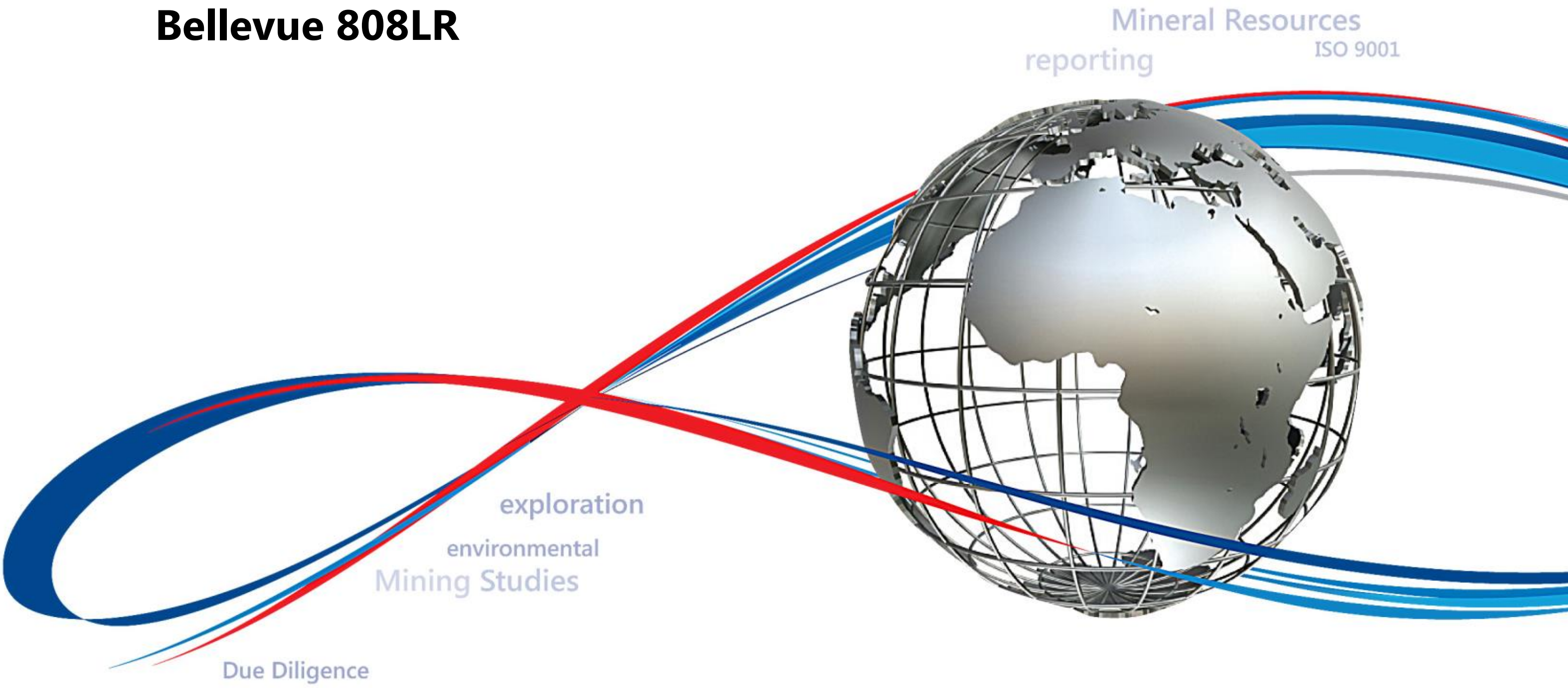
THE MSA GROUP

Specialist Consultants to the Mining Industry

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

Covering the farms:

Vliegekraal 783LR, Malokong 784LR, Schoonoord 786LR and Bellevue 808LR



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This document has been prepared for the exclusive use of Bushveld Minerals Limited ("BML") on the basis of instructions, information and data supplied by BML.

1 INTRODUCTION

The MSA Group ("MSA") has been commissioned by Bushveld Minerals Limited ("BML") to provide a Mineral Resource estimate for the phosphate-rich zone immediately overlying the P-Q Zone. The area forms part of the Mokopane Fe-V-Ti project (the "Project") and is located in the Limpopo Province, South Africa. The Project initially covered four contiguous farms, namely Vliegekraal 783LR, Malokong 784LR, Vogelstruisfontein 765LR and Vriesland 781LR, which were the subject of a CPR, including a Mineral Resource estimate on the titaniferous-magnetite rich P-Q Zone and the vanadiferous titaniferous-magnetite rich ("VTM") Main Magnetite Layer ("MML"), dated 12 April 2013. The adjacent farms Schoonoord 786LR and Bellevue 808LR were added to the Project area in 2013 and the P-Q Zone on these farms was the subject of a Mineral Resource estimate Technical Report in March 2014.

The P-Q zone consists of six individual stratigraphic layers with variable Ti-magnetite enrichment and occurs within the Upper Zone of the Rustenburg Layered Suite ("RLS"). The apatite-rich zone containing the phosphate generally lies several metres stratigraphically above the Q3 Layer which is the upper most unit of the P-Q Zone. The apatite-rich zone is separated from the Q3 layer by a low grade zone of Ti-magnetite gabbro and Ti-magnetite gabbro-norite, which includes the Hanging Wall Marker ("HWM"). The host to the apatite mineralisation is gabbro-norite containing variable amounts of disseminated Ti-magnetite.

The principal sources of information in this report include geological and geochemical data generated from drilling campaigns between 2010 and 2014, which were managed by BML, and a stratigraphic borehole BV-1 drilled by the Council of Geoscience ("CGS") on the farm Bellevue 808LR in 1991. Most of the phosphate assay data were acquired during a re-sampling programme spanning 2013 and 2014.

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 report has been prepared on geological information available up to and including 12 April 2014 and has been compiled by Jeremy Witley and reviewed by Frieder Reichhardt.

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.

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 (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, 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 magnetite-rich stratigraphic interval, referred to as the "N-Q Zone", which can be subdivided on textural and mineralogical considerations into ten individual layers with highly variable VTM concentrations. The N-Q Zone sub-crops under the flat, soil-covered plain between a range of hills to the east formed by Main Zone lithologies and the Bushveld Nebo granite plateau to the west (Appendix 3). The phosphate zone generally lies several metres stratigraphically above the Q3 separated by a low grade zone including the Hanging Wall Marker ("HWM") at the base. The host to the elevated phosphate mineralisation is gabbro-norite containing variable amounts of disseminated magnetite.

Strat Code	Layer Name*	Average Thickness	Description
	Lower Phosphate Rich Zone	40 m	Ti-magnetite gabbro-norite and gabbro-norite, rich in apatite. Defined by P_2O_5 grades greater than 2.5%, Contains granitic veins and occasional diabase sills
	Phosphate Poor Zone	4.5 m	Ti-magnetite gabbro and Ti-magnetite gabbro-norite. Increases from <0.5% P_2O_5 to 2.5% P_2O_5 upwards
HWM	Hangingwall Marker	0.75 m	Ti-magnetite gabbro and Ti-magnetite gabbro-norite. P_2O_5 generally less than 1% but greater in places
Q3	Upper "low-grade" zone	13 m	Upper Q-Ti-magnetite zone, generally semi-massive Ti-magnetite. 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" - footwall mineralisation with disseminated Ti-mag	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

3.1 Database

The input database for the modelling of the phosphate-rich zone consists of diamond drill core from 19 diamond drill holes (Appendix 5). Borehole VK02 was excluded from this estimate due to missing data and disruption of the typical stratigraphic layering by a geological feature that is not yet fully understood. Drill core was sampled at variable lengths, mostly 1 m, although nominal intervals of 0.5 m and 2.0 m have been used for some of the holes. The sample lengths were modified to honour geological features.

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 modelled zone are generally in excess of 95%, although areas of poorer recovery can occur in the weathered zone.

The assay data shows high levels of precision and accuracy and has been subjected to a stringent Quality Assurance and Quality Control ("QAQC") protocol. MSA is of the opinion that the database is an accurate representation of the original data collected.

3.2 Geological Model

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 estimation to a constant depth of 5 m. A weathered surface was modelled based on the geological core logging, although it is currently uncertain whether the weathering affects the phosphate mineralisation.

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 and the top most contact of the P-Q Zone (i.e. Q3 Hangingwall) was taken as the base for the phosphate zone estimate. The top of the phosphate zone was taken as the position where the P_2O_5 grade decreased to below 2.5%, this being a sharp break in the P_2O_5 grade profile upwards through the borehole. A single layer was modelled for the phosphate enriched zone.

Consistent with the P-Q Zone Mineral Resource estimate on the VTM, the modelled surface for the northern farms (Vliegekraal 783LR and Malokong 784LR) were extrapolated to 400 m below surface, but only the portion to a vertical depth of 300 m has been considered in the southern area (Schoonoord 786LR and Bellevue 808LR) due to the topographic feature to the west of the inferred sub-outcrop position of the P-Q Zone. Vogelstruisfontein 765LR and Vriesland 781LR are not considered in this estimate as they occur eastwards of the P-Q outcrop. The area overlain by a thick diabase sill, which forms a prominent hill at the junction of the three farms Vliegekraal

783LR, Vriesland 781LR and Schoonoord 786LR (see Appendix 4), was excluded from this estimate.

The dimensions of the parent block model are 100 mY (northing) by 20 mX (easting) by 4 mZ (height), a relatively short distance being used in the X direction to account for the dip of the mineralised zone so that the modelling is able to replicate the strata-form nature of the mineralisation. Sub-celling of the parent blocks to 25 mN by 5m X by 1m Z was then applied in order to achieve optimal block model fitting into the wireframes.

3.3 Grade Estimation

Exploratory data analysis was undertaken on the raw data within the defined phosphate rich zone, this being taken as the interval from the base of HWM to the position where the P_2O_5 grade decreases to below 2.5%. P_2O_5, Fe_2O_3, S, SiO_2, CaO, and SG were investigated. A positive linear relationship was found to occur between P_2O_5 and S, Fe_2O_3 and SG, and a negative linear relationship was found between P_2O_5 and SiO_2. A strong linear relationship between Fe_2O_3 and SG was found (*SG = 0.0202 (SiO₂)+2.6489*). This was not used to estimate missing SG values into the data set, as all of the samples that have assay data also have SG values.

Statistical analysis was undertaken on the phosphate zone data after compositing the data to 1 m composites using density weighting. The histograms are slightly negatively skewed for P_2O_5 and CaO and slightly positively skewed for Fe_2O_3, S, SiO_2 and SG. The coefficients of variation are low (0.30 for P_2O_5, 0.45 for S and less than 0.20 for Fe_2O_3, SiO_2, CaO and SG).

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 used a search volume of 800 m (X) by 800 m (Y) by 10 m (Z) to source a minimum number of 10 composited samples. Where less than 10 composites were sourced in this search volume, the search was progressively expanded to ensure that sufficient samples for a reasonable estimate were sourced. A dynamic search was used that locally alters the direction of the search ellipse according to the wireframe dip and strike.

3.4 Mineral Resource Tabulation

The Mineral Resource has been constrained in the same way as for the P-Q Zone VTM Mineral Resource estimate to a vertical depth limited to 400 m below surface in the Northern farms and 300 m in the Southern farms (see Section 3.2). A geological loss of 10% was applied due to occurrences of dykes, sills, granitic veins and other disruptive geological features, these being more prevalent in the phosphate zone than in the P-Q Zone. Consistent with the VTM estimate, the mineralisation was limited in extent along strike and dip due to the presence of the ridge to the west of the P-Q Zone (see Section 3.2). Due to the high stripping ratio created by the ridge, it forms a natural barrier in terms of viable extraction in an opencast scenario.

A cut-off grade of 3% P_2O_5 was used to report the mineralisation. The estimated blocks selected above this grade threshold form a cohesive zone of mineralisation.

The Mineral Resource has been classified as an Inferred Mineral Resource. Layered magmatic Bushveld deposits have excellent geological continuity; however the boreholes are too widely spaced to allow for local grade estimates.

A summary of the tonnage and grade estimates per farm is presented in Table 1. The estimates have been broken down into weathered and fresh in a number of depth intervals in Table 2.

Table 1
Summary of the Phosphate Zone Mineral Resource at a 3% P_2O_5 cut-off for the farms Vliegekraal 783LR, Malokong 784LR Schoonoord 786LR and Bellevue 808LR, as at 12 April 2014

Farm	Tonnes	P_2O_5	Fe_2O_3	S	SiO_2	CaO	Density
	millions	%	%	%	%	%	g/cm^3
Vliegekraal	330.0	3.6	32.1	0.39	34.0	9.1	3.30
Malokong	1.8	3.2	35.5	0.37	35.4	8.6	3.27
Schoonoord	104.9	3.6	34.1	0.40	33.0	8.8	3.37
Bellevue	5.0	3.6	34.4	0.41	33.3	8.9	3.36
TOTAL	441.6	3.6	32.6	0.39	33.7	9.0	3.32

3.5 Assessment of Reasonable Prospects for Eventual Economic Extraction (RPEEE)

The Mineral Resource forms part of BML's VTM project and it is expected that the phosphate will be co-extracted with the VTM. Therefore the Phosphate Mineral Resource is incremental in nature. The costs of mining the apatite-rich zone is expected to be minimal as much of the costs of mining will be attributed to the hangingwall waste stripping required in order to access the VTM immediately underlying the phosphate mineralisation. Some mining costs will apply, together with the costs of milling and concentrating the apatite.

The value of Phosphate Rock Concentrate (Bulk, FOB Morocco, Q1 2014, 31-33% P_2O_5) is between USD115 and USD130 per tonne (Source: Profercy Phosphates & NPKs Report). Bench scale metallurgical studies carried out by BML indicate that a P_2O_5 grade of approximately 38% can be achieved using magnetic separation followed by flotation.

Appendix 7 compares the grade and tonnage of the *in-situ* Mineral Resource and the grade and tonnage of the expected product with that of other apatite deposits, either in production or advanced exploration. Despite the relatively low *in-situ* grade of the P-Q hangingwall phosphate zone, the upgraded product is within the upper quartile of the peer group.

Reasonable Prospects for Eventual Economic Extraction for the phosphate rock are dependent on its co-extraction with the VTM and it is less likely that the phosphate zone could potentially be extracted economically as a single commodity phosphate venture.

Phosphate deposits fall into the category of industrial minerals in terms of the JORC Code (2012). Despite the relatively low grade of the mineralisation, BML has conducted high level test-work that demonstrates that the phosphate within the project area can be upgraded to a saleable product, i.e. an apatite concentrate. It is assumed by BML that this product could be absorbed into the local fertiliser market, although no detailed marketing studies have been carried out to verify this assumption.

Table 2
Phosphate Zone Mineral Resource by depth and weathering state at a 3% P_2O_5 cut-off for the farms Vliegekraal 783LR, Malokong 784LR Schoonoord 786LR and Bellevue 808LR, as at 12 April 2014

Weathering State	Depth Interval	Farm	Tonnes millions	P_2O_5 %	Fe_2O_3 %	S %	SiO_2 %	CaO %	Density g/cm^3
Weathered	0-200	Bellevue	0.4	3.7	36.2	0.41	31.6	8.9	3.39
Fresh	0-200	Bellevue	3.1	3.6	34.2	0.41	33.4	8.9	3.36
All	0-200	Bellevue	3.5	3.6	34.5	0.41	33.2	8.9	3.36
Fresh	200-300	Bellevue	1.4	3.6	34.1	0.41	33.4	9.0	3.36
Total All	**Total**	**Bellevue**	**5.0**	**3.6**	**34.4**	**0.41**	**33.3**	**8.9**	**3.36**
Weathered	0-200	Schoonoord	11.7	3.5	33.9	0.40	33.2	8.8	3.37
Fresh	0-200	Schoonoord	68.7	3.6	34.2	0.41	32.9	8.8	3.37
All	0-200	Schoonoord	80.5	3.6	34.2	0.41	32.9	8.8	3.37
Fresh	200-300	Schoonoord	24.4	3.6	33.9	0.40	33.2	8.8	3.37
Total All	**Total**	**Schoonoord**	**104.9**	**3.6**	**34.1**	**0.40**	**33.0**	**8.8**	**3.37**
Weathered	0-200	Malokong	0.6	3.2	35.6	0.38	35.5	8.7	3.27
Fresh	0-200	Malokong	1.1	3.2	35.6	0.37	35.5	8.7	3.27
All	0-200	Malokong	1.7	3.2	35.6	0.38	35.5	8.7	3.27
Fresh	200-400	Malokong	0.1	3.1	33.6	0.35	34.8	8.4	3.29
Total All	**Total**	**Malokong**	**1.8**	**3.2**	**35.5**	**0.37**	**35.4**	**8.6**	**3.27**
Weathered	0-200	Vliegekraal	18.0	3.7	30.8	0.27	35.2	9.1	3.29
Fresh	0-200	Vliegekraal	126.9	3.6	31.5	0.34	34.5	9.0	3.31
All	0-200	Vliegekraal	144.9	3.6	31.4	0.33	34.6	9.0	3.30
Fresh	200-400	Vliegekraal	185.0	3.6	32.6	0.43	33.5	9.2	3.30
Total All	**Total**	**Vliegekraal**	**330.0**	**3.6**	**32.1**	**0.39**	**34.0**	**9.1**	**3.30**
Weathered	0-200	All Farms	30.7	3.6	32.2	0.32	34.4	8.9	3.32
Fresh	0-200	All Farms	199.8	3.6	32.5	0.36	34.0	9.0	3.33
All	0-200	All Farms	230.6	3.6	32.4	0.36	34.0	9.0	3.33
Fresh	0-400	All Farms	211.0	3.6	32.7	0.43	33.4	9.1	3.31
Total All	**Total**	**All Farms**	**441.6**	**3.6**	**32.6**	**0.39**	**33.7**	**9.0**	**3.32**

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 estimate are presented in the following table.

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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• The mineralisation was sampled using NQ size diamond cored boreholes. A total of 19 boreholes were drilled vertically. Only diamond drill core was used to sample the mineralisation. • Core was logged for lithology, weathering state and structure. Core was half-split or quarter-split and sampled following BML protocols and QAQC procedures as per standard industry practice. • The cores were sampled continuously through the zone mostly on nominal 1 m intervals, although this did vary to 0.5 m or 2.0 m. The nominal intervals were varied in order to respect geological boundaries. • Samples were dried and then crushed to greater than 80% less than 2.8 mm, milled to greater than 90% less than 106 µm and analysed on a fused glass disk with an X-ray fluorescence spectrometer (XRF).
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).*	• Only diamond drill core predominantly NQ size. Holes were drilled vertically and core was not oriented.
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.*	• Core recoveries were logged. Overall core recoveries are 95%, although lower recoveries occur in the weathered zone.
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*	• All core has been logged for lithology, mineralisation, structure and weathering. • All data is stored in a relational borehole database (Maxwell). • All cores were logged from surface to the end of hole. The total length of core in the 19 holes used for the estimate is 7,645.31 m.

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)		
Criteria	**JORC Code explanation**	**Commentary**
	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 representativity 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.*	• All cores were cut in half using purpose built core saws on-site. Half or quarter NQ size core was collected for sampling, ensuring that the same side of the core was consistently sampled. • Samples were prepared at Set Point laboratories and crushed to greater than 80% less than 2.8 mm, split with a Jones Riffle Splitter and 600 g subsamples were pulverised to greater than 90% less than 106 µm. Regular sizing checks were undertaken and reported. • Sample sizes are appropriate to the grain size of the material being sampled.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• Analytical procedures are industry standard and appropriate for the type of mineralisation and level of confidence for tonnage and grade estimation; The assaying technique is a whole rock analysis • All quality control measures are based on industry standard operating procedures which were followed during the sampling and assaying campaign. CRMs, blanks and duplicates were inserted at an appropriate frequency and the results showed acceptable levels of precision and accuracy. Isolated cases of sample number mix-ups were observed for duplicate analyses and adequately resolved by re-submitting original material and requesting re-analyses. No analytical bias was observed for samples submitted to a secondary (umpire) laboratory and the results confirm the assay data obtained from the primary laboratory.
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.*	• No verification work has been completed • No twin holes have been drilled • Data entry and verification into the database was undertaken by MSA following an established protocol. All data is stored in a digital database and regularly backed-up. • No statistical adjustments to data have been applied.
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 of the drillhole collars have been surveyed by a qualified surveyor. • A number of 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.

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)		
Criteria	**JORC Code explanation**	**Commentary**
		• The grid system for the project is UTM WGS84, LO29. • The topography model was derived from the borehole collar elevations and topographical contours from government survey maps.
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.*	• The drillholes were spaced at an average of 500 m apart on dip and strike. • The drillhole spacing is sufficient to assume geological and grade continuity for this type of mineralisation but insufficient for grade continuity to be confirmed. • Samples have been composited to 1 m.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Holes are predominantly drilled vertically and intersect mineralisation at angles of between 70° and 80°. • No orientation based bias had been identified in the data to this point
Sample security	• *The measures taken to ensure sample security.*	• Appropriate chain-of-custody procedures were followed to ensure sample security.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• The original assay certificates were used for the project database and sampling procedures were reviewed and are considered adequate.

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.*	• 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 author is not aware of any impediments to obtain a licence to operate in the area.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• All exploration activities were conducted by BML geological and technical staff. All analytical work was performed by independent and accredited laboratories.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Mineralisation occurs in the form of disseminated apatite hosted by a layered, gabbroic sequence which crystallised from a fractionated magma.
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.*	• Appendix 5.
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*	• Not applicable

Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section.)		
Criteria	**JORC Code explanation**	**Commentary**
	should be clearly stated.	
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 (e.g. 'down hole length, true width not known').*	• Holes were predominantly drilled vertically and intersected mineralisation at angles of between 70° and 80°.
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.*	• Plans and Maps are contained within the 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.*	• Not applicable.
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.*	• There is no other exploration information considered material to this estimate.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• No further drilling is planned in the immediate future.

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.*	• The database is managed by MSA • Data were loaded into Maxwell Datashed and validated upon upload using database validation rules and visual inspection of data.
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.*	• Site visits were undertaken by Dr Frieder Reichhardt on 12 May, 2011 and 16 August, 2012. All exploration activities were reviewed and recommendations were made to ensure compliance with the JORC Code
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 confidence in the geological interpretation of the phosphate mineralisation is considered good. Bushveld layered deposits are highly continuous. • The location of major faults, dykes and sills are known. • No alternative interpretations exist other than the well understood local stratigraphy
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 phosphate mineralisation in the Northern Area has been defined over a north to south strike length of approximately 4.4 km and east to west breadth of 1.3 km. In the Southern Area, the phosphate mineralisation has been defined over a north to south strike length of approximately 1.7 km and east to west breadth of 0.9 km. The defined phosphate zone averages 40 m in true thickness and dips at an average of 20 degrees to the west. • The mineralisation has been shown to continue at depth although this estimate has been constrained to 400 m in the Northern Area and 300 m in the Southern Area.
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*	• Grade estimation was completed using inverse distance squared using CAE Studio 3 software. There were insufficient data to calculate reliable variograms. Variance of the data is low. Data was composited to one metre. Top cuts were not applied, there being no statistical outliers. A maximum of 6 samples were allowed per hole for the estimate and octants were not used. The search area was designed so that two holes along strike and down dip could be selected. • No previous estimates have been conducted • No bi-product recoveries were considered. • Sulphur was estimated. • Block models or 100 mN by 20 mE by 4 mRL were constructed.

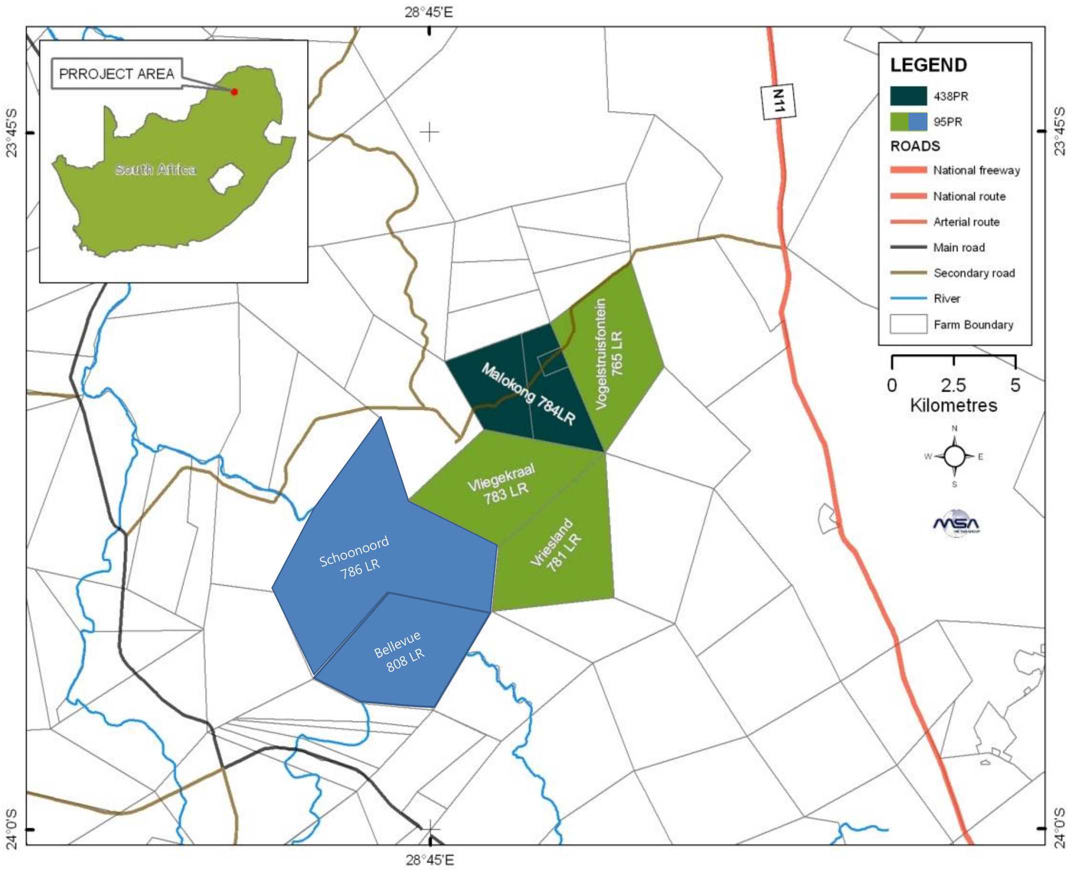
Section 3 Estimation and Reporting of Mineral Resources (Criteria listed in section 1, and where relevant in section 2, also apply to this section.)		
Criteria	**JORC Code explanation**	**Commentary**
	characterisation). • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• No SMU was considered • Bi-variate analysis was carried out to determine relationships between the attributes of interest. Relationships between correlated elements were preserved by aligning estimation parameters for related elements. • The top of the distinctive Q3 layer was used as the base of the phosphate zone estimate. There is a natural cut-off grade around 2.5% P_2O_5, which was used for the top contact of the model. • The block model was compared to drillhole data visually and statistically. The average grade of the model compares to that of the input data within close limits. The deposit is undeveloped so no reconciliation data were available.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages were estimated on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The mineralisation has been reported using a base case cut-off grade of 3% P_2O_5. At this stage there is no economic basis for this cut off. The estimated blocks selected above this grade threshold form a cohesive zone of mineralisation.
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.*	• It has been assumed that the mineralisation will be extracted by open-pit methods given its considerable thickness and proximity to surface. • The phosphate mineralisation occurs in the immediate hanging wall to the vanadiferous titano-magnetite ("VTM") Mineral Resource. It is assumed that the phosphate rock will be co-extracted with the VTM and that the incremental cost of mining will be small, the phosphate rock being mined in order to access the VTM. • Reasonable Prospects for Eventual Economic Extraction of the phosphate rock are dependent on its co-extraction with the VTM and it is less likely that the phosphate zone could potentially be extracted economically as a single commodity phosphate venture.
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.*	• Bench scale test-work indicated that a concentrate of approximately 38% could be produced using magnetic separation followed by flotation.

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**
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.*	• No environmental impediments are currently known. An environmental impact assessment has not yet been conducted by BML
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.*	• Specific gravity (SG) has been determined for all of the samples assayed for P_2O_5. • 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. • A density model was generated using inverse distance squared interpolation and used for the tonnage estimation.
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.*	• The Mineral Resource has been classified as Inferred Mineral Resources. Layered magmatic Bushveld deposits have excellent geological continuity; however the boreholes are too widely spaced to allow for local grade estimates. • The Mineral Resource estimate reflects the Competent Person's view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No reviews have taken place outside of MSA's internal review process.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect*	• The confidence in the global grade estimate is high, the data having low variance and the estimate being closely aligned with the input data. • There are insufficient data in order to provide for local estimates. • There are no production data with which to verify the estimates.

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**
	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.*	

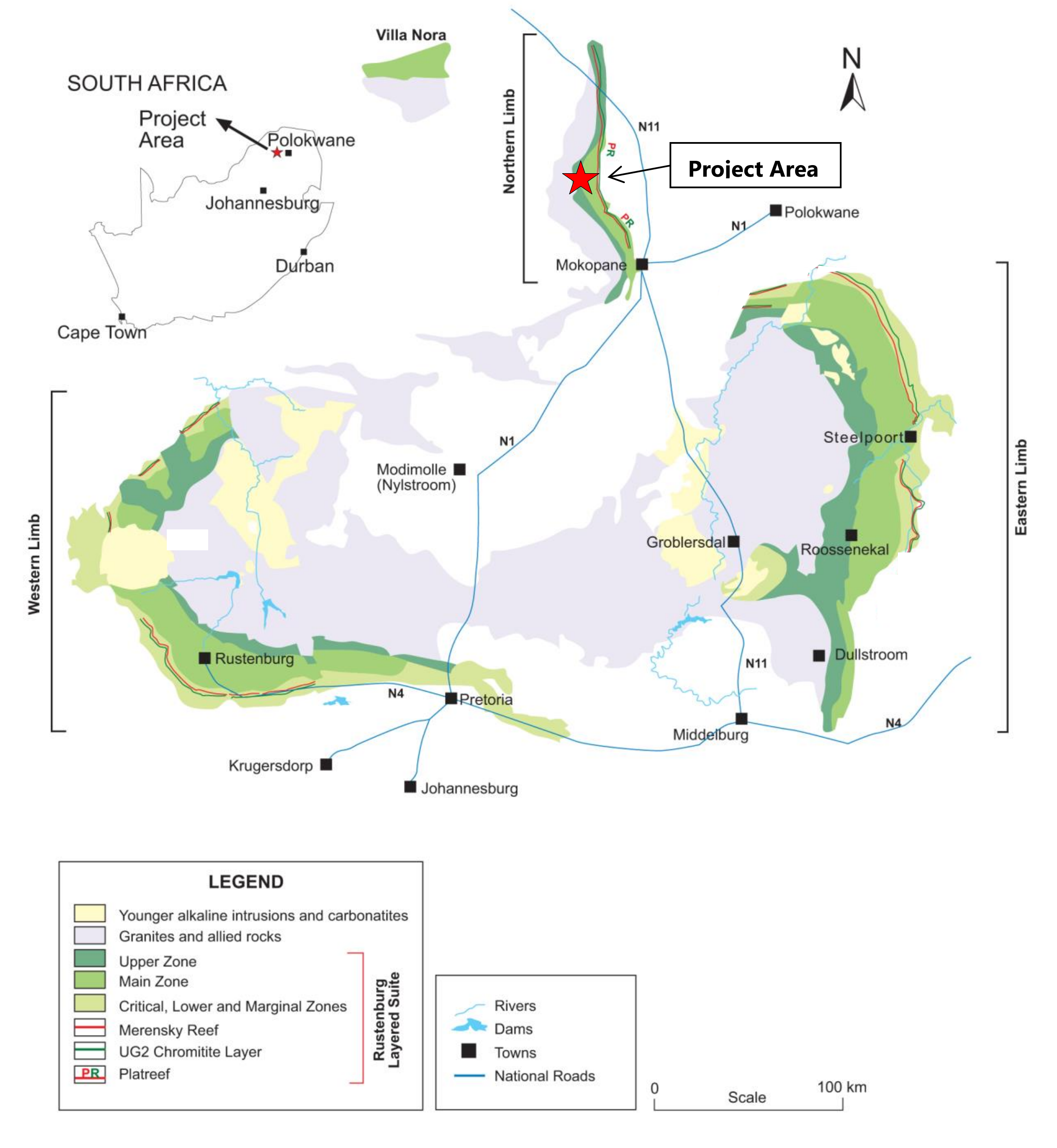
APPENDIX 1:

Location of the six farms comprising the Project Area



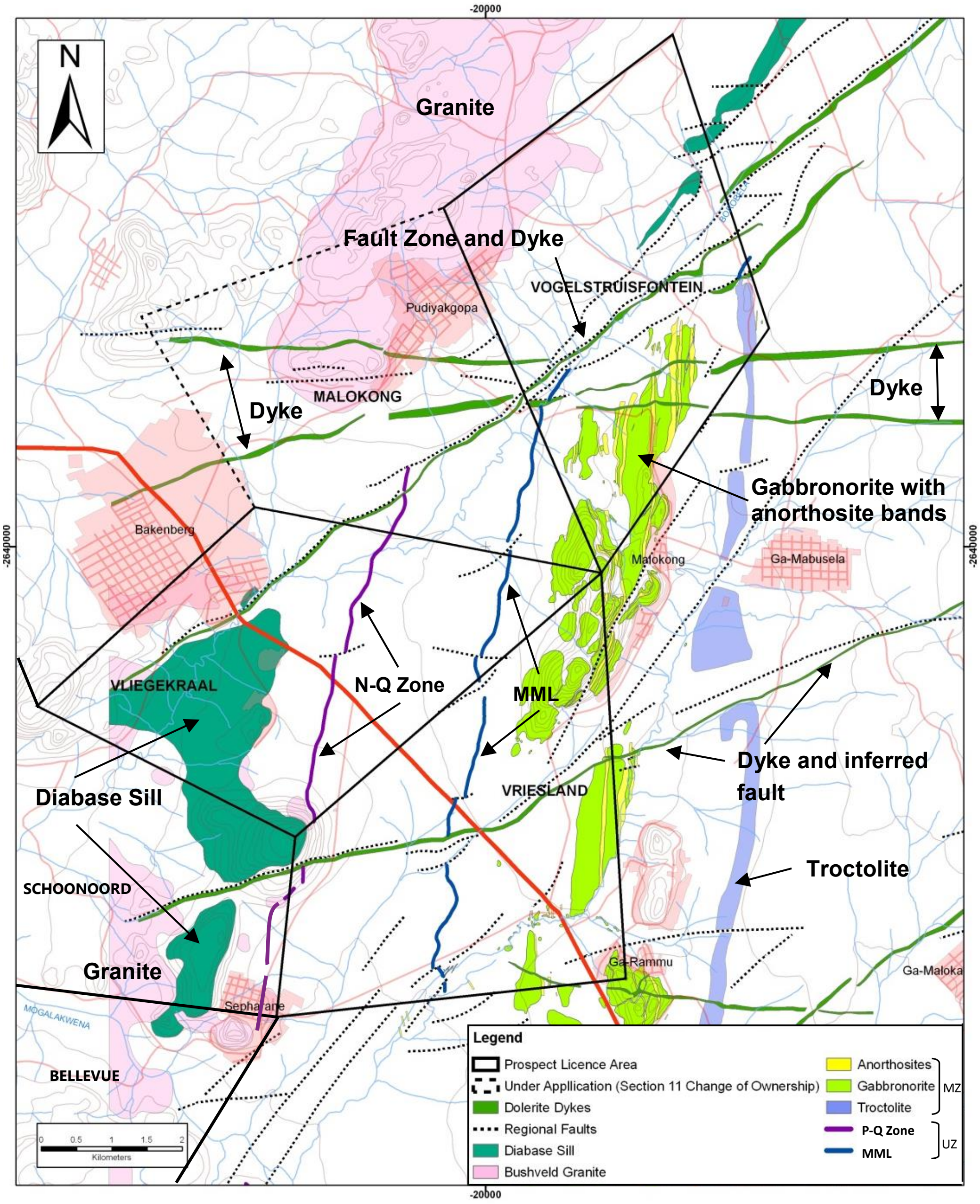
APPENDIX 2:

Geological Map of the Bushveld Complex showing the location of the Project Area in relation to the three main limbs of the Bushveld Complex



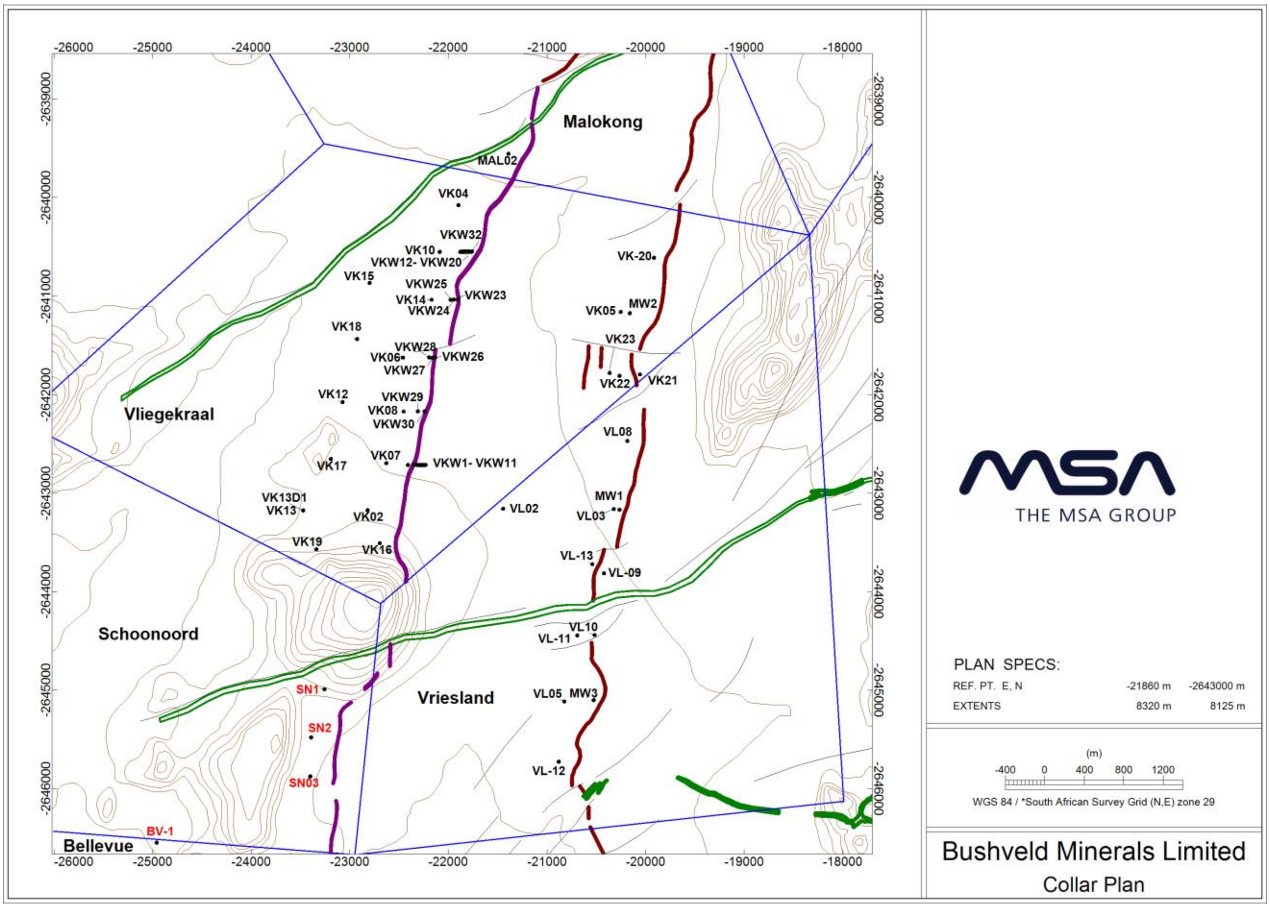
APPENDIX 3:

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



APPENDIX 4:

Drillhole collars relative to the N-Q Zone (base of Phosphate mineralisation) and MML sub-outcrop positions



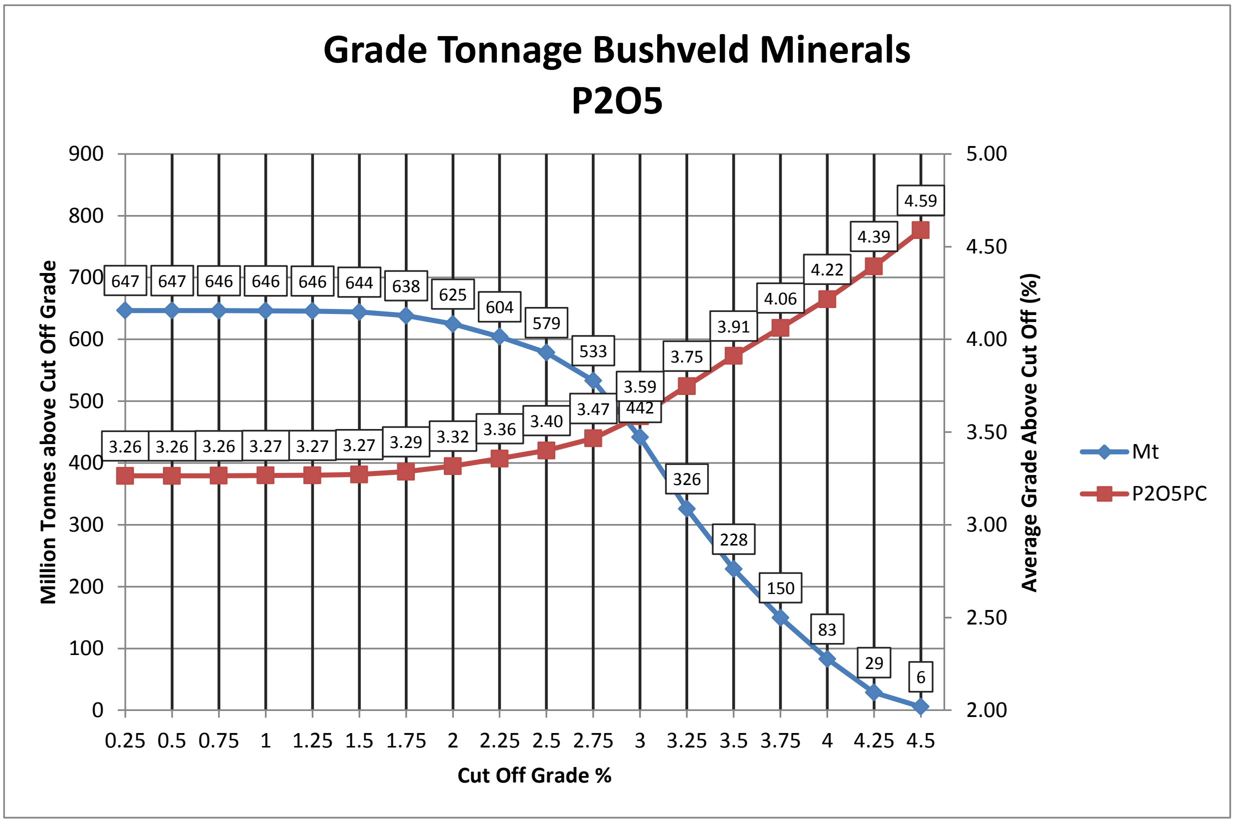
APPENDIX 5:

Summary of holes used for the phosphate grade and tonnage estimate						
Borehole ID	Farm	Easting Lo29 WGS84	Northing Lo29 WGS84	Elevation amsl (m)	Depth of Hole (m)	Year drilled
SN1	Schoonoord	-23256.48	-2644990.54	1042.63	210.14	2011
SN2	Schoonoord	-23393.98	-2645477.86	1025.63	200.00	2011
SN03	Schoonoord	-23401.75	-2645873.57	1021.18	175.47	2013
BV-1 *[1]	Bellevue	-24959.82	-2646545.70	979.43	2949.50	1991
VK02 *[2]	Vliegekraal	-22820.23	-2643172.30	1030.45	250.08	2010
VK04	Vliegekraal	-21898.75	-2640075.64	1010.13	224.38	2011
VK06	Vliegekraal	-22462.00	-2641623.35	1007.23	214.99	2011
VK07	Vliegekraal	-22630.56	-2642694.38	1019.04	150.00	2011
VK08	Vliegekraal	-22455.19	-2642170.17	1011.46	150.07	2011
VK10	Vliegekraal	-22088.30	-2640549.92	1007.54	211.05	2011
VK12	Vliegekraal	-23074.10	-2642074.81	1009.79	356.84	2011
VK13D1	Vliegekraal	-23473.49	-2643174.08	1020.49	391.55	2011
VK14	Vliegekraal	-22171.25	-2641035.28	1007.83	200.15	2011
VK15	Vliegekraal	-22799.75	-2640865.89	1003.35	434.66	2011
VK16	Vliegekraal	-22696.57	-2643506.82	1046.54	150.09	2012
VK17	Vliegekraal	-23193.32	-2642651.75	1026.06	402.32	2012
VK18	Vliegekraal	-22926.64	-2641434.62	1004.19	427.27	2012
VK19	Vliegekraal	-23339.66	-2643568.22	1055.11	389.08	2012
MAL02	Malokong	-21391.89	-2639552.79	1018.88	156.63	2012

*[1] BV-1 Stratigraphic hole drilled in 1991 by the Council of Geoscience

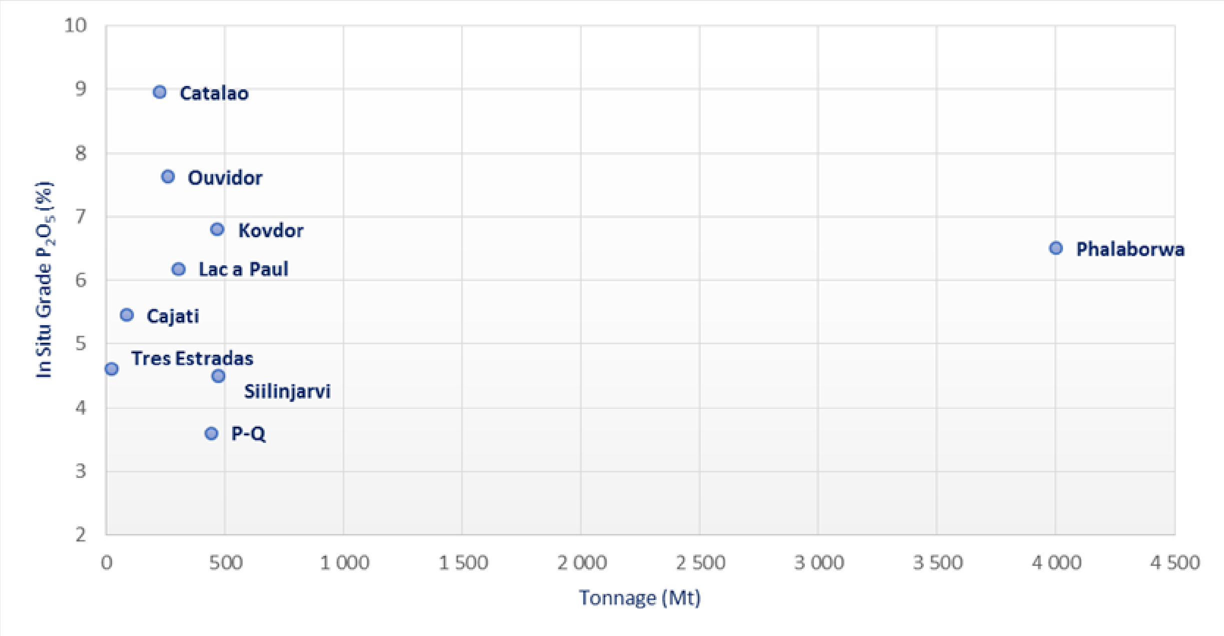
*[2] VK02 Excluded from the grade estimate due to missing data and geological disturbance within the hole

APPENDIX 6: Grade Tonnage Curve Total Phosphate Zone



APPENDIX 7: Comparison of BML Phosphate Mineral Resource with the Mineral Resources of other phosphate operations or advanced exploration projects

In-situ grade and tonnes



Concentrate Grade and Tonnes