. Samples from 5 diamond holes and 8 RC holes performed in North of Bicuda North were collected using a 5 m support with a minimum >3 m and a maximum <7 m, obeying lithological and weathering contacts. For a clear definition of the limits of the mineralized zones, 2m samples of core were collected of the host rock above and below the mineralised intervals.
Drilling techniques	<ul style="list-style-type: none"> • 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.). 	<ul style="list-style-type: none"> • All of the Bicuda deposit drill holes were HQ sized (6.35 cm) diamond drill holes. Diamond holes were undertaken in HQ size diameter triple tube. • All the holes in Bicuda were vertical, some holes in Bicuda North were inclined. In inclined holes trajectory measures using a Maxibor were made with readings every three metres downhole. • The drill program for the Bicuda deposit on tenement 872.431 was a subset of a much larger drill program from Colomi (the previous owner). The Bicuda deposit in tenement 872.431 crosses the boundary and joins with the Bicuda North deposit. • There are 6 diamond drill holes and 8 RC drill holes in the Bicuda North deposit area and there are 50 diamond drill holes in the Bicuda deposit area. There are 27 holes within tenement 872.431 with 27 of the holes relating to the Bicuda deposit area.
Drill sample recovery	<ul style="list-style-type: none"> • Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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. 	<ul style="list-style-type: none"> • The diamond drilling recovery conference (conference is the logging and sampling procedure set up by the Senior geologists) consisted of verifying advance and recoveries recorded in the core boxes and drilling bulletins. For Diamond Drilling, verification was undertaken by measuring with tapeline the core present in the boxes. • Applied recovery control procedure and the recovery values was inside acceptable limits. The hematite was in most cases massive, providing excellent sample recoveries. • Not applied because the core recovery problems were not detected. • For reverse circulation, the verification was undertaken by weighing of chip bags. • Twin hole analysis showed good correlation between recoveries and analysis of sample recovery to diamond core and RC sample weights showed no relationship to grade

Criteria	JORC Code explanation	Commentary
Logging	<ul style="list-style-type: none"> • 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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> • Geotechnical description was performed on all diamond holes where they were classified by geotechnical parameters W (degree of change weathering), R (degree of resistance), spacing of fractures and RQD with degree of detail to one meter. The data was also collected directly onto PDA's using LogMate software. • The author considers that the level of detail is sufficient for the reporting of Exploration Results and for future Mineral Resource Estimation. • Lithological logging is qualitative in nature. Post assaying the lithology was re-classified into a new category called litho assay, prominent within the MS access database. Core is photographed prior to logging when geological codes were applied. Geological Description consisted of defining weathering levels, mineralogical lithological and structural data, in all holes with detail of one meter. • All drillholes were fully logged.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> • If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> • VALE conducted the drilling and collected core samples which were sawn in half before being collected to allow half of the material to be sent for chemical analysis and the remaining half were filed in the core shed. The sampling was planned by the geologists and care was taken to avoid any contamination between neighbouring samples. • RC samples were also collected by following sampling plans specified by the geologists. The samples were prepared by splitting using a Jones splitter. Initially each one-meter interval was split into 2 samples of approximately 40kg each. One of them was temporary archived and used to make chip rulers and chip boxes. Samples from Bicuda were subjected to granulo-chemical analysis and samples from Bicuda North were subjected to Total Rock chemical analysis. • Granulo-chemical Analysis Each entire 10m composite sample (20-30kg) was metallurgically tested using granulo-chemical analysis which employs the following method. Coarse crushing and separation of size fractions as follows: <ul style="list-style-type: none"> ○ 8mm to 31.5mm ○ 1mm to 8mm ○ 0.15mm to 1 mm ○ < 0.15mm Once weighed, each interval was crushed, pulverized, mixed, split and assayed by: <ul style="list-style-type: none"> • X-Ray fluorescence for the following elements and oxides: Fe, SiO₂, P, Al₂O₃, Mn, TiO₂, MgO, CaO, BaO, K₂O, Na₂O₃ & Cr₂O₃ • Volumetric analysis using potassium dichromate for FeO • Loss on Ignition (LOI) at 1000°C The assays and weights of each size fraction were used to calculate a weighted average assay for the global sample. • Total Rock Analysis The physical preparation of the drilling samples was performed at the ALS Chemex Laboratory of Vespasiano – MG. The procedure included drying, primary crushing P95%<4 mm, collection of (1/8 for diamond holes and 1/4 for RC holes) of the sample, grinding P95 % < 0.105mm and final division with collection of one sample for whole chemical assay. • In RC holes, to ensure the accuracy of physical process duplicates were made of the crushed material DP2 on frequency of 1/30, after primary crushing (P 95%< 4 mm) and pulverized material DP3 on frequency of 1/20 after pulverization.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • Drill hole sample sizes were considered as appropriate by GE21, and chip sampling procedures has recommendations to future works to review chip sample sizes. • GE21 considers the Vale duplicate sampling procedure to be appropriate for resource estimation JORC 2012. • GE21 deems the sample sizes appropriate to the grain size of the material being sampled.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • 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. • 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. 	<ul style="list-style-type: none"> • The assaying regime is considered to be the standard for the determination of Iron. Chemical analyses were conducted in the laboratory of SGS Geosol, Vespasiano-MG, while checking of 5% of the results were made in the laboratory of ALS Chemex. Sample pulps were assayed by X-Ray fluorescence for the following elements and oxides: Fe, SiO₂, P, Al₂O₃, Mn, TiO₂, CaO, MgO, BaO, K₂O, Na₂O and Cr₂O₃. The assay technique is considered to be a global sample geochemical analysis method and a standard technique within the Iron Ore industry • Handheld geophysical tools were not used, sample preparation & assaying was completed within external laboratories • Chemical analysis performed in total rock samples were the same applied in granulochemical samples of Bicuda North deposits. • The Loss on Ignition Determination (LOI) at 1000°C was also completed by SGS Geosol and Chemex. • Quality control tools (standard samples and duplicates) were applied and monitored in chemical analysis performed on SGS Geosol and ALS Chemex laboratories. The quality control was restricted to the elements Al₂O₃, Fe, MgO, P, Mn, SiO₂ and to LOI (lost on Ignition). The monitored parameters were evaluated in each of the following QAQC tools: Field duplicates; crushing duplicates; pulverized duplicates (internal and independent laboratory); project standard samples; stoichiometry checks; and blank samples. • Duplicates quality control results presented by VALE are, in general terms, inside acceptable limits. • The evaluation of the chip sample duplicates shows results within acceptance limit and did not indicate that samples were swapped.
Verification of sampling and assaying	<ul style="list-style-type: none"> • The verification of significant intersections by either independent or alternative company personnel. 	<ul style="list-style-type: none"> • GE21 approves the methodology applied by Vale in the preparation and execution of the Tombador Project QAQC Program. GE21 does not judge the values presented in the report for not having access to QAQC data sheet, but has accompanied the VALE QAQC programs in other projects that used the same methodology and tends to agree with the recommendations of VALE, which concludes it's necessary to improve the QAQC program and some tools, as appropriate standard sample implementation.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No Twin holes were performed in Tombador Area GE21 approves the methodology applied by Vale in the preparation and execution of the Colomi Project QAQC Program. According to GE21, results are inside acceptance limits of mineral industry. Data collection and verification and storage protocols are fully documented. Adjustment to assay data was neither required nor applied.
Location of data points	<ul style="list-style-type: none"> 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. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> All drillhole collars were topographically surveyed by total station surveying campaign and drillhole landmarks have been properly identified. SAD69 Datum for coordinate system. No issue was identified by GE21 in the field or in drilling data physical archive.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of 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. 	<ul style="list-style-type: none"> The holes were arranged in grid sizes varying from 50 x 50m to 200m x 200m in Tombador deposit. Diamond drillhole samples were produced at average length of 10 m length. Compositing was produced using these nominal lengths for itabirites. For talus samples, the compositing size was 5m. GE21 judges that appropriate grid spacings and applied sampling and composition lengths were provided to establish the degree of geological continuity and classification reported by GE21.
	<ul style="list-style-type: none"> Whether sample compositing has been applied. 	<ul style="list-style-type: none"> GE21 judges appropriate applied sampling and composition lengths to establish the degree of geological continuity and classification.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. 	<ul style="list-style-type: none"> The geological layers are dipping approximately 30° and the holes are vertical. Sampling was performed almost perpendicular to the layers, which is the best condition.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> No bias was introduced when using vertical drillholes.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> GE21 approves the methodology applied by Vale in the preparation and execution of the Colomi Project QAQC Program. GE21 didn't have access to QAQC data sheet, but has accompanied the VALE QAQC programs in other projects that used the same technique. The core boxes were transported by the company's personnel from the drill site to the core storage facility in Sento Sé. Drill boxes and RC sample bags were labelled with hole number and depth interval and the core is photographed prior to logging.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> In 2011 Coffey prepared the "Colomi Project, Brazil Independent Technical Report on Exploration and Mineral Resources Estimation" which audited the entire Colomi Project database, including the Tombador itabirite data, the results being in that report.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

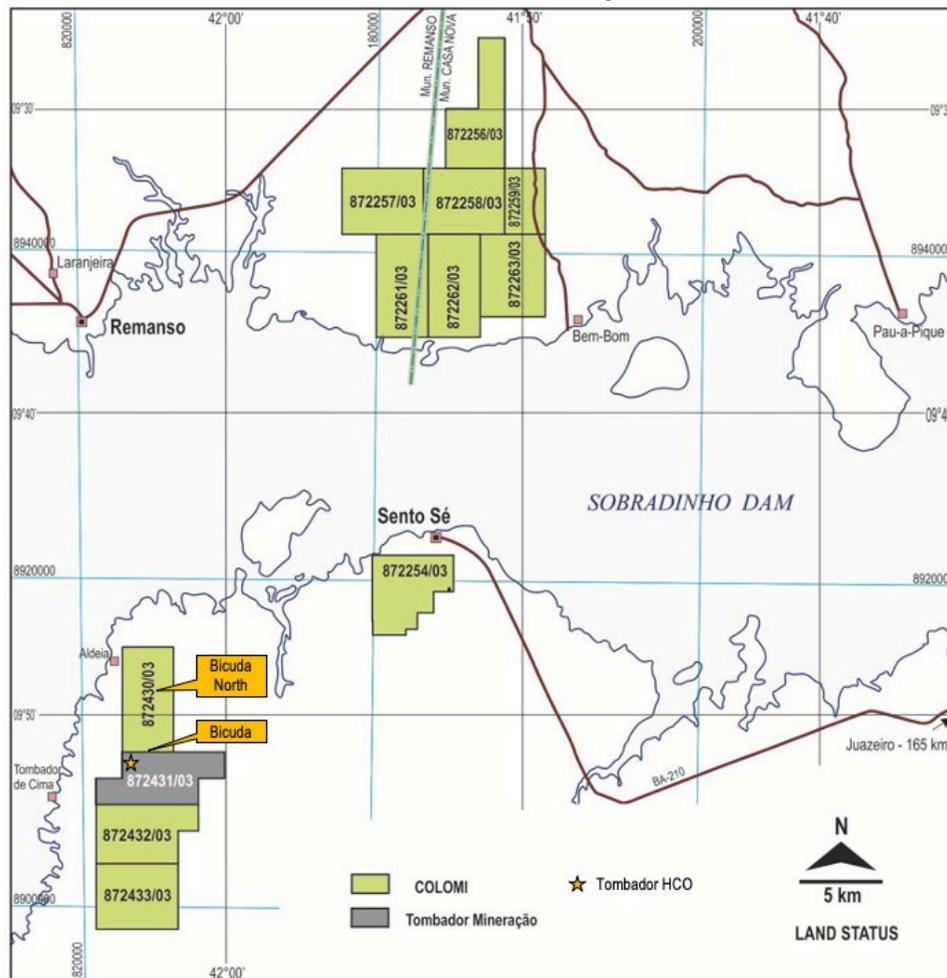
Criteria	JORC Code explanation	Commentary																												
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 	<table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="7">Tombador Project</th> </tr> <tr> <th colspan="7">Summary of Concession Status in TIM's Tombador Project</th> </tr> <tr> <th>Company</th> <th>Municipality</th> <th>Process No.</th> <th>Area (Hectares)</th> <th>Application Date</th> <th>Exploration Permit N°</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>Tombador Iron Mineração Ltda</td> <td>Sento Sé</td> <td>872.431/03</td> <td>2000</td> <td>16/12/2003</td> <td>1315</td> <td>FER approved on 17/02/2020</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Tombador Iron Mineracao Ltda. (TIM or the "Company") is the titleholder of exploration lease 872.431/2003, which was transferred to TIM from Colomi Iron Mineracao Ltda. (CIM or "Colomi"). The Final Exploration Report was approved and published at Brazilian Federal Gazette on February 17, 2020 and the tenement 872.431/2003 was transferred from Colomi Iron Mineração Ltda to Tombador Iron Mineração Ltda and published at Federal Gazette on 14th April 2020. Main exploration works was carried on by VALE a major iron ore mining company. The exploration program for the Tombador project was completed as part of a larger program covering all of CIM's tenements shown in figure below with Concession Area Map. The Principal Source of information was the Final Exploration Report (FER) to DNPM/ANM (Brazilian National Department of Mineral Production/National Agency of Mining) with description and evaluation of results obtained in the exploration work carried out by VALE in the areas related to TIM and Colomi Exploration Permits. 	Tombador Project							Summary of Concession Status in TIM's Tombador Project							Company	Municipality	Process No.	Area (Hectares)	Application Date	Exploration Permit N°	Status	Tombador Iron Mineração Ltda	Sento Sé	872.431/03	2000	16/12/2003	1315	FER approved on 17/02/2020
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Criteria

JORC Code explanation

Commentary

Concession Area Map



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area. 	<ul style="list-style-type: none"> GE21 had consult the DNPM/ANM' GIS system (http://sigmine.dnpm.gov.br/webmap/) to perform a preliminary check of the status of tenement areas at the time of report and the information shows the areas as regular for exploration works by Tombador Iron Mineração.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Main exploration works was carried on by VALE a major iron ore mining company. Principal source of information was the Final Exploration Report (FER) to DNPM/ANM (Brazilian National Department of Mineral Production/ Mining National Agency) with description and evaluation of results obtained in the exploration work carried out by VALE in the area related to TIM's and Colomi's Exploration Permits.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralization. 	<ul style="list-style-type: none"> Mineralization: The geological, chemical, physical and technological characteristics divide the discovered iron mineralizarion into five different types: Dolomitic Itabirite, Siliceous Itabirite, Amphibolitic Itabirite, Talus Deposit and Hematitite. The talus deposits are represented by layers with thickness average of 3.50 m, formed mainly by itabirite blocks and, secondary blocks of quartzites, dolomites and shales, immersed in siltose mass. Hematite talus blocks are only found in the adjacencies of hematite deposit of Bicuda. Hematites represent the high grade granulated iron ore resources, restricted to the southern deposit Bicuda. The hematite orebody occurs in the drag fold hinge in siliceous itabirite, showing an azimuth direction of 30°. This fold has been interpreted as being generated by a transfer fault, approximately N10E direction. Itabirites: siliceous and dolomitic itabirites, lesser metamorphic grade, and influence of folds, faults and shear zones.

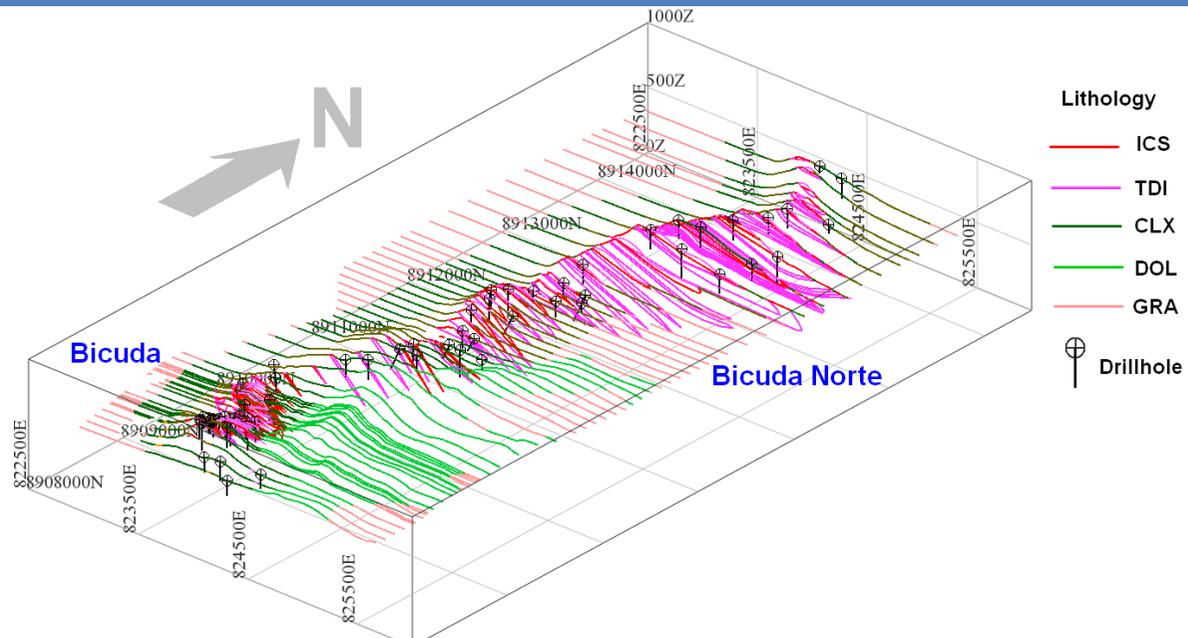
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Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> 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. 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. 	<ul style="list-style-type: none"> Drill hole collars for all holes in Tenement 872.431/2003 																																																																																																																																																																																																							
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		COL-BICU-DH00001	823487.97	8908771.18	548.11	96.00	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00002	823484.40	8908818.26	534.73	118.10	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00003	823581.44	8908967.98	540.29	58.50	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00004	823431.26	8908818.20	527.05	79.50	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00005	823428.51	8908868.08	505.64	72.30	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00006	823786.64	8908366.99	531.82	110.90	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00007	823631.73	8908867.61	584.81	127.45	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00008	823728.22	8908966.04	556.57	160.20	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00009	823630.55	8908814.88	602.75	207.20	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00010	823460.77	8909162.72	507.30	178.40	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00012	823731.81	8908868.03	591.57	132.30	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00013	823731.53	8908667.99	632.66	159.20	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00016	823478.39	8908668.24	606.20	156.30	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00017	823439.97	8908754.44	573.33	79.60	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00019	823931.40	8908368.07	559.16	150.20	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00021	823536.16	8908868.62	557.35	173.95	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00022	823484.08	8908868.08	529.39	145.50	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00023	823587.85	8908567.53	651.29	210.10	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00024	823581.90	8909060.02	491.12	250.00	-90.000	872.431/2003																																																																																																																																																																																																	
		COL-BICU-DH00038	824080.14	8908267.09	497.40	116.50	-90.000	872.431/2003																																																																																																																																																																																																	
COL-BICU-DH00041	823336.12	8909268.14	536.83	111.30	-90.000	872.431/2003																																																																																																																																																																																																			
COL-BICU-DH00043	823581.43	8909283.48	547.55	163.60	-90.000	872.431/2003																																																																																																																																																																																																			
COL-BICU-FD0001	824213.02	8908467.25	507.23	106.80	-90.000	872.431/2003																																																																																																																																																																																																			
COL-BICU-FD0003	823638.77	8908579.10	646.00	56.65	-90.000	872.431/2003																																																																																																																																																																																																			
COL-BICU-FD0004	823481.36	8908687.50	599.35	104.00	-90.000	872.431/2003																																																																																																																																																																																																			
COL-BICU-FD0005	823507.88	8908781.59	547.56	119.85	-90.000	872.431/2003																																																																																																																																																																																																			
COL-BICU-FD0006	823466.74	8908800.91	536.14	52.80	-90.000	872.431/2003																																																																																																																																																																																																			

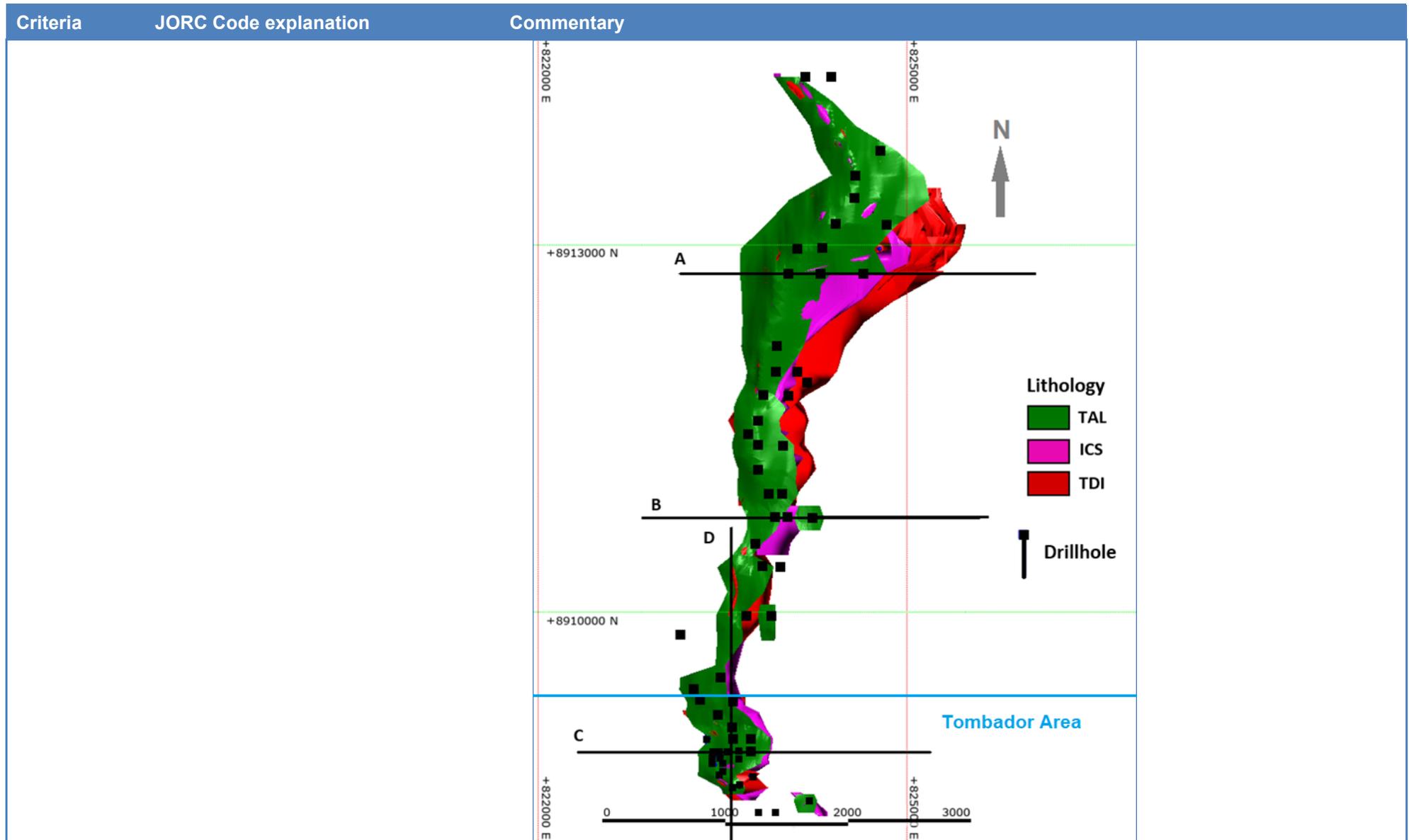
- Itabirite intercepts for Bicuda deposit only

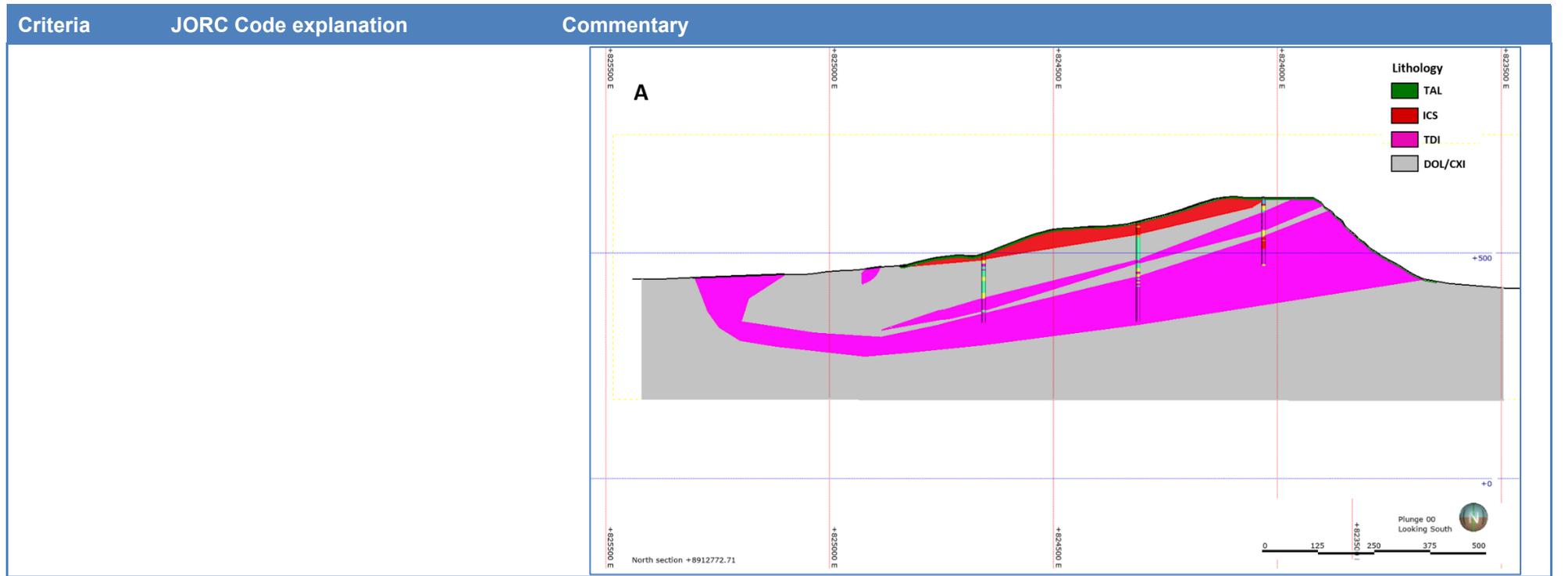
Hole ID	Type	Depth From	Depth to	Average Fe Grade	Length (m)	Hole ID	Type	Depth From	Depth to	Average Fe Grade	Length (m)
COL-BICU-DH00002	ICS	60.36	67.14	57.24	7.1	COL-BICU-DH00013	TDI	56.71	60.48	31.80	3.7
COL-BICU-DH00002		15.67	19.33	52.90	5.0	COL-BICU-DH00003		36.71	40.26	27.50	3.5
COL-BICU-DH00003		1.20	8.66	41.83	7.5	COL-BICU-DH00002		68.55	80.37	23.74	11.9
COL-BICU-DH00004		28.00	40.29	58.20	12.4	COL-BICU-DH00007		74.09	84.69	23.61	10.7
COL-BICU-DH00005		10.29	13.19	58.40	2.9	COL-BICU-DH00008		41.97	50.12	16.67	8.1
COL-BICU-DH00007		3.10	42.41	34.99	38.9	COL-BICU-DH00008		60.11	69.85	25.00	9.6
COL-BICU-DH00008		5.00	20.05	39.66	15.0	COL-BICU-DH00003		8.70	14.23	21.46	5.5
COL-BICU-DH00009		2.80	25.56	34.83	22.7	COL-BICU-DH00001		54.69	70.00	20.22	14.8
COL-BICU-DH00009		109.30	114.34	37.41	5.0	COL-BICU-DH00004		6.28	17.34	39.86	11.0
COL-BICU-DH00009		83.01	97.75	30.26	14.7	COL-BICU-DH00021		117.31	128.68	36.72	11.5
COL-BICU-DH00010		20.50	33.55	22.15	13.5	COL-BICU-FD0005		51.04	79.98	26.29	29.3
COL-BICU-DH00012		30.06	37.10	25.64	7.0	COL-BICU-FD0004		49.24	70.00	24.85	20.8
COL-BICU-DH00012		5.20	20.60	54.26	15.4	COL-BICU-FD0003		30.30	39.81	34.29	9.8
COL-BICU-DH00016		20.16	33.37	42.10	13.2	COL-BICU-DH00043		111.39	143.33	23.15	32.2
COL-BICU-DH00021		34.95	40.34	59.00	5.3	COL-BICU-DH00041		62.45	72.02	22.32	9.4
COL-BICU-DH00021		4.20	25.14	43.79	20.8	COL-BICU-DH00041		39.59	45.97	37.64	6.7
COL-BICU-DH00021		86.65	100.83	50.62	14.3	COL-BICU-DH00024		133.32	140.73	19.11	7.5
COL-BICU-DH00023		1.20	29.97	39.67	29.0	COL-BICU-DH00024		112.93	123.77	29.69	10.7
COL-BICU-DH00024		3.00	13.08	34.33	10.0	COL-BICU-DH00024		33.51	44.93	21.82	11.4
COL-BICU-DH00041		2.00	16.14	41.97	14.1	COL-BICU-DH00013		22.44	28.31	23.50	5.9
COL-BICU-DH00043		26.71	94.63	32.46	68.0	COL-BICU-DH00022		84.89	95.47	20.43	10.4
COL-BICU-FD0001		25.01	30.56	50.43	5.6	COL-BICU-DH00008		109.02	119.57	23.78	10.5
COL-BICU-FD0003		40.11	56.65	37.16	16.7	COL-BICU-DH00017		40.68	60.19	27.17	19.5
COL-BICU-FD0004		19.25	43.39	42.51	24.1	COL-BICU-DH00016		40.60	69.77	23.49	29.0
COL-BICU-DH00001	0.00	2.95	47.50	3.0	COL-BICU-DH00016	12.64	19.97	23.64	7.3		
COL-BICU-DH00002	0.00	1.00	38.50	1.0	COL-BICU-DH00013	90.85	97.76	33.03	6.8		
COL-BICU-DH00003	0.00	1.20	39.60	1.2	COL-BICU-DH00013	44.49	52.94	25.77	8.5		
COL-BICU-DH00004	0.66	3.19	57.93	6.0	COL-BICU-DH00012	96.11	109.15	20.62	13.1		
COL-BICU-DH00005	0.00	3.30	39.30	3.3	COL-BICU-DH00010	107.92	113.65	18.37	5.7		
COL-BICU-DH00007	0.00	3.10	31.30	3.1	COL-BICU-DH00010	82.39	104.36	31.85	22.0		
COL-BICU-DH00008	0.00	5.00	44.43	5.0	COL-BICU-DH00009	136.86	158.35	32.98	21.3		
COL-BICU-DH00009	0.00	2.80	42.00	2.8	COL-BICU-DH00023	43.43	49.98	18.78	6.3		
COL-BICU-DH00010	0.00	5.80	37.57	5.8	COL-BICU-DH00022	0.00	1.00	38.20	1.0		
COL-BICU-DH00012	0.00	5.20	49.75	5.2	COL-BICU-DH00023	0.00	1.20	35.70	1.2		
COL-BICU-DH00016	0.00	4.60	37.80	4.6	COL-BICU-DH00024	0.10	3.00	41.40	3.0		
COL-BICU-DH00017	0.00	3.00	60.90	3.0	COL-BICU-DH00041	0.00	1.91	39.20	2.0		
COL-BICU-DH00021	0.00	4.20	41.50	4.2	COL-BICU-FD0004	0.00	4.60	34.50	4.6		
					COL-BICU-FD0006	0.00	3.60	64.20	3.6		

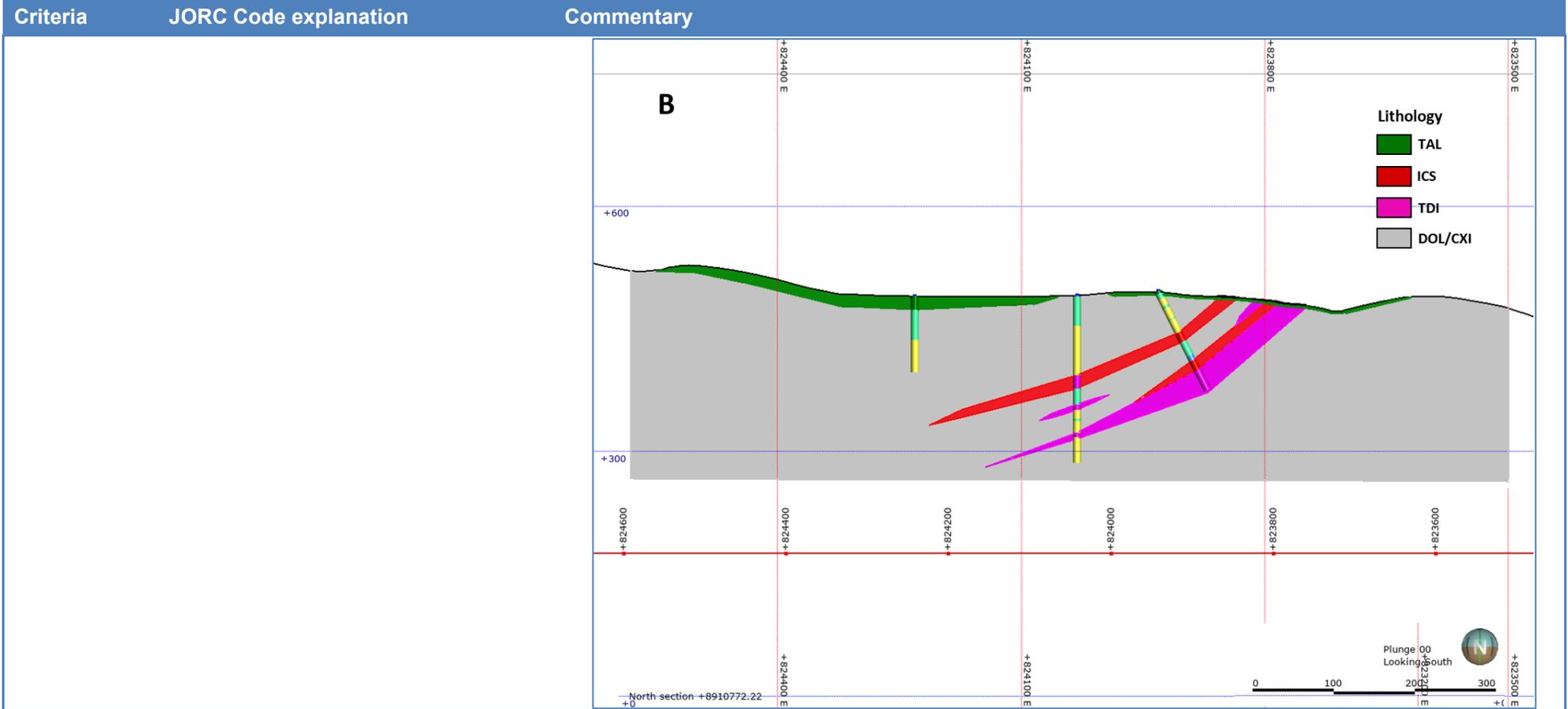
- Mineralization intervals intersected by drilling was aggregated by weighted average length.

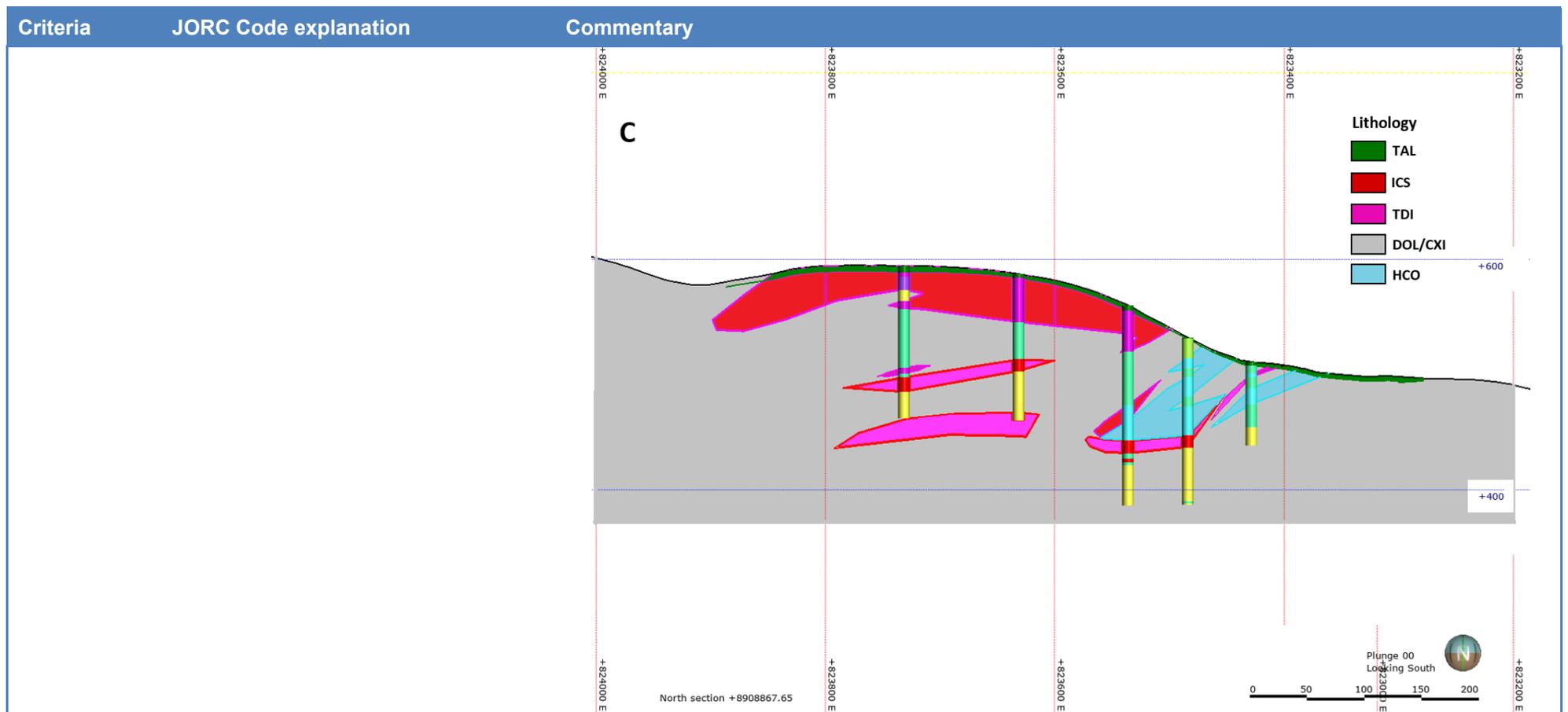
Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> For samples assayed by granulo-chemical analysis Global grades of interval samples were aggregated by weighted average mass of each size fraction. There were 4 size fractions assayed for each granulo-chemical sample for all significant mineralized intervals. Drill hole samples and were composited to regular downhole lengths of 10m. Compositing was applied to the mineralized intervals inside the geological model. Talus samples were composited at 5m length. A cut-off grade of 20% Fe was applied on Itabirites and talus mineralization models. Samples were collected in intervals obeying lithological contacts. To ensure a clear definition of the boundaries of mineral zones, 2 m samples were also collected of the host rock above and below the mineralized intervals. See Sampling Techniques. No metal equivalent was reported. It's not a mining industry practice the report of metal equivalent for iron ore mineralization type.
Relationship between mineralization widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralization 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'). 	<ul style="list-style-type: none"> All holes were vertical and mineralization zone dipping at 30°. NA Further diagrams necessary to describe the Project are included in "Independent Technical Report on Exploration and Mineral Resources Estimation – Itabirite Resources Update"- Prepared by GE21.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant 	<ul style="list-style-type: none"> Further diagrams necessary to describe the Project are included in "Technical Memorandum related to Itabirite Resources Update"- Prepared by GE21.

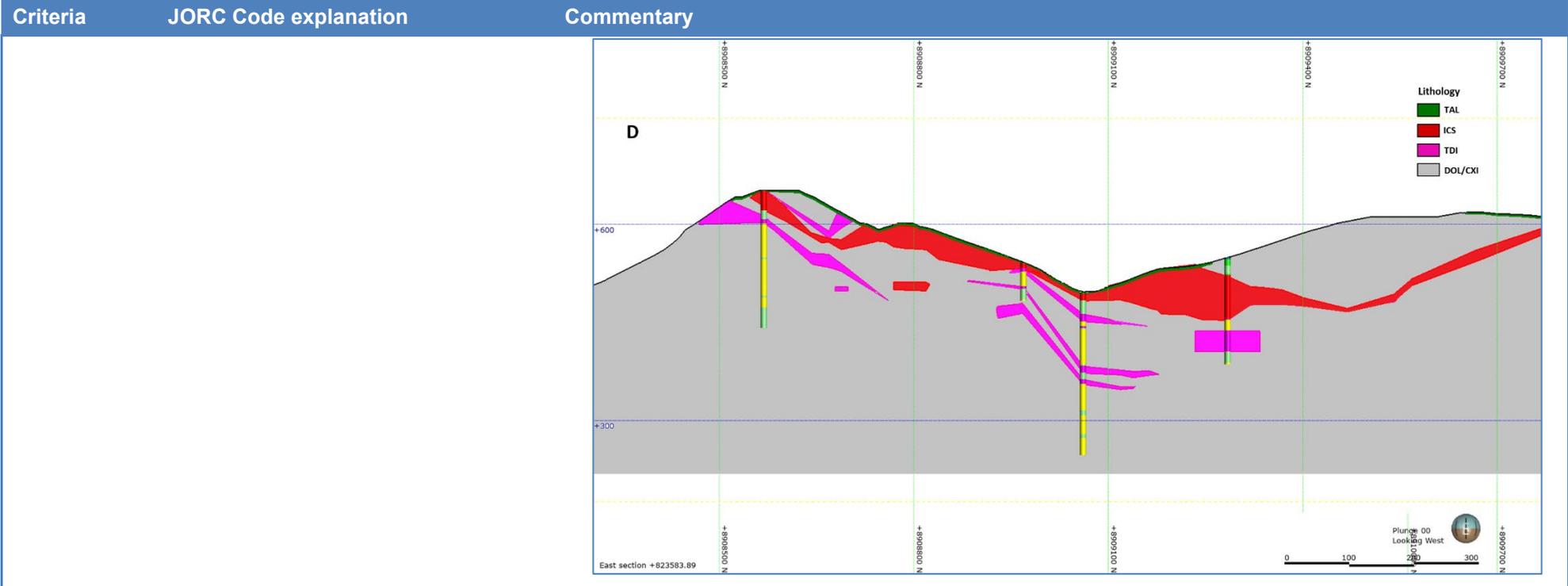
Criteria	JORC Code explanation	Commentary
	<p>discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</p>	











Criteria	JORC Code explanation	Commentary
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Tombador exploration was part of a larger VALE exploration and drilling program as mentioned in the report prepared by Coffey in 2011: "Colomi Project, Brazil Independent Technical Report on Exploration and Mineral Resources Estimation". Modest metallurgical tests were completed in 2013 by an external group "Mope" on 10 samples consisting of 3 drill core 5 outcrop and 2 composite samples. No deleterious or contaminating substances were encountered. Sulphur results were less than 0.01%.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Additional topographic survey. Sampling for additional metallurgical and processing tests
Further work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Extensions of HCO were not considered in the geological modelling. Talus deposit extends over the deposit on influence area of Itabirites mineralization.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

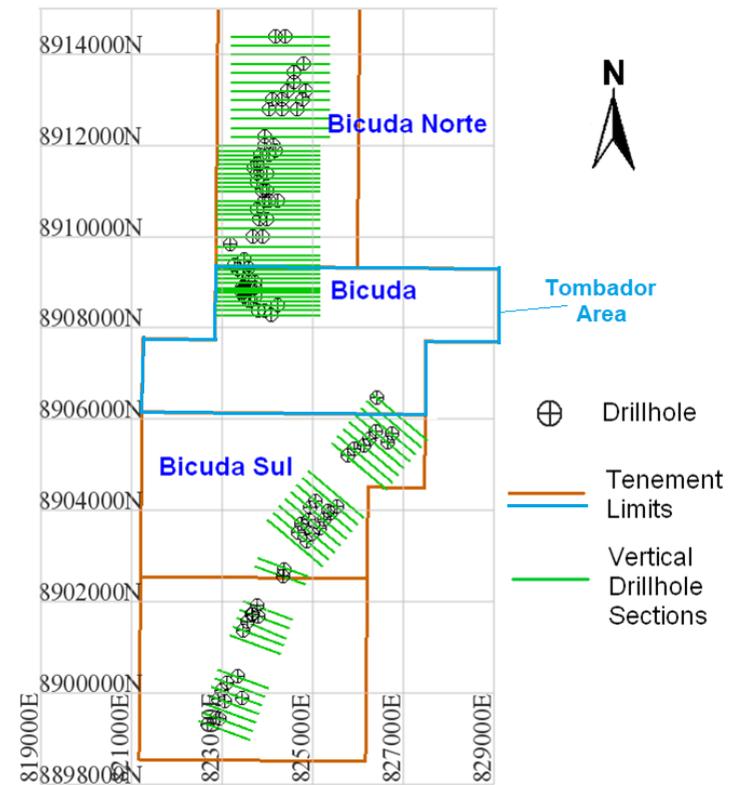
Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> The Tombador deposit drilling data base was received excel format and GE21 produced the Access datasets. GE21 carried out an electronic validation of the databases with Geovia Surpac software. No errors, as gaps or overlapping data, or other material inconsistencies were found.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> A site visit was undertaken by Mr Porfirio Rodriguez to the Colomi Project between 12th to 14th November 2013. Not Applied
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. 	<ul style="list-style-type: none"> There is high confidence in the geological interpretation as there is a semi-detail geological map to guide the modelling of the mineralization zone. The defined horizons are considered to be reasonably robust. The Itabirites model was updated as an extension of the original model presented in the previous Independent Resource Estimate, as prepared by Coffey on September 2013. The updated model on March 2020 was based on updates performed in HCO model. There is a total of 27 drill holes included in Tombador area. The drilling database contained 2 drilling campaigns Bicuda and Bicuda North (in Colomi's tenement) which crossed tenement boundaries. These were combined to create a single geological model (see figure below). The update of Itabirite in Tombador area was performed together with Bicuda North (Colomi's Tenement area) drillhole database information and geological model.

Criteria

JORC Code explanation

Commentary

Tombador Itabirite Project TIM Drill Hole Databases Summary				
Target	Drilling Method	Total of Drill Holes	Total length (m)	Samples with Chemical results
Bicuda & Bicuda North	Diamond and RC	64	8668.2	778
Bicuda (Within Tenement 872.431)	Diamond Drilling	27	3497.2	293

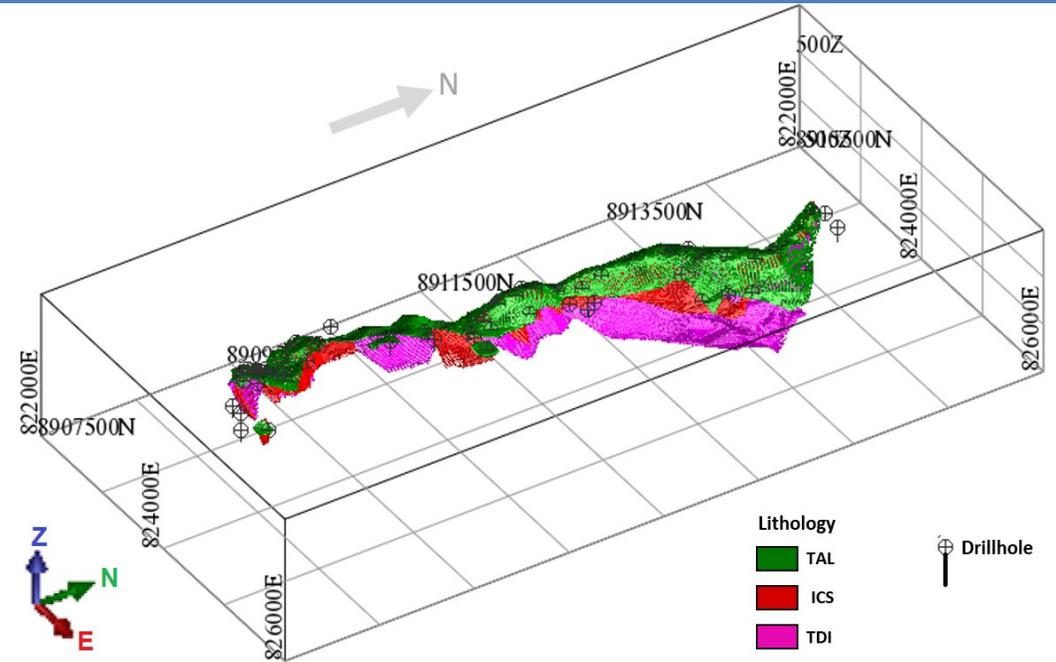


Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> Consistent mineralized intersections and are drilled at a reasonably close spacing refuting alternate mineral interpretations. Vertical geological section provided a guide to the interpreted ore wireframes. The continuity of grade and geology were verified in all the extension of drilling area. Depth continuity was, also, interpreted based on drilling data.
Dimensions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The mineralization outcrops. The mineralization in drilling area is 30 to 50m in thickness and occurs at a length of approximately 150m down dip. The mineralized layers were interpreted from 10 meters a maximum thickness of 20m.
Estimation and modelling techniques	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Resource modelling was performed with Geovia Surpac software. The drilling database contained 2 drilling campaigns Bicuda and Bicuda North (in Colomi's tenement) which crossed tenement boundaries. These were combined to create a single geological model. (See figure in Geological Interpretation). Three 3D block model were constructed for resource estimation purposes for the Itabirite orebodies. The block dimensions were defined as 50m x 50m x 5m and sub-blocks of 12.5m x 12.5m x 2.5m, based on a quarter of the drilling grid dimensions. Sub-blocking was applied to assure a good adherence between the geological model and the lithological unit attitude (figure below).

Criteria

JORC Code explanation

Commentary



- Variables Fe were statistically analyzed in Units ICS and TDI for samples from diamond drilling and reverse circulation drilling method, separately, to check the validation on the use of datasets of these two sampling methods together. The comparative statistical results for this validation show that the average grade and variability of variable grades for total datasets and datasets from individual drilling types are on the same magnitude and can be applied together in variographic analysis and grade estimate.
- The downhole experimental variograms were calculated to establish the structures for composite grades.

Criteria	JORC Code explanation	Commentary											
		Variogram Models Summary											
		Variable	Unit	C0	C1	A1	C2	A2	Azimuth	Plunge	Dip	Major/Semi-Major Ratio	Major/Minor Ratio
		Fe	ICS	1	6.4	35	25	250	216	2	12	1.6	4.2
		SiO2		1	33.18	35	11.85	250	216	2	12	1.4	3.7
		Al2O3		0.01	0.15	35	0.22	250	222	3	12	1.3	4.1
		Mn		0.001	0.011	35	0.015	250	216	2	12	1.3	4.4
		P		9.80E-05	1.20E-04	35	3.60E-04	250	216	2	12	1.5	7.7
		LOI		1.00E-01	3.10E-01	35	7.40E-01	250	216	2	12	1.4	6.2
		Fe		0.9	4	35	24	250	139	-14	18	1.6	4.2
		SiO2	TDI	1	17	35	49	250	139	-14	18	1.5	3
		Al2O3		0.005	0.12	35	0.02	250	139	-14	18	1.3	6.4
		Mn		2.50E-04	2.00E-03	35	3.70E-03	250	139	-14	18	1.4	5
		P		1.00E-05	2.10E-05	35	1.20E-04	250	263	12	0	1.2	3.6
		LOI		1	3	35	39	285	139	-14	18	1.4	6.6

- The established Kriging plan, for all attributes, considered three estimation steps, as presented in the Table below:

Criteria

JORC Code explanation

Commentary

Ordinary Kriging Strategy				
Step	Search Distance	Minimum Number of Samples	Maximum Number of Samples	Maximum Number of Drillholes per Drillhole
ICS Unit - Variables: Fe, SiO2, Al2O3, Mn P, LOI				
Searching Parameters: Bearing=216; Plunge=2; Dip=12; Major/Semi-Major Ratio= 1.4; Major/Minor Ratio=4				
1	170	6	30	2
2	380	6	30	2
3	1000	4	30	2
4	>1000	1	30	2
TDI Unit - Variables: Fe, SiO2, Al2O3, Mn P, LOI				
Searching Parameters: Bearing=139; Plunge=-14; Dip=18; Major/Semi-Major Ratio= 1.5; Major/Minor Ratio=				
1	170	6	30	2
2	380	6	30	2
3	1000	4	30	2
4	>1000	1	30	2

- Tal unit was estimated by Inverse distance weighting

Inverse Distance Weighting Strategy				
Step	Search Distance	Minimum Number of Samples	Maximum Number of Samples	Maximum Number of Drillholes per Drillhole
TAL Unit - Variables: Fe, SiO2, Al2O3, Mn P, LOI				
Searching Parameters: Bearing=0; Plunge=0; Dip=0; Major/Semi-Major Ratio= 1.0; Major/Minor Ratio=1.4				
1	170	6	30	2
2	380	6	30	2
3	1000	4	30	2
4	>1000	1	30	2

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions behind modelling of selective mining units. Any assumptions about correlation between variables. Description of how the geological interpretation was used to control the resource estimates. Discussion of basis for using or not using grade cutting or capping. 	<ul style="list-style-type: none"> Visual Validation for estimated grade was carried out with vertical sections. Visual validation by GE21 confirms the smoothing effect of the grade. Visual validation shows a good correlation between the blocks estimated and the original samples. Validation for estimated grade was carried out with a comparative Nearest Neighbouring estimation (NN). This validation consists in a comparative statistical analysis over global results for Fe%, SiO₂%, Al₂O₃%, Mn%, P% and LOI% variables to the mineralized intervals. The comparative analysis of estimation variable with the Nearest Neighbouring results show a relative smoothing in the kriging results which are compatible with the kriging technique and is inside acceptance limits. Local validation by the Swath Plot method was carried out with the verification of local bias from comparative graphs for resource estimation variable (Ordinary Kriging) and NN-Check, considering X, Y, or Z coordinates The comparative analysis of estimative variables with the Nearest Neighbouring results show the relative smoothing in the kriging results that are compatible with the kriging technique and is inside acceptance limits. GE21 recommends in future works a study about the recovery of by-products. Preliminary metallurgical tests were completed in 2013 by an external group “Mope” on 10 samples consisting of 3 drill core 5 outcrop and 2 composite samples. No deleterious or contaminating substances were encountered. Sulphur results were less than 0.01%. The block dimensions were defined as 50m x 50m x 5m and sub-blocks of 12.5m x 12.5m x 2.5m, based on a quarter of the drilling grid dimensions. No assumptions were made regarding SMU (selective mining units). No assumptions were made by GE21 regarding the correlation between variables. The main controls of Itabirites mineralization is geological layers dipping at approximately 30° to southeast. The style of iron ore mineralization generally doesn’t uses grade cutting or capping in the estimation methodology.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available. 	<ul style="list-style-type: none"> Validation for estimated grade was carried out with a comparative Nearest Neighbouring estimation (NN). This validation consists in a comparative statistical analysis over global results for Fe%, SiO₂%, Al₂O₃%, Mn%, P% and LOI% variables to the mineralized intervals. The comparative analysis of estimation variable with the Nearest Neighbouring results show a relative smoothing in the kriging results which are compatible with the kriging technique and is inside acceptance limits. Local validation by the Swath Plot method was carried out with the verification of local bias from comparative graphs for resource estimation variable (Ordinary Kriging) and NN-Check, considering X, Y, or Z coordinates The comparative analysis of estimative variables with the Nearest Neighbouring results show the relative smoothing in the kriging results that are compatible with the kriging technique and is inside acceptance limits.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> The resource was estimated in a dry basis
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> A 20%Fe COG was applied on geological modeling.
Mining factors or assumptions	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> A pit scenario study was carried out in order to guide the future mining project implying that a reasonable prospect for an eventual economical extraction was tested for mineral resource classification. GE21 generated a schematic pit using physical and economic parameters of projects according to values practiced in the market, however with a reasonable sell price. The optimization was performed using the Geovia Whittle software including Itabirites, compact hematite on the Bicuda deposit (Tombador and Colomi tenements) and Bicuda North (Colomi tenement) and the full extension of talus deposit.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Preliminary metallurgical tests were completed in 2013 by an external group "Mope" on 10 samples consisting of 3 drill core 5 outcrop and 2 composite samples. No deleterious or contaminating substances were encountered. Sulphur results were less than 0.01%.

Criteria	JORC Code explanation	Commentary
	<p>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.</p>	
<p>Environmental factors or assumptions</p>	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Company will be required to obtain the necessary environmental permits and comply with environmental laws. GE21 did not have information about any factors that can affect the acquisition of environmental licenses.

Criteria	JORC Code explanation	Commentary
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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.
- 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.

- The density applied in the block model was defined by the average of values obtained by the experimental specific gravity test with litho types by Vale. There were density determinations in three types of materials: drill core samples; weathered rocks; in field tests.
- Altogether, 1973 density determinations tests were carried out on all rotative drill holes made every 3 m depth in ore zones and every 10 m in waste zones. The intervals were selected respecting geological contacts and weathering zone limits.
- The density determination was carried out by VALE in drillcores by the Archimedes/Jolly method. The weathered rock samples were oven dried and sealed with paraffin material.
- VALE applied to mineralized unit types an average density value individually in each target data. Vale didn't perform any spatial variability study on density data.
- The table below summarizes the density value applied on the resource block model.

Density Data		
Target	Unit	Density (g/cm3)
Bicuda North.	ICS	3.19
	TDI	3.32
	HCO	4.62
	TAL	1.80

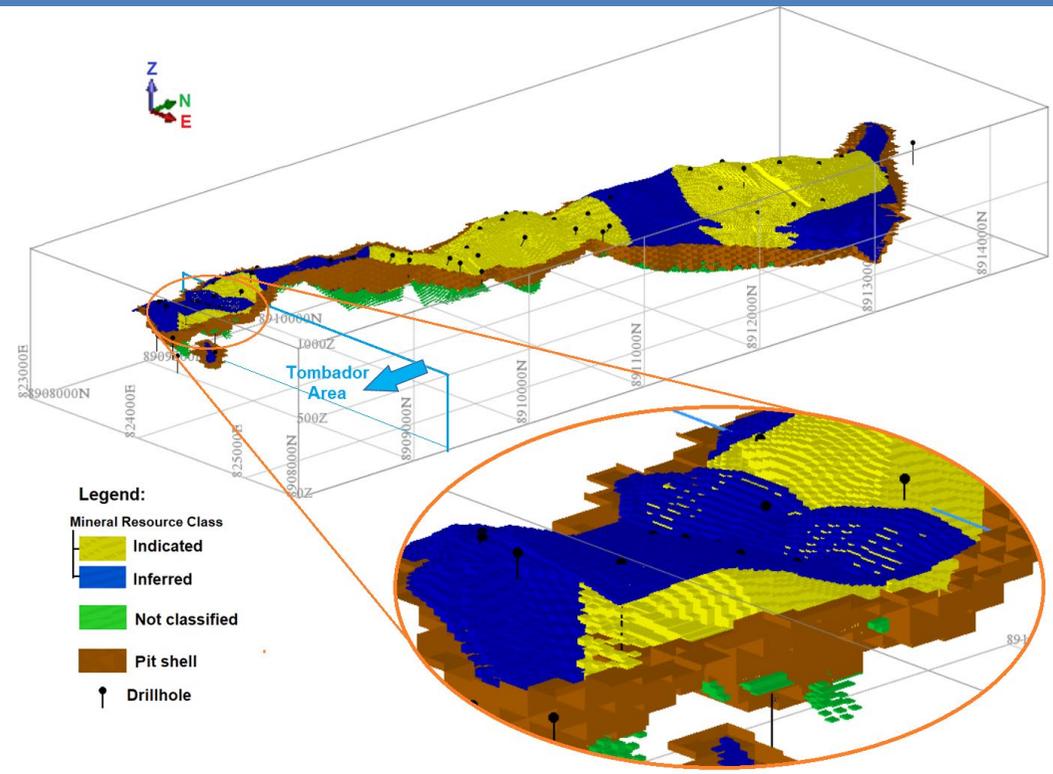
- Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.

- Waste density was determined in previous works.

Criteria	JORC Code explanation	Commentary																																																																																																
Classification	<ul style="list-style-type: none"> The basis for the classification of the Mineral Resources into varying confidence categories. 	<table border="1"> <thead> <tr> <th colspan="8">Tombador Itabirite Project Resource Table – 29th September 2011</th> </tr> <tr> <th colspan="8">Mineral Resource – Tombador Iron Mineração Ltda</th> </tr> <tr> <th colspan="8">Block Model: 50m X 50m X 5m (12.5m X 12.5m X 2.5m) - Grade cut-off applied: 20%Fe</th> </tr> <tr> <th>Resource Class</th> <th>Tonnes (Mt)</th> <th>Fe (%)</th> <th>SiO2 (%)</th> <th>Al2O3 (%)</th> <th>Mn (%)</th> <th>P (%)</th> <th>LOI (%)</th> </tr> </thead> <tbody> <tr> <td colspan="8" style="text-align: center;">Bicuda - TAL</td> </tr> <tr> <td>Inferred</td> <td>0.73</td> <td>42.39</td> <td>33.04</td> <td>2.02</td> <td>0.259</td> <td>0.019</td> <td>2.54</td> </tr> <tr> <td colspan="8" style="text-align: center;">Bicuda - ICS</td> </tr> <tr> <td>Indicated</td> <td>27.52</td> <td>37.65</td> <td>41.9</td> <td>1.09</td> <td>0.327</td> <td>0.051</td> <td>1.43</td> </tr> <tr> <td>Inferred</td> <td>3.77</td> <td>39.9</td> <td>37.59</td> <td>0.66</td> <td>0.311</td> <td>0.032</td> <td>2.25</td> </tr> <tr> <td colspan="8" style="text-align: center;">Bicuda - TDI</td> </tr> <tr> <td>Indicated</td> <td>12.03</td> <td>26.58</td> <td>28.82</td> <td>0.69</td> <td>0.174</td> <td>0.038</td> <td>15.48</td> </tr> <tr> <td>Inferred</td> <td>6.29</td> <td>26.61</td> <td>24.33</td> <td>0.49</td> <td>0.185</td> <td>0.032</td> <td>17.47</td> </tr> </tbody> </table> <p>1. Mineral resource effective date is 29 September 2011</p> <p>2. Presented mineral resources are not exclusive of mineral reserves. All figures have been rounded to the relative accuracy of the estimates. Summed amounts may not add due to rounding. Mineral resources which are not mineral reserves do not have demonstrated economic viability.</p> <p>3. Mineral resources have been modeled with cut-off of 20% Fe Mineral resources have been estimated using ordinary kriging inside 50m by 50m by 5m block sizes. The mineral resource estimates were prepared in accordance with Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012) incorporating drilling data acquired until 2011.</p> <p>4. Resources were estimate in conjunction with other itabirites deposits owned by Colomi, and resources reported above are resources contained in tenement 872.431/2003.</p>	Tombador Itabirite Project Resource Table – 29th September 2011								Mineral Resource – Tombador Iron Mineração Ltda								Block Model: 50m X 50m X 5m (12.5m X 12.5m X 2.5m) - Grade cut-off applied: 20%Fe								Resource Class	Tonnes (Mt)	Fe (%)	SiO2 (%)	Al2O3 (%)	Mn (%)	P (%)	LOI (%)	Bicuda - TAL								Inferred	0.73	42.39	33.04	2.02	0.259	0.019	2.54	Bicuda - ICS								Indicated	27.52	37.65	41.9	1.09	0.327	0.051	1.43	Inferred	3.77	39.9	37.59	0.66	0.311	0.032	2.25	Bicuda - TDI								Indicated	12.03	26.58	28.82	0.69	0.174	0.038	15.48	Inferred	6.29	26.61	24.33	0.49	0.185	0.032	17.47
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Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> 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). Whether the result appropriately reflects the Competent Person's view of the deposit. 	<ul style="list-style-type: none"> The anisotropic average distance to samples from ordinary kriging estimation was adopted as criteria to distinguish Indicated and Inferred resource classes. Blocks with anisotropic average distance to samples lower than 150m were classified as Indicated Resource; blocks with anisotropic average distance to samples higher than 150m were classified as Inferred Resource A pit scenario study was carried out in order to guide the future mining project implying that a reasonable prospect for an eventual economical extraction was tested for mineral resource classification. GE21 generated a schematic pit using physical and economic parameters of projects according to values practiced in the market, however with a reasonable sell price. The optimization was performed using the Geovia Whittle software including Itabirites of Bicuda (Tombador and Colomi tenements, see image below) and the Bicuda North deposit (Colomi) and the full extension of talus deposit. All the mineralization zone located inside resultant pit shell was classified as mineral resource. The Competent Person believes the classification to be appropriate as mineral resource.

Criteria	JORC Code explanation	Commentary
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Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Mineral Resource estimates. 	<ul style="list-style-type: none"> In 2013 Coffey developed the “Colomi Project, Brazil Independent Technical Report on Exploration and Mineral Resources Estimation” which audited the entire Colomi Project database, including the Tombador Hematite data. Porfirio Rodriguez and Leonardo Soares who are the Competent persons for this report, were associated of Coffey (consultancy company), who provided consultancy on mineral resource estimate for Colomi during the period from 2011 to 2015, including site visits. Both are members of the Australian Institute of Geoscientists (“MAIG”) and are independent of Colomi.
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Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> GE21 has estimated Indicated and Inferred Mineral Resources for the Tombador Itabirite Project in accordance with the guidelines as set out in the JORC Code (2012). The in-situ resources are wholly contained within the current license boundary. The Tombador Itabirite Project contains a representative prospective tonnage of iron mineralization. The cut off value applied was based on economic criteria from study of other similar deposits. Based on these positive geological indications, GE21 considers the Tombador Itabirite Project to be prospective for hosting economic iron ore deposits. GE21 recommends the continuation of the current follow up exploration program and an additional exploration budget to: <ul style="list-style-type: none"> Perform an additional topographic survey of the adjacent areas to improve surface information for mining studies. Conduct additional metallurgical and processing tests to confirm existing results on the feasibility of economically processing the Talus material existing within the deposit. To continue and improve the current QAQC program Pre-feasibility study to complete a comprehensive report for project development of small scale high grade production.
	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Tombador Itabirite Project's grade estimate relates global estimates.
	<ul style="list-style-type: none"> These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> Tombador Itabirite Project does not have any production history.