Robust Resource Limited

Lakuwahi Project

Manganese Resource Estimate

Document No. MA1351-1-4

6th May 2014

Andrew J Vigar, BSc (App.Geol.), FAusIMM, MSEG

Ian A Taylor, BSc (Hons), MAusIMM (CP)

Mining Associates

Caveat Lector

This Independent Technical Report and Manganese Resource Estimate ("Report") has been prepared for Robust Resources Limited by Mining Associates Pty Ltd ("MA"), based on assumptions as identified throughout the text and upon information and data supplied by others.

The Report is to be read in the context of the methodology, procedures and techniques used, MA's assumptions, and the circumstances and constraints under which the Report was written. The Report is to be read as a whole, and sections or parts thereof should therefore not be read or relied upon out of context.

MA has, in preparing the Report, followed methodology and procedures, and exercised due care consistent with the intended level of accuracy, using its professional judgment and reasonable care. However, no warranty should be implied as to the accuracy of estimates or other values and all estimates and other values are only valid as at the date of the Report and will vary thereafter.

Parts of the Report have been prepared or arranged by Robust Resources Limited or third party contributors, as detailed in the document. While the contents of those parts have been generally reviewed by MA for inclusion into the Report, they have not been fully audited or sought to be verified by MA. MA is not in a position to, and does not, verify the accuracy or completeness of, or adopt as its own, the information and data supplied by others and disclaims all liability, damages or loss with respect to such information and data.

In respect of all parts of the Report, whether or not prepared by MA no express or implied representation or warranty is made by MA or by any person acting for and/or on behalf of MA to any third party that the contents of the Report are verified, accurate, suitably qualified, reasonable or free from errors, omissions or other defects of any kind or nature. Third parties who rely upon the Report do so at their own risk and MA disclaims all liability, damages or loss with respect to such reliance.

MA disclaims any liability, damage and loss to Robust Resources Limited and to third parties in respect of the publication, reference, quoting or distribution of the Report or any of its contents to and reliance thereon by any third party.

This caveat must accompany every copy of this Report, which is an integral document and must be read in its entirety.

1 EXECUTIVE SUMMARY

This is an independent technical report on the geology and newly defined manganese mineralisation of the Lakuwahi Project located in Robust Island, Maluku Province, Indonesia. The manganese mineral resource estimate is based on exploration and drilling conducted by Robust to December 2013.

Romang Island is located in the Maluku Province of East Indonesia, 2,350 km east of Jakarta and 435 km south of the provincial capital of Ambon, and 500km north east from Kupang, West Timor.

Regional Location of Lakuwahi Project (Source after Bing Maps 2013)

At the request of Mr John Levings, Director of Robust Resources Limited (“Robust”) on behalf of PT Gemala Borneo Utama (“PT GBU”), Mining Associates Limited (“MA”) was commissioned in September 2013 to prepare a manganese mineral resource estimate for the Lakuwahi Project (“Lakuwahi” or “the Project”) according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves standards 2012 (“JORC 2012”).

The majority of the surficial manganese occurs as replacements within limestone, and covers sections of the Batu Hitam and Batu Hitam West polymetallic mineral resource areas. The strongest manganese mineralisation occurs on the eastern-most line of drilling at Batu Hitam and therefore, in common with the underlying precious and base metal zones, the manganese-rich zone remains open for further extension by drilling.

Fifty two diamond holes have intersected Manganese mineralisation greater than 30 % Mn. Many of the holes have dual targets, the surficial Mn resources and the deeper polymetallic resource. The HQ and NQ core is cut in half using a diamond saw (100% of core recovered) and half of the core is submitted for analysis at a recognised independent laboratory. Maximum core sample interval is 2 m and the minimum sample interval is 0.5 m. Informing samples were composited to one metre and no grade capping was required.

Mineral Resources Estimates

An Inferred manganese resource has previously been reported by Robust Resources, (ASX ROL 07 November 2013) as 566,000t at 42.5% Mn. The mineral resource estimates for the Lakuwahi Project are reported in accordance with JORC 2012 guidelines. The current mineral resource has been classified as indicated (56%) and inferred (44%) confidence categories and is listed in the following table by area:

Deposit	Resource Category	material (t)	Grade (%)	metal (t)
Manganese Valley	Indicated	413,000	41.6	172,000
	Inferred	274,000	39.5	108,000
Batu Hitam West	Inferred	51,000	45.7	23,000
Total Resources		738,000	41.1	304,000

Note: According to Clause 27 of the JORC Code 2012 edition: "in a public report of a Mineral Resource for a significant project for the first time, or when those estimates have materially changed from when they were last reported, a brief summary of the information in relevant sections of Table 1 must be provided". Table 1 is included in Appendix 3 of this report and must accompany any reporting of Mineral Resources. Reported figures reflect the relative uncertainty by rounding to appropriate significant figures, apparent errors in the addition of resources are due to rounding.

Table of Contents

List of Tables

List of Figures

2 INTRODUCTION

2.1 TERMS OF REFERENCE

This is an independent technical report on the geology and manganese mineral resources of the Lakuwahi Project located in Robust Island, Maluku Province, Indonesia.

At the request of Mr John Levings, Director of Robust Resources Limited ("Robust") on behalf of PT Gemala Borneo Utama ("PT GBU"), Mining Associates Limited ("MA") was commissioned in September 2013 to prepare manganese mineral resource estimate for the Lakuwahi Project ("Lakuwahi" or "the Project") according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves standards ("JORC 2012 Code standards").

MA has not been requested to provide an Independent Valuation, nor has MA been asked to comment on the Fairness, or Reasonableness of any vendor or promoter considerations, and therefore no opinion on these matters has been offered.

2.2 PURPOSE

Robust intends that this report be used as an Independent Technical Report describing the manganese resource estimate conducted by MA under compliance with JORC 2012 (Australasian Code for Reporting of Mineral Resources and Ore Reserves).

2.3 INFORMATION USED

This report is based on technical data provided by Robust to MA. Robust provided open access to all the records necessary, in the opinion of MA, to enable a proper assessment of the project and resource estimates. It also relies on information provided in the following previous technical report:

> "Resource Estimation For the Lakuwahi (Romang Island) Polymetallic Deposit Indonesia" dated February 2012, by Micromine Consulting Services (the "Micromine Technical Report").

Robust has warranted in writing to MA that full disclosure has been made of all material information and that, to the best of the Robust's knowledge and understanding, such information is complete, accurate and true. Readers of this report must appreciate that there is an inherent risk of error in the acquisition, processing and interpretation of geological and geophysical data, and MA takes no responsibility for such errors.

Additional relevant material was acquired independently by MA from a variety of sources. The list of references at the end of this report details the sources consulted. This material was used to expand on the information provided by Robust and, where appropriate, confirm or provide alternative assumptions to those made by Robust.

One week (excluding site visit) were spent on data collection and analysis and preparation of this report.

2.4 COMPETENT PERSONS

The summary review of geology and mineral resource data, and the mineral resource estimate described in this report was conducted by Mr Ian Taylor. Mr Taylor visited the site from 7 to 11th September 2013.

Mr Taylor has experience relevant to epithermal gold silver style of mineralisation and associated exhalative deposits under consideration and to the activity which they are undertaking. Mr Taylor holds a Bachelor of Science with Honours in Geology, is a Member of The Australian Institute of Geoscientists and a Certified Professional by the Australasian Institute of Mining and Metallurgy in the discipline of geology. Mr Taylor is employed by Mining Associates Limited of Brisbane, Australia.

Mr Andrew Vigar supervised the resource estimate and reporting of this Manganese Resource, Mr Vigar has sufficient experience relevant to Volcanogenic Massive Sulphide (VMS) style of deposits under consideration and to the activity which they are 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 Vigar consents to the inclusion in the report of the matters based on information in the form and context in which it appears in this report.

Mr Vigar holds a Bachelor of Applied Science, is a Fellow the Australasian Institute of Mining and Metallurgy. Mr Vigar is employed by Mining Associates Limited of Brisbane, Australia

3 PROPERTY DESCRIPTION AND LOCATION

3.1 LOCATION & ACCESS

Romang Island is located in the Maluku Province of East Indonesia, 2,350 km east of Jakarta and 435 km south of the provincial capital of Ambon, and 500km from Kupang, Timor (Figure 1). Romang is accessible by regular flights to Kupang from Jakarta, then by a PT GBU chartered flight from Kupang to Kisar Island and 55km trip by boat of 2 to 3 hours duration depending on sea conditions and weather. Alternatively, there is a 15 hour trip by the PT GBU owned boat direct from Kupang to Romang Island. The island has moderate to rugged topography. The highest elevation is Mt. Tawur at 746m.

Figure 1: Lakuwahi Project Location, 250 km scale
(Source: Bing Maps, 2013)

3.2 PROPERTY DETAILS & OWNERSHIP

Romang Island is covered by five Izin Usaha Pertambangan ("IUP" or Mining Permit) titles issued to PT Gemala Borneo Utama ("PT GBU"), an Indonesian registered foreign investment company ("PMA"). All the IUP cover an area of 9,983 hectares. Two of the IUP (540-24 / 2011, 540-25 / 2011) totalling 4,000 hectares cover the Lakuwaki Project. The IUP locations are shown on Figure 2. Table 1 lists the PT GBU tenements covering Romang Island and the Lakuwahi Project. Tenement documents are contained in Appendix 1 including lease geographical co-ordinates.

The Romang Island tenements including the Lakuwahi Project tenements are held 100% by PT Gemala Borneo Utama ("PT GBU"), an Indonesian registered foreign investment company ("PMA"). The Izin Usaha Pertambangan or Mining Business Licences ("IUP") held by PT GBU are issued under the 2009 Indonesian Mining Law (Law 4/2009). Robust owns a 70% direct interest in PT GBU. The remaining 30% is held by the Salim Group, a large Indonesian company. The Salim group also owns 18.65% of Robust.

Robust originally signed a Mining Co-operation Agreement with PT GBU in February 2008 to purchase an option to acquire a 75% interest in the Romang Island tenements for 5 million Robust shares and $150,000 cash. Robust was required to spend A$1.5 million to earn an initial 51%, and may earn an additional 24% by spending a further $3 million. In April 2010, Robust announced an agreement for the purchase of an additional 25% (for a total 100%) from PT GBU. Under this Sale and Purchase Agreement ("SPA"), Robust will pay PY GBU $20 million in two tranches (and waive the requirement for the A$3 million from the previous agreement: A$6 million cash plus 5,714,285 Robust shares, and a further A$2 million on the announcement of 1 million ounces of gold equivalent in measured or indicated category. On 26 July 2011, Robust announced an agreement to sell 22.5% interest in Romang Island to PT Kilau Sumber Perkasa ("PT KSP"), a subsidiary of the Salim Group for A$31.6 million, bringing Robust's interest in to 77.5%.

The tenement's status has not been independently verified by MA.

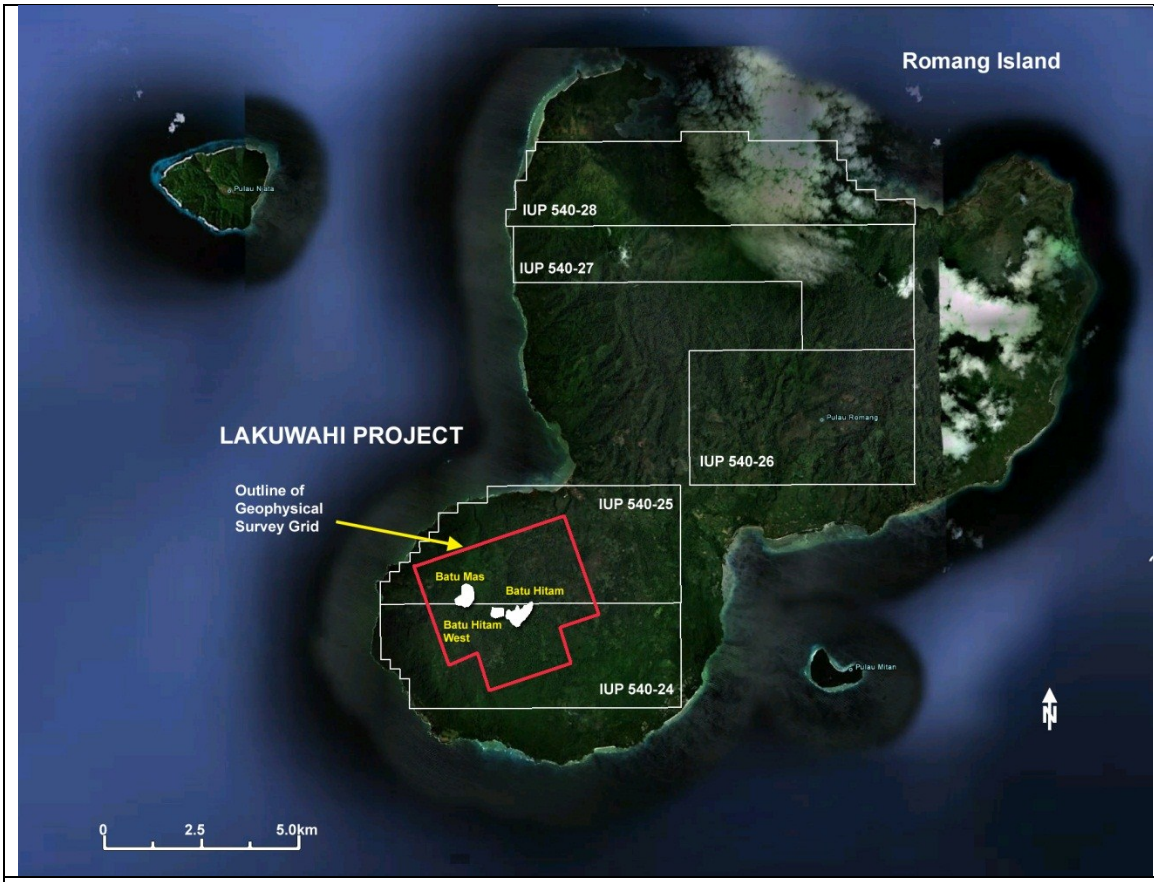

Figure 2: Location of PTGBU tenement

(Source: ASP, 2012)

Table 1: IUP (Izin Usaha Pertambangan or Mining Business Permit)

IUP Location	IUP # 2009	IUP Extension # 2011	Area (Ha)	Date signed	Expiry Date	Extension Date*
Lakuwahi South	540-62c	540-24/2011	1998	10/03/2011	10/03/2013	10/03/2015
Lakuwahi North	540-62	540-25/2011	1998	10/03/2011	10/03/2013	10/03/2015
Akualu-Perra	540-62d	540-26/2011	2000	10/03/2011	10/03/2013	10/03/2015
Pawawan-Woti	540-62a	540-27/2011	2000	10/03/2011	10/03/2013	10/03/2015
Dedern-Wyaru	540-62b	540-28/2011	1962	10/03/2011	10/03/2013	10/03/2015
* the final 2 years of the regulatory 8 year IUP provided for Feasibility Studies						

3.3 GEOLOGY

The regional geology of the Banda arc in eastern Indonesia has been discussed, for example, by (Garwin, Hall, & Watanabe, 2005) with respect to regional tectonics and associated mineralisation, (Hill, 2013) and (Watkinson, et al., 2012) with respect to tectonic evolution of the Banda arc, and by (Ely, Sandiford, Hawke, Phillips, Quigley, & dos Reis, 2011) with respect to tectonics of the Wetar zone of the Banda arc.

The Lakuwahi volcanic centre is the relic of the southern-most of two extinct volcanos that form Romang Island. This sub-sea volcano erupted rocks of andesitic composition, which is normal for a volcano situated along the Sunda-Banda magmatic arc. The plate-tectonic collision of the Australian plate with the Banda arc caused the simultaneous cessation of volcanic activity and rapid uplift of the volcano to near sea level. During the uplift the remnant heat in the dying volcano drove a large system of gold, silver and base-metal-bearing hydrothermal fluids, which altered and mineralised the rocks in the Lakuwahi volcanic centre. Coral reefs formed at shallow sea depths as the volcano was being up-lifted. Hydrothermal activity occurred episodically which probably killed the coral and partially mineralised the coralline limestone beds. The Lakuwahi Project hosts a large 6km by 4km zone of "Magnetite Destruction Zone" (MDZ), where to date, Robust has focused on three prospects found within it: Batu Mas, Batu Hitam, Batu Perak and Batu Jagung.

Further uplift to present-day elevations coincided with a cooling of the hydrothermal system - although there is evidence of minor fumarolic activity and associated native sulphur deposition occurring even now (MA site visit Sept 2013).

Lakuwahi is considered to be a high sulphidation exhalative system, comparable to the mineralisation on nearby Wetar Island (e.g. Corbett & Leach, 1997; Sillitoe et al, 1996; Sewell & Wheatly, 1994; Scotney et al, 2005; Castle, 2007; Yeo, 2008). This is shown conceptually in Figure 3 (AU-VMS). Recent work suggests the possibility of late stage low sulphidation mineralisation.

Mineralisation in the north of the island has been described in detail by (Garwin & Herransyah, 1992). They reported that in the northern portion of the island, veins composed mainly of quartz-chalcedony-barite-pyrite-base metal sulphides are hosted in clay altered dacitic-rhyodacitic rocks, proximal to lineaments, faults and propylitically altered intrusive bodies. Individual veins are up to 5 m thick over 200 m of strike length, while fault vein zones, characterised by numerous veins, clay alteration and localized silicification, range up to 50 m wide over a strike extent of 500 m

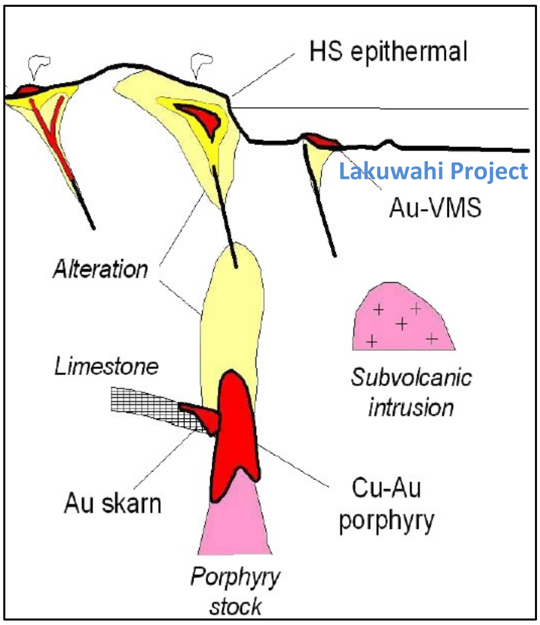

Figure 3: Barite-gold-silver & base metal sulphide

.

3.3.1 Manganese Mineralisation

The majority of the surficial manganese (Figure 4) occurs as replacements within limestone, and covers sections of the Batu Hitam and Batu Hitam West polymetallic mineral resource areas. The strongest manganese mineralisation occurs on the eastern-most line of drilling at Batu Hitam and therefore, in common with the underlying precious and base metal zones, the manganese-rich zone remains open for further discovery and expansion by drilling.

Manganese oxides are closely associated with the polymetallic mineralisation at Lakuwahi, spatially and genetically. They are hosted by limestone, sediments and volcaniclastics which overlie stockwork Au/Ag-rich VMS mineralisation within the Lakuwahi Volcanics. The exact relationship between Mn oxides and Au-Ag-BM mineralisation has been somewhat a matter of conjecture. (Ogierman, 2013)

Hydrothermal systems associated with VMS deposits are commonly characterised by multistage mineralisation events which can form economic concentrations of various commodities, including Mn and Ba, in addition to the main VMS deposits. Manganese (+/- barite) mineralisation is generally representative of the final or waning stage of the system.

A study by Pontifex (2013) of paragenetic relationships at Lakuwahi has confirmed there have been several episodes of mineralisation which formed the current complex deposits from the earliest quartz-pyrite stockwork veining (+/-Au, Ag) to overprinting base metal-barite (+/- Au,Ag) to manganese replacement of limestone to recent supergene enrichment of gold and silver.

Ogierman, 2013 proposed that manganese-rich mineralisation at Lakuwahi is representative of the final stages of the hydrothermal system. It is likely all mineralisation events at Lakuwahi formed at the seafloor interface or in the sub seafloor environment, triggered by mixing of rising hydrothermal/magmatic fluids and cooler seawater. High-grade Au – Ag + base metals associated with a barite-rich horizon at the top of the Lakuwahi Volcanics appear to be the peak of the main mineralising event.

Lakuwahi Volcanics are unconformably overlain by Upper Volcaniclastics. This event represents an erosional surface and possibly a hiatus in volcanic and hydrothermal activity. Clasts of siliceous+ veined volcanics have been observed within units of the Upper Volcaniclastics. The top of the Upper Volcaniclastics is marked by a carbonate rick layer which varies from thick, white fossiliferous limestone to carbonate-rich clastics ("dirty limestones"). This horizon can vary from 50cm to 15m in thickness.

Manganese has been observed throughout Lakuwahi intimately associated with the main Limestone horizon. It forms as massive, black Mn oxides replacing limestone to brown black infusions within underlying volcaniclastics (Figure 5). It is generally best developed at the base of the limestone.

Robust is also undertaking metallurgical tests on the manganese mineralisation to determine potential beneficiation options to enhance the economics of any potential manganese project, and to ensure the quality of the product meets market standards.

Figure 4: Surface Examples of Cryptomelane (Mn rich mineral)

Figure 5: Core Tray containing high grade manganese mineralisation (ASX release 12/12/12)

4 DRILLING AND SAMPLING

4.1 DRILLING

There are eight diamond core drill rigs owned and operated by Robust for drilling at Lakuwahi. The manganese resource is drilled on a nominal 40 x 40 grid spacing (Figure 6). The man-portable wire line drill rigs use Triple-tube standard drilling equipment. Two sizes of cores are used: primarily HQ stored in core trays of three 1-metre rows and NQ core stored in trays of five 1-metre rows. Core trays are carried to the core yard daily. After logging and sampling core trays are stored undercover in core storage facilities at the main camp.

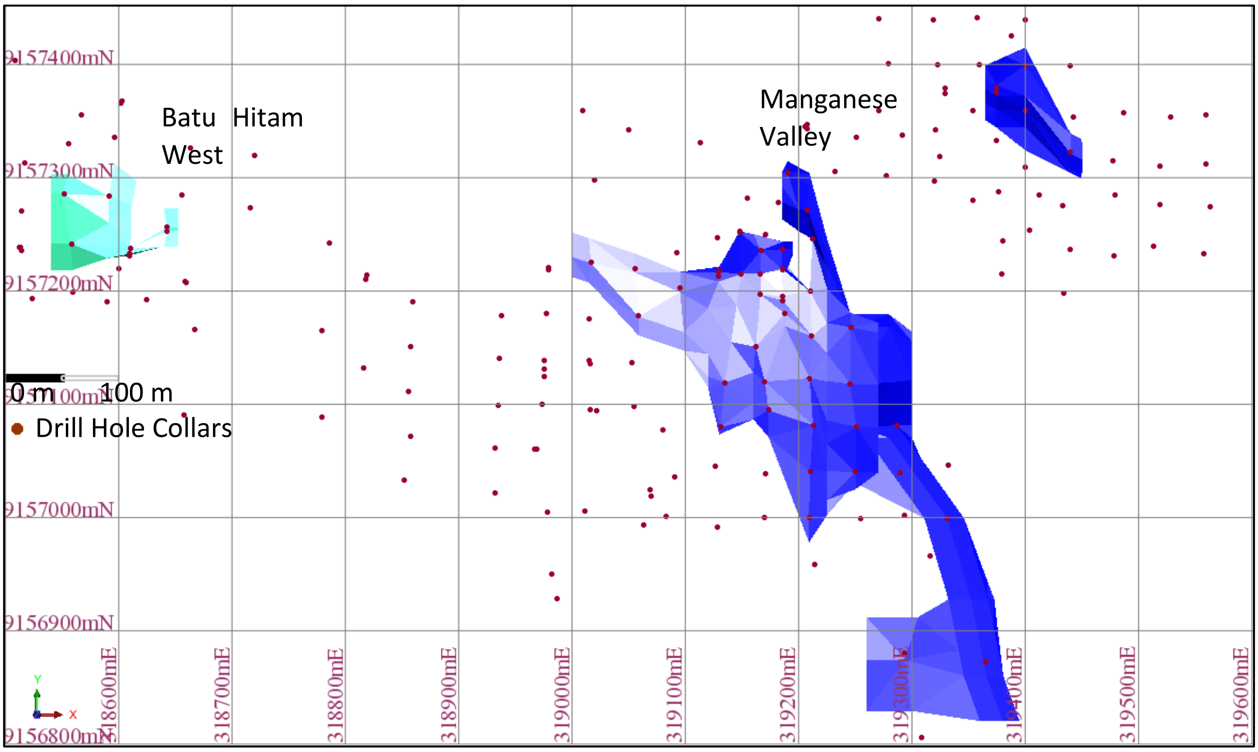

Figure 6: Manganese Mineralisation (>30%) and drill hole locations.

4.2 SAMPLING AND ASSAYING

Sampling is conducted on 1 metre, half core samples collected in visually mineralized intervals or 2-metre quarter core samples in visually non-mineralised or weakly mineralised core mineralised core. Core sampling honours mineralisation and geological boundaries.

Entire core samples are pulverized to 80% passing 200 mesh (75µm). Samples are analysed with 50 g charge fire assay for gold and Wet geochemical (such as ICP) or XRF techniques for silver and other metals. The Regular assay suite consists of Au, Ag, As, Sb, Cu, Pb, Zn, Ba and Mn. Selected samples above 30% Mn were re-analised for litho-geochemistry analysis, this included the major elements, of Mn, Fe, Al_2O_3, SiO_2, P, S, LOI and the minor elements of K_2O, CaO, MgO, Na_2O, C, Tl, MnO, Cr, Ni, Co, Cd, Hg and Mo. Core handling procedures including sample collection are summarised in the flow sheet Figure 7. Sample preparation procedures are summarised in the flow sheet shown in Figure 8.

4.3 SECURITY

Samples are taken in covered trays from the drill site to the core processing facility at Romang Island base camp. Company personnel log, photograph and spilt the core. Half or three quarters of the core is retained in the core shed as a geological reference and for use should further tests be required. All samples for assay are bagged in numbered calico sample bags which are then sewn into polyweave bags for transport. Company security personnel and Mobile Brigade police then accompany the samples from the base camp (by porter, company boat and charter plane) to Kupang in West Timor. At this point the samples are dispatched by commercial flight door to door courier to ITS laboratory in Jakarta.

Each sample shipment was accompanied by a completed Sample Submission Form from Intertek and the sample list on the Romang Project drill hole sample sheet. A copy of the sample submission sheets is scanned and emailed to the laboratory in advance to notify them of the sample shipment for analysis.

MA considers this to be a secure and reasonable procedure and GBU reports no instances of tampering with samples have occurred since drilling commenced in 2008.

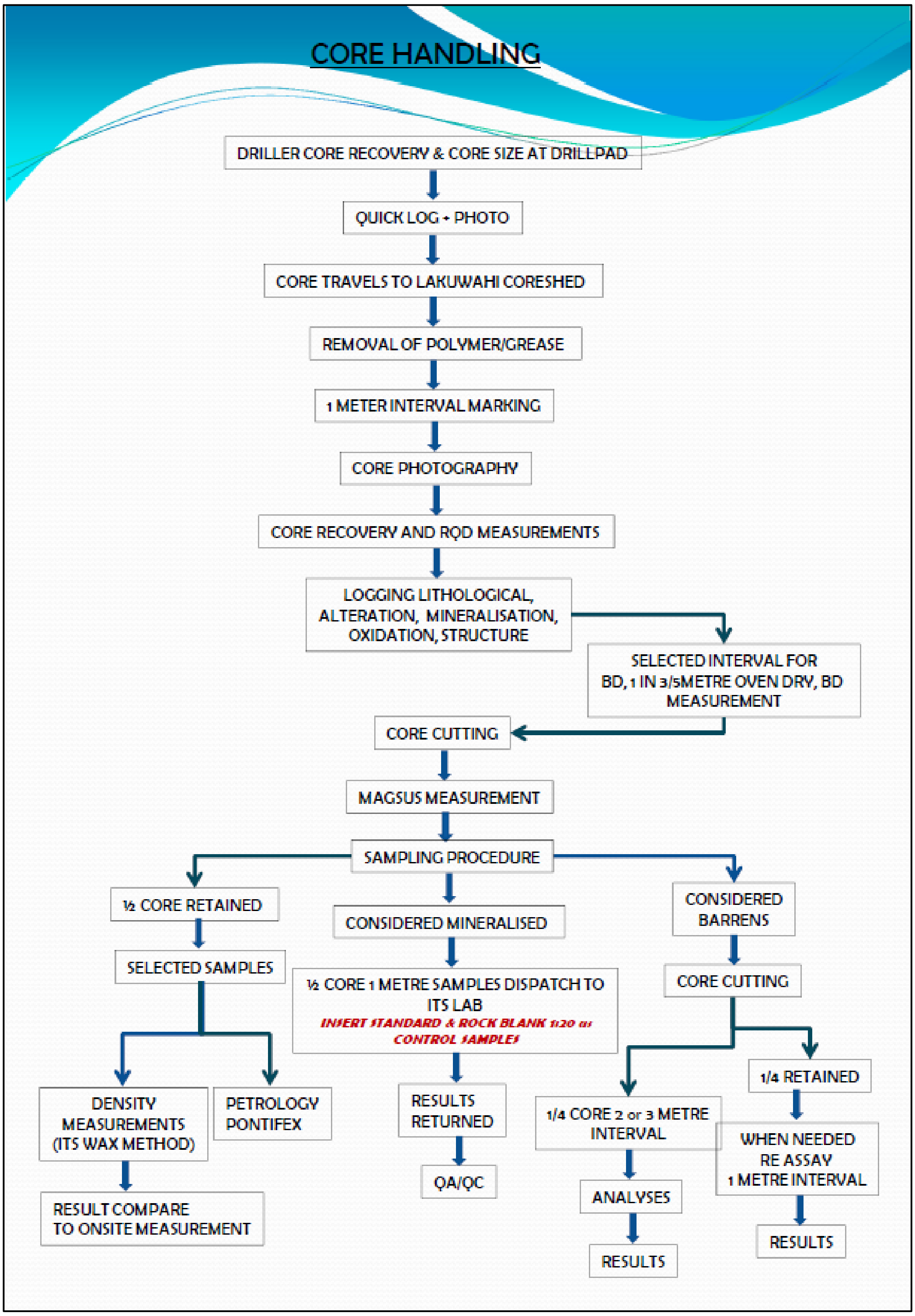

Figure 7: Lakuwahi Core Handling Procedure

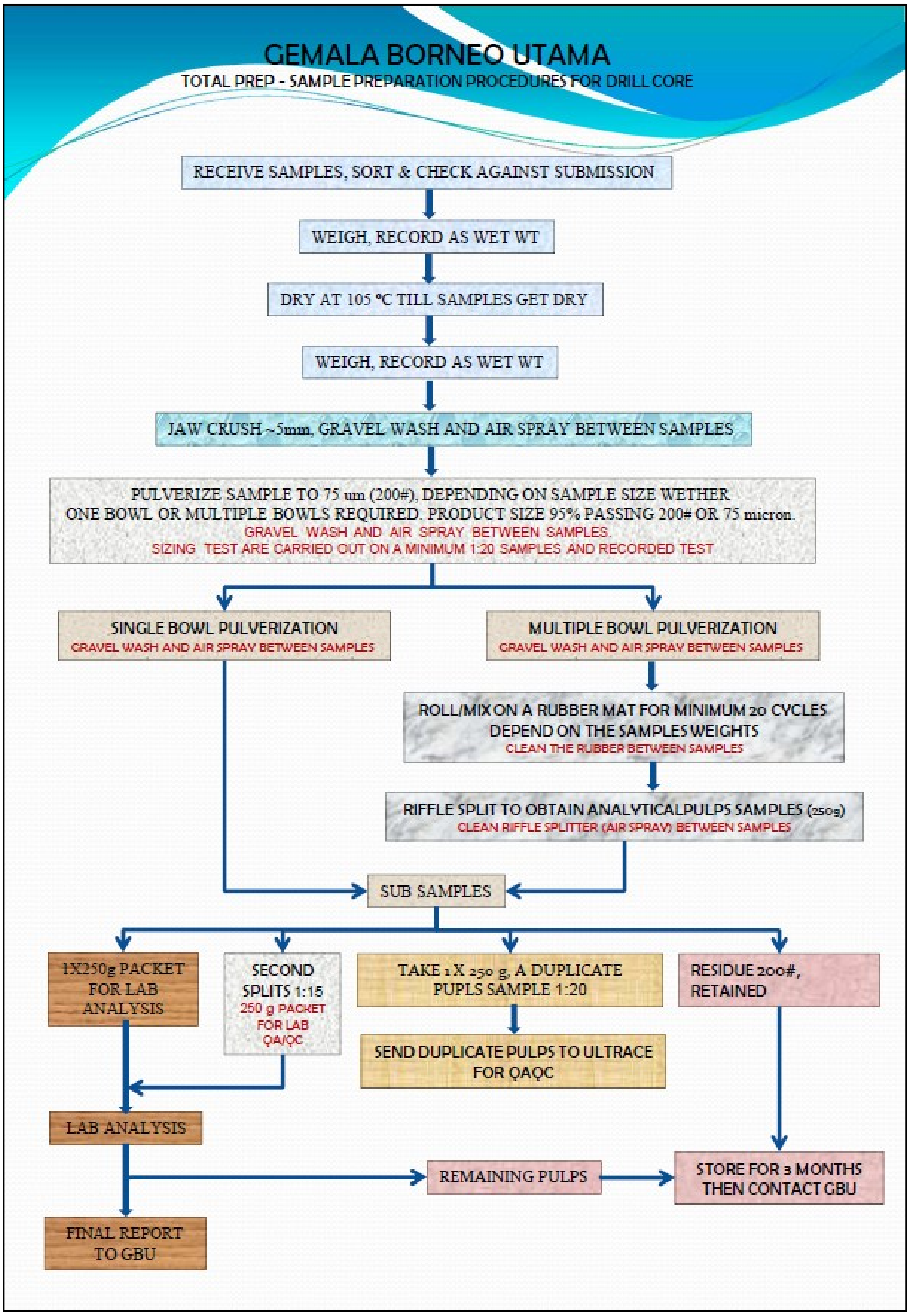

Figure 8: Sample Preparation Procedures

4.4 BULK DENSITY

According to the PT GBU procedures document, for the first phase of exploration and for each borehole, one density measurement was to be taken from each box (HQ size) and two density measurements from each NQ sized samples/core boxes. The selection will be subjective, but use 10-15cm of 'representative' core. The core was then weighed first in air and then weighed immersed in water for 3 minutes so that voids are filled. Drill sections are weighed in air on top of a set of scales and then weighed in a basket beneath the scales in water.

Forty-nine samples have been collected from Mn Valley and 7 from Batu Hitam West for BD analysis and the results are shown in Table 2.

Table 2: Bulk Density Samples with Mn Deposits

Deposit	Count	Min	Max	CV	Average
Manganese Valley	26	1.34	2.97	0.2	2.1
Batu Hitam West	5	1.34	2.30	0.2	1.7

4.5 QAQC

PT GBU's QAQC program consisted of the following activities:

- Certified Reference Materials ("CRM"): low, medium and high grade Au CRM, base metals CRM and certified blanks were added to the sample stream. No certified manganese oxide CRM is included in the suite of CRMs. CRM assess accuracy.
- Re-assay and Crush/Pulp splits: PT GBU requested 32 pulp duplicates from Phase 2 to be re-assayed. In addition, the laboratory conducts its own internal program of repeat assays which can also be used to valuate precision.
- Field Blank ("FB"): Samples of a "blank", known to contain low level of economically interesting metals are inserted into the sample stream. Both PT GBU field blanks and CRM blanks (Oreas 22b) as blanks were used. Blanks assess contamination.
- Umpire laboratory cross check re-assay. Umpire laboratory re-assay assesses precision and bias.
- PT GBU did not collect field duplicate samples ("FD"). FD assesses precision.

In addition, the independent laboratory Intertek conducted internal CRM testing, duplicate assaying and repeats. PT GBU used PT Intertek Utama Services as their primary laboratory.

The above described sampling methods, namely assay standards and blank insertion as well as the umpire laboratory check assaying are considered sufficiently adequate for the determination of accuracy and precision.

4.5.1 Standard results – Accuracy

Accuracy is identifying the true grade of a sample, often achieved by submitting certified reference material ("CRM") commonly referred to as standards ("STD"). PT GBU used standards provided by independent laboratory, ORE Research & Exploration Pty Ltd ("Oreas") to assess the gold, silver and base metal assay accuracy. PT GBU used a number of external certified standards, which are listed in Table 3 with the certified values, standard deviations and performance gates.

Table 3: CRM used by PT GBU for Analysis QC

OREAS Standard ID	Expected Value (EV)	Standard Deviation (SD)	Lower limit 1 (EV - 2SD)	Upper limit 1 (EV + 2SD)	Lower limit 2 (EV - 3SD)	Upper limit 2 (EV + 3SD)
Low Grade Gold						
Oreas 66a						
Au (ppm)	1.237	0.054	1.129	1.345	1.075	1.399
Ag (ppm)	18.9	1.2	16.4	21.4	15.2	22.6
Cu (ppm)	121	7	107	134	100	141
Medium Grade Gold						
Oreas H3						
Au (ppm)	2.00	0.08	1.84	2.17	1.76	2.25
Ag (ppm)	4.95	0.30	4.35	5.55	4.05	5.85
Cu (ppm)	443	22	399	488	376	511
Oreas 67a						
Au (ppm)	2.238	0.096	2.046	2.43	1.95	2.526
Ag (ppm)	33.6	2.0	29.6	37.6	27.6	39.6
Cu (ppm)	325	10	305	345	296	355
Oreas 60b						
Au (ppm)	2.57	0.11	2.35	2.78	2.25	2.89
Ag (ppm)	4.96	0.31	4.34	5.57	4.03	5.88
High Grade Gold						
Oreas 68a						
Au (ppm)	3.89	0.15	3.6	4.18	3.45	4.33
Ag (ppm)	42.9	1.7	39.6	46.2	37.9	47.9
Cu (ppm)	392	15	362	422	347	437
Oreas 61d						
Au (ppm)	4.76	0.14	4.47	5.04	4.33	5.19
Ag (ppm)	9.27	0.48	8.31	10.2	7.83	10.7
Base Metal-Silver						
Oreas 131b						
Ag (ppm)	30.9	0.9	29.0	32.7	28.1	33.6
Cu (ppm)	322	7	309	335	302	341
Pb (wt %)	1.72	0.02	1.68	1.75	1.66	1.77
Zn (wt %)	2.83	0.05	2.74	2.93	2.69	2.97
Blank						
Oreas 22b Quartz Blank						
Au (ppm)	<2	IND	IND	IND	IND	IND
Ag (ppm)	<0.1	IND	IND	IND	IND	IND
Cu (ppm)	8.9	0.7	7.5	10.3	6.8	10.9
Pb (ppm)	<2	IND	IND	IND	IND	IND
Zn (ppm)	10.2	0.7	8.7	11.6	8	12.3
Oreas 22c Quartz Blank						
Au (ppm)	<2	IND	IND	IND	IND	IND
Ag (ppm)	<0.1	IND	IND	IND	IND	IND
Cu (ppm)	10	1	8	12	7	13
Pb (ppm)	1.0	0.5	0	1.9	0.0	2.4
Zn (ppm)	7.5	1.2	5.1	9.8	4.0	11.0

**IND = indeterminate*
Note: Intervals may appear asymmetrical due to rounding

MA notes that none of the certified standards have a certified value for MnO. MA has used the average value and standard deviation of the results to determine accuracy. The highest average grade for a CRM is OREAS_131a with an average grade of 1869ppm, well below the anticipated cut-off grade for Mn. The GBU_ROCKBLANK, (field blank) and ORERES_60b and d are the second highest Mn standards.

The performance gates listed in Table 4 are based on two and three standard deviations. As a guide these limits identify possible failed results (i.e. values outside expected value ±2 SD), and failed results (values outside expected value ± 3SD)."

The following graphs illustrate the assay results for the CRM relative to the expected values and the performance gates of the expected value ± the second standard deviation ("2SD") and third standard deviation ("3SD").

Table 4: Standard Results - Accuracy

Standard ID	Count	Average	Std dev	# fail ±2SD	# fail ±3SD	% fail ±2SD	% fail ±3SD
GBU_ROCKBLANK	403	1050	140	8	8	1.99%	1.99%
OREAS_131a	146	1869	104	3	2	2.05%	1.37%
OREAS_502	46	596	29	0	0	0.00%	0.00%
OREAS_502B	47	612	27	2	0	4.26%	0.00%
OREAS_60b	51	1116	38	4	0	7.84%	0.00%
OREAS_61d	50	1050	43	3	0	6.00%	0.00%
OREAS_66a	101	354	98	0	1	0.00%	0.99%
OREAS_67a	100	307	22	1	1	1.00%	1.00%
OREAS_68a	78	248	51	0	1	0.00%	1.28%
OREAS_901	89	317	33	0	3	0.00%	3.37%

MA notes that many of the internal laboratory repeat results were assigned to the wrong standard id when entered into the database. Once the repeat assays results were checked against the original sample number the correlation was greatly improved. Repeat standard results are not included in Table 4 or Figure 9.

It is possible there is some data entry errors in the recoding of the Standard_ids as several extreme outliers correspond well with other standard results (Figure 9). Two GB_Blank correspond with 22b, 2 to 4 GBu_blanks may be Oreas_131a, 1 x 66a may be GBU_Blank, 1 x 68a may be 502.

Future PT GBU checks should identify the mislabelling of standards and edited the database to record the correct labelling of mislabelled standards. MA recommends a periodic clean-up of the database. Issues that are not solved by identifying mislabelled standards samples should be investigated further at the time, including requesting a re-run of the batch.

The database showed no evidence of contamination of standards or laboratory bias / error in Mn results once "identified & cleaned up" i.e. the Mn database is representative & valid.

There appears to be no overall bias in the results, laboratory or sampling, the results are accurate and there is no evidence of contamination of standards or laboratory error in Mn results. However this statement requires qualification, as the statement is based on the average grade of the standards, which means there is a normal distribution of results. To truly detect bias a certified manganese reference material is required.

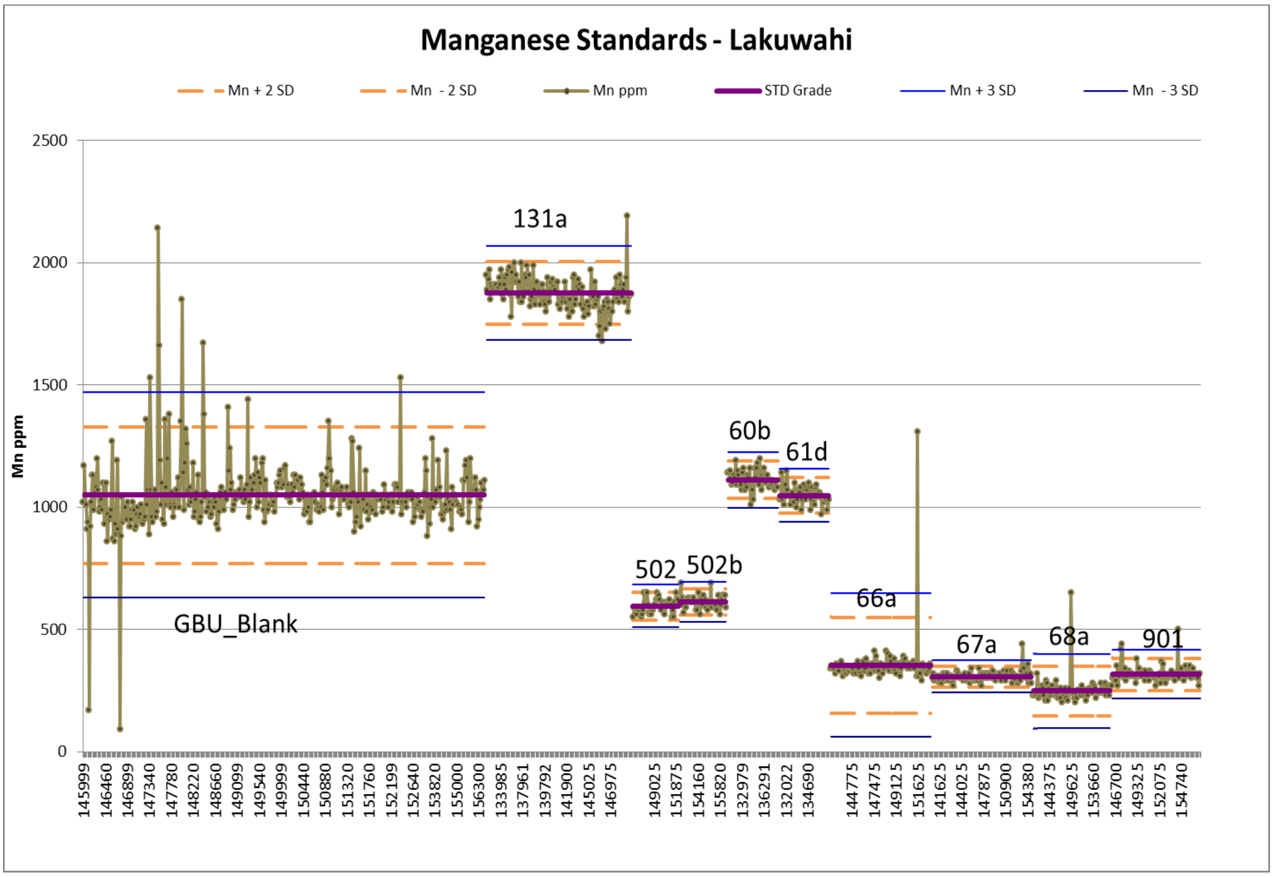

Figure 9: Standard Control Chart

4.5.2 Blank Standards - Contamination

Standards 22b and H3 can be considered as manganese blanks, though they average 78 and 47 ppm Mn respectfully (Table 5). Figure 10 shows the results for Mn blank samples. There are 4 serious outliers for 22b, all reporting below detection limit. Overall the results for blanks indicate no significant contamination.

Table 5: Blank Standards used by PT GBU for analysis QC

Standard ID	Count	Average	Std dev	# fail ±2SD	# fail ±3SD	% fail ±2SD	% fail ±3SD
OREAS_22b	157	78	14	2	4	1.27%	2.55%
OREAS_H3	50	47	17	0	0	0.00%	0.00%

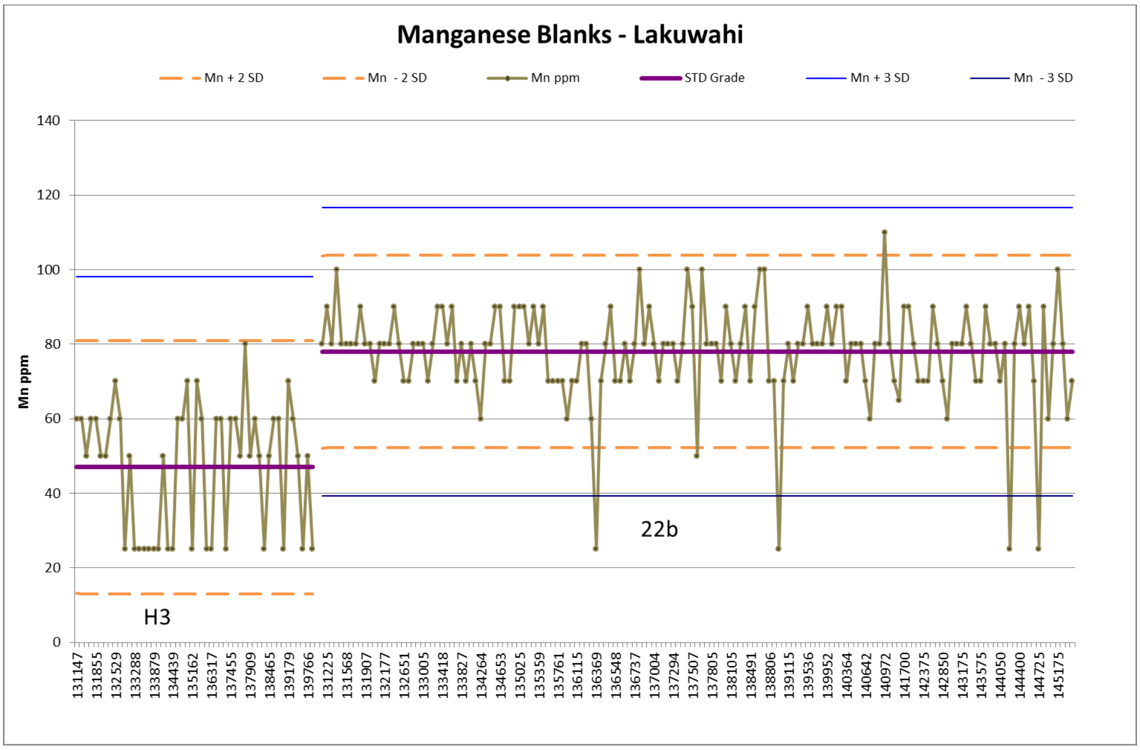

Figure 10: Blank Control Chart

4.5.3 Inter-Laboratory Checks – Duplicates - Precision and Bias

During the drill programs, Robust used two umpire laboratories for external control, SGS Pty Ltd and Ultra Trace – Amdel, both located in Western Australia. MA check reviewed the results for the Ultra Trace and SGS umpire results. In total 2548 samples have been analysed by an independent third party laboratory. Assays are routinely assayed for the full suite of elements, Au, Ag, Cu, Pb, Zn and Mn. Manganese results are presented below in Figure 11 and Figure 12. Generally the inter-laboratory checks are within 10% deviation though tend to err on the high side, implying the regular Intertek laboratory is marginally under reporting the Mn content.

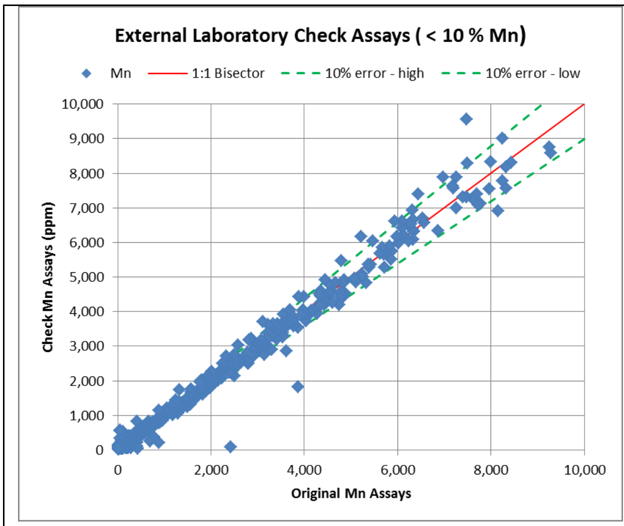

Figure 11: Inter-laboratory Checks< 10% Mn

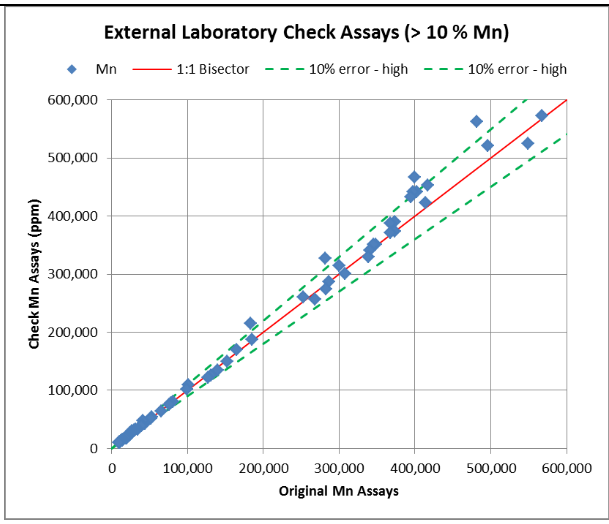

Figure 12: Inter-laboratory Checks > 10% Mn

5 DATA VERIFICATION

5.1 SITE VISIT

As part of the data verification process, Mr Ian Taylor visited Lakuwahi from September 6th to the 11th, 2013. During the visit, geological maps and reports were reviewed and a selection of drill sites and outcrops (Figure 13) were visited. Discussions were held with project geologists, project manager and country manager who have all worked on the project and are familiar with the geology of the area, the mineralisation being explored for, as well as the exploration and work procedures. Field inspection of old Robust drill collars (Figure 15) was carried out and current drill practices were also observed (Figure 14). The core storage and sampling facilities were also visited (Figure 16). The work procedures were observed to be in place and were reviewed during the site visit. The sampling, sample collection, sample quality control and sampling handling and security procedures are to industry standard practice.

Figure 13: Manganese Outcrop

Figure 14: Robust diamond rig (drilling LWD367)

Figure 15: Rehabilitated Drill site - hole LED58 drilled 15/01/10

Figure 16: Core Logging and sampling Shed

5.1.1 Drill Hole Database Assay Verification

A selection of the drill holes (~5%) were selected for data validation (Figure 17), the holes were selected based their distribution throughout ore body. Assay certificates were reviewed as part of the Robust data verification, in addition to original drill logs, collar pickups, down hole survey data and core photos relating to these holes were requested of Robust.

The validation process noted that all the geology logs were loaded into the database. The down-hole surveys were validated correctly against the hard copy. The digital collar data correlated well against the survey reports with no errors being found.

Figure 17: Inspection of LWD 262 at 6.2m down hole where >3m @ 41.5% Mn was reported

6 MINERAL RESOURCE ESTIMATE

6.1 APPROACH

The mineralised domains were interpreted on north-south cross sections defining the mineralisation boundaries.

Geological and grade modelling work encompassed all previous drilling with Manganese mineralisation above 30%. Modelling work was extended horizontally to the limits of the current drillhole assay database and section interpretations were extended a maximum of 20 m beyond the limit of drilling. Mineralisation is interpreted to be continuous between drill holes both along strike and down dip within the defined domains.

Weathering horizons for oxide and semi-oxide were supplied as point data by Robust. Each category was extracted from the drill hole database and gridded surfaces were created using inverse distance cubed (ID^3) algorithm. ID^3 provided the best interpretation while honouring the original data elevations appropriately. Weathering profiles were used to assign oxidation state and Bulk Density.

The defined mineralised domains were constrained with 3D wireframes and grades estimated by Ordinary Kriging. The results for Mn were compared with the raw drill data and also with block estimates made using Nearest Neighbour and inverse distance squared block estimates to test the impact of averaging, de-clustering and selected variograms.

Ancillary elements that are likely to affect the smelting process have been considered as averages across entire mineralisation; including Fe, Al, Si, P and Ca, no direct estimation of ancillary elements has been undertaken.

6.2 GEOLOGICAL INTERPRETATION

Several geological cross sections were supplied by Robust's Exploration Manager, Joseph Ogierman (Figure 18). The sections aided in the digital interpretation of the mineralisation from which 3D wireframes were created.

Raw sample data was plotted as a histogram (Figure 19) and log probability (Figure 20) plots. Natural breaks in the data set can be seen between 7 and 10% Mn for a low grade boundary and a higher grade break occurs around 30% Mn. At this stage of the project only the high grade proportion is considered to have potential to be direct shipping ore of manganese products (DSO).

MA notes manganese mineralisation is logged as manganese oxide (MnO), the high grade proportion of the mineralisation often occurs with "lump" usually in the form of Cryptomelane and occasionally Pyrolusite crystals are evident. Core photos and assay plots show logged mineralisation dominantly (> 80% of MnO recorded) identify assay grades > 10 % Mn.

No minimum width (mining or mineralisation) was considered as the ore body is relatively flat and near surface thus the mining fleet can be optimised to extract very thin (~0.25m) thickness, should that prove economic.

No dilution is applied to this model, and internal dilution is kept to a minimum. Where blocks of Limestone have been logged internally to manganese oxide mineralisation the internal limestone blocks have been excluded from the wireframe. Logged limestone can return higher grade manganese assays; these intercepts are incorporated into the wireframe and generally occur as thin isolated assay values at the periphery of the deposit.

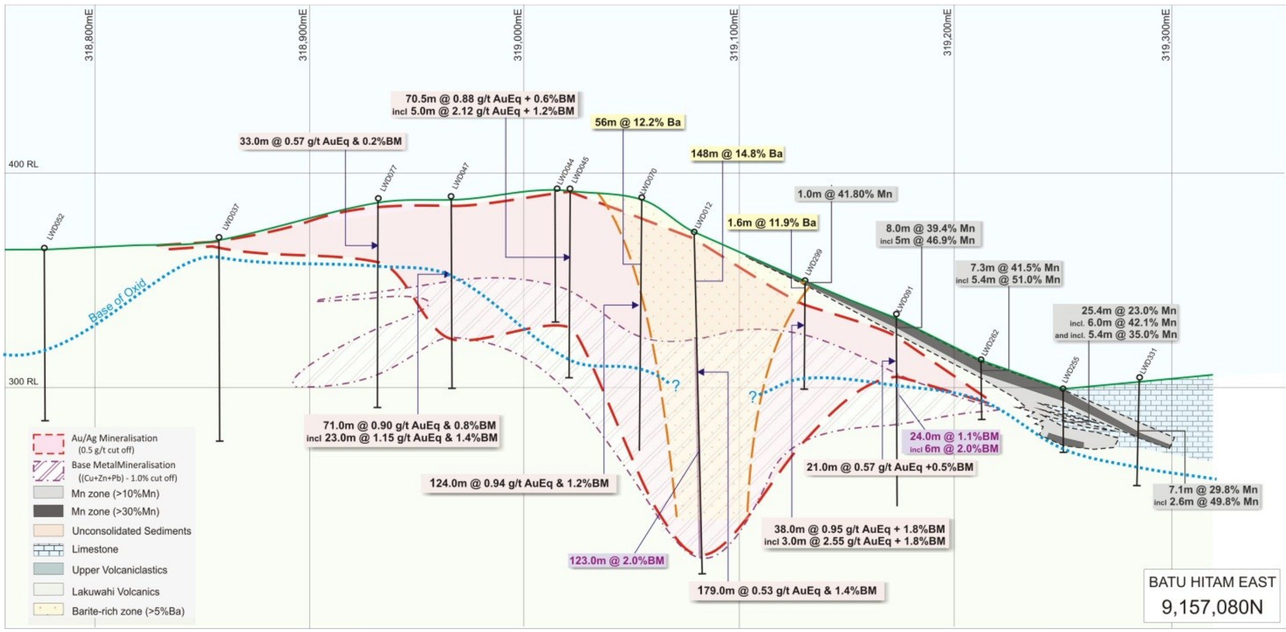

Figure 18: Section interpretation (9,157,080 m North, Ogierman 2013)

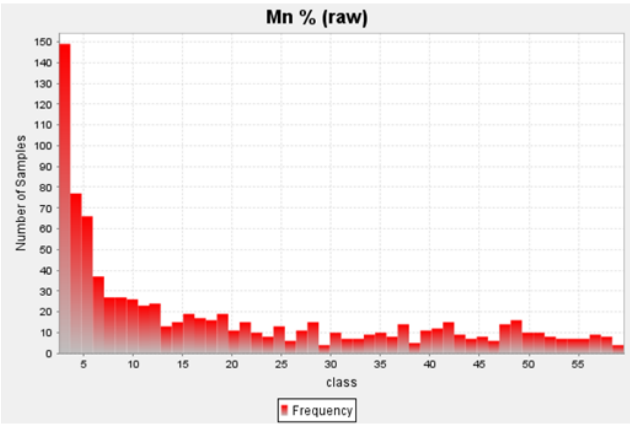

Figure 19: Histogram of Mn sample data

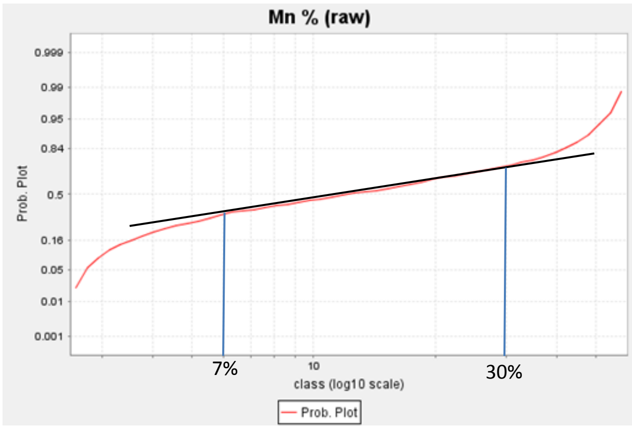

Figure 20: Log probability Plot of Mn sample data

6.3 DATA PREPARATION AND STATISTICAL ANALYSIS

Statistical analysis of the grade data was carried out using the Surpac Software package. The Supac package is an internationally recognised geological and mining software toolbox which incorporates geostatistical tools that can be used at all stages of the mining process from initial feasibility studies though to production control.

The purpose of the statistical analysis is to define the main characteristics of the underlying grade distribution to assist with the geological and grade modelling work. This process is important as the statistics of the individual sample populations can influence how the grade data is treated and the application of the grade estimation techniques. For example highly skewed data may require special grade capping and semivariogram analysis.

The drillhole database is stored in an MS Access relational database. The Lakuwahi database is connected directly to Surpac for data display, down-hole compositing, wireframing of homogeneous grade domains and block model estimation.

The entire Lakuwahi drill hole data base was supplied to MA. The database included the current active drill programme at the time of the export. Robust provided a complete drill hole database upto to hole LWD420.

6.3.1 Drill Hole Spacing

Drill hole data spacing is variable within each domain, though the majority of the mineralised body is drilled on a 40m x 40m grid.

6.4 INFORMING SAMPLES

Basic statistics (Table 6) report the univariate statistical characteristics the manganese mineralisation at Lakuwahi is presented in Table 6. 269 raw manganese samples within the interpreted mineralisation collected from 369.02 metres of drill core were composited to 1 metre. (Figure 21) shows a slight negative skew of the distribution of the manganese composite data, the relative gaussian distribution of manganese also suggest it is unlikely a top cut is required. This is also confirmed by the low coefficients of variations, around 0.25 (Table 6). The negative skew may suggest further lower cutting is required, however the mineralised halo wireframe is designed to remove low grade values, and the low values included represent internal waste that cannot be removed easily with wireframing. The basic statistics are also used as a validation of the later resource estimates.

Table 6: Basic Statistics for Mn samples and composites

Statistic	Raw Samples	1m Comps	2m Comps
Number of samples	269	299	157
Minimum value	0.0	1.11	10.13
Maximum value	59.56	58.97	58.14
Mean	41.59	42.07	41.68
Median	42.4	42.8	42.4
Geometric Mean	42.4	42.8	42.4
Variance	132.7	114.1	94.7
Standard Deviation	11.52	10.68	9.73
Coefficient of variation	0.28	0.25	0.23

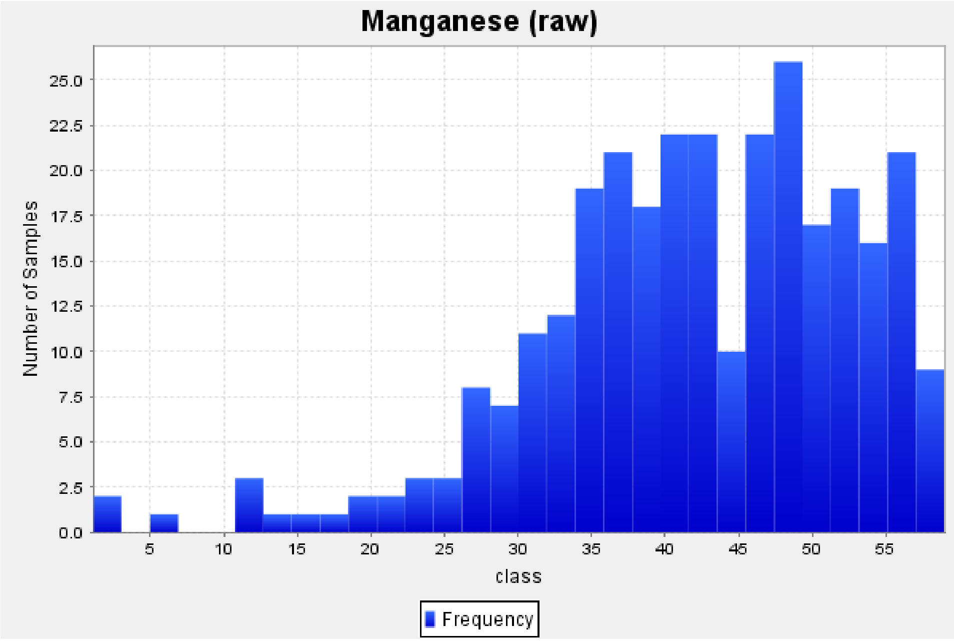

Figure 21: Histogram of Manganese one metre composites within mineralised interpretation.

6.4.1 Compositing

One and two metre down-hole composite were tested for the statistical analysis and grade estimation of manganese. The decision to use one metre composites is based on the dominant sample size in the mineralised zones, and the relatively narrow mineralisation at the periphery of the deposits.

The objective of compositing data is to obtain an even representation of sample grades and to eliminate any bias due to sample length (volume variance). The dominant sample length at Lakuwahi Project is one metre. Surpac's "Best Fit" was selected as the compositing method. The best fit method reduces the number of reject samples by compositing to variable lengths, but of equal length within a contiguous drill hole intercept, ensuring the composite length is as close as possible to the nominated composite length. The mean remains reasonably un-affected, and the variance is marginally reduced with two metre composites, however the nugget and sill of the 2 metre variogram models were worse. One metre composites were selected for estimation.

An important factor in compositing is the mining method though at this early stage of the project no preferred mining method has been determined. Future studies may suggest excavation could be performed horizontally with a wheel loader allowing detailed control on the vertical. If this is to be the case smaller sample lengths should be considered, down to 25cm.

6.4.2 Grade Capping

Capping is the process of reducing the grade of the outlier sample to a value that is representative of the surrounding grade distribution. Reducing the value of an outlier sample grade minimises the overestimation of adjacent blocks in the vicinity of an outlier grade value. Due to the reasonably normal distribution of Mn composites(Figure 21) it is unlikely that outliers exist in the Mn sample population so no grade capping was applied to the informing composite data set (Figure 22).

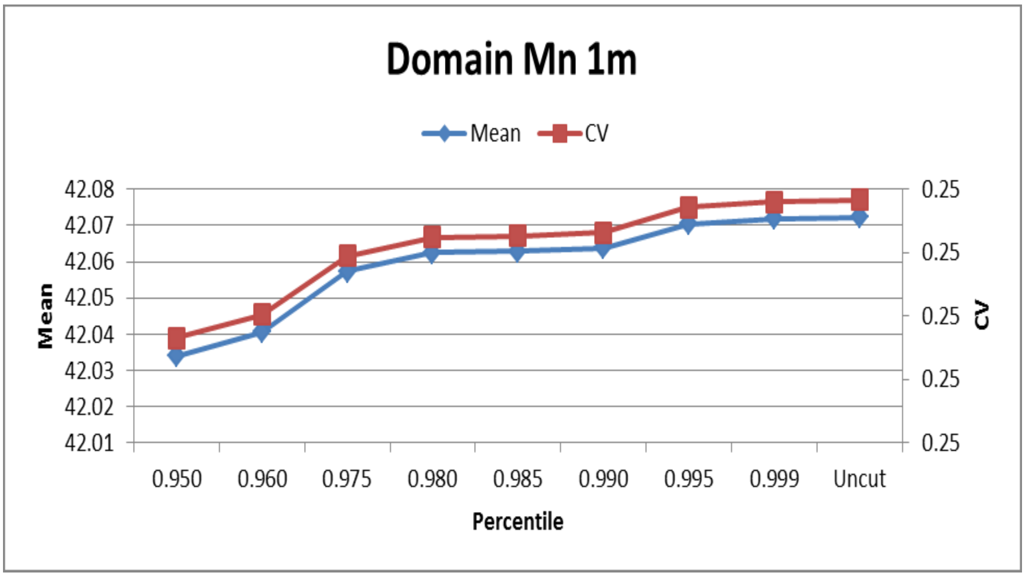

Figure 22: Grade Cap analysis - change in mean and CV plot

6.5 VARIOGRAPHY

The most important bivariate statistic used in geostatistics is the semivariogram. The experimental semivariogram is estimated as half the average of squared differences between data separated exactly by a distance vector 'h'. Semivariogram models used in grade estimation should incorporate the main spatial characteristics of the underlying grade distribution at the scale at which mining is likely to occur.

The semivariogram analysis was undertaken for manganese within the >30% grade domain. The experimental variogram containing the clearest structure and greatest difference in range between each direction was selected for use in model fitting where possible. The variogram modelling process using variables is described as follows:

- Experimental variograms with small lags orientated down hole to aid interpretation of nugget effect.
- Omni-directional variogram to determine optimal lag distance for directional component of variogram.
- Variogram map, computing 18 directions in the reference plane and normal to the reference plane.
- Directional variogram with 2 directions in reference plane (down dip) oriented parallel to the average orientation of the wireframe models of each domain, plus variogram normal to the plane (across strike).

Transformed variograms (log and normal scores) were cross checked with the non-transformed variograms in a bid to elucidate subtle structures. The non-transformed modelled variogram parameters are presented in Table 7.

Table 7: Variogram Parameters - Manganese

Nugget	Sill1	Range1	Sill2	Range 2	Semi Minor Ratio	Minor Ratio
0.2	0.75	20	0.17	88	1.47	2.67

6.6 GRADE ESTIMATION

Kriging techniques were used to estimate grade into large parent blocks, these blocks were subsequently sub-blocked to give accurate volumes. The sub-blocks approach the size of a reasonable Selective Mining Unit ("SMU"). The estimation has been tightly constrained by the wireframes.

Kriging techniques can be used to estimate into large parent blocks. A suitable compromise is to utilise sub blocks. Grade is estimated into parent blocks and mirrored in ore sub-blocks, leaving the corresponding waste sub-blocks barren.

Results of the Krige estimation were validated against raw informing data and estimates by nearest neighbour and inverse distance weighting.

6.7 METHODOLOGY

Ordinary kriging ("OK") is a robust grade estimation technique and is the main algorithm used in geostatistics. The most common use of OK is to estimate the average grades into blocks approximating the scale of the available drill hole spacing. OK is a globally unbiased estimator that produces the least error variance for grade estimates.

It uses the grade continuity information from the semivariogram to estimate grades into large blocks. It is also able to accommodate anisotropy within the data and is able to replicate this in block estimates. Another important feature of kriging is that it automatically deals with clustering of data which is important in areas where the data density is not uniform.

Due to variable non-stationary issues OK was used in preference to simple kriging ("SK") as only local stationarity conditions are required for the OK algorithm. Inverse distance and nearest neighbour estimates were also run for cross validation checks within domains.

Kriging forms a sound basis for generating block grade estimates at a scale which is appropriate to the sample density. If tonnes and grades are required for volumes smaller than the kriging block size (such as specific SMU size) then other more advanced non-linear techniques need to be applied. For local estimates as required for detailed mine scheduling at various cut offs non-linear estimation techniques (Multiple Indicator Kriging or Conditional Simulation) or uniform conditioning will be required.

6.7.1 Block Model

The block model is orientated perpendicular to the local grid, a local grid was selected to honour the geology and negate the use of a rotated block model. The block model dimensions are outlined in Table 8. Block size selected was 20 m x 20 m in XY direction and 10 m in Z. The size reflects half the drill hole spacing over the Manganese resource area.

Table 8: Block model parameters.

Type	Y	X	Z
Minimum Coordinates	9156700	317300	0
Maximum Coordinates	9158000	319700	500
User Block Size	20	20	10
Min. Block Size	5	5	2.5

6.7.2 Search parameters

The search parameters were based on the variogram model and the dominant grade trend of manganese valley mineralisation, perpendicular to the valley channel. The high grade portion of the deposit is treated as having hard boundaries. The assumption of hard boundaries restricts the mineralisation outside the high grade domain from influencing the grade estimate.

The search ellipse defines sample pre-selection and sample weights are defined by the variogram model. Large search ellipses can present distal samples with negative weights, however due to the relatively limited search ellipse; negative kriging weights from distant samples did not present a problem during estimation of the main veins.

Selection of the informing sample is via a moving neighbourhood, which moves with respect to the centroid of the block. Specific informing sample numbers and search parameters are presented in Table 9. A minimum of 3 composites were required to estimate a block with a maximum of 5 from any given drill hole, the maximum number of informing samples was 15.

Table 9: Informing samples and search neighbourhood

Type	Metric
Minimum	3
Maximum	15
Major distance	88 m
Semi-major ratio	1.47
Minor ratio	2.67
Bearing	20°
Plunge	0°
Dip	-20°

6.7.3 Discretisation

Discretisation is a means of correcting the krige estimate for the volume variance effect. It is used to give an indication of the size and form of the block to the kriging system. This ensures that the estimates are a good representation of the block throughout the whole block. In this case, 4 x 4 x 2 (XYZ) discretisation points were used, resulting in discretisation points creating a pseudo 3D grid of 5 m nodes within the parent block.

6.7.4 Block Model Attributes

A block model stores numerous variables either calculated or directly assigned. The grade variable (manganese) was estimated using OK. Associated statistics are stored (average distance to informing samples, distance to nearest sample and number of informing samples, krige variance, krige efficiency and conditional bias slope). The weathering code was assigned to blocks using three dimensional wireframe models or digital terrain models.

Table 10: Block Model Attributes

Attribute Name	Type	Decimal	Background	Description
density	Float	2	0	Density
lode_Id	Integer	-	0	lode number
lode_vein	Character	-	W	Mineralisation Domain
mined	Integer	-	1	Mined Out > 1 Insitu=0 Air = 1
mn_id_ct	Float	4	0	manganese ID estimate capped
mn_nn_ct	Float	4	0	manganese NN estimate capped
mn_ok_ct	Float	4	0	manganese OK estimate capped
rescat	Integer	-	0	Resource classification
rock	Integer	-	0	Air=0 Rock=1
weathering	Character	-	AIR	FR = fresh rock, POX = partially oxidised, TOX = totally oxidised
zn_id_ct	Float	4	0	zinc ID estimate capped
zn_nn_ct	Float	4	0	zinc NN estimate capped
zn_ok_ct	Float	4	0	zinc OK estimate capped
zok_ads	Real	2	0	average distance to samples
zok_cbs	Real	2	0	Conditional bais slope
zok_dns	Real	2	0	distance to nearest sample
zok_ke	Real	2	0	krige efficiency
zok_kv	Real	2	0	krige variance
zok_ns	Integer	-	0	number of informing samples
zok_ps	Integer	-	0	1 First Pass; 2 Second Pass Estimate

6.7.5 Bulk Density

Bulk density is initially assigned to the attribute density based on weathering the profile as logged by the geologists. The Density attribute within the mineralised wireframe was re-assigned a density of 2.1.

Table 11: Bulk Density Values

Weathering Profile	Attribute Code	Bulk Density Assigned
Totally Oxidised	BOX	2.0
Mn Mineralisation	As Appropriate	2.1
Partially Oxidised	BOC	2.1
Fresh Rock	FRH	2.5

6.7.6 Validation and Comparison with Previous Estimates

The previous inferred resource does not include manganese mineralisation. Block Model Validation was performed using three techniques:

1. Visual comparison of drill hole assays and block estimates in section;
2. Global comparisons of informing composite grades with estimated block grades;
3. Swath plots of the mean grades of informing composite with estimated block grades on a section-by-section basis.

MA conducted numerous steps during the validation of the krige estimation. One process involved tabulating and plotting krige estimates and mean composite grades by individual domain (Table 12). Although the input data and output data (mean composite grades and krige estimate grades) are not strictly comparable due to data clustering, volume variance effects and data densities, they provide a useful validation tool in detecting any major biases.

A Swath plot of the mineralisation (Figure 23) was created on north-south 40 m sections. Clustered composites can unduly bias the mean grade compared to the estimated mean grade which is de-clustered and spatially weighted. One of the beneficial properties of OK is that it inherently de-clusters data during block estimation through the use of the kriging matrix. Section 319200 m E has eight well-spaced drill holes providing good control on the grade of this section, this drill section is sub-parallel to the valley floor.

Table 12: Manganese Composite Grades v Manganese Estimated Grade

Domain	Composites Count	Tonnes per comp	Composite Mn (%)	Mn Est. (%)	Est V Input
Manganese Valley	263	2600	41.6	40.8	98%
Batu Hitam West	36	1400	45.5	45.7	100%

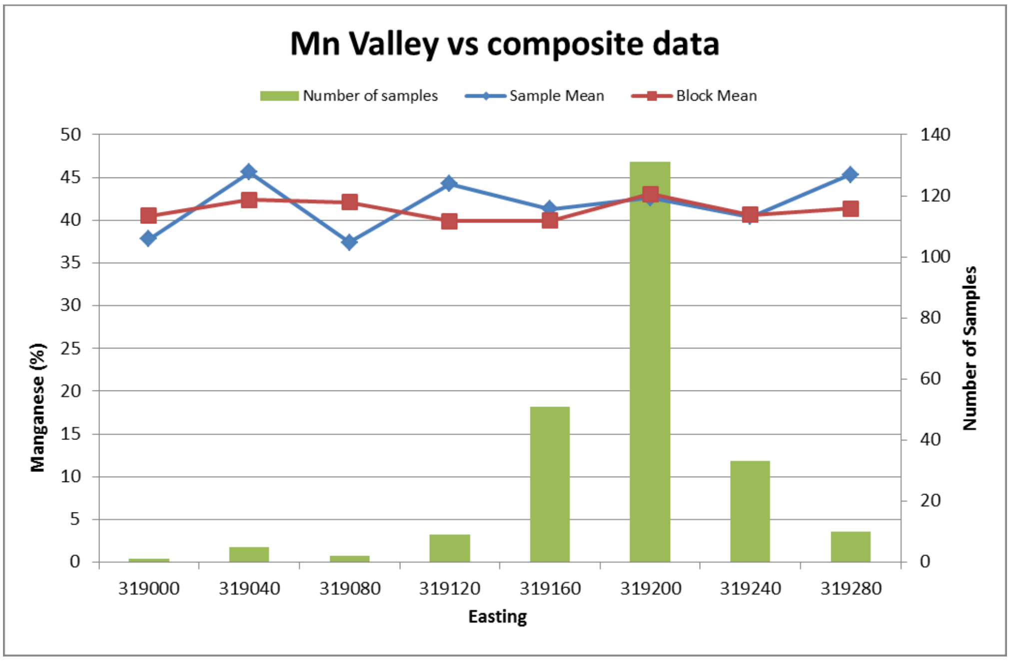

Figure 23: Mn valley swath plot

6.8 ECONOMIC CUT-OFF PARAMETERS

All resources have been stated above a cut-off of 30% Mn. Table 13 reports the entire Lakuwahi Manganese Resource above a 30 % manganese cut off. Table 14 details the entire resource above various cut off values and these figures are also shown in Figure 24.

Table 13: Manganese Mineral Resource Estimate (>30% Manganese cut off)

Deposit	Material (t)	Mn Grade (%)	Mn Metal (t)
BHW	51,000	45.7	23,000
Mn Valley	686,000	40.8	280,000
Total Resource	738,000	41.1	303,000

Table 14: Entire Resource within mineralised wireframe at various cut-offs

Mn Cut off	Tonnes above cut off	Grade above cut off	Mn metal above cutoff
> 20 %	773,000	40.6	314000
> 25 %	773,000	40.6	314000
> 30 %	**738,000**	**41.1**	**303000**
> 35 %	688,000	41.7	287000
> 40 %	440,000	43.9	193000
> 45 %	129,000	47.1	61000
> 50 %	9,000	47.8	4000

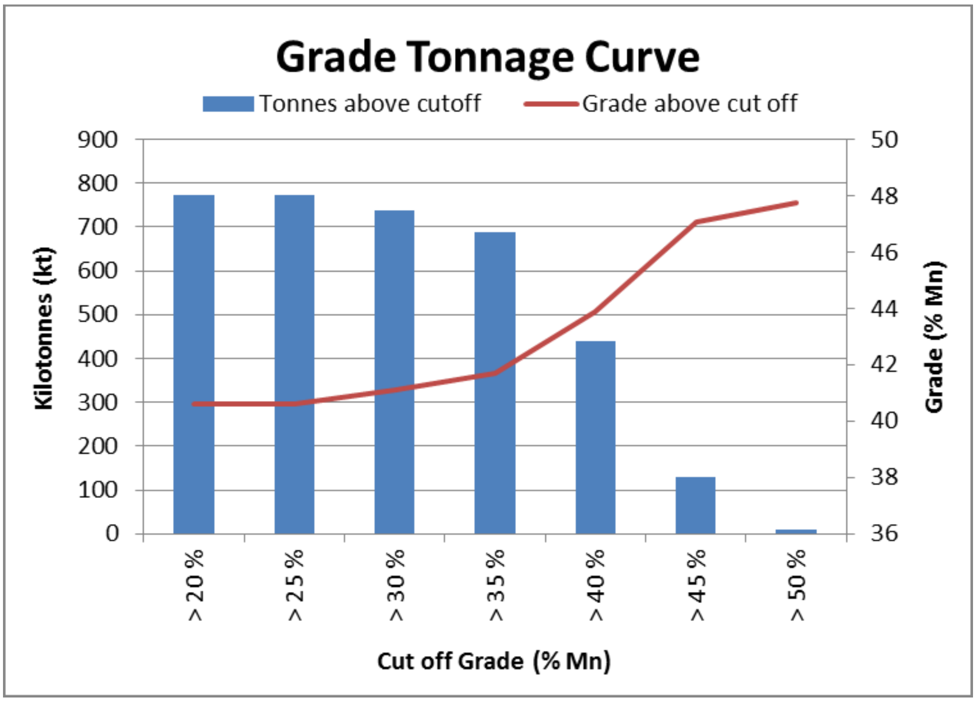

Figure 24: Grade Tonnage Curve

6.8.1 Assumptions for 'reasonable prospects for eventual economic extraction'

Assumptions for reasonable prospects for eventual economic extraction applied to this deposit include but may not be limited to the following presented in Table 15. It should be noted these factors, such as costs, strip ratio, depth of ore are assumed based on the competent person's experience and the costs may not reflect actual costs.

Table 15: Assumptions for Reasonable Prospects of Economic Extraction

Parameter	Unit	Value
Capital Cost	US$/t ore	$ 6.78
General and Admin cost	US$/t ore	$ 3.00
Processing cost	US$/t ore	$ 3.00
Average mining cost	US$/t ore	$ 5.20
Total Cost	US$/t ore	$ 17.98
Manganese Price	US$/t ore	$ 220
Average recovery – Mn		95 %
CUT-OFF GRADE Manganese (Mn), %		9 %

The cost of mining ore and waste has been consolidated against ore tonnes. A conservative strip ratio of 1:0.5 is assumed, any final strip ratio will be less than this as the deposit lies at the surface. The assumed mining cost is $5.2 per tonne of ore for an overall average cost of $3.8 million. The assumed Administration costs are $3 per tonne of ore for a total cost of $2.2 million. The assumed cost of processing is $3 per tonne of ore for a total of $2.2 million. The assumed capital costs are $5 million and are included in the total costs per tonne of ore. The total operating cost of mining, processing and administration is $17.98 per tonne of ore. Reasonable prospects for economic extraction of material are given above a cut-off of 9% Mn. These figures are approximate values, due to the early stage of this exploration programme the costs are all assumed costs.

MA has reviewed the available litho-geochemistry (whole rock analysis) and considers the Mn mineralisation on Romang suitable for ferroalloy applications due to their relatively high Mn content and relatively low content of major contaminants (Table 16). Minor contaminants (Table 17 and Table 18) are most likely manageable through blending either by Robust during mining or by the customer (ferroalloy producers) blending the Romang or with other suppliers ore.

Table 16: Major Elements

Deposit	Majors	Mn %	Fe%	Al_2O_3 %	SiO_2 %	P %	S %	LOI%
Manganese Valley	Assays	178	178	176	178	178	129	178
	Average	44.94	5.10	2.06	4.08	0.06	0.11	12.02
Batu Hitam West	Assays	26	20	26	26	26	26	26
	Average	46.25	7.09	1.37	0.97	0.04	0.33	10.78

Table 17: Minor Elements

Deposit	Minors	K2O %	CaO %	MgO %	Na_2O %	C %	Ba %	Pb %	Zn %	Cu %
Manganese Valley	Assays	178	178	178	178	178	206	206	206	206
	Average	2.8	2.4	0.8	0.3	0.4	0.1	1.1	1.0	0.1
Batu Hitam West	Assays	26	26	26	26	26	31	31	31	31
	Average	4.1	1.7	0.75	0.26	0.33	0.08	1.00	0.50	0.08

Table 18: Trace Contaminants

Deposit	Trace	Mo ppm	Cr ppm	Ni ppm	Co ppm	Cd ppm	Hg ppm	As %	Tl ppm
Manganese Valley	Assays	178	178	178	174	178	176	206	177
	Average	74.0	22.5	41.2	18.3	18.2	0.50	0.8	661.1
Batu Hitam West	Assays	26	26	26	25	26	26	31	29
	Average	129.0	23.3	20.8	12.6	6.9	0.3	1.3	797.0

Further metallurgical test work is recommended to better define the chemical and physical characteristics of indicative Manganese lump and fine products. For reserve calculations and scheduling purposes the key majors, minors and trace elements should be estimated in 3D space.

6.9 MOISTURE

No specific moisture measurements were recorded. Density samples have been determined on core before and after drying, this provides an indication of moisture content of the mineralised material. The average moisture appears to be low, 1%, the maximum is 8%.

6.10 MINING & METALLURGICAL FACTORS

No mining factors have been applied to the in situ grade estimates for mining dilution or loss as a result of the grade control or mining process. No metallurgical factors have been applied to the block model grade estimates.

7 RESOURCE CLASSIFICATION

Based on the study herein reported, delineated mineralisation of the Lakuwahi Manganese Resource is classified as a resource according to the definitions from JORC 2012 Guidelines.

Resource classification is based data quality, drill density, number of informing samples, kriging efficiency, conditional bias slope, average distance to informing samples and deposit consistency (geological continuity).

The high confidence in the quality of the data justified the classification of indicated (56%) and inferred (44%) resources; the data quality does not preclude measured resources. The Geological continuity has been demonstrated at 40 m grid spacing over the entire strike of manganese resource.

The Lakuwahi manganese resource has been classified as Inferred and Indicated (Table 19) based on the following criteria:

Inferred Mineral Resource for which tonnage, grade and mineral content can be estimated on the basis of limited geological evidence and sampling. It is inferred from geological evidence (mapping) and limited sample data.

Indicated Mineral Resource for which tonnage, grade and quality can be estimated on the basis of a detailed sampling and testing gathered through appropriate techniques from surface samples and drill core sufficient to confirm geological, grade (including quality) continuity between points of observation where data and samples are gathered.

Estimation parameters were also key in identifying indicated mineral resources, the area must have approximately a 40m drill spacing, blocks must be informed by a minimum of 12 samples with an average distance of 30m from the estimated block, estimation statistics were also considered, the krige variance and conditional bias slope were required to be dominantly greater than 0.4.

Table 19: Manganese Resource above 30% cut off

Deposit	Resource Category	material (t)	Grade (%)	metal (t)
Manganese Valley	Indicated	413,000	41.6	172,000
	Inferred	274,000	39.5	108,000
Batu Hitam West	Inferred	51,000	45.7	23,000
Total Resources		738,000	41.1	304,000

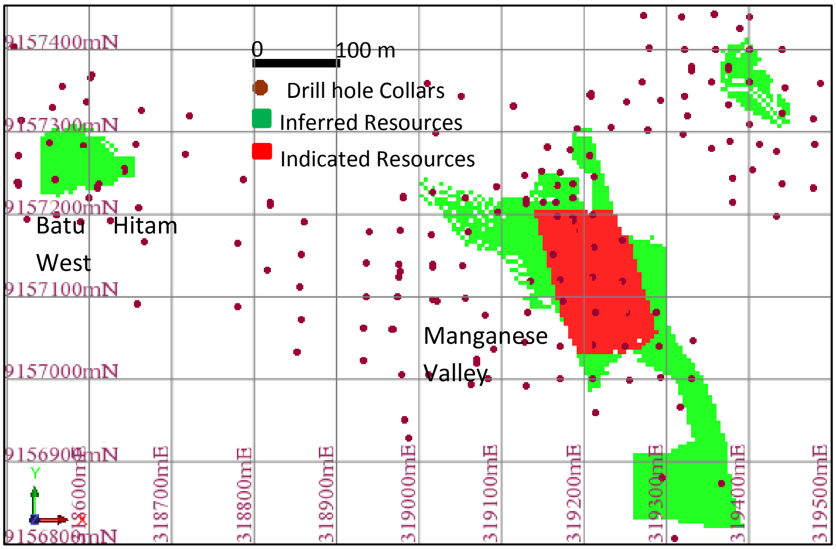

Figure 25: Resource Categories

8 REFERENCES

Ely, K. S., Sandiford, M. S., Hawke, M. L., Phillips, D., Quigley, M., & dos Reis, J. E. (2011). Evolution of Atauro Island: Temporal constraints on subduction processes beneath teh Wetar zone, Banda Arc. *Journal of Asian Earth Sciences*.

Garwin, S. L., & Herransyah. (1992). Geological setting, style and exploration of gold-silver mineralization on Romang Island Moluccas Province, East Indonesia. In M. Simatupang, & B. N. Wahju, *Indonesian Mineral Development* (pp. 258-274). Jakarta.

Garwin, S., Hall, R., & Watanabe, Y. (2005). Tectonic Setting, Geology, and Gold and Copper Mineralisation, Cenozoic Magmatic Arcs of Southeast Asia and the West Pacific. *Economic Geology 100th Anniversary Volume*, 981-930.

Hill, K. C. (2013, March). Tectonic and Regional Structure of Seram and the Banda Arc. *Bertia Sedimentologi, 23*, pp. 5-16.

Ogierman, J. (2013). *Thoughts on Manganese Mineralisation at Lakuwahi, Romang Island.* Internal Document (Robust Resources).

Pontifex, I. (2013). *Rawa Peak Petrography* . Adelaide.

Watkinson, I. M., Hall, R., Cottam, M. A., Sevastjanova, I., Suggate, S., Gunawan, I., et al. (2012, March). New Insights inot the Geological Evolution of Eastern Indonesia from Recent Research Projects by the SE Asia Research Group. *Berita Sedimentologi, 23*, pp. 21-27.

9 APPENDIX 1: MINERALISED DRILL HOLE COLLARS

hole_id	Easting	Northing	RL	depth	dip	azi	hole_id	Easting	Northing	RL	depth	dip	azi
LWD056	318610.32	9157237.3	369.9	111.5	-60	180	**LWD187**	318608.84	9157231	370.53	30	-60	0
LWD059	319055.7	9157219.4	351.47	106.5	-60	180	**LWD209**	319400.32	9157399.4	270.56	38.15	-90	0
LWD063	319016.73	9157225.8	360.99	111.5	-60	180	**LWD215**	319399.92	9157359.9	270.04	42.8	-90	2
LWD066	319058.78	9157177.9	358.28	120	-60	180	**LWD243**	319207.46	9157271.9	299.6	35.4	-90	2
LWD080	319095.29	9157203.2	344.85	125	-60	180	**LWD245**	319211.82	9157159.9	307.49	41.4	-90	2
LWD082	319186.34	9157191.6	310.73	219.5	-60	180	**LWD249**	319209.76	9157123	310.32	30.4	-90	2
LWD085	319186.17	9157195.2	310.72	189.4	-60	0	**LWD251**	319245.33	9157117.9	300.78	25.65	-90	2
LWD088	319162.12	9157150.6	327.3	189.5	-60	180	**LWD255**	319250.93	9157080.2	299.09	29.4	-90	2
LWD091	319173.38	9157094.8	332.14	161	-60	180	**LWD258**	319290.03	9157039.8	291.86	32.4	-90	2
LWD093	318557.82	9157241.7	365.49	200	-60	0	**LWD260**	319250.16	9157040	298.86	25.4	-90	2
LWD103	318551.29	9157285.9	365.7	186.3	-60	0	**LWD262**	319212.86	9157081.3	312.03	27.2	-90	2
LWD105	319190.39	9157304.4	301.28	219.3	-60	0	**LWD264**	319170.24	9157120.1	328.79	24.9	-90	2
LWD114	319374.6	9157379.6	271.61	217.9	-59	358	**LWD268**	319210.03	9157040.5	314.05	24.9	-87	227
LWD117	319374.66	9157375.1	271.67	218	-60	180	**LWD270**	319209.26	9157000.2	315.42	32.4	-90	2
LWD128	319148.14	9157251.9	319.39	87	-89	0	**LWD275**	319440.26	9157322.4	265.75	48.2	-60	180
LWD138	318608.99	9157232.8	370.56	176.4	-60	0	**LWD297**	318591.5	9157283.7	357.62	101.15	-60	180
LWD150	319187.85	9157180	311.5	81.7	-89	0	**LWD299**	319130.96	9157079.8	349.35	50.4	-90	2
LWD153	319166.37	9157196.7	315.21	72.7	-89	120	**LWD304**	319134.93	9157119.1	343.85	50.4	-90	2
LWD157	319166.21	9157215	312.95	32.95	-89	150	**LWD322**	319330.94	9156999.4	286.81	50.5	-90	2
LWD158	319166.62	9157235.8	310.57	18.7	-89	240	**LWD323**	319212.04	9157246	313.04	120.35	-90	2
LWD159	319185.94	9157236.8	306.7	36.7	-89	0	**LWD330**	319210.21	9157199.8	320.49	120.35	-90	0
LWD160	319185.55	9157219.3	310.4	38.2	-89	0	**LWD331**	319286.93	9157081.1	303.49	49	-90	0
LWD169	318642.5	9157256.2	356.7	153.4	-60	1	**LWD339**	319245.9	9157168	314.59	115.85	-90	2
LWD171	319149.55	9157215.1	318.83	35.1	-89	238	**LWD339**	319245.9	9157168	314.59	115.85	-90	2
LWD174	319129.33	9157216.5	326.97	28.6	-89	0	**LWD372**	319293.95	9156879.8	286.65	144.15	-60	180
LWD176	319129.33	9157213.5	326.97	29	-60	180	**LWD379**	319365.62	9156872.2	268.36	112.65	-60	180
LWD182	318642.61	9157253	356.82	121.5	-60	182							

10 APPENDIX 2: MINERALISED INTERCEPTS

Hole_id	from	to	Mn%	length	Hole_id	from	to	Mn%	length
LWD056	0	5	42.2	5	LWD182	0	3	40.5	3
LWD059	6.5	8.32	43.8264	1.82	LWD187	2	5.3	37.9364	3.3
LWD063	2	3.15	37.8	1.15	LWD209	3	5	31.05	2
LWD066	1	3.5	46.82	2.5	LWD215	7	9	29.1	2
LWD080	8.5	10.3	37.4	1.8	LWD243	3.65	8.4	47.0884	4.75
LWD082	0	8.15	38.402	8.15	LWD245	0	9.3	43.4358	9.3
LWD082	12	21	50.4889	9	LWD245	12.05	24.4	51.704	12.35
LWD082	23.7	27.5	49.0921	3.8	LWD249	0	14.2	47.9894	14.2
LWD085	1	6	33.294	5	LWD251	0	3.2	40.8563	3.2
LWD085	18	28	35.44	10	LWD251	7.4	21.05	43.4177	13.65
LWD088	0	8	32.7669	8	LWD255	0	6	42.05	6
LWD091	0	8	39.4375	8	LWD255	20	25.4	35.0407	5.4
LWD093	0	5	49.65	5	LWD258	1.1	1.8	34.4	0.7
LWD103	0	4.5	53.2333	4.5	LWD260	4.5	6	39.5	1.5
LWD105	2	3	32.5	1	LWD260	12	13	32.9	1
LWD114	4	6	32.55	2	LWD262	0	5.4	50.9593	5.4
LWD117	6	9	49.3667	3	LWD264	0	5.4	50.1472	5.4
LWD128	0	3	41.25	3	LWD268	1.25	5.9	41.9097	4.65
LWD138	0	6	43.7	6	LWD270	0.6	6.2	35.4	5.6
LWD150	0	4	42	4	LWD275	3	5	40.75	2
LWD150	7.2	16.5	25.1966	9.3	LWD297	0	4.5	49.6	4.5
LWD150	20.5	26	44.1364	5.5	LWD299	0	1	41.8	1
LWD153	0	20	44.056	20	LWD304	0	1.35	37.7	1.35
LWD157	3.2	4	26.73	0.8	LWD322	25	29.5	31.7222	4.5
LWD158	1	6	40.82	5	LWD323	26	28.6	49.1731	2.6
LWD159	4	11	46.7	7	LWD330	23.3	26	15.4652	2.7
LWD160	9	10	31.08	1	LWD331	28	30.6	49.3846	2.6
LWD160	15.75	20	40.5824	4.25	LWD339	15.5	16.5	31.4	1
LWD169	0	4.2	41.6	4.2	LWD339	20.75	22	31.1	1.25
LWD171	6.7	7.7	41.7	1	LWD372	10.8	16.95	45.1283	6.15
LWD174	9.25	10.45	32.5	1.2	LWD379	24	29	31.12	5
LWD176	10.5	16.5	47.7	6					

11 APPENDIX 3: JORC CODE, 2012 EDITION – TABLE 1

11.1 SECTION 1 SAMPLING TECHNIQUES AND DATA

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *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 mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• HQ and NQ sized diamond drill core. Triple-tube wireline standard equipment. 1 metre, half core samples collected in visually mineralized intervals. 2-metre quarter core samples in visually non-mineralised or weakly mineralised core. Whole sample core pulverized to 80% passing 200 mesh. 50g charge fire assay for gold. Wet geochemical or XRF techniques for silver and other metals. Regular assay suite: Au, Ag, As, Sb, Cu, Pb, Zn, Ba and Mn.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• HQ and NQ sized diamond drill core. Triple-tube wire line standard equipment. Core is oriented where ever possible using the spear technique.
Drill sample recovery	• *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.*	• Recovery is measured in the core tube by the driller and a marker inserted into the core tray noting any core loss. Core recovery is double checked by the geologist when logging the hole. No relationship between core recovery and grade has been discovered.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All core is geologically logged and photographed prior to sampling. Structural measurements are obtained where core orientation has been successful. Geotechnical logging is not carried out. Logging is semi-quantitative and 100% of reported intersections have been logged.
Sub-sampling techniques and sample preparation	• *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.*	• Continuous half core is sampled over 1-metre intervals as a general rule in visually mineralized intervals. Where the core is visually unmineralised or weakly mineralized then continuous quarter core sampling is carried out over 2 or 3 metre intervals to economize on assay and freight costs. Splitting the core is done with a diamond saw. Where there is a major geological boundary, sampling intervals are made to honour the boundary which may result in sampling intervals slightly less or slightly more than 1 metre. • Quality control procedures include the insertion of standards (1 in 25 samples) and blanks (1 in 20 samples) into the regular sample number sequence. If any blank or standard is out of spec, re-assay is requested of the laboratory. • Sampling size is considered to be appropriate. Assay repeatability for gold and other metals has never been an issue at Lakuwahi.
Quality of	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the*	• All samples are pulverized and assayed at

Criteria	JORC Code explanation	Commentary
assay data and laboratory tests	*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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Intertek Testing Services laboratory http://www.intertek.com/minerals/global-services/ : The following elements and ITS techniques are used: Elements / Units: / Lower / Upper / Scheme: Au / ppm / 0.01 / 50 / FA51 Ag / ppm / 1 / 100 / GA02 Cu / ppm / 50 / - / GA50S Pb / ppm / 50 / - / GA50S Zn / ppm / 50 / - / GA50S Mn / ppm / 50 / - / GA50S As / ppm / 10 / - / XR02 Sb / ppm / 10 / - / XR02 Ba / % / 0.01 / 100 / XR02 Ag / ppm / 5 / 10000 / GA30 • Quality control procedures include the insertion of standards (1 in 25 samples) and blanks (1 in 20 samples) into the regular sample number sequence. If any blank or standard is out of spec, re-assay is requested. • 1:50 sample pulps are sent to a second independent laboratory in Perth Australia (Ultratrace) on a regular quarterly frequency. • No material issues of assay bias or repeatability have occurred since drilling commenced in 2008 • Pulp samples greater than 30% Mn were re-analysed for Litho-geochemsity at Intertek Jakarta using XR02 and GA50S schemes.
Verification of sampling and assaying	• *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.*	• Calculations of significant intersections are carried out by Competent Person John Andrew Levings, FAusIMM. • Twinned holes are generally not used or considered to be required. • Electronic data is stored and reported using the password-protected Geobank software. Data is network backed-up across several physical sites (Romang Island, Jakarta Office, Sydney Office). Physical assay reports are filed in Jakarta office. • All data entry is under control of a specialist database geologist. • No adjustments to assay data are carried out.
Location of data points	• *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.*	• All drill collars are surveyed by company surveyors using a Total Station and tied in to an independently verified system of triangulation survey stations. • All coordinates are quoted in UTM-UTS Zone 52 South. • Topographic control is excellent and was established using the LIDAR system (plus or minus 0.3m).
Data spacing and distribution	• *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.*	• Data spacing (drill-hole spacing) is variable and appropriate to the geology. As this is an exploration project, infill drilling is often necessary to confirm interpretations. In general a drillhole spacing of 40 metres is used in breccias style mineralisation and 80m for stratabound mineralisation. • Sample compositing is not used in reporting exploration results.
Orientation of data in relation	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which*	• The breccia – style mineralisation below the Manganese is often irregular and drilling is

Criteria	JORC Code explanation	Commentary
to geological structure	*this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	oriented to intersect as perpendicular as possible to the gross strike and dip of the deposits. The VMS mineralisation is sub horizontal. 60 degree inclined angled holes are used as a compromise to test the flat-lying exhalative zones and any steeper footwall stringer mineralization. • No material sampling bias is considered to have been introduced by the drilling direction
Sample security	• *The measures taken to ensure sample security.*	• Company security personnel and Mobile Brigade Police accompany the samples from the base camp (by porter, company boat and charter plane) to Kupang in West Timor. At this point the samples are dispatched by commercial flight door to door courier to ITS laboratory in Jakarta. • This is considered to be a secure and reasonable procedure and no instances of tampering with samples have occurred since drilling commenced in 2008.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Audits of sampling procedure have been completed in 2011 and 2013 by Micromine Consulting and Mining Associates respectively, No material issues were raised.

11.2 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	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Robust's tenure on Romang Island is under the Indonesian national Izin Usaha Pertambangan or Mining Business License (IUP) system. Robust, has a direct 70% interest in the 5 IUPs totaling 10,000 Ha through the title holder company PT Gemala Borneo Utama. The Robust IUPs are in exploration stage and must be converted to production stage by March 2015. It is anticipated that the conversion will take place in the first half of 2014. The other 30% shareholder in the IUPs is Indonesia's Salim Group. Salim group is also a major shareholder in Robust Resources Limited. • Robust's IUPs are in "production forest" and as such require a "borrow and use" permit from the Indonesian department of forestry. Robust has current borrow and use permits for its 5 IUPs. • All 5 Robust IUPs have been published on the Indonesian Mines Department "Clean and Clear" list.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• In 1998 and 1999 Billiton (now BHP Billiton) conducted 2 diamond drilling programs totalling 14 holes within the Lakuwahi Caldera. Robust's first drill holes in 2008 was numbered LWD015 in recognition of the 14 prior Billiton holes. Results obtained by Robust are entirely consistent with the earlier results from the Billiton work.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The mineralisation at Lakuwahi is considered to by hydrothermal in type. The mineralisation occurs in a caldera setting. Three styles of mineralisation have been recognized. • Breccia – style containing galena, sphalerite, chalcopyrite, barite, pyrite, gold and silver (and oxidized portions of this type). • Exhalative VMS. Laterally extensive horizon containing galena, sphalerite, chalcopyrite,

Criteria	JORC Code explanation	Commentary
		barite, pyrite, gold and silver • Manganese Oxide: replacement of limestone.
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.*	• See separate table in this report.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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.*	• Informing Samples have been composited to one metre lengths honouring the geological boundaries and adjusted where necessary to ensure that no residual sample lengths have been excluded (best fit). • Samples are selected based on geological interpretation of a >30% Mn 3D wireframe. • Grade capping was deemed inappropriate for Mn values. • Metal equivalents are not used.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• In general down-hole lengths are reported due to the irregular nature of the breccia style mineralisation.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Plan views and sectional views are included in this report.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• All intersections within the mineralised wireframe, both high and low grade are tabulated in this report.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Not applicable to this report.
Further work	• *The nature and scale of planned further work (eg 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.*	• Infill drilling for better definition. • Additional assaying of Fe, Si, Al, P and other key elements important in a Direct Shipping Ore manganese product (DSO).

11.3 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	• *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.*	• A selection of drill holes (~5%) were selected for validation purposes by MA. Original drill logs, collar pickups, down hole survey data and core photos were inspected. • Drill core inspection on-site. • GBU employs a database GIS geologist in Jakarta to manage the geological database.
Site visits	• *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.*	• Ian Taylor (AusIMM(CP)) of Mining Associates visited the property in September of 2013. Field exposures and numerous drill hole s were examined during this visit, and an assessment was made of the procedures for logging, sample preparation, quality control and SG measurement. • The mineral resource estimate was supervised by Mr Andrew J Vigar of Mining Associates and is the JORC competent person.
Geological interpretation	• *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.*	• The main data used to interpret the geometry of mineralised structures has been surface mapping and drilling. • Mineral resource interpretation was conducted in 3D space using OK to inform a block model. A common alternate method is a 2D metal accumulation method. This method would provide less detail through the profile of the deposit, in general the deposit is not extensive enough to consider 2D metal accumulation. • Natural breaks in the mineralisation occur at 10% and 30% Mn, only the high grade has been modelled to date, there is potential to define a >10% mineralisation amenable to beneficiation. • Mineral Resource interpretation was conducted in 3D space using wireframes >30% Mn
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The majority of Mn mineralisation lies within the limestone replacement within manganese valley. (300m EW and between 50 and 150 m NS. • Minor manganese mineralisation (100 m x 50 m) has been identified at Batu Hitam West. • Generally the mineralisation occurs from surface and is up to 20 m thick.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *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 (eg 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.*	• Estimation is undertaken in Surpac. • Kriging of 20 x 20 x 10 m blocks, utilising sub blocks down to 5 x 5 x 2.5m for volume definition. • Drill hole samples were composited to 1 metre. • Experimental variograms were modelled in Supervisor. Downhole variograms provide very low nuggets not replicated in the directional variograms. • Variogram model, 0.2 nugget, C1, 0.55; R1, 40 m and C2, 0.43; R2, 65 m. Ansiotropy ratios of 1.625 and 2. • Search neighbourhood: min samples 3, max 15, search 65 m, anisotropy orientated bearing 29° plunge -6° and dip of -19°, anisotropic ratios of 1.625 and 2 for semi-major and minor axis. • No other variables were considered in this resource estimate. • Sufficient additional data is available to estimate key elements to define major and minor smelter

Criteria	JORC Code explanation	Commentary
	• *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.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	feed quality. Major and minor elements were only considered globally. • Block size was 20 m x 20 m x 10 m which considers mineralisation orientation and drill pattern. (Approximately half the drill spacing). • Sub-blocking of 5 m x 5 m x 2.5 m for volumes approximating potential selective mining unit. Ore loss and dilution for reserve conversion has not been applied. • Wireframes were constructed based on surface mapping, and drill hole intercepts greater than at 30% Mn. Wireframes were used to constrain the estimates in 3D space. • Informing samples were composited to one metre, no outlier grades were identified (no grade capping) • Global mean grades for estimated blocks and drillhole samples compared closely to estimates. • Ordinary krige estimates were compared to nearest neighbour and inverse distance estimates, to assess the impact of data clustering semivariograms and sensitivity to estimation method. • No reconciliation data is available for Lakuwahi project as no mining has taken place.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are based on dry tonnes. Density samples were oven dried for 12 hours prior to using the immersion method to determine the dry density of the host rock.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The mineral resource has been reported above 30% Mn as there is a reasonable assumption this will be a Direct Shipping Ore (DSO) due to the natural breaks in the ore body.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Manganese mineralisation is enriched close to the surface; Robust envisages shallow open pits targeting DSO material. • Assumptions are reasonable and average whole rock analysis report that Fe, Si, Al and P levels are suitable for a DSO, further work is recommended to quantify these parameters. • This is an indicated and inferred resource and the project is in early stages of development, it is Robust's intention to obtain further qualification of DSO specification before work on a Pre-feasibility Study commences. • MA notes these are reasonable assumptions based on preliminary test work and experience with other Mn projects and should not be regarded as rigorous at this stage of the project. • MA notes that the Indonesian government currently has a levy on export of DSO.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Initial characterization test work has been conducted on the LK Mn that provides direction for further metallurgical test work, e.g. Litho-geochemistry. • No specific metallurgical work has been completed on the Lakuwahi manganese resource. • This is an indicated and inferred resource and the project is in early stages of development. • It is Robust's intention to conducted further metallurgical test work, using PQ drill core before defining more indicated or measured resources.

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Preliminary investigations have identified a number of potentially suitable locations for storage of waste and tailings. Acid rock drainage testing has not been performed on the manganese resource at this early stage of development, MA notes there is abundant limestone at the project. • Preliminary investigations have been conducted on acid rock drainage testing has been conducted on sulphide rich base metal samples. • Preliminary investigations have identified that minor amounts of base & heavy metals contained in the manganese mineralisation have very low solubility under natural environmental conditions (eg. Pb, Zn, Cd etc) Further environmental test work is planned to qualify metal and element deportment under mining and processing conditions and market applications. • Flora and fauna assessments of the site are on-going and have raised no particularly sensitive issues. • The mine site sits within re-growth forestry area and farm lands.
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.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Each sample is a minimum of 5 cm long and up to 25 cm. • The samples are dried in a 105-110ºC oven for 12 hours, and then allowed to cool to room temperature. • The sample is then weighed dry on a scale with 0.01 gram accuracy. • The sample is attached to a harness connected to the scale and lowered into a bucket of water in order to determine its mass in water. • The wet sample is then weighed dry on a scale with 0.01 gram accuracy. • Volume of the sample = mass of wet sample in air – mass of sample in water. • Specific gravity = mass of dry sample in air / volume sample. • The Bulk Density for Mn ore is currently assigned as 2.1.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie 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.*	• Data quality, drill hole spacing and geological continuity and model have all been considered sufficient to classify the mineralisation as a resource. • High confidence in the quality of the data justified the classification of indicated and inferred resources; the data quality does not preclude measured resources. • Geological continuity has been demonstrated at 40 m grid spacing over the entire strike of Manganese Valley. The mineralisation commonly outcrops demonstrating continuity at surface. • Further product specification work is recommended before further studies are carried out.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	• No external audits or reviews of the resource estimate have been carried out to date.
Discussion of relative accuracy/	• *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*	• There is sufficient geological and sampling information to define indicated and inferred resources. • The quality of the data does not preclude the classification of measured resources.

Criteria	JORC Code explanation	Commentary
confidence	*geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The 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.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• More details are required of the product specification particularly Fe, Si, Al and P levels to ensure the material is suitable for DSO, limited whole rock analysis is presently available and assumed to be suitable to provide sufficient confidence in product specification. • The ordinary kriging result, due to the high level of smoothing, should only be regarded as a global estimate, and is suitable as a life of mine planning tool. Should local estimates be required for detailed mine scheduling techniques such as Uniform conditioning or conditional simulation would be required.

11.4 SECTION 4 ESTIMATION AND REPORTING OF ORE RESERVES

(No ore reserves are reported)