

## Final

Veremo Holdings: Veremo Resource Review  
Project No. **J982**

**February 2008**

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## 1 Summary

Snowden Mining Industry Consultants (Snowden) was requested by Veremo Holdings (Veremo) to complete a review of Mineral Resource data collection, estimation and classification procedures at the Stoffberg Magnetite Project in Mpumalanga, South Africa.

### 1.1 Resource statement

The 2008 Mineral Resource for Veremo Holding's Stoffberg Magnetite project as endorsed by Snowden Mining Consultants (Snowden) is:

Table 1.1 Resource Statement for the Stoffberg Magnetite Project (February 2008) reported at a 35% Fe cut-off

Classification	Weathering	Tonnes (Mt)	Fe (%)	SiO <sub>2</sub> (%)	TiO <sub>2</sub> (%)	V <sub>2</sub> O <sub>5</sub> (%)	SG
Indicated Resource	Fresh	797.5	42.05	15.13	14.09	0.15	4.22
	Weathered	123.8	43.00	13.67	14.64	0.16	4.16
Measured Resource	Weathered	11.6	48.98	5.03	18.38	0.23	3.85
<b>Total Resource</b>		<b>933.0</b>	<b>42.26</b>	<b>14.22</b>	<b>14.22</b>	<b>0.15</b>	<b>4.21</b>

In Snowden's opinion the Mineral Resources have been reported in accordance with the guidelines of the South African Code for the Reporting of Mineral Resources and Mineral Reserves (the SAMREC Code, 2007).

### 1.2 Action item

During the review process, Snowden identified a number of action items that should be addressed by Veremo Holdings. These include:

- The documenting of policies and procedures throughout the process, from data collection to resource reporting.
- All trench and pit samples should be located spatially using accurate survey techniques.
- Pit samples and diamond drillhole data should be regularly tested for bias to justify their combined use in the resource model.
- The confidence in the use of in-house standards should be improved through a more robust certification process, or through the additional inclusion of certified reference material.
- Pulp duplicates should be submitted on a regular basis to test the precision of the laboratory and to act as disguise for unmarked standards.
- Justifications for the estimation techniques used and the reporting of the resource without a cut-off grade need to be clearly stated in the resource report to ensure that any reader is clear as to the logic followed.
- The correct modelling of the nugget effect and close range variability of the deposit is considered critical to identifying potential selectivity within the deposit. The importance of understanding this selectivity may become evident once test work has been carried out to confirm the relationship between grade and yield

- Snowden recommends that a close-spaced grade control sampling programme be undertaken prior to the commencement of mining.
- Northing, easting and elevation slices through the deposit to compare model grades with input grades should be considered as an additional estimation validation check.

## 2 Introduction and audit methodology

### 2.1 Introduction

Snowden Mining Industry Consultants (Snowden) was requested by Veremo Holdings (Veremo) to complete a review of Mineral Resource data collection, estimation and classification procedures at the Stoffberg Magnetite Project in Mpumalanga, South Africa. This document summarises Snowden's resource review of the Stoffberg Project and must be read in conjunction with Savage (2007a, b).

Two site visits were undertaken by Mr George Gilchrist in May and June 2007. These site visits were held in conjunction with Dr Chris Lee and Mr Steve Savage (geological consultants to the Veremo project) and Mr Ray Brown who was the on-site geologist.

This work was reviewed on behalf of Snowden by Mr Mark Burnett, Mineral Resource Manager.

### 2.2 Review methodology

The initial site visit with Chris Lee and Ray Brown was undertaken to:

- Review the completed trenching programme and provide guidelines for a deep trenching programme following observations of the coarseness of the weathered magnetite
- Review the quality, storage, marking, logging and sampling of drillhole core
- Review QAQC procedures undertaken.

The second site visit with Ray Brown and Steve Savage was undertaken primarily to observe the digging and sampling of pits (deep trenches). No independent samples were taken or analysed, as this was deemed to be out of the scope of a resource review.

On release of the initial resource report a number of recommendations were documented (Roux, 2007). These recommendations were made following analysis by Snowden of the drillhole database provided by Steve Savage. The recommendations included classical statistical analysis and modelling of variograms for different domains.

Following adoption of the recommendations and additional meetings between Snowden and Steve Savage, the final resource report was released.

### 3 Description of deposit

The Stoffberg magnetite project is located in the uppermost portion of the Upper Zone of the eastern Bushveld Complex, in close proximity to the towns of Stoffberg and Roossenekal in the Mpumalanga province of South Africa. The focus of the exploration is the outcropping Magnetite Layer 21, the uppermost magnetite layer of the Upper Zone. The primary constituent of interest is iron, although the deposit also contains titanium and vanadium.

Veremo holds the prospecting rights to three farms, namely Paardekloof 176JS, The Wedge 175JS and Duikerskrans 173JS. These three contiguous farms represent approximately 10 km of strike length. An Inferred Resource was declared in December 2005 based on historic data collected by Bushveld Alloys Ltd and Rocklabs CC. The updated resource has, in addition, 90 diamond drillholes, 254 trenches and 18 pits (deep trenches) drilled/dug since February 2006.

Magnetite Layer 21 generally strikes north, with minor variations observed. The layer dips gently to the west. The layer thickness varies considerably, from as low as 8 metres (m) in the extreme south of Paardekloof, rapidly increasing to a maximum thickness of 60 m. The average thickness of Layer 21 on Paardekloof, measured from 19 drillholes which penetrated the stratigraphic sequence, is 44.4 m. The average thickness of Layer 21 on Duikerskrans, measured from 29 drillholes which penetrated the stratigraphic sequence is 31.2 m.

A number of faults, with throws ranging from 10 m to 40 m, occur within the project area. A fault with a 100 m throw is known on Duikerskrans. These faults have been incorporated into the resource model, and are used to delineate fault-bounded domains.

Domains in a vertical sense were defined on observable characteristics of the magnetite layer. Three geological environments were used to define the estimation domains. These environments are:

- Eluvial
- Weathered (the upper 2.5 m of which is enriched)
- Fresh (this can be further subdivided visually into massive and disseminated).

For estimation purposes three domains were defined. These included:

- Eluvial and enriched weathered material
- Weathered (excluding the enriched portion)
- Fresh.

There was no sub-domaining within the fresh material as vertical grade trends were addressed in the estimation parameters used.

## 4 Details of audit

The following tabulation (Table 4.1) details the items reviewed by Snowden and provides commentary where necessary.

Table 4.1 Mineral Resource - items for consideration

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
<b>Data collection - drilling</b>	
<p>Flowsheets or procedure manuals exist, match current procedures, and are presented</p> <p>Appropriateness of drilling method and hole size with reference to resource estimation – justification for drilling pattern applied</p> <p>Survey methods (both collar and downhole) and quality control checks</p> <p>Drilling type (diamond, RC, etc) and suitability to mineralisation and estimation purposes</p> <p>Drilling method versus sample quality for resource estimation purposes</p> <p>Measures to maximise recovery, evidence of records of RC and DDH recovery</p>	<p>Procedure manuals are not in place but the entire exploration programme was managed by the same team on the ground, ensuring consistency. Written procedures will ensure consistency for future drilling programmes</p> <p>Diamond drilling on a 300 m by 300 m drill grid spacing is considered appropriate for the known resource continuity</p> <p>Collar and downhole surveyed appropriately.</p> <p>Diamond drilling and core size consistent, and appropriate for the fresh material.</p> <p>Diamond drilling produced good quality core within the fresh material that was suitable for use in the planned resource estimation.</p> <p>Double tube drilling was unsuccessfully attempted to maximise the recovery within the weathered portions of the resource. These portions were subsequently sampled through trenching and pitting (deep trenching).</p>
<b>Data collection – sampling</b>	
<p>Sample collection procedures are consistent and repeatable</p> <p>Sample interval(s) related to mineralisation style(s) and geology, and are appropriate for resource estimation purposes</p> <p>Sample number assignment procedures logical and clear; exceptions (ie. redrills, lost sample) accounted for</p> <p>Sample spacing and orientation suitable for mineralisation boundaries and for resource estimate</p> <p>Nature and types of sample (half core, riffle split, wet, etc)</p>	<p>Half core samples are taken. Core is very well prepared prior to being split. Procedure is consistent but is not written down for future drilling and sampling programmes. This is recommended for future continuity.</p> <p>Samples are kept to 1m intervals regardless of geological contacts. This practice ensures good sample support during estimation and does still allow for geological domaining.</p> <p>All samples were numbered in a very clear, consistent manner where the basal contact is used as the datum for sample numbering.</p> <p>Yes, broad domains (in a vertical sense) were well defined by the sample spacing.</p> <p>Half core samples were taken.</p>

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
<p>Sample mass appropriate for particle size, mineral and grade of mineralisation</p> <p>Sample recovery recorded and assessed with respect to resource estimate</p> <p>Sampling error calculated and considered in field sampling procedures</p> <p>Core cutting orientation and rationale appropriate for resource estimate</p> <p>Quality control procedures (ie. field duplicates) for sub-sampling</p> <p>Core and chip storage processes and locations – retention of pulps and laboratory coarse rejects for the appropriate time periods</p>	<p>Half core samples are considered appropriate, in line with exploration projects in similar environments.</p> <p>Sample recoveries were recorded and do not affect the resource estimate in the fresh material. Diamond drill recoveries were too low for these results to be used in the estimation of the oxide material.</p> <p>Snowden is not aware of any sampling error calculations undertaken.</p> <p>Yes, well executed.</p> <p>Yes, field duplicates and in-house standards were used throughout the drilling programme.</p> <p>Good, secure core storage facilities on site. Pulps returned from the laboratory were also stored on site.</p>
<b>Data collection – mapping, channel sampling and broken ore sampling</b>	
<p>Underground and/or pit mapping procedures consistent and repeatable</p> <p>Mapping data incorporated into resource modelling</p> <p>All available and pertinent underground and pit exposures mapped if relevant to resource estimation</p> <p>Channel or face sampling mass is appropriate for mineralisation grade, grain size and degree of liberation</p> <p>Channel or face sampling procedures ensure repeatability and reliability of sample</p> <p>Survey procedures ensure accurate capture of origin and orientation of channel or face samples</p> <p>Chip sampling assessed for bias and support if used in same estimate as drill data</p>	<p>Pit mapping undertaken by the same geologist thus ensuring consistency.</p> <p>Structural information has been used to define the lateral domains.</p> <p>All trenches were mapped to improve understanding of the weathered resource.</p> <p>Trench samples were approximately 20 kg to 50 kg. This is deemed appropriate in terms of sample size.</p> <p>The same team collected all trench samples, although the procedure for this sample collection should be documented.</p> <p>Drillhole collars and trench positions were surveyed using differential GPS, although the exact location of the samples collected from the trench were not recorded.</p> <p>Duplicate samples were used to test bias, but no test was carried out to determine the sample support bias between trench and drillhole data. Snowden recommends that this test be undertaken.</p>

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
If broken ore sampling (draw point, stockpile) is used in resource estimation or reconciliation, procedures ensure repeatability and reliability	Written procedures for the sampling of pits were provided by Snowden.
<b>Data collection – assaying and QAQC</b>	
<p>Flowsheets or procedure manuals exist, match current procedures, and are presented</p> <p>Sample preparation and assaying are appropriate to the nature of the mineralisation and the size of the operation</p> <p>Regular sizing of pulp and coarse rejects undertaken and reported – anomalies are resolved</p> <p>Nature, quality and appropriateness of assaying procedures</p> <p>Checks are made to ensure that all QAQC sampling is spatially representative of mineralisation in the resource estimate</p> <p>Comprehensive program of insertion of standards and blanks</p> <p>Set of inserted standards includes material at the cut-off grade, average grade and at a higher than average grade as a minimum</p> <p>Standards include some certified material if in-house certified standards are used</p> <p>Standards are inserted appropriately and are disguised from the assay laboratories</p> <p>Blanks are preferably full volume and resemble mineralized material</p>	<p>Procedure manuals are not in place but the entire exploration programme was managed by the same team on the ground, ensuring consistency. Written procedures will ensure consistency for future sampling programmes.</p> <p>Snowden did not visit the laboratory to observe sample preparation. The use of XRF (fused disc) is considered appropriate for the nature of the mineralisation.</p> <p>Snowden is not aware of any regular sizing of coarse rejects and/or pulp rejects that was undertaken.</p> <p>XRF (fused disc) was used. This method is considered appropriate to the nature of the samples assayed.</p> <p>Standards are included at the end of each hole as a function of the sample numbering procedures. They are not representative vertically but they are inserted after the higher grade basal samples.</p> <p>Standards are included at the end of each hole.</p> <p>Two standards are used representing massive and disseminated magnetite. These in-house standards were developed from bulk samples taken at site.</p> <p>No certified reference material was included by Veremo. SARM12 was used internally by SGS. Snowden recommends that future programmes include at least one certified standard to supplement in-house standards used.</p> <p>Standards are in pulp form and cannot be hidden from core and weathered samples. Standards are also labelled with their respective code and are therefore not hidden from the laboratory. Snowden recommends that all standards be unlabelled and that pulp duplicates should also be included on a regular basis to ensure standards are less recognisable.</p> <p>Quartzite blanks are inserted at the end of each sample run and usually follow the highest grade basal samples.</p>

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
<p>Documentation and/or clear procedures exist to define QAQC anomalies and the action taken to resolve anomalies</p> <p>Precision - sample assay repeatability is documented and is acceptable</p> <p>Accuracy - standards assay data are acceptable/documentated</p> <p>An appropriate and representative selection of pulps, standards, and blanks are sent to a umpire or check laboratory</p>	<p>Snowden did not receive any written procedures, although action has been taken in cases where QAQC samples performed poorly. Snowden recommends that a clear policy outlining action to be taken at particular trigger levels be developed by Veremo.</p> <p>170 blind pulp duplicates (5% of the diamond drill samples) were resubmitted for analysis. With the exception of one or two outliers these duplicates returned good results.</p> <p>SARM 12 (A certified standard used internally by SGS) did not perform well, with Fe<sub>2</sub>O<sub>3</sub> results being under estimated. Performance of VS-MD and VS-MM was generally good.</p> <p>Twenty coarse rejects were submitted to a check laboratory. With the use of in-house standards, Snowden recommends that additional samples (including a number of the standards) be sent to an umpire laboratory.</p>
<b>Data collection - bulk density</b>	
<p>Flowsheets or procedure manuals exist, match current procedures, and are presented</p> <p>Determination of in situ bulk density takes place</p> <p>Techniques and appropriateness of density determination methods</p> <p>Allocation of density values in resource estimate are fully supported by actual measurements (historical if necessary)</p> <p>Sufficient determination of waste rock bulk densities for mine planning and scheduling purposes</p> <p>Density values are appropriately assigned to resource sample composites or on a domain-wide basis</p>	<p>Snowden did not receive any written procedures, although the same on-site team was responsible for data collection throughout the project. Snowden recommends written procedures are put in place for future data collection.</p> <p>Bulk density measurements were taken for each sample.</p> <p>The measurement in water and air technique for fresh and weathered material is appropriate, with much effort made to ensure representative density measurements were taken on the weathered ore.</p> <p>Yes.</p> <p>Limited density measurements were taken to determine global density values. This is not considered a problem at this stage, with the initial mining planned on the exposed, weathered magnetite material.</p> <p>Yes, density values for the fresh material were estimated from individual samples, with global density values assigned for the weathered material.</p>
<b>Data collection - geological and structural / geomechanical data</b>	
<p>Flowsheets or procedure manuals exist, match current procedures, and are presented</p>	<p>Snowden did not receive any written procedures, although the same on-site team was responsible for data collection throughout the project. Snowden recommends written procedures are put for future data collection.</p>

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
<p>Logging / mapping to a sufficient level of detail and consistency</p> <p>Use of standard geological parameter codes across entire site</p> <p>Geological and geomechanical logging procedures and activities take place in a timely manner with respect to estimation deadlines</p> <p>Mineragraphy and petrology undertaken to determine physical nature of mineralisation and impacts for processing (ie grindability, work index, mineral liberation)</p> <p>Data on oxidation and weathering is comprehensively recorded and available to estimators</p> <p>Core photography – preferably digital collection and retrieval</p> <p>Location and nature of water table and aquifers recorded</p>	<p>Consistent team used to ensure consistent logging.</p> <p>Logging first practised on old core, with standard geological parameters developed thereafter.</p> <p>Yes.</p> <p>Microscope and thin section analysis undertaken to physical nature of mineralisation. Metallurgical bulk samples used to confirm processing implications.</p> <p>Different layers well distinguished – drill hole depths recorded for each interval.</p> <p>Digital photographs were taken of all core.</p> <p>A number of drillholes have been drilled specifically to monitor the water table. These holes are monitored on a regular basis.</p>
<b>Data collection - data processing, validation, storage and retrieval</b>	
<p>Flowsheets or procedure manuals for data collection exist, match current procedures, and are presented</p> <p>Selection of appropriate database technology</p> <p>Database has appropriate levels of security and backup procedures</p> <p>Structure of the database for data accessibility</p> <p>Digital data capture and download wherever possible / minimal manual entry, and validation of manual entry</p> <p>Relationship of mine/local/national grid systems stated</p> <p>Incorporation and automation of data validation algorithms</p>	<p>Snowden did not receive any written procedures, although the same on-site team was responsible for data collection throughout the project. Snowden recommends written procedures are put in place for future data collection.</p> <p>Drillholes initially captured into Excel spreadsheets. This data is then collated into an Access database.</p> <p>The database was managed by Steve Savage and copies were provided to on-site personnel. Updates were provided directly by Steve Savage. This level of security is deemed appropriate whilst only one person controls all the data inputs. Security features will need to be developed should more people become involved.</p> <p>The access database is set up to allow easy access to data</p> <p>Laboratory assay results were imported into the database in electronic format. Manual entry was minimised where possible.</p> <p>Yes. The project used the LO27 system.</p> <p>Elementary automated validation checks are included in the database.</p>

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
<b>Mineral resource estimation – geological controls on mineralisation</b>	
<p>Resource estimate suits the deposit type and the nature of the mineralisation</p> <p>Grade behaviour at lithological, mineralogical, oxidation or structural contacts is incorporated in the models</p> <p>Weathering and oxidation has been considered in the resource model</p> <p>Style(s) of mineralisation are well known and are documented</p> <p>Rationale for assignment of estimation domains (ie mineralisation, weathering, grade, etc.) has been sufficiently justified and documented</p>	<p>Ordinary Kriging is suitable for the deposit style.</p> <p>Vertical and structural domaining has incorporated this.</p> <p>Yes (vertical domaining considered).</p> <p>Mineralogical work has documented this well.</p> <p>Geological characteristics and statistical analysis used to assign domains. This has been well justified and supported with graphs and photographs in the resource estimation report (November 2007).</p>
<b>Mineral resource estimation – grade and processing distribution characteristics</b>	
<p>All economic metals or deleterious elements considered in estimation</p> <p>Metal ratios and trends which affect estimation have been examined and documented</p> <p>Any metallurgical testing which has been used for modelling is representative of the range of ore types and grades to be processed</p>	<p>Fe, SiO<sub>2</sub>, TiO<sub>2</sub> and V<sub>2</sub>O<sub>5</sub> have been included in the resource estimate. These are the elements of primary concern in the processing of the material.</p> <p>Vertical trends in grade have been documented and the effect thereof limited in the estimation.</p> <p>Metallurgical test work has focussed on the weathered material, as initial mine plans focus on this material for the first 20 years at least. Limited test work has shown the viability of processing the fresh material.</p>
<b>Mineral resource estimation – generation of 3D resource model</b>	
<p>Flowsheets or procedure manuals for resource estimation exist, match current procedures, and are presented</p> <p>Nature of the data used and assumptions made regarding differing levels of data quality or support</p> <p>Level of data density is sufficient to support resource estimation</p>	<p>Snowden did not receive any written procedures, although the same consultant (S. Savage) was responsible for resource estimation throughout the project. Snowden recommends written procedures are put in place for future resource estimation.</p> <p>Drillhole and pit sampling data were treated in an equal manner.</p> <p>Yes.</p>

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
<p>Geological controls on mineralisation have been incorporated in modelling</p> <p>Scale and resolution of model is appropriate to capture grade and geological variability but is also appropriate for mine planning and reserve estimation</p> <p>Bulk density variations have been appropriately presented and modelled</p> <p>Consideration given to variability in geological controls on mineralisation</p> <p>Consideration given to variability in grade and processing characteristics</p> <p>All geological features including faults and intrusives modelled if appropriate to grade estimation</p>	<p>Geological controls on mineralisation (grade trends in particular) were controlled during the estimation rather than in the geological modelling. This is deemed more practical.</p> <p>The block sizes were considered appropriate for the average drillhole spacing, with block sizes not being smaller than half the drillhole spacing.</p> <p>Density values within the fresh material were estimated into individual blocks. Snowden considers the use of global bulk density values in the weathered and eluvial material as being acceptable.</p> <p>The estimation parameters used have effectively dealt with this.</p> <p>Weathered nature of much of the resource negates concerns regarding the processing of it. Bulk samples from a variety of positions further confirm this.</p> <p>Structural domains were created around large scale structural features.</p>
<b>Mineral resource estimation – composite length and univariate statistics</b>	
<p>Composite length determination / rationale / SMU considerations</p> <p>Statistical parameters documented by domain</p> <p>Minimum statistical parameters addressed:</p> <ul style="list-style-type: none"> <li>• No. samples, Mean, Range, Median, SD, CV, Variance</li> </ul> <p>Statistical plots presented, including frequency, cumulative probability, and bivariate scatter plots where appropriate</p> <p>Bias and support between different sample types assessed and presented as Q/Q plots</p>	<p>Compositing was not deemed necessary based on the consistency of the samples taken (all samples were 1 m except the final hangingwall sample).</p> <p>Yes – these are included in the resource estimation report (November 2007).</p> <p>Yes – these are included in the resource estimation report (November 2007).</p> <p>Yes – these are included in the resource estimation report where necessary (November 2007).</p> <p>Snowden recommends that Q/Q plots be developed to assess the impact of combining diamond drill samples with pit samples.</p>
<b>Mineral resource estimation – variography</b>	
<p>Rigorous and consistent development of variograms</p>	<p>Variograms were modelled for each element, with the sensitivity of the Fe variogram tested through adjusting a number of parameters (lag, tolerance etc.).</p>

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
<p>Realistic directions of continuity which match mineralisation or geological features where appropriate</p> <p>Realistic nugget variances and ranges applied</p> <p>Appropriate detail in the short range area via close spaced drilling where appropriate</p> <p>Documentation of each domain and use of fans for variogram display where appropriate</p>	<p>An isotropic variogram was modelled. This is deemed acceptable for the data density available and characteristics of individual variograms, although Snowden encourages estimation using continuity directions whenever possible. Variogram fans should be displayed to justify the use of an isotropic variogram.</p> <p>The nugget values are acceptable but the downhole variograms suggest that these could be even lower in a number of cases. As this variable plays a critical role in the assignment of weightings during Kriging, Snowden recommends that the nuggets be lowered to the levels indicated by the downhole variography.</p> <p>Little close spaced drilling was available.</p> <p>The enriched portion of the resource close to surface was estimated separately to the weathered and fresh resource, with separate variogram parameters used in each.</p>
<b>Mineral resource estimation – selection of an appropriate grade interpolation technique</b>	
<p>Justification for the estimation techniques applied presented and documented</p> <p>Appropriateness of the method to the mineralisation style and estimator experience</p> <p>Boundary conditions stated and supported</p> <p>Mining method assumptions as they impact resource estimate clearly documented</p>	<p>No justification for the use of Ordinary Kriging was presented, although Snowden considers this an appropriate estimation technique for the style of mineralisation.</p> <p>Yes.</p> <p>The resource model was extrapolated by 300 m (the average drilling width). Snowden considers an extrapolation of the resource model by half the drillhole spacing to be accepted best practice. Snowden recommends that future resource models be restricted to this degree of extrapolation.</p> <p>The nature of the weathered material with regard to processing application had a greater impact on the resource estimate than the mining method.</p>
<b>Mineral resource estimation – model generation and grade interpolation</b>	
<p>Block size determinations / sub-blocking and parent cell estimation issues / relationship to SMU and large panels (if appropriate)</p> <p>Support and justification for estimation parameters supplied - kriging neighbourhood analysis where appropriate</p>	<p>The SMU is expected to be smaller than the block size used. Snowden recommends that a grade control programme be planned and initiated prior to mining to develop smaller block sizes and enhance selectivity or identification of areas with potentially higher yields.</p> <p>A kriging neighbourhood analysis was not undertaken – the block sizes were determined primarily by the drillhole spacing.</p>

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
<p>Maximum distance of extrapolation from data points – clear justification of multiple pass estimation</p> <p>Sample declustering methods discussed / applied</p> <p>Dip and strike alignment of blocks in relation to domains</p> <p>Clear documentation of recoverable resource assumptions where applicable, including variance reduction factors and distribution assumptions</p>	<p>The resource model was extrapolated by 300 m (the average drilling width). Snowden considers an extrapolation of the resource model by half the drillhole spacing to be accepted best practice. Snowden recommends that future resource models be restricted to this degree of extrapolation.</p> <p>Snowden is not aware of any declustering used.</p> <p>Blocks were aligned north-south. This is deemed appropriate considering the magnetite layer strikes approximately north-south too.</p> <p>These assumptions are stated in the produced metallurgical reports in Veremo's possession. These reports were reviewed by Snowden.</p>
<b>Mineral resource estimation - model validation</b>	
<p>Validation against input data by domain and locally within domains</p> <p>Compare model data with sample data both visually and statistically</p> <p>Sensitivity /robustness of estimates to estimation methodology, top cuts, search parameters, and boundary assumptions</p> <p>Grade – tonnage curve(s) generated</p>	<p>A visual and global validation was undertaken. Results from the deep pits were also compared with the block estimates for those areas. These validations did not detect any major problems. Snowden recommends that northing and easting slices through the model be plotted, where sample grades and block grades are compared.</p> <p>Refer to comment above.</p> <p>No sensitivity analysis was applied to the estimate.</p> <p>No grade tonnage curves were generated.</p>
<b>Mineral resource estimation - resource categorisation and tabulation</b>	
<p>Cut off grade strategy for the resource and the quality of the assumptions applied</p> <p>Resource classification into confidence categories according to the SAMREC Code</p> <p>Mineral Inventories tabulated to the appropriate level of precision</p>	<p>A cut-off grade was not applied in the resource estimate, although a cut-off of 35% Fe does not change the resource statement and is not considered unrealistic considering the processing implications.</p> <p>Resource has been appropriately classified according to data density available in each domain and the associated confidence assigned to this.</p> <p>Tonnes should be reported as million tonnes (Mt) to one decimal place.</p>

<b>Mineral Resource Review – Veremo</b>	
<b>Item</b>	<b>Discussion</b>
Reporting of risks using a quantitative/or qualitative scheme and listing of any mitigation procedures	No reporting of risks was undertaken. This level of study is usually addressed during a feasibility study.
Resource categories consider geological and mineralisation continuity	Yes.
Resource categories consider reconciliation and historical data where appropriate	Yes, only five historical diamond drillholes were incorporated in the estimate.
Oxidation and weathering divisions reported separately where appropriate	Yes domaining clearly defined and estimation and reporting adheres to this.
Sensitivities to critical assumptions	No sensitivities were tested.
Statement and verification of competence of estimator or CP	A statement is required outlining the competence of the estimator and fulfilment of the requirements of a competent person as defined in the SAMREC Code.

## 5 Details of action items

### 5.1 Introduction

This section provides details on those areas reviewed which, in Snowden's opinion, need consideration. This section is not meant as a repetition of the table above, but aims to provide additional detail to some of the key issues highlighted.

### 5.2 Policies and procedures

The project team, comprising staff on site and consulting geologists, has remained unchanged throughout the recent drilling programme (since February 2006). This has ensured consistency in core logging, sampling, QAQC and database management. Snowden recommends that the policies and procedures followed during this period be documented to ensure that consistency can be maintained into the future, as it is unlikely that the same project team will be involved indefinitely.

Procedures regarding the QAQC policy need to outline the statistical analysis that should be undertaken as well as highlight the levels at which action would need to be followed up with the laboratory.

### 5.3 Data collection

Core sampling and storage are of a very high standard. Snowden recommends that the current policies implemented be documented and maintained. Snowden recommends that the exact position of samples taken from the trenches and pits be documented. A number of these trenches should also be used to take closely spaced samples (every 2 m) to obtain an improved understanding of the variability (nugget effect) within the eluvial/enriched weathered material.

With the combination of diamond drill and pit sampling information in the resource estimate it is imperative that any bias between the two sample support sizes be tested and documented to justify their combined use. With only 18 pits having been completed currently, results may not yet be conclusive, although testing for bias must continue as additional data is collected.

### 5.4 QAQC

It is Snowden's experience that regular visits to the laboratory are of great value and recommend that Veremo regularly visit the laboratory to view sample preparation procedures and discuss internal QAQC with the laboratory manager. These discussions should focus on the performance of internal laboratory standards against blind standards submitted by Veremo. Regular sizing of coarse and pulp material should also be discussed.

Snowden is aware of the cost and practical aspects of using the in-house developed standards for massive and disseminated magnetite material. To ensure the reliability of the in-house developed standards, Snowden recommends that one of two approaches, or a combination thereof, be followed:

- Ensure a more rigorous certification of the in-house standards through submission of numerous samples of the material to additional laboratories
- Include Certified Reference Material (CRM) with the in-house standards on a regular basis to confirm the reliability of results

The submission of standards should also be reviewed. Current practice is to submit labelled standards with diamond drill core or coarse material. This process ensures

that standards are easily recognisable in the laboratory. Snowden recommends that standards are submitted without labelling (other than the required sample number) and that pulp duplicates be submitted at a regular rate of 5% (1 pulp duplicate every 20 samples). In this way the standards (in pulp form) will resemble the pulp duplicates and ensure that the laboratory is unsure of the exact location or nature of the standards.

## 5.5 Resource estimation

Vertical trend is evident within the resource, with Fe grades generally increasing towards the base of the magnetite layer. This trend was considered during the estimation process, where the z-search direction was restricted to limit the influence of the trend on individual block estimates. This was a key process undertaken in the estimation and needs to be very clearly outlined in the resource report to ensure that readers and those responsible for later resource updates are aware of the procedure used.

Snowden placed much emphasis on the modelling of the nugget and close ranges of the variogram during the estimation process. It was Snowden's opinion that the nugget value was too high and that the weightings thus applied during the Kriging process were leading to an over-smoothing of the grade data. Although the nugget value was reduced for the final estimate, Snowden believes that it could have been reduced even further, to approximately 0.10% to 0.15% of the total population variance for Fe.

The emphasis on this close range variability is to highlight potential selectivity within the deposit once the project reaches the mining stage. Snowden understands that the metallurgical processes tested will be able to process ore across a range of grades, however, higher yields would be expected in higher grade ores. For this reason Snowden believes that it is important to define potential selectivity within the deposit. Additional work that will aid this understanding could include:

- Quantifying the relationship between grade and yield.
- Undertake, prior to mining, a grade control drilling/pitting programme that would cover the first year's production.
- Institute an ongoing grade control programme combined with regular in-pit mapping to define local variability.

Although an isotropic variogram was modelled, Snowden recommends that an anisotropic variogram be modelled wherever possible to ensure that modelled grade continuity matches that observed in the data.

Snowden also recommends that a Kriging Neighbourhood Analysis be undertaken to determine the optimal kriging parameters for estimation. Snowden also recommends that the resource model be extrapolated by no more than half the average drillhole spacing. This is considered best practice.

Visual and statistical validation checks of the resource model verses the input data were undertaken. More rigorous validation could be undertaken, particularly the inclusion of easting, northing and elevation slices through the model, for comparison of the input grades against estimated block grades.

## 5.6 Resource classification

A key aspect to resource classification is the reporting of a resource at a particular cut-off grade. Whilst this review has reported the resource at a cut-off, the resource estimation report (Savage, 2007a) needs to report at this cut-off.

## 6 References

- Brown, R. & Lee, C. (2007). The Stoffberg Magnetite Deposit – Part 1: Exploration, geology and geochemistry. 136pp internal report. Dated 11 April 2007.
- Savage, S. (2007a). The Stoffberg Magnetite Deposit – Part 1: Resource Estimation. 35pp internal report. Dated 26 November 2007.
- Savage, S. (2007b). Veremo Minerals (Pty) Ltd, Stoffberg Project Quality Control Standards and Controls Results. 43pp internal report. Dated 20 April 2007.
- Roux, M. (2007). Report and Data Review Update: Veremo Stoffberg Magnetite Deposit. 7pp internal letter. Dated 13 September 2007.
- Mintek External Report 4249 – Dated 10 July 2006.
- Mintek External Report “The Veremo Study – Two Phase Review” by David Hatfield. Dated July 2006.
- Mintek External Report 4478 – Dated 4 December 2006.
- Mintek External Report 4727 – Dated 28 August 2007.
- Mintek External Report 4729 – Dated 28 August 2007.