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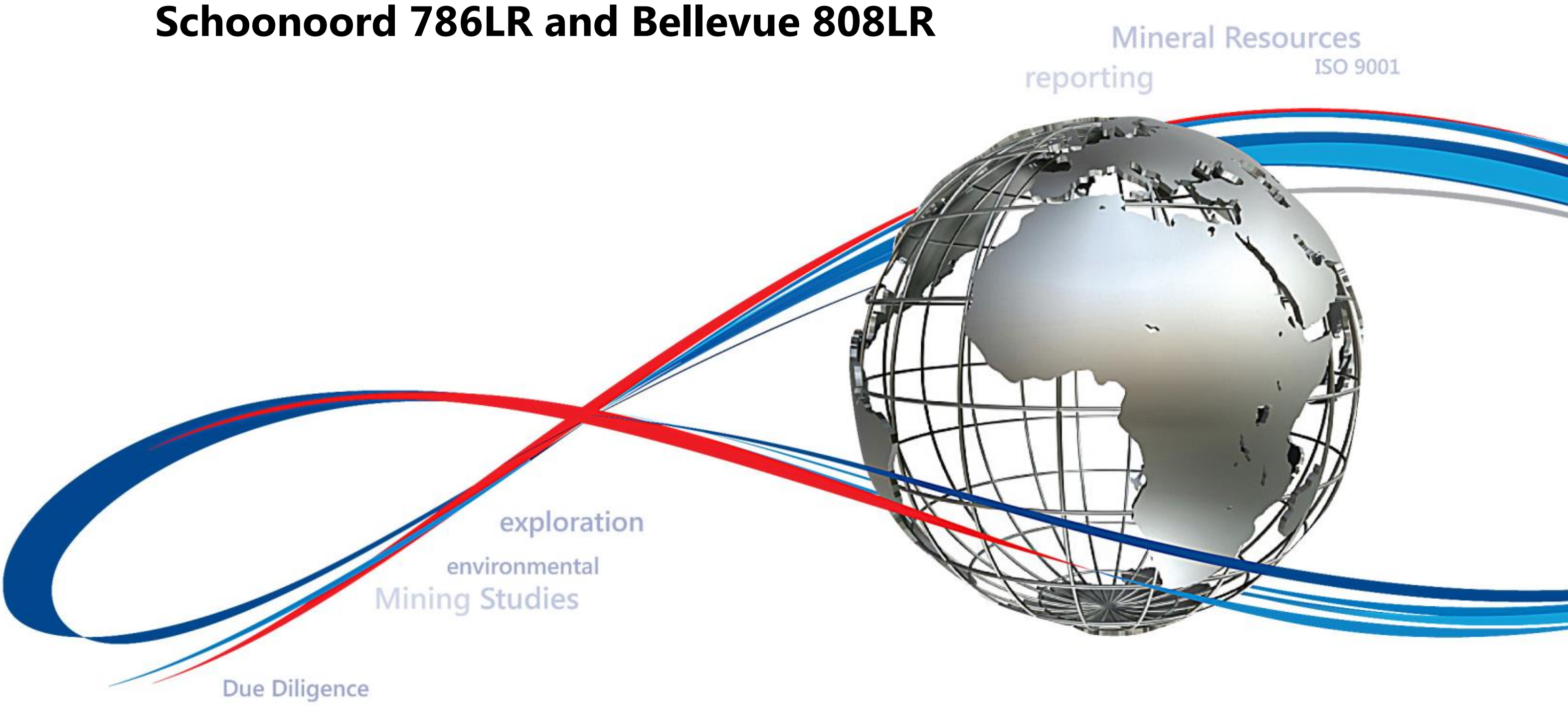
Mineral Resource Estimate for the weathered and non-weathered portions of the P-Q Zone of the Mokopane Fe-V-Ti Project

Covering the farms:

Schoonoord 786LR and Bellevue 808LR



This Technical Report was prepared by The MSA Group (Pty) Ltd on behalf of: Bushveld Minerals Limited

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1 INTRODUCTION

The MSA Group ("MSA") has been commissioned in 2011 by Bushveld Minerals Limited ("BML") to provide a JORC-compliant Competent Persons' Report ("CPR") and Mineral Resource Estimate ("MRE") on the P-Q Zone, consisting of six individual stratigraphic layers with variable Ti-magnetite enrichment. The P-Q Zone occurs within the Upper Zone of the Rustenburg Layered Suite ("RLS") and forms part of the Mokopane Fe-V-Ti project (the "Mokopane Project"). The Project is located in the Limpopo Province, South Africa and initially covered four contiguous farms, namely Vliegekraal 783LR, Malokong 784LR, Vogelstruisfontein 765LR and Vriesland 781LR, which were the subject of a CPR dated 12 April 2013. The adjacent farms Schoonoord 786LR and Bellevue 808LR were added to the Project area in 2013 and are the subject of this Technical Report.

The principal sources of information in this report include geological and geochemical data generated from drilling campaigns between 2010 and 2013, which were managed by BML, and a stratigraphic borehole, BV-1, drilled in 1991 by the Council of Geoscience ("CGS") on the farm Bellevue 808LR.

Detailed information about the Mokopane Project has been presented in the report entitled "JORC Competent Persons' Report and MRE for the Mokopane Fe-V-Ti Project, Mokopane, Limpopo Province, South Africa", dated 12 April 2013.

This Technical Report has been prepared on geological information available up to and including 28 February 2014 and has been compiled by Sifiso Siwela and reviewed by Frieder Reichhardt who is the Competent Person. The MRE was carried out under the direction of, and signed by Jeremy Witley who is the Competent Person for the MRE.

Mr. Jeremy Witley is a professional geologist with 25 years' experience in base and precious metals exploration and mining as well as Mineral Resource evaluation and reporting. He is Principal Resource Consultant for MSA, is registered with the South African Council for Natural Scientific Professions ("SACNASP") and is a Member of the Geological Society of South Africa ("GSSA"). Mr Witley has the appropriate relevant qualifications, experience, competence and independence to be considered a "Competent Person" under the definitions provided in the JORC Code 2012 Edition.

Mr. Sifiso Siwela is a professional geologist with 9 years' experience in the exploration and evaluation of base metal projects in Southern Africa. He is Exploration Project Manager for MSA and is registered with SACNASP and is a Member of the GSSA.

Peer review has been undertaken by Dr. Frieder Reichhardt, who is a professional geologist with 25 years' experience. He has been involved in the design, execution and management of exploration programmes and public reporting on various mineral deposit types and commodities.

Dr. Reichhardt is a Principal Consulting Geologist with MSA, a Member of the German Geological Society, is registered with SACNASP and is a Fellow of the GSSA.

2 PROJECT SUMMARY

Exploration in the Project Area was conducted on two Prospecting Rights ("PR"), 95PR and 438PR, which consist of the farms Vriesland 781LR, Vliegekraal 783LR, Vogelstruisfontein 765LR, Malokong 784LR, Schoonoord 786LR and Bellevue 808LR. The application to include the latter two farms in PR 95PR was granted on 19 February 2013 by the Department of Mineral Resources ("DMR") and the Notarial Deed was executed on 19 February 2014. The locality of all six farms, which cover a total area of 11,936.732 ha, is shown in Appendix 1.

The Project Area is situated in the Northern Limb of the Bushveld Complex (see Appendix 2) and is underlain by portions of the Main Zone ("MZ") and the entire Upper Zone ("UZ") of the Rustenburg Layered Suite ("RLS"). The UZ in the Project Area consists of gabbronorite, gabbro, titaniferous-magnetite gabbro (ferro-gabbro), olivine-diorite, anorthosite and minor norite and contains intervals of disseminated, semi-massive and massive vanadiferous titaniferous-magnetite ("VTM").

The upper portion of the UZ contains a thick mineralised stratigraphic interval, referred to as the "N-Q Zone", which can be subdivided on textural and mineralogical considerations into ten individual layers (the "N-Q layers") with highly variable VTM concentrations. The N-Q Zone sub-crops under the flat, soil-covered plain between the Main Zone lithologies forming a range of hills to the east, and the Bushveld Nebo granite plateau to the west (see Appendix 3).

The initial Mineral Resource Estimate, dated 3 December 2012, was conducted on the P-Q Zone, which was estimated and reported as a single composite package containing the six layers PFWDISS to Q3. The subsequent MRE, dated 13 February 2013, included 10 layers (NMAG to Q3) which were modelled and reported individually. A further MRE update, dated 11 March 2013, included the weathered portion of the N-Q Zone. The results of 4 additional boreholes, which targeted the P-Q Zone on Schoonoord 786LR and Bellevue 808LR, are incorporated in the MRE presented in this report. This drilling assisted in constraining the P-Q Zone to the south of the original Mineral Resource block. The stratigraphic codes and descriptions of the 10 layers comprising the N-Q Zone are shown below. The six layers comprising the P-Q Zone are highlighted.

Strat Code	Layer Name	Average Thickness	Description
Q3	Upper "low-grade" zone	13 m	Upper Q-Ti-magnetite zone, generally semi-massive Ti-magnetite. Contains significant internal waste in places
Q2	Lower "high-grade" zone	12 m	Lower Q-Ti-magnetite zone, generally massive ore
Q1	Basal disseminated zone	3.5 m	Basal zone, disseminated Ti-magnetite below the massive Q2 horizon
PQPART	Parting between the P and Q Ti-magnetites	4 m	Barren zone of gabbronorite separating the P and Q Ti-magnetite layers
PMAG	"P" - Ti-magnetite	3 m	P-Ti-magnetite zone, generally massive, but with some internal waste and often containing more sulphides than the Q horizon
PFWDISS	"P" - Ti-magnetite disseminated footwall mineralisation	15 m	A zone of disseminated mineralisation in the footwall to the more massive P-Ti-magnetite, lower grade but nonetheless significant
PQFW	P-Q footwall	15 m	Barren gabbronorite footwall below the disseminated footwall
OMAG	"O" - Ti-magnetite	0.3 m	Narrow Ti-magnetite marker band
OFW	"O" - Ti-magnetite footwall	1.5 m	Barren zone between the N and O Ti-magnetites
NMAG	"N" - Ti-magnetite	0.4 m	Narrow Ti-magnetite marker band

3 MINERAL RESOURCE ESTIMATE

The input database for the Mineral Resource Estimation exercise for the modelling of the N-Q layers consists of 7,645.31 m of drill core from all 19 diamond drillholes and a total of 2,854 samples. The MRE presented in this report includes 326 samples, representing 233.69 m of drill core from 4 holes which were drilled to extend the P-Q Zone onto the farms Schoonoord 786LR and Bellevue 808LR. Drill core was sampled at variable lengths ranging from 50 cm to 200 cm.

Specific gravity ("SG") for each sample was determined by gas pycnometry on the pulverised sample material at Set Point Laboratories in Johannesburg. The specific gravity measurements have been checked against the Fe_2O_3 assay results and show a good correlation. Core recoveries within the P-Q Zone are generally in excess of 95%.

The topography model was derived from the borehole collar elevations and topographical contours. The overburden soil horizon which ranges in depth from 3 m to 5 m was excluded from the Mineral Resource estimation.

The assay data shows high levels of precision and accuracy and has been subjected to a stringent QA/QC protocol. However, six out of 49 field duplicate samples, one CRM and four out of 47 verification samples (2nd laboratory) failed and a sample mix-up on BML's side is suspected. BML has re-submitted additional pulp material from the six duplicate samples and four verification samples, but the results are still pending with the laboratory. The authors are of the opinion that the database is an accurate representation of the original data collected and therefore meets the requirements for use in a MRE.

The wireframes were constructed by using geochemical data and lithostratigraphic information from the geological logging. The P-Q Zone is contiguous from north to south on the two farms. The modelled surfaces were extrapolated to 400 m below surface (see Appendix 5), but only the portion to a vertical depth of 300 m has been considered in the MRE due to the topographic feature to the west of the inferred sub-outcrop position of the P-Q Zone. The area overlain by a diabase sill, which forms a prominent hill at the junction of the three farms Vliegekraal 783LR, Vriesland 781LR and Schoonoord 786LR (see Appendix 4), is excluded from the MRE.

The dimensions of the parent block model are 100 m (easting or X) by 100 m (northing or Y) by 5 m (Z dimension or height). The six P-Q layer wireframes were used to generate the various block models. Sub-celling of the parent blocks was then applied in the XY plane in order to achieve optimal block model fitting into the wireframes. This resulted in a minimum of 5 m (X) by 5 m (Y) with exact fitting for the Z sub-blocks.

Exploratory data analysis was undertaken on length-weighted layer composite samples for the elements Al_2O_3, CaO, Fe_2O_3, MgO, P_2O_5, S, SiO_2, TiO_2, V_2O_5, Cu and Ni and SG.

Statistical analysis was undertaken on the P-Q Zone, utilising drillhole data within the respective wireframes. Owing to the large borehole separation along strike, lateral variography did not yield meaningful results. Inverse distance weighting, to the power of 2 (IDW-2), was used for the grade estimation. The search ellipses were rotated in order to match the dip angle (±20°) and westerly dip direction of the wireframes.

Estimates using a search volume of 800 m (X) by 800 m (Y) by 20 m (Z) and a minimum number of 2 composited samples were considered for classification as Inferred Mineral Resources. The Mineral Resource was constrained to a maximum vertical depth of 300 m below surface.

No geological losses were applied for the P-Q layers. Occurrences of dykes, faults and other disruptive geological features within the P-Q layers are poorly-defined due to the wide spacing of the drillholes (Appendix 6).

A cut-off grade of 35% Fe_2O_3 was applied to the PFWDISS and PMAG layers because the average Fe_2O_3 concentration in these layers is below 40% Fe_2O_3 and the two layers therefore contain significant portions below the cut-off grade of 35% Fe_2O_3. No cut-offs were applied to the massive to semi-massive Ti-magnetite layers (Q3, Q2 and Q1) as these layers contain mineralisation in excess of 40% Fe_2O_3 and can potentially be mined as a composite unit. For the purpose of Mineral Resource reporting, the PQPART layer (between PMAG and Q1) is not declared as part of the Mineral Resource. The average Fe_2O_3 content in this layer is less than 35%, and the PQPART is therefore regarded as waste.

The Inferred Mineral Resources are declared for the P-Q Zone to a vertical depth limited to 300 m. The Mineral Resource is limited in extent along strike and dip due to the presence of the ridge to the west of the P-Q Zone. Due to the high stripping ratio created by the ridge it forms a natural barrier in terms of reasonable prospects for eventual economic extraction of the P-Q Zone in an opencast scenario. The Mineral Resources as presented in Table 1 have been prepared in accordance with the guidelines of the 2012 Edition of the JORC Code. These are separated into intervals of between surface and 200 m deep in Table 2, and between 200 m and 300 m deep in Table 3.

Table 1 P-Q Zone Inferred Mineral Resource, surface to 300 m vertical depth at a 35% Fe_2O_3 cut-off for the farms Schoonoord 786LR and Bellevue 808LR, as at 28 February 2014											
Layer Name	**Quantity**	**Density**	**Fe**	**Fe_2O_3**	**Fe Metal**	**TiO_2**	**V_2O_5**	**SiO_2**	**Al_2O_3**	**P_2O_5**	**S**
	million tonnes	**t/m^3**	**%**	**%**	**million tonnes**	**%**	**%**	**%**	**%**	**%**	**%**
Q3	75.3	3.77	34.3	49.1	25.82	10.5	0.10	23.0	9.4	0.28	0.55
Q2	85.5	4.14	42.6	60.9	36.40	14.9	0.26	13.1	6.9	0.03	0.50
Q1	13.1	3.82	36.4	52.1	4.76	12.2	0.30	19.1	9.8	0.03	0.46
PMAG	19.7	3.52	27.6	39.5	5.45	8.3	0.23	29.1	12.4	0.06	1.00
PFWDISS	27.3	3.45	27.8	39.8	7.60	8.0	0.22	28.3	12.9	0.06	0.55
TOTAL	**220.8**	**3.85**	**36.2**	**51.9**	**80.03**	**11.8**	**0.20**	**20.1**	**9.2**	**0.12**	**0.57**

Table 2 P-Q Zone Inferred Mineral Resource, surface to 200 m vertical depth at a 35% Fe_2O_3 cut-off for the farms Schoonoord 786LR and Bellevue 808LR, as at 28 February 2014											
Layer Name	**Quantity**	**Density**	**Fe**	**Fe_2O_3**	**Fe Metal**	**TiO_2**	**V_2O_5**	**SiO_2**	**Al_2O_3**	**P_2O_5**	**S**
	million tonnes	**t/m^3**	**%**	**%**	**million tonnes**	**%**	**%**	**%**	**%**	**%**	**%**
Q3	47.0	3.78	34.6	49.5	16.27	10.6	0.11	22.8	9.3	0.20	0.55
Q2	54.8	4.15	42.8	61.2	23.46	15.0	0.26	12.9	6.8	0.03	0.49
Q1	8.4	3.82	36.4	52.1	3.07	12.1	0.30	19.2	9.7	0.03	0.47
PMAG	12.9	3.52	27.6	39.5	3.56	8.2	0.22	29.4	12.3	0.07	1.01
PFWDISS	18.9	3.46	28.1	40.3	5.31	8.0	0.22	28.1	12.8	0.06	0.55
TOTAL	**142.0**	**3.86**	**36.4**	**52.1**	**51.68**	**11.8**	**0.20**	**20.1**	**9.1**	**0.09**	**0.56**

Table 3 P-Q Zone Inferred Mineral Resource, 200 m to 300 m vertical depth at a 35% Fe_2O_3 cut-off for the farms Schoonoord 786LR and Bellevue 808LR, as at 28 February 2014											
Layer Name	**Quantity**	**Density**	**Fe**	**Fe_2O_3**	**Fe Metal**	**TiO_2**	**V_2O_5**	**SiO_2**	**Al_2O_3**	**P_2O_5**	**S**
	million tonnes	**t/m^3**	**%**	**%**	**million tonnes**	**%**	**%**	**%**	**%**	**%**	**%**
Q3	28.3	3.75	33.8	48.4	9.55	10.3	0.08	23.3	9.6	0.41	0.55
Q2	30.6	4.12	42.2	60.4	12.94	14.7	0.26	13.5	7.1	0.03	0.52
Q1	4.6	3.82	36.4	52.1	1.69	12.4	0.30	18.9	10.0	0.03	0.44
PMAG	6.8	3.52	27.6	39.5	1.89	8.5	0.25	28.5	12.6	0.04	0.98
PFWDISS	8.4	3.43	27.1	38.7	2.29	8.0	0.22	28.7	13.1	0.06	0.55
TOTAL	**78.8**	**3.85**	**35.8**	**51.5**	**28.36**	**11.8**	**0.19**	**20.3**	**9.3**	**0.17**	**0.57**

Note: All tabulated data has been rounded and as a result minor computational errors may occur

4 CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA

Criteria for assessing this MRE are presented in the following table, which include the relevant aspects of Table 1 of the JORC code (2012).

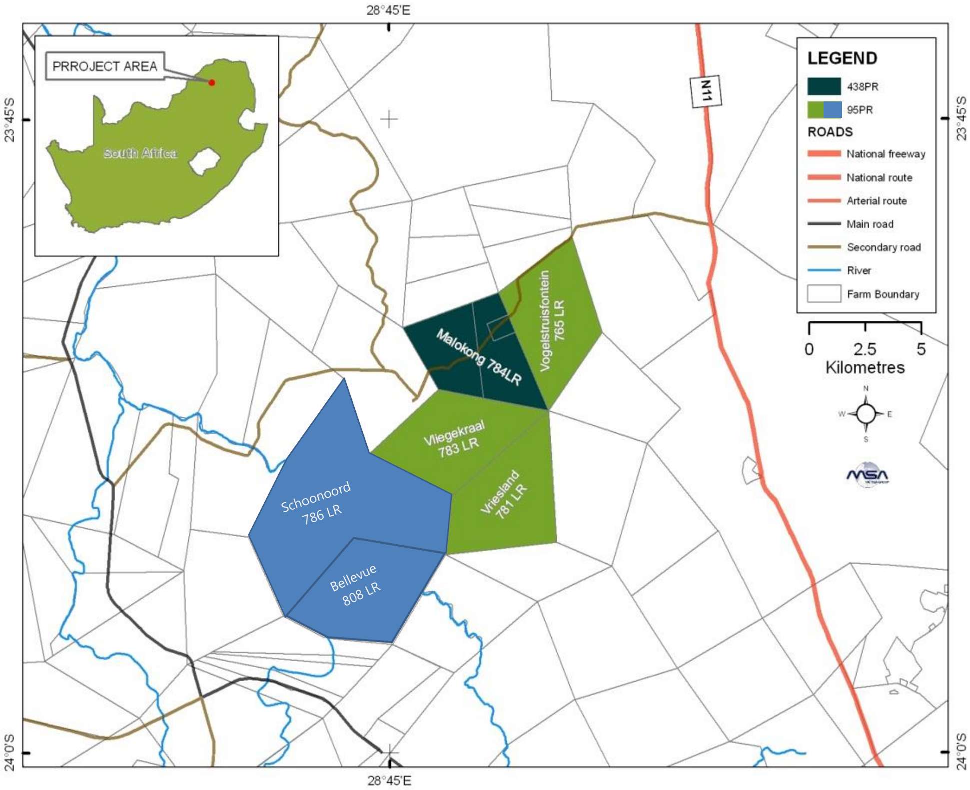
Check list of assessment and reporting criteria

Criteria	Comment/Description
Drilling techniques	NQ diameter vertical diamond drillholes.
Logging	All drillholes were geologically logged by qualified geologists. The logging was of an appropriate standard for resource estimation.
Drill sample recovery	Recoveries are documented in borehole logs for all boreholes. The average recovery in the mineralised zone was in excess of 95%.
Sampling methods	Core samples were collected continuously through the mineralised zone with an average sample length ranging from 50 cm to 200 cm. MSA observed that the routine sampling methods were of a high standard and suitable for evaluation purposes.
Quality of assay data and laboratory tests	The assay database displays industry standard levels of precision and accuracy and meets the requirements for use in a Mineral Resource estimate. Verification of sample assay data was carried out by means of inserting approximately 4% CRMs, 7% Blanks and 8% field duplicates into the sample stream adhering to a stringent QA/QC protocol. Failures of six duplicates and one CRM due to sample number mix-ups were resolved by re-submission and analysis by the laboratory.
Verification of sampling and assaying	Verification of assay data was performed at a second laboratory for approximately 8% of the total samples analysed at the original laboratory. Failures of four samples due to sample number mix-ups were addressed and samples re-submitted to the laboratory for analyses.
Location of data points	All of the drillhole collars have been surveyed by a qualified surveyor. Selected borehole collars have been observed by MSA in the field. Vertical boreholes drilled to 200 m below surface were not surveyed down-the-hole but were accepted as being vertical for their entire length given that deviation is minimal at such shallow depths.
Tonnage factors (in situ bulk densities)	An acceptable number of specific gravity measurements were gathered for the mineral resource estimation.
Data density and distribution	The deep drillholes were spaced at an average of 500 m apart, which is sufficient to assume geological and grade continuity for this type of mineralisation but insufficient for grade continuity to be confirmed. The three drillholes on Schoonoord were spaced approximately 500 m apart on strike
Database integrity	Data were provided in a DataShed database and MSA has checked the integrity of the database and considers that the database is an accurate representation of the original data collected.
Dimensions	The Mineral Resource for the P-Q Layers on Schoonoord and Bellevue occurs over a north to south strike length of approximately 1,700 m and east to west breadth of 940 m. It averages 30 m in true thickness and dips at an average of 20 degrees to the west. The Mineral Resource occurs from surface and its thickness has been constrained by lithostratigraphic contacts.
Geological interpretation	The Mineral Resource is a shallow dipping package of layers that is typical for this style of mineralisation in the Bushveld Complex. This has been confirmed by diamond drilling.

Criteria	Comment/Description
Domains	The Project Area is composed of one contiguous block for the P-Q Zone.
Compositing	Drillhole samples were composited to the entire intersection for each of the Q3, Q2, Q1, PMAG and PFWDISS layers for use in grade estimation.
Statistics and variography	There were insufficient data to calculate reliable variograms. Variance of the data within the individual layers is low.
Top or bottom cuts for grades	Due to the lack of outlier values in the dataset, the data were not modified by bottom or top cuts.
Data clustering	Drillholes were drilled along strike.
Block size	Grades were estimated into a 100 m N by 100 m E by 5 m RL three dimensional block model. The block model was split into sub cells of 5 mE by 5 mN with exact fitting for the RL in order to accurately represent the volume of the mineralised body.
Grade estimation	Grades were estimated using inverse-distance weighting to the power of 2. Grades were interpolated by sample composites for the respective layers, selected within a search ellipse of 800 m by 800 m by 20 m, with the long axis orientated in the plane of the mineralisation.
Mineral Resource Classification	The classification incorporated the confidence in the quality of the drillhole data, the data distribution, and consideration of reasonable prospects for eventual economic extraction. All blocks down to a vertical depth of 300 m below surface have been classified as Inferred due to the limited amount of data. The Mineral Resource is constrained at depth largely due to uncertainty on the potential for economic extraction beyond these depths.
Cut-off grades	The Mineral Resource has been reported using a base case cut-off grade of 35% Fe_2O_3 for the semi-massive to disseminated layer PFWDISS.
Mining Cuts	No mining cuts have been applied
Metallurgical factors or assumptions	Metallurgical studies have been undertaken on the respective layers of the N-Q Zone to the north.
Audits and reviews	The following audit and review work was completed by MSA: • a review of the database • a review of drillhole data collection protocols and QA/QC procedures • a site-based review of the drillhole data and a site visit to the Project area • QA/QC check conducted by MSA

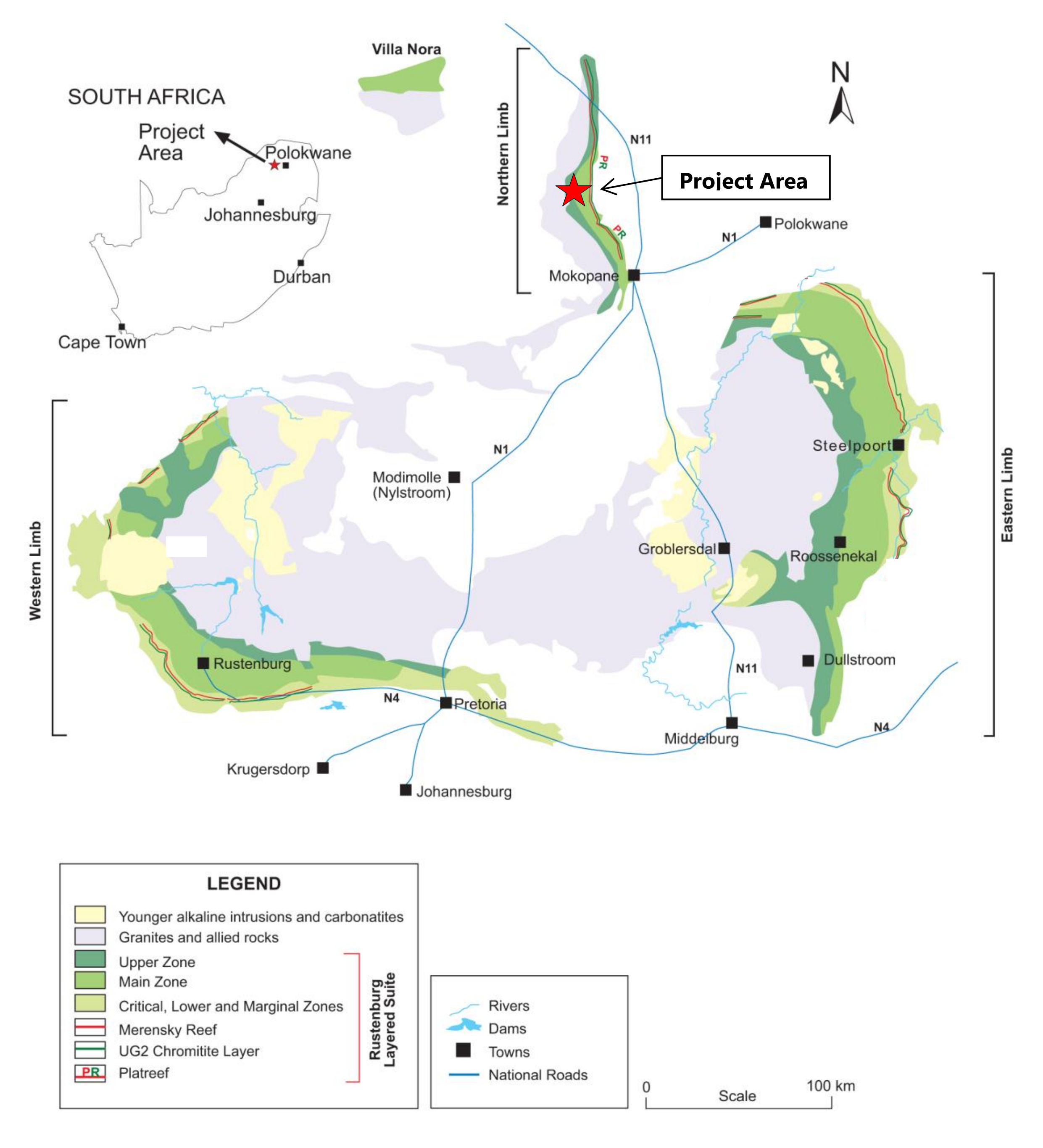
APPENDIX 1:

Location of the six farms comprising the Project Area



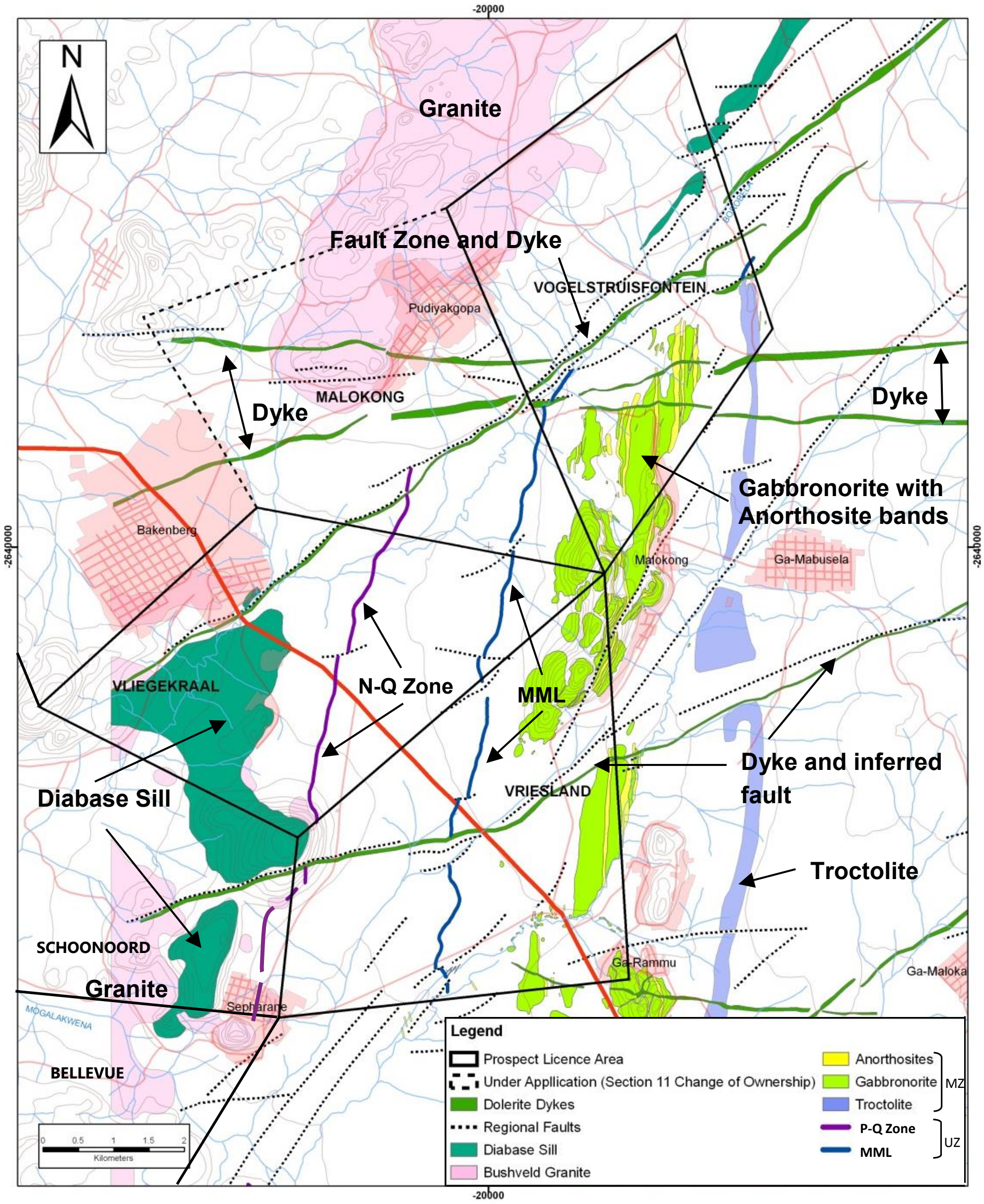
APPENDIX 2:

Geological Map of the Bushveld Complex showing the location of the Project Area in relation to the 3 main Limbs of the Bushveld Complex



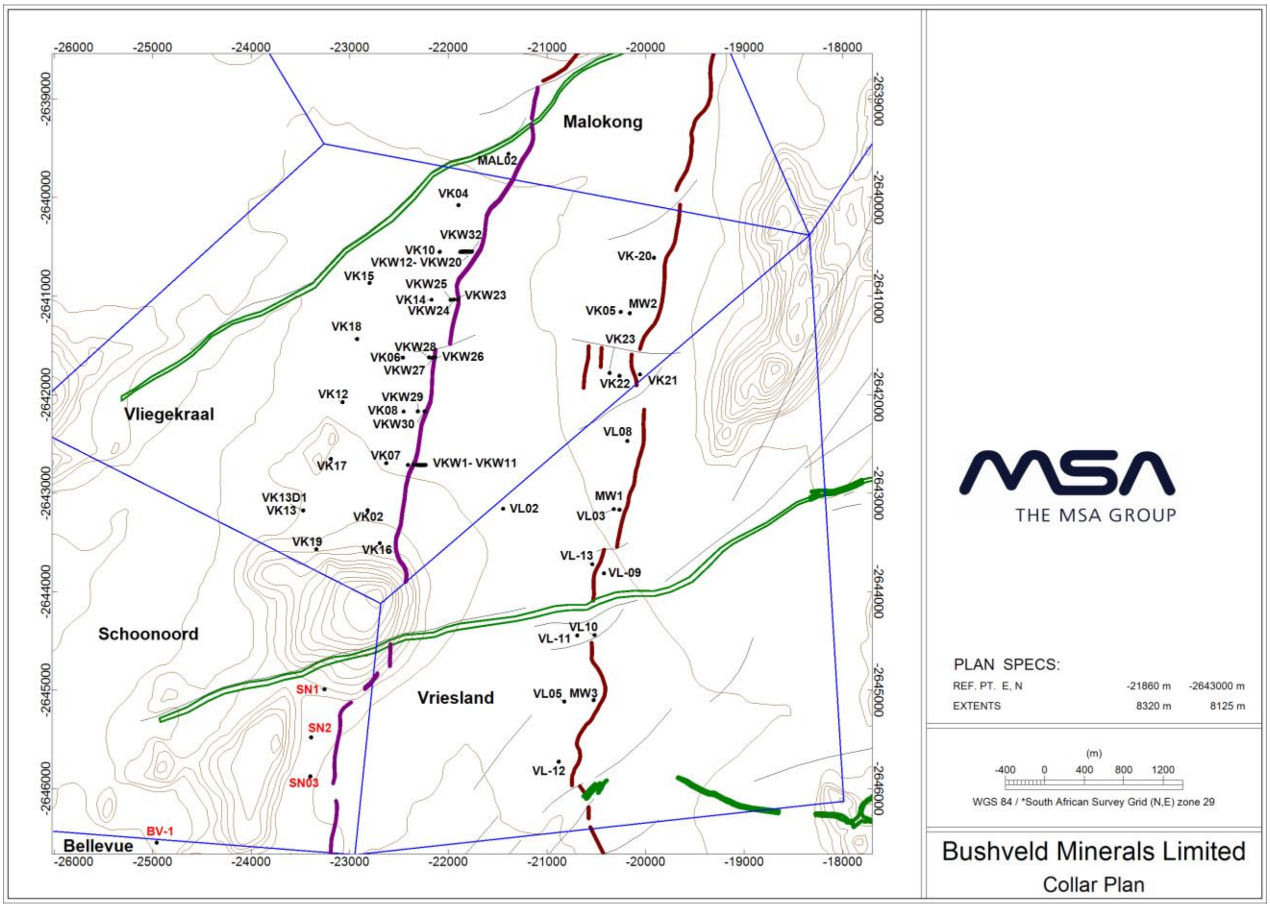
APPENDIX 3:

Geological Map of the Project Area based on surface mapping and aeromagnetic data



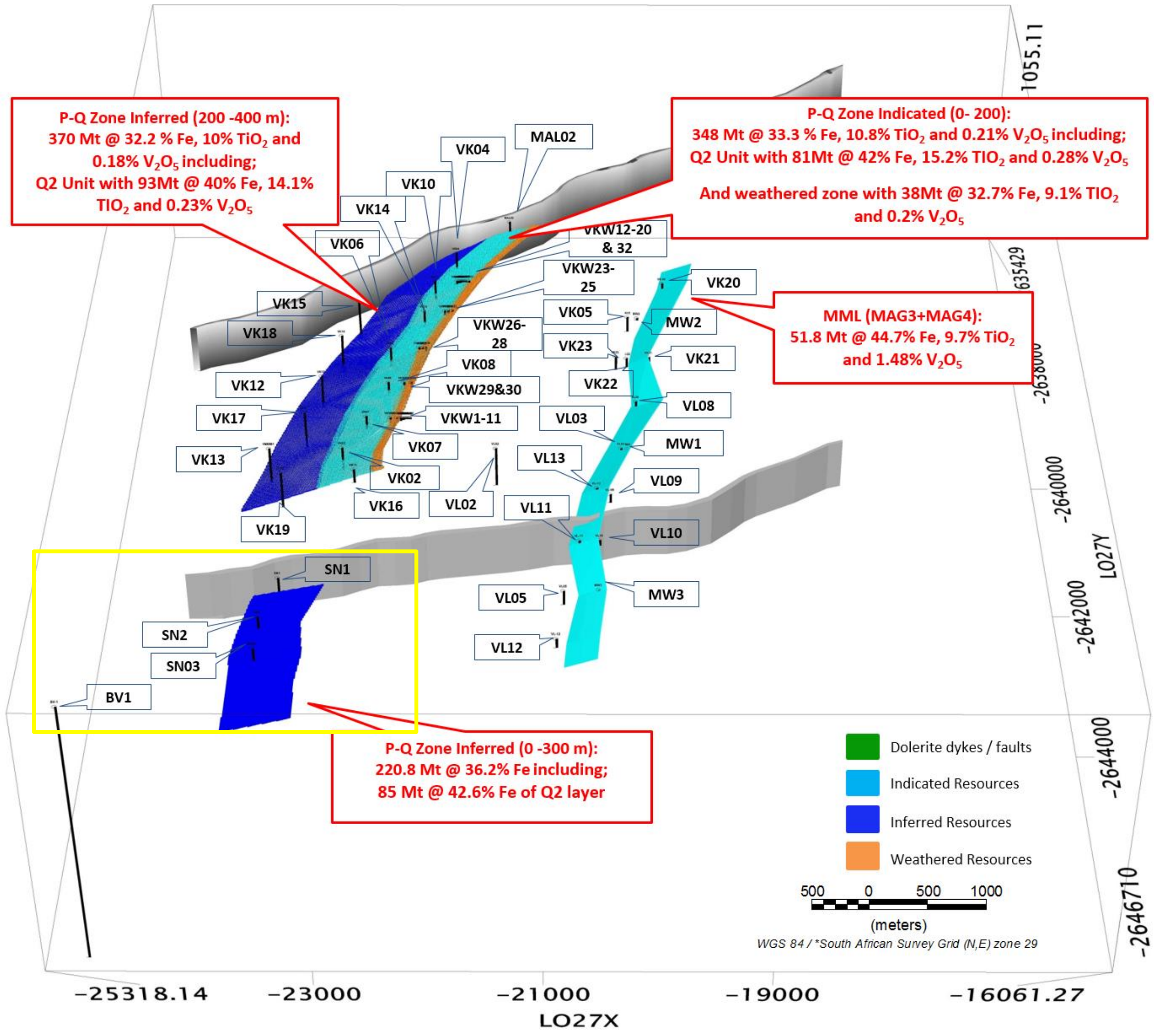
APPENDIX 4:

Drillhole collars relative to the N-Q Zone and MML sub-outcrop positions



APPENDIX 5:

Isometric view, looking north, showing Mineral Resource Classification for P-Q Zone and MML in Project Area with the area subject to this MRE within yellow box



APPENDIX 6:

Summary of holes drilled on the farms Schoonoord 786LR and Bellevue 808LR							
Borehole ID	**Farm**	**Easting Lo29 WGS84**	**Northing Lo29 WGS84**	**Elevation amsl (m)**	**Depth of Hole (m)**	**Ti-Magnetite intersected**	**Year drilled**
SN1	Schoonoord	-23256.48	-2644990.54	1042.63	210.14	N-Q Zone	2011
SN2	Schoonoord	-23393.98	-2645477.86	1025.63	200.00	N-Q Zone	2011
SN03	Schoonoord	-23401.75	-2645873.57	1021.18	175.47	N-Q Zone	2013
BV-1	Bellevue	-24959.82	-2646545.70	979.43	2949.50	N-Q Zone & MML	1991