



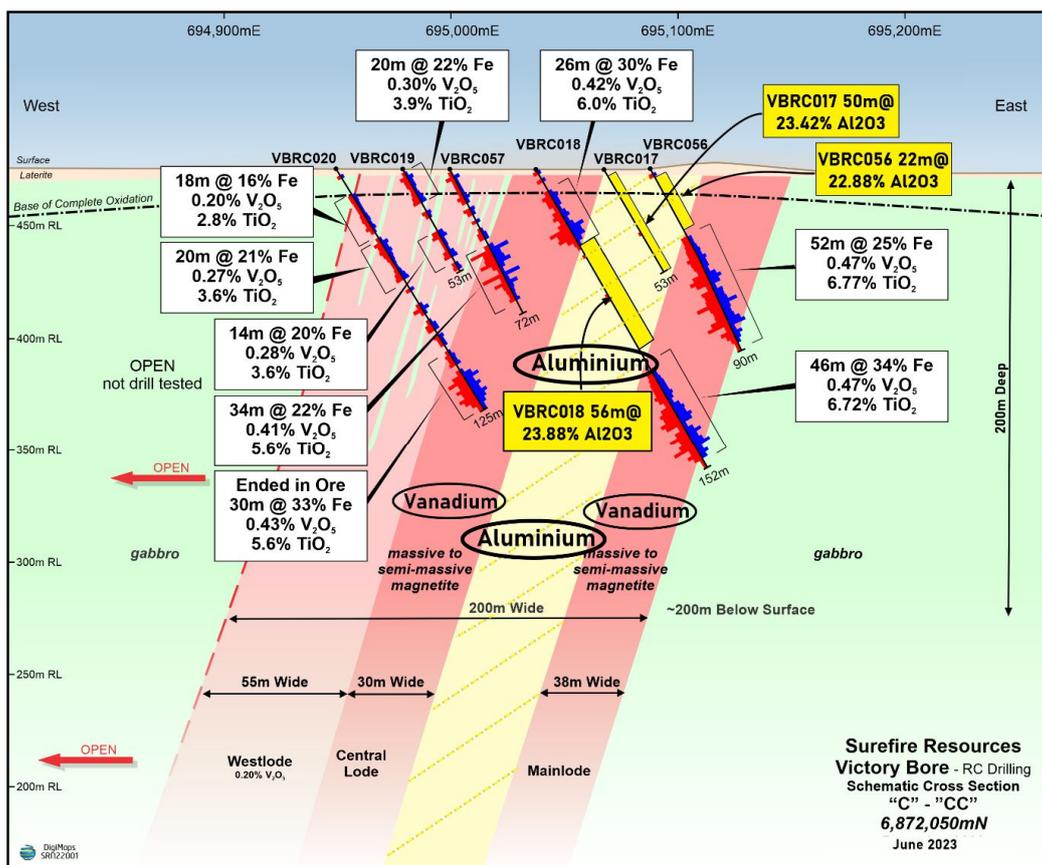
## MAIDEN MINERAL RESOURCE ESTIMATE OF 38Mt ALUMINIUM OXIDE AT VICTORY BORE PROJECT

◆ Reverse Circulation (RC) drilling campaign completed in December 2022 totalling 62 holes for 5,189 meters (see ASX release 15 December 2022) has delineated:

- A Maiden Victory Bore **Aluminium (Al<sub>2</sub>O<sub>3</sub>)** Mineral Resource Estimate.
- At Surface, Continuous & Wide High Grade Aluminium Oxide (Al<sub>2</sub>O<sub>3</sub>).
- Located Between Wide High Grade Vanadium Lodes – Main Lode & Central Lode.

<b>Measured</b>	<b>5.2 Mt @ 23.1% Al<sub>2</sub>O<sub>3</sub></b>
<b>Indicated</b>	<b>11.8 Mt @ 23.1% Al<sub>2</sub>O<sub>3</sub></b>
<b>Inferred</b>	<b>20.7 Mt @ 23.5% Al<sub>2</sub>O<sub>3</sub></b>
<b>Total</b>	<b>37.7 Mt @ 23.3% Al<sub>2</sub>O<sub>3</sub></b>

(Note: Numbers might not add up due to rounding errors. Victory Bore aluminium resource based on a 22% Al<sub>2</sub>O<sub>3</sub> cut-off. Estimation by HGMC using ordinary kriging)



**Figure 1** Victory Bore Project Cross section 6.873,050mN – displaying a width 200m of Aluminium and Vanadium mineralisation, drilling results and central location of the Aluminium resource compared to the Vanadium resource.

**Surefire Resources NL** (“**Surefire**” or “the **Company**”) is pleased to advise a maiden resource of Aluminium Oxide at the company’s 100% owned Victory Bore Vanadium Project located 350km from Perth and 400km from the Geraldton port. The resource estimation has increased the value of the Victory Bore Project in preparation for an economic Pre-Feasibility Study assessment due to be completed in November of 2023.

Note: This Aluminium resource estimation is in addition to the current **Victory Bore Project Vanadium mineral resource** estimate (see ASX release 1 February 2023) of **321Mt @ 0.40% V<sub>2</sub>O<sub>5</sub>** consisting of:

Victory Bore Measured:	16.8 Mt @ 0.42% V <sub>2</sub> O <sub>5</sub>
Victory Bore Indicated:	70.3 Mt @ 0.40% V <sub>2</sub> O <sub>5</sub>
Victory Bore Inferred:	147.7 Mt @ 0.38% V <sub>2</sub> O <sub>5</sub>
<b>Total</b>	<b>234.8 Mt @ 0.39% V<sub>2</sub>O<sub>5</sub></b>

(Note: Numbers might not add up due to rounding errors. Victory Bore aluminium resource based on a 22.% Al<sub>2</sub>O<sub>3</sub> cut-off. Estimation by HGMC using ordinary kriging)

### High Purity Alumina (HPA) Production potential

The maiden resource estimate has **17Mt @ 23.1% Al<sub>2</sub>O<sub>3</sub>** of a near surface measured and indicated component. Potential future mining at Victory Bore will likely produce minimum quantities of waste as vanadium and aluminium ores are mutually exclusive in the deposit. Magnetic beneficiation can remove the aluminium from the magnetite and conversely remove the magnetite from the aluminium.

### Pre-Feasibility Study (PFS)

The Company is currently undertaking a Prefeasibility Study on the Victory Bore Vanadium Project. The Company is also undertaking test work to extract 4N HPA from the Victory Bore feedstock ( see ASX announcement 21 March 2023). Results of this testwork to date are encouraging and the next phase will determine the grade and processing options. The Company will then assess this for inclusion into the Pre-Feasibility Study on the Victory Bore Vanadium Project.

Initial test work, including leaching and concentration of liquor, has been completed. To date Aluminium Chloride Hexahydrate (ACH) has been produced from the leachate. Following recrystallization, ACH was analysed as being 99.8% purity.

Lava Blue is now assessing contaminant control strategies and plans to produce 4N HPA samples following the next phase of test work.

'Class'	TONNES	Al <sub>2</sub> O <sub>3</sub>	V <sub>2</sub> O <sub>5</sub>	TiO <sub>2</sub>	Fe	Co	CrO <sub>2</sub>	SiO <sub>2</sub>	Cu	Ni	Loi	CUTOFF
	Mt	%	%	%	%	%	%	%	%	%	%	Al <sub>2</sub> O <sub>3</sub> %
<b>Measured</b>	<b>5.2</b>	<b>23.1</b>	0.1	1.7	6.9	0.01	0.01	47.26	0.01	0.02	0.78	22.00
<b>Indicated</b>	<b>11.8</b>	<b>23.1</b>	0.1	1.8	7.0	0.01	0.01	46.88	0.01	0.02	0.53	22.00
<b>Inferred</b>	<b>20.7</b>	<b>23.5</b>	0.1	1.6	6.4	0.00	0.01	47.06	0.01	0.01	0.33	22.00
<b>Total</b>	<b>38.0</b>	<b>23.3</b>	0.1	1.7	6.7	0.01	0.01	47.03	0.01	0.01	0.45	22.00

**Table 1** Victory Bore Aluminium Resource Estimation Table of results (compliant with JORC 2012 reporting criteria)



# Victory Bore

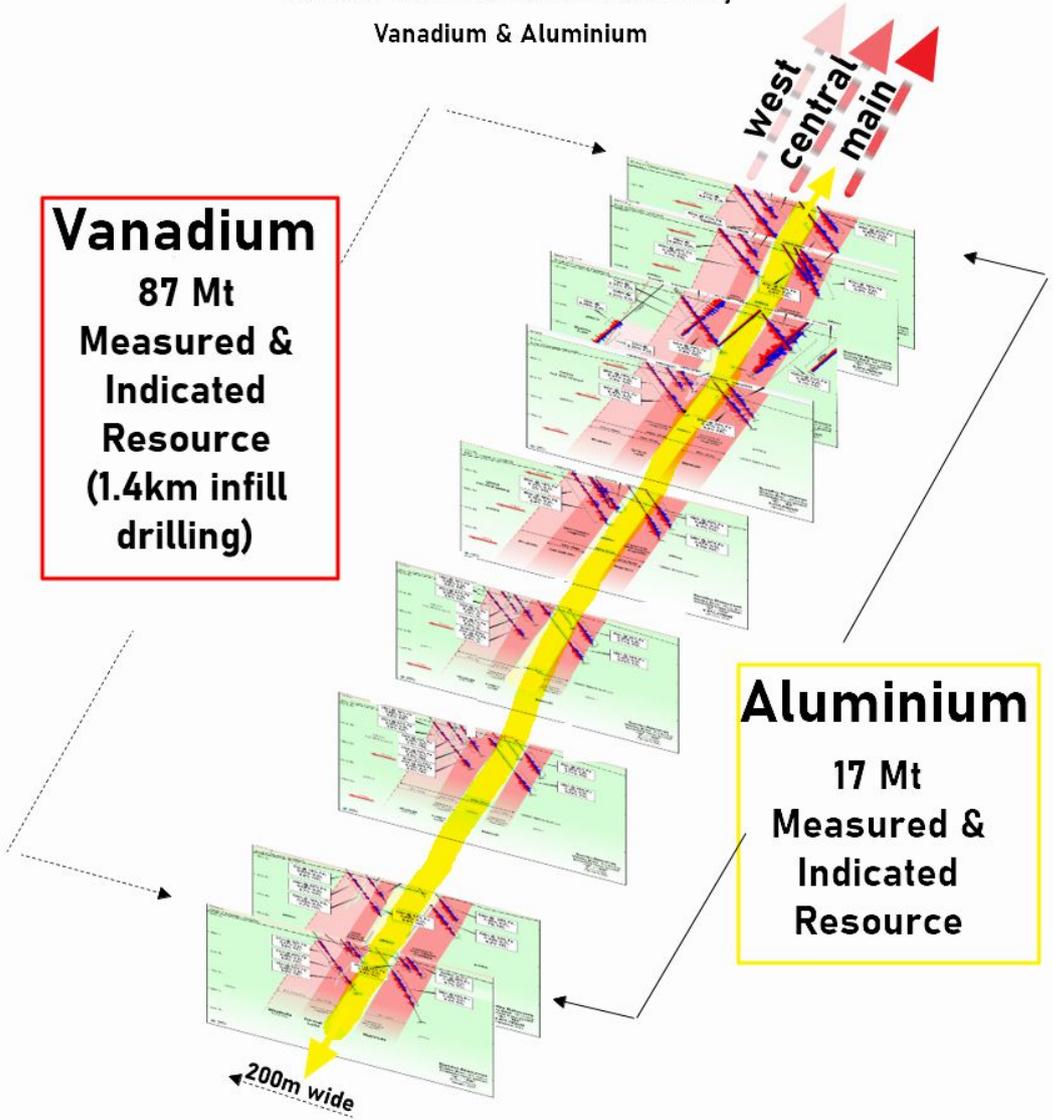
Schematic Stacked Cross Sections  
Massive Widths & Excellent Continuity  
Vanadium & Aluminium



open

**Vanadium**  
87 Mt  
Measured &  
Indicated  
Resource  
(1.4km infill  
drilling)

**Aluminium**  
17 Mt  
Measured &  
Indicated  
Resource

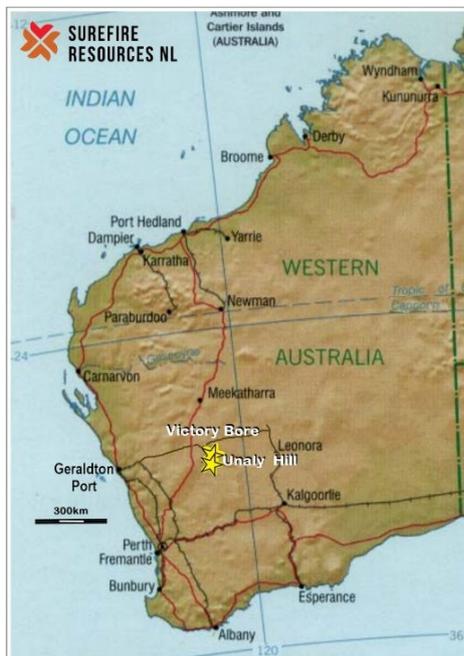


west  
central  
main  
open

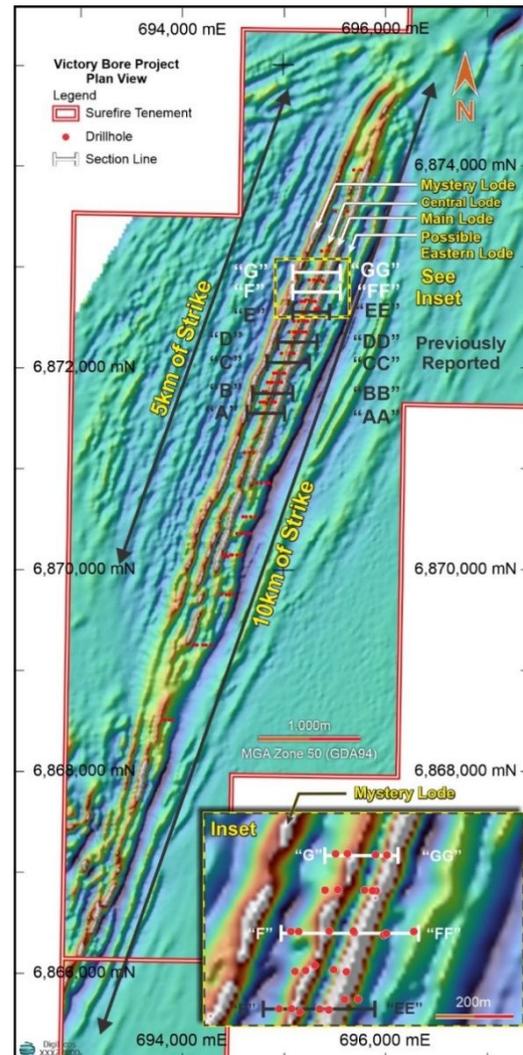


575m

to scale



**Figure 2** Surefire Resources Victory Bore Project Ideally located near a central transport corridor.



**Figure 3** Aeromagnetic data @ 50m elevation featuring:

- **Vanadiferous Lodes: Mystery Lode, Main Lode, Central Lode, Possible Eastern Lodes**
- **Cross Section C - Figure 1 Location diagram**
- **1.4km Resource drill-out (ASX 15<sup>th</sup> 12<sup>th</sup> 2022), 5km of main Vanadiferous strike, 10km of total Vanadiferous strike (tenement E57/1036).**

The Victory Bore Project, which combines both the Victory Bore & Unaly Hill prospects, has a total strike length of 18km.

### Expected High Purity Alumina (HPA) Demand

**High Purity Alumina (HPA)** – a type of aluminium oxide at 99.99 % purity – is a high value critical mineral that is important for the industrial sector, given its use in creating synthetic sapphire crystals used in LED lights, semiconductors, watch faces and smartphones.

However, it is also seeing greater use to coat the separators that keep the cathodes and anodes in lithium-ion batteries apart, which has been found to significantly improve safety by providing greater thermal stability and reducing the risk of batteries catching fire, as well as significantly improving impedance, which allows for high power capability. It also improves battery life and lowers self-

discharge. Each EV battery uses from 5kg to 30kg of 4HPA in automotive batteries, depending on the size of the batteries. This use of the material has the potential to quickly outstrip demand from other applications.

EV (electric vehicle) batteries already account for about 20 per cent of current HPA production – and that is likely to grow further. According to Business Research Insight, sales of ceramic (HPA) coated separators totalled about \$US1.6 billion in 2021 and are forecast to grow at a 25 per cent compound annual growth rate to \$US7.8 billion by 2028. This growth is rapid enough that some commentators have indicated that even if every planned HPA project comes online, there will not be enough supply to meet estimated demand over the next decade and beyond. *(Source – Stockhead - compiled by Bevis Yeo, June 6, 2023)*

### **Summary of Resource Estimate and Reporting Criteria**

As per ASX Listing Rule 5.8.1 and the 2012 JORC reporting guidelines, a summary of material information used to estimate the Mineral Resource is detailed below, (for more detail please refer to JORC Code 2012 Sections 1, 2, and Section 3 appended to this announcement).

### **Geology and Geological Interpretation**

The Company's Victory Bore Project is located 35km south-west of the town of Sandstone in Western Australia, is interpreted to be a layered intrusive body, similar to the majority of vanadium projects globally where vanadium is contained within Vanado-Titaniferous-Magnetite.

The Aluminium is contained in close proximity to the Anorthosite previously logged as the gabbro groundmass surrounding the magnetite.

Anorthosite is an igneous, or meta igneous rock, whose origins are not well understood. It is characterized by plagioclase feldspar (90–100%) with a minimal mafic component (0–10%) consisting of additional pyroxene, ilmenite, and olivine. The average strike of the mineralisation is a very consistent 020° azimuth and dipping at a consistent -75° to the west.

A typical cross section through the resource model displaying the Aluminium mineralisation is shown in Figure 1. The currently drilled Aluminium mineralisation is located between the basal - Main Lode (vanadium) and the central - Central Lode (vanadium) and is highlighted in yellow on figures 1 & 2. The vanadium mineralisation is highlighted in red on figures 1 & 2.

### **Drilling Techniques and Hole Spacing**

A total of 46 holes were used for modelling of the Anorthosite lithology (Aluminium). A total of 136 drill holes totalling 11,800m were used for vanadium modelling. This total is comprised of both historical and recent infill drilling. The 136-hole total is comprised of 132 X 140mm face sampling RC holes for 11,108m and 4 HQ sized diamond drillholes for 692m. The drilling is predominantly drilled from west to east and angled perpendicular to the mineralised strike (azimuth 020). RC sampling was collected from the cyclone and riffle split to both 1 and 2m composites for assay.

### **Sampling, Sub-Sampling and Analysis Techniques**

RC drilling was sampled at one and two metre intervals. A total of two HQ size diamond holes were drilled for Vanadium and Aluminium metallurgical test work, work index analysis, but have not been sampled for assay analysis as they will be required as whole core for a metallurgy pilot study program.

RC drilling samples were collected at one metre and two metre intervals and passed through a riffle splitter to obtain nominal 1.5-3kg sized samples.

The split samples were collected in pre-numbered calico sample bags. The samples were dried, crushed and pulverised to produce a laboratory analysis using XRF and total LOI by thermo-gravimetric analysis. Field duplicates, standards and blanks were inserted into the sampling stream at a rate of nominally 1:20 for blanks, 1:20 for standards (including internal laboratory), 1:40 for field duplicates, 1:20 for laboratory checks standards and blanks.

### **Estimation Methodology**

HGMC completed Ordinary Kriged estimates for  $V_2O_5$  and  $Al_2O_3$ . Associated preliminary spatial distribution estimation work for the  $TiO_2$ ,  $Fe_2O_3$ ,  $SiO_2$ ,  $Cr_2O_3$ , Co and P analytical data was completed using Ordinary Kriging.

Potential top-cuts were checked by completing an outlier analysis, but in this instance, no top-cutting was required however an interpolation restriction of 40m was applied for composites above the ~99<sup>th</sup> percentile population level (at 0.96%  $V_2O_5$ ) (at 25.5%  $Al_2O_3$ ). Grade is estimated into regular blocks with dimensions of 20mN, 5mE and 5mRL.

### **Classification Criteria**

The estimate is classified according to the guidelines of the 2012 JORC Code as Measured, Indicated and Inferred Mineral Resource. The classification has taken into account the relative confidence in tonnage and grade estimations, the reliability of the input data derived during interpolation such as distance of nearest composite to block, Number of composites within search ellipsoid during interpolation and local kriging variance. The Competent Person has used these parameters as part of the modifying factors used to assess the confidence in the continuity of geology and mineralization when arriving at the resource estimate. Other modifying factors considered were the quality, quantity and distribution of the drill hole and supporting input data. Also considered is the very good metallurgical processing recovery information thus far measured for the mineralized material tested at laboratory scale and in Davis Tube Recovery Testing and the Aluminium chloride hexahydrate ( $AlCl_3 \cdot 6H_2O$ ) extraction work carried out thus far by Lava Blue Ltd.

In applying the classification, Measured Mineral Resource has generally been restricted to the 0m to 100m portion where the drill hole line spacing is 100 mN and 25mE and where reliable grade continuity is observed in terms of the local variance estimates.

Indicated Mineral Resource is generally restricted to the areas where drill hole spacing is to 200m along strike and down dip.

The remainder of the modelled zones to the north and south of the Measured and Indicated Resource with supporting drilling, mapping and geophysical data have been classified as Inferred Mineral

Resource out to approximately 300m as modelled as the maximum range derived from semi-variograms along the mineralization strike direction. The classification applied relates to the global estimate of  $V_2O_5$ ,  $Al_2O_3$  and at the reported cut-off grades only. At different,  $V_2O_5$  grades and  $Al_2O_3$  grades, the cut-offs that may be applied and the classification scheme used may be subject to some small variation.

**Authorised for ASX release by:**

**Paul Burton**

**Managing Director**

**Competent Persons Statements:**

*The information in this report that relates to exploration results has been reviewed, compiled, and fairly represented by Mr Horst Prumm, a Member of the Australian Institute of Mining and Metallurgy ('AusIMM') and the Australian Institute of Geoscience ('AIG') and a fulltime employee of Prumm Corporation Pty Ltd. Mr Prumm has sufficient experience relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Prumm consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*

*The information in this report that relates to the Victory Bore Project Vanadium & Aluminium mineral resource estimations is based on work completed by Mr. Stephen Hyland, a Competent Person and Fellow of the AusIMM. Mr. Hyland is Principal Consultant Geologist with Hyland Geological and Mining Consultants (HGMC), who is a Fellow of the Australian Institute of Mining and Metallurgy and holds relevant qualifications and experience as a qualified person for public reporting according to the JORC Code in Australia. Mr Hyland is also a Qualified Person under the rules and requirements of the Canadian Reporting Instrument NI43-101. Mr Hyland consents to the inclusion in this report of the information in the form and context in which it appears.*

**Forward Looking Statements:**

*This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.*

**JORC Code, 2012 Edition:**  
**Section 1: Sampling Techniques and Data**  
*(Criteria in this section apply to all succeeding sections.)*

Criteria	Commentary
<b>Sampling Techniques</b>	<p>Reverse Circulation ("RC") drilling was carried out with an RCD250 drilling rig with a Deck mounted Sullair 1150/350 compressor coupled to a Sullair 1350/500 Auxiliary compressor and 2400cfm/950psi Air Research booster. Rig mounted sampling system with twin sample collection chambers and a Sandvik cone splitter. 4 ½ inch drill pipe with 5 inch face sampling hammer. The holes were drilled to 140mm diameter. Standard rig mounted sampling system was employed.</p> <p>Samples were taken from the collar (0m). Sampling was continuous to the end of hole depth. Each metre was geologically logged and assayed by hand-held XRF, assayed for mag sus. and recorded. Each metre was chip trayed and kept in storage. Drill collar positions were captured using a DGPS to 10mm accuracy.</p> <p>Each metre of samples was split with a three-tier riffle splitter mounted beneath the cyclone on the drill rig. Metre samples were collected in green mining bags and calico bags. Each metre was also sieved and collected in a chip tray for geological logging. Samples were composited to 2m manually using a 50% riffle splitter. The 2m composite samples were delivered to Nagrom Laboratories in Kelmscott by Surefire staff for assay of vanadium and multi-element assay.</p>
<b>Drilling techniques</b>	<p>62 X 140mm RC holes were drilled for a total of 5,189 metres. The Reverse circulation rig used a downhole hammer and face sampling button bit.</p> <p>Sample piles were recorded for each 6m rod. Rods were counted when pulled at the end of each hole. Given the relatively short hole length, no down hole surveying instruments were used.</p>
<b>Drill sample recovery</b>	<p>Geologist supervising the drilling program recorded each metre as it was drilled. Geological logs, samples logs, daily drill logs, and sample piles all recorded hole depths. No aberrations were found.</p> <p>All logs of sampling and drilling lengths matched.</p> <p>Each metre was recovered. No re-drilling was necessary. No biases were recorded.</p>
<b>Logging</b>	<p>Drill cuttings were geologically logged to the level of detail deemed appropriate for mineral exploration, with details entered into a geological database.</p> <p>Drilling logs record weathering, oxidation, mineralogy, colour, texture, structure accessory minerals sulphides and mineralisation. All logging is quantitative.</p> <p>The drill holes reported were logged in full.</p>
<b>Sub-sampling techniques and sample preparation</b>	<p>No core drilling carried out.</p> <p>Three tier riffle splitters were used to take one metre samples. Samples were combined to form 2m composites using a 50% riffle splitter.</p> <p>All samples were transported to the Nagrom sample preparation/assay laboratory Kelmscott. The sample preparation followed industry best practise. All samples pulverised to 75µm passing 85%.</p> <p>The external laboratory's QA/QC procedures involved the use of appropriate standards, duplicates and blanks which are inserted into sample batches at a frequency deemed appropriate for the exploration results.</p> <p>Sample size was approximately 2kg – 3kg in weight. Field duplicates, standards and blanks were inserted at a random rate of approximately 1 per 20 samples. Given the nature of this resource, the sample sizes are deemed appropriate.</p>

<b>Quality of assay data and laboratory tests</b>	<p>The analytical technique utilised the Nagrom KM-2209-064256 method for Al, Al<sub>2</sub>O<sub>3</sub> Co CoO Cr Cr<sub>2</sub>O<sub>3</sub> Cu CuO Fe Fe<sub>2</sub>O<sub>3</sub> Ni NiO P P<sub>2</sub>O<sub>5</sub> S SO<sub>3</sub> Si using Method XRF104 for result units as percentages. LOI used the TGA 002 method to percent units.</p> <p>The Laboratory has provided standards and QA/QC additional to that of Surefire. The external laboratory used maintains their own process of QA/QC using standards, and blanks. Review of the external laboratory quality QA/QC reports and Surefire external laboratory quality QA/QC reports has shown no sample preparation issues with acceptable levels of accuracy and precision and no bias in the analytical datasets.</p>
<b>Verification of sampling and assaying</b>	<p>The sampling techniques were reviewed in the field by an external consultant.</p> <p>No twinned holes were drilled.</p> <p>All data is recorded in specifically designed templates. Assay data was received in spreadsheets and downloaded into geological database.</p> <p>The analysis of Vanadium was provided by the laboratory as V and V<sub>2</sub>O<sub>5</sub>. No other adjustments were made to the data on receipt from the assay laboratory.</p>
<b>Location of Data Points</b>	<p>Initial drill hole collars were located with a Garman GPS. Final collar locations were located using a digital GPS, accuracy +/- 10mm.</p> <p>Drill hole location is reported using the GDA94_MGAz50 grid system.</p> <p>Drill hole collar was located by GPS. Elevation value is in AHD.</p>
<b>Data spacing and distribution</b>	<p>RC holes were drilled at approximately 25m across strike and 100m line spacings.</p> <p>The data spacing is considered sufficient to assume geological and grade continuity. It is expected that this drilling will allow the estimation of Inferred and Measured Mineral Resources.</p> <p>Samples were composited from 2m according to supervising geologist.</p>
<b>Orientation of data in relation to geological structure</b>	<p>The drill hole was angled perpendicular to the strike of the target horizon to achieve unbiased sampling of the target horizon.</p> <p>Drill intersections are not true widths.</p>
<b>Sample security</b>	<p>Chain of custody of samples was managed by the company and the laboratory. Logging and sampling were carried out in the field at the time of drilling.</p>
<b>Audits or reviews</b>	<p>Sample preparation followed industry best practice at the commercial laboratory facility. QA/QC of assay analyses shows there are no issues with sampling, analytical techniques or results.</p>

## Section 2: Reporting of Exploration Results

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

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<p>The exploration results in this report relate to Exploration Licence E57/1036. This EL is 100% owned by Surefire Resources NL and is currently a M in application - M57/656.</p> <p>Tenure in the form of Exploration Licences with standard 5-year expiry dates which may be renewed. There are no known impediments to obtaining a licence to operate in this area.</p>
<b>Exploration done by other parties</b>	<p>Previous regional exploration on the project was undertaken by the company and included, geophysical surveys, geochemical surveys, rock sampling and RC drilling. Historical geophysical surveys included an airborne (helicopter) magnetic survey. Geochemical surveys included soil sampling. A detailed assessment of the historic data is in progress. No significant issues with the data have been detected to-date.</p>

<b>Geology</b>	<p>The Project occurs within the Atley Igneous Complex in the East Murchison Mineral field of Western Australia. The Atley Intrusion is an Anorthosite body that is elongate in an NNE/SSW orientation and runs along the axis of the regional scale Youanmi Fault, a regionally dominant geological feature. Further drilling and assaying is required to fully assess the geology and style of mineralisation.</p> <p>Mineralogy and petrology studies completed suggest that host rocks at Unaly Hill are historical magnetite layers within intrusive Anorthosite, gabbro and ultra mafics. The targeted deposit type and style of mineralisation is a Fe-Ti-V magnetite system.</p>
<b>Drill hole Information</b>	Refer to Table 1 of this report where drill hole collar and downhole orientation and depth information is tabulated. No information has been excluded.
<b>Data aggregation methods</b>	<p>Where assays were composited for summary purposes, all assays were weighted by drill interval. No high-grade cuts have been applied to the sample data reported.</p> <p>Where assays were composited for summary purposes, all assays were weighted by drill interval.</p> <p>No metal equivalent values are used</p>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>The orientation of mineralization relative to the drill hole is depicted in figures. Drill intersections are not true widths.</p> <p>All drill hole results reported are downhole length, true widths are approximately 82.6% of the down hole widths.</p> <p>All drill hole results reported are downhole length, true widths are shown on figure 3 and in the text.</p>
<b>Diagrams</b>	Appropriate diagrams are included in the main body of this report.
<b>Balanced Reporting</b>	Reporting of the drill results is considered balanced.
<b>Other substantive exploration data</b>	No additional meaningful and material exploration data has been excluded from this report.
<b>Further work</b>	Resource estimation and a prefeasibility work is planned for the Project which may require additional RC percussion and/or diamond drilling to be undertaken.

### Section 3: Estimation and Reporting of Mineral Resources

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

Criteria	Commentary
<b>Database integrity</b>	<p>The drill hole database is maintained by Surefire Resources NL</p> <p>The Competent Person has verified the internal referential integrity of the database. In total 136 drill-holes were available to assist with resource model development.</p> <p>Some historic drill holes required verification of location and elevation and adjusted to known and relatively flat topographic surface.</p> <p>No other significant errors or concerns were encountered.</p>
<b>Site visits</b>	<p>A site visit has not yet been undertaken to the specific Victory Bore location by the Competent Person responsible for the resource estimation. The competent person has visited the very near vicinity of Victory Bore in the past and is very familiar with the general terrain. The Competent Person has also relied upon reports from different personnel including Surefire representatives that have visited and worked at the Victory Bore deposit location. The site is at a very early stage of development with limited features currently observable.</p>

<p><b>Geological interpretation</b></p>	<p>Some mapping , geomagnetic surveys and subsequent geologic interpretation has been carried out to capture both the geological and structural information used to guide resource modelling at Victory Bore. A precursor interpreted structural mapping study carried out by Surefire Resources NL shows a clear relationship between observable strong linear magnetic anomalies and Vanadium mineralization. Mineralization modelling has been guided by the combined geological and structural information as is currently available.</p> <p>Mineralisation envelopes were interpreted in E-W and plan (bench) section slices using all available drill hole data. A nominal 0.1-0.0.15% V<sub>2</sub>O<sub>5</sub> edge lower cut-off was initially used to delineate anomalous Vanadiferous mineralization.</p> <p>The high Al<sub>2</sub>O<sub>3</sub> mineralization zone was defined as the entire Anorthosite rock mass volume located between the high Vanadium Main and Central zones</p> <p>All the mineralization zones developed were also locally partially adjusted to capture and delineate the extends of mineralization in sub-optimally drilled areas.</p> <p>The mineralisation envelopes are contained within a reasonably scaled, interpreted geological and structurally mapped package that is confirmed to correlate with the majority of samples / observed V<sub>2</sub>O<sub>5</sub> &amp; Al<sub>2</sub>O<sub>3</sub> mineralization.</p>
<p><b>Dimensions</b></p>	<p>The majority of the geologically interpreted Victory Bore mineralised occurrence has an approximate 7200m strike length.</p> <p>The mineralisation interpreted width ranges from approximately 30 m to 150 m depending on the zone observed. Mineralization in the majority of the deposit area extends and has been modelled to a depth of approximately 250 m below topographic surface. The High Al<sub>2</sub>O<sub>3</sub> domain was defined over a total strike length of 3350m and extends approximately 200m from topographic surface .</p> <p>Mineralisation has been modelled commencing immediately below current topographic surface.</p>
<p><b>Estimation and modelling techniques</b></p>	<p>All available RC drilling data was used to build the mineralisation model and for guiding Mineral Resource estimation. Recent verification RC drilling carried out by Surefire has also enabled some of the estimated resources to be assigned a higher level of resource estimation confidence and therefore higher level of resource reporting classification.</p> <p>Surefire has acquired new assay information from recent drilling programs. An updated drilling, geological logging and assay database was used to define and model the mineralised domains for Vanadium (V<sub>2</sub>O<sub>5</sub>%) and Aluminium (Al<sub>2</sub>O<sub>3</sub>%).</p> <p>The majority of drill collar positions have been surveyed. Newly drilled holes were accurately DGPS surveyed by Surefire. Some of the historic collar positions were adjusted according to Topographic DTM surface data. Some historical un-surveyed drill hole collar elevations were draped onto a ‘pre-mining’ topographic DTM surface and were checked in order to match the known surveyed drilling. The survey control for collar positions is considered adequate for the estimation of resources as stated.</p> <p>The mineralised domains were interpreted from the drilling data and Geomagnetic data provided by Surefire. Sets of cross-sectional 3D strings were generated throughout the deposit area in the E-W orientation. These were then used to interpret and connect to generate 3D wire-frames. The resulting V<sub>2</sub>O<sub>5</sub> mineralization wire-frame domain was then used for statistical analysis and grade estimation. The development of mineralization wire-frame was tightly controlled and not extended (extrapolated) beyond 1 average section spacing from the last drill-hole ‘point of observation’ but some extension was permitted where clear geomagnetic mapping data showed clear extensions of V<sub>2</sub>O<sub>5</sub> mineralization.</p> <p>A set of wire-frame weathering surfaces and broad material type wire-frames were also modelled to highlight the near surface highly weathered thin material as well as the underlying transitional material types. These material types were used to assign basic bulk density characteristics for the deposit.</p> <p>Spatial statistical analysis was carried out on the main V<sub>2</sub>O<sub>5</sub> assay data item. Sample data was composited to two (2) metre down-hole intervals initially based on the assayed V<sub>2</sub>O<sub>5</sub> item intervals. This also included equivalent compositing for the ancillary Fe, Al<sub>2</sub>O<sub>3</sub>, TiO<sub>2</sub>, SiO<sub>2</sub> and other minor items. The composite probability distributions were interrogated for each element to review localized average grades, composite ‘outlier’ values and related coefficient of variation levels.</p>

	<p>The main V<sub>2</sub>O<sub>5</sub> &amp; Al<sub>2</sub>O<sub>3</sub> composite item was used to generate both down-hole and where possible longer range between hole semi-variograms models to establish interpolation ranges and relative nugget and sill ratios used in Ordinary Kriging interpolation for block model grade assignment.</p> <p>One (1) block model was constructed for the total deposit area combining the basic lithology and mineralization modelling for the main V<sub>2</sub>O<sub>5</sub> item. The Block model was constructed using a 3D array of blocks with dimensions of using 5.0 m x 20.0 m x 5.0 m (E-W, N-S, Bench) block cells coded with the mineralisation wire-frames.</p> <p>The Block Model coordinate boundaries (GDA94 MGA Zone 50) are;</p> <p style="padding-left: 40px;">693100m E to 696400m E - (660 x 5 m blocks)</p> <p style="padding-left: 40px;">6867400m N to 6874700m N - (365 x 20 m blocks)</p> <p style="padding-left: 40px;">150 m RL to 480 m RL - (66 x 5.0 m benches)</p> <p>The Ordinary Kriging (OK) interpolation method was used for the estimation of the main V<sub>2</sub>O<sub>5</sub> &amp; Al<sub>2</sub>O<sub>3</sub> items using variogram parameters defined separately from the geostatistical analysis of each mineralization zone.</p> <p>The kriging interpolated grades for mineralization zone used different interpolation parameters as determined from an independent domain variography analysis. No extrapolation of grades outside the mineralization wire-frame was permitted. Min of 1 composite selected – Max of 24 composites within search ellipsoid. Max of 2 composites per hole allowed. Search ellipsoids based on Semi-Variograms Showing search ellipsoid ranges of approximately 300m (long), 150m (Down-Dip) and 20m (across) ranges. A minor outlier ‘distance of restriction’ approach was applied during the interpolation process for all items in selected domains in order to reduce the unwanted spatial influence of very high-grade outlier composite samples. The distance of restriction was set at 40m and with the grade threshold value set within an approximate the 99th to 99.5th percentile level.</p> <p>Dry Bulk Density (“density”) was initially assigned by mineralization domain with the designation of values assigned representing the average bulk density for each material type. This broad assignment was then overprinted by down-hole probe Bulk Density measurement data (consolidated to ~5100 measurements) composited and interpolated to block model using ‘Nearest Neighbour’ interpolation.</p>
<b>Moisture</b>	All tonnages are reported on a dry basis.
<b>Cut-off parameters</b>	A 0.3% V <sub>2</sub> O <sub>5</sub> lower cut-off has been applied to reported tonnes and grade. This cut-off is considered in line with current mineralization type, likely favourable processing route and the Vanadium price in conjunction with associated possibly recoverable beneficial elements such as TiO <sub>2</sub> and Al <sub>2</sub> O <sub>3</sub> .
<b>Mining factors or assumptions</b>	It is assumed the majority of the deposit will be mined using open pit mining methods as the deposit outcrops at surface. Detailed grade control will refine resource and expected reserve detail prior to any mining activity.
<b>Metallurgical factors or assumptions</b>	Some metallurgical recovery assumptions have not been considered for both the V <sub>2</sub> O <sub>5</sub> and Al <sub>2</sub> O <sub>3</sub> materials of main economic interest. Reasonable mineral recovery levels are expected for both the V <sub>2</sub> O <sub>5</sub> and Al <sub>2</sub> O <sub>3</sub> components through magnetic media separation based on an early-stage understanding of the likely metallurgical characteristics of the known mineral species observed. This assessment has been made by using available drill samples and preliminary laboratory bench scale concentrate recovery tests as well as some Davis Tube Recovery Tests showing initial good Vanadium concentrate recoveries. Recovery of Aluminium as Aluminium chloride hexahydrate has been preliminarily successfully demonstrated by Lava Blue Ltd
<b>Environmental factors or assumptions</b>	The resource is located in an area of historic mining. It is assumed no significant environmental factors would prevent activation of mining and related mineral processing activities.
<b>Bulk density</b>	<p>Dry Bulk Density (DBD) has been determined from a very large number of down-hole densitometer measurements taken as part of the recent Surefire drilling program.</p> <p>The bulk densities measured appear sufficiently variable considering the distribution of the mineralization zones and are deemed representative for the rock material and mineralization types described for the Victory Bore deposit.</p> <p>The density measurements have been averaged in deposit areas according to the geologically logged material type characterization where densitometer readings are not available. Locally where measurement data is available these have been interpolated locally into the block model.</p> <p>The bulk density values applied in the deposit are: Highly weathered zone = 2.22 – 2.34 t/m<sup>3</sup>, Transitional Zone = 2.57 -2.74 t/m<sup>3</sup> and Fresh / Sulphide Zone = 2.98 -3.42 t/m<sup>3</sup>. Locally the nearest neighbour assigned values can be both slightly higher and lower than the averages shown here.</p>

<b>Classification</b>	<p>The classification was considered appropriate on the basis of drill hole spacing, sample interval, geological interpretation, and representativeness of all available assay data.</p> <p>The classification criteria has also employed multiple ‘ancillary’ interpolation parameters including ‘distance of composite to model block’ (DIST1), ‘number of composite available within the search ellipsoid’ (COMP1) for each block interpolation and the local kriging variance’ (KERR1) for each block. The DIST1, COMP1 and KERR1 item values are ‘condensed into a ‘quality of estimate’ (QLTY) item.</p> <p>From the final QLTY item a 3D ‘consolidated’ Resource Category wireframe was developed. This was then applied to the RCAT Resource Reporting Item in the block model.</p> <p>Classification of the resources has been assigned by the Competent Person and includes a series of project specific ‘modifying factors’ appropriate for the Resource estimation.</p> <p>A small amount of Measured Resources is estimated with some Indicated Resources. The majority of mineralization is in outer more sparsely drilled zones being classified as Inferred. The Measured Resource component is restricted to some of the more densely drilled zones where reliable grade continuity is observed where local estimated variance is lowest. Also considered is the very good metallurgical processing recovery information thus far measured for the mineralized material tested at laboratory scale and in Davis Tube Recovery Testing.</p>
<b>Audits or reviews</b>	<p>The mineral Resource model and estimation has been internally reviewed by Surefire. No major concerns relating to the assumptions or estimation findings or classification issues have been identified.</p>
<b>Discussion of relative accuracy/ confidence</b>	<p>The Competent Person considers the mineral resource to be a robust and reliable global estimate of the contained V<sub>2</sub>O<sub>5</sub> and Al<sub>2</sub>O<sub>3</sub> as well as related mineralization components. The estimation has been constrained within defined mineralisation wire-frames.</p> <p>The Resource classification applied to the Resource reflects the Competent Person’s confidence in the estimate.</p>