For personal use only

Option to Acquire the Ashburton Gold Project

Highlights

- De Grey Mining Limited ("De Grey" or the "Company") has signed an exclusive Option Agreement ("Option") with Kalamazoo Resources ("KZR" or "Kalamazoo") to acquire KZR's Ashburton Gold Project ("Ashburton").
- Upfront $3M Option fee payable to KZR within five business days of Option execution.
- Ashburton consists of granted mining leases ("MLs") and exploration licences ("ELs"), including KZR's existing 1.44 million ounce gold Resource[1]. The exploration package covers 217km^2, is located 35km from Paraburdoo and 290km south of the Company's Hemi Gold Project ("Hemi"), with main roads connecting the two projects.
- The Option period is 12 to 18 months (at De Grey's election) with De Grey to commit $1 million minimum expenditure for exploration, testwork and studies as part of its due diligence ("DD") program on Ashburton. De Grey has established business development and studies teams separate to the Hemi Project development team to conduct DD on Ashburton.
- Exercise of the Option, at De Grey's election following or during the Option period, would result in payment of $15 million and an additional $15 million within 18 months of exercise. Payments can be made in cash or De Grey shares, at De Grey's election.
- Development studies undertaken by KZR and previous operators have highlighted the potential for Ashburton to produce a high-grade gold concentrate from processing open pit ore.
- Initial DD by De Grey indicates the potential to economically deliver concentrate at some future time from Ashburton to the proposed Hemi pressure oxidation ("POx") plant with a view to potentially increase Hemi's annual gold production rate and/or to extend Hemi's operational life.
- At a potential overall acquisition cost of under $25 per ounce gold, Ashburton represents an attractive opportunity for De Grey in consolidating Regional opportunities surrounding Hemi.
- Ashburton has previous production history on its granted mining leases and is in close proximity to potential support and services at the township of Paraburdoo.

Commenting on the Option Agreement, Managing Director Glenn Jardine said:

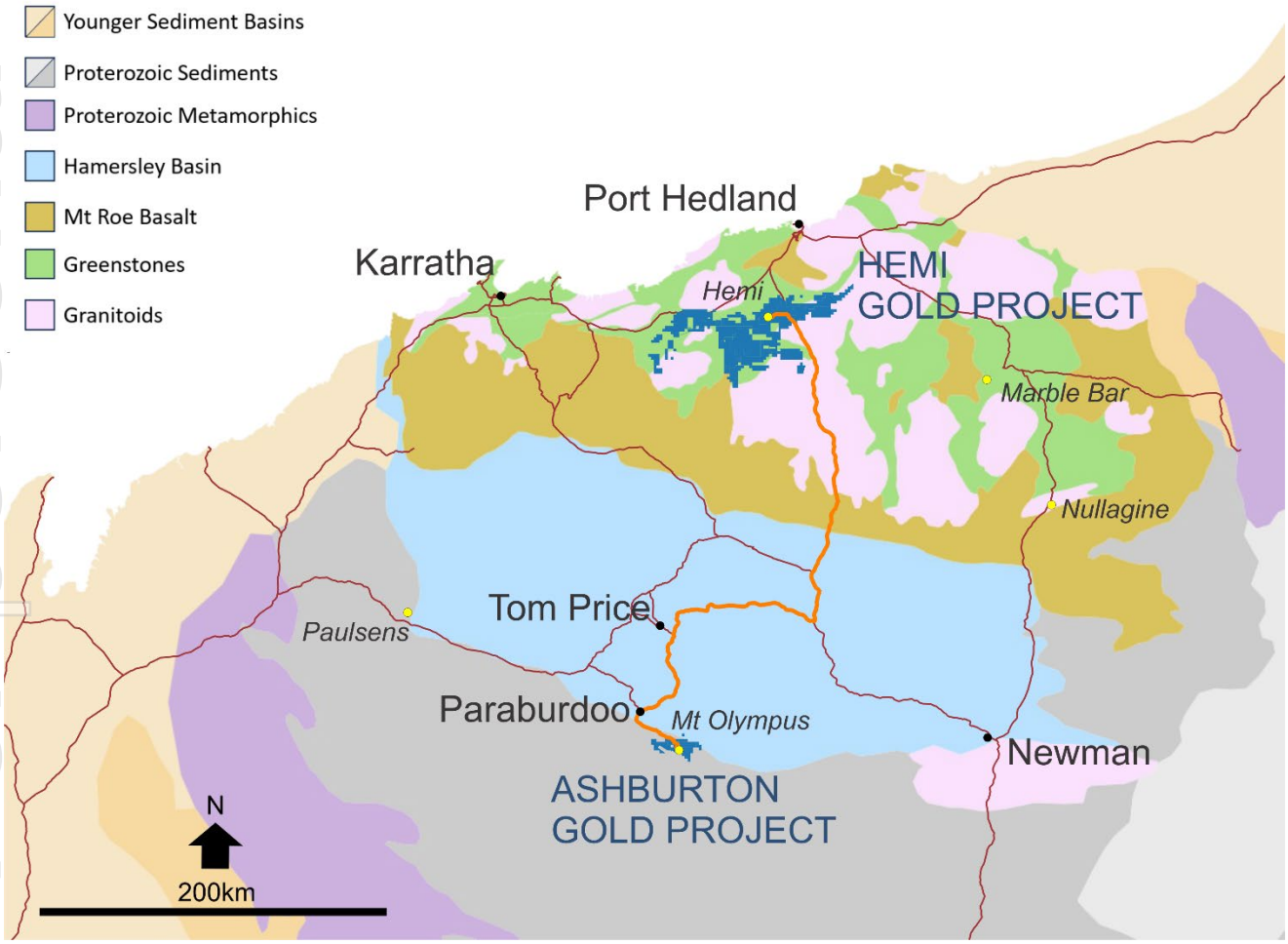
"*The proposed 10Mtpa gold plant at Hemi, including a 0.8Mtpa POx circuit, will be a Regionally strategic asset that provides the Company with the potential to treat gold ore and concentrates from other Regional gold Projects. This leverage has the potential to increase Hemi's annual gold production rate, economic returns and Project life.*

Ashburton's 1.44 million ounce resource is one of the largest unmined gold Resources in the Pilbara outside of Hemi. It has previous mining history, an extensive drilling database and development concept studies which indicate it may be complementary with our development strategy for Hemi.

The Company's current scoping study into its 2.2Moz Hemi Regional Resource is also consistent with this strategy. However, the potential development of additional production sources outside the Hemi deposits would occur only following the commencement of production and cashflow from Hemi itself."

De Grey Mining Limited (ASX: DEG, "De Grey" or the "Company") is pleased to advise it has entered into an Option Agreement ("Option Agreement") with Kalamazoo Resources Limited (ASX: KZR, "Kalamazoo") relating to the Ashburton Gold Project ("Ashburton") in the Pilbara region of Western Australia. Ashburton covers an area of 217km^2 and is located approximately 290km south of the Hemi Gold Project ("Hemi") (Figure 1).

Figure 1: Plan of Hemi Gold Project area (including the Egina Joint Venture) and the Ashburton Project area



[1] For full details on the Kalamazoo MRE for Ashburton, including JORC classification and Table 1 information, refer to Kalamazoo's ASX announcement dated 7 February 2023 and the disclosures in this announcement.

For personal use only

For personal use only

Ashburton Project Development Potential

Ashburton is an advanced exploration project with future development potential. Ashburton historically produced approximately 350,000 ounces of gold between 1998 – 2004[1]. This production reportedly came from 3.2Mt of oxide (and minor transition) ore at an average grade of 3.3g/t Au[1]. The majority of the gold came from the Mt Olympus deposit which produced 242,000oz of gold from 2.5Mt at an average grade of 3g/t Au, with a recovery of 92% and a strip ratio of 3:1[1].

Significant exploration infrastructure remains at site including a self-contained camp, drill core farm and supporting infrastructure. The gold processing facility at the site was sold in 2006, disassembled and transported to another site and site rehabilitation was completed in 2007.

In February 2023 Kalamazoo reported an independently reviewed JORC Mineral Resource Estimate ("MRE") for Ashburton of 16.2 million tonnes grading 2.8g/t Au for 1.44 million ounces[2]. The MRE is spread across five deposits – Mt Olympus, West Olympus, Zeus, Peake, and Waugh – with Mt Olympus accounting for 977,000 of the contained ounces.

For full details on the Kalamazoo MRE for Ashburton, including JORC classification and Table 1 information, refer to Kalamazoo's ASX announcement dated 7 February 2023 and the disclosure in this announcement.

De Grey intends to complete a detailed review of the MRE during the term of the Option.

Whilst the detail regarding the proportion of oxide and sulphide material has not been documented in the recent Resource statements released by Kalamazoo[2] or Northern Star[3], previous owners of the Ashburton Project, the bulk of the known Resources at Mt Olympus comprise fresh/sulphide materials which are reported to be refractory[3,4].

Previous owners and Kalamazoo have investigated an operating strategy focused on an initial free milling oxide development to de-risk the development of a long-life, high-grade sulphide operation. Work completed by Kalamazoo indicated that production of a high-grade gold in sulphide concentrate from the Mt Olympus represented the lowest capital-intensive and technically simplest form of production[5].

De Grey intends to assess in detail the potential at some point in the future of producing a high-grade sulphide concentrate from open pit mining at Ashburton and trucking the concentrate to Hemi for further processing in the proposed pressure oxidation ("POx") plant. This is a similar strategy being considered from areas of the current 2.2 million ounce MRE contained in the Regional Resources on De

[1] Refer to Northern Star ASX announcement dated 14 February 2011
[2] Refer to Kalamazoo ASX announcement dated 7th February 2023
[3] Refer to Northern Star ASX announcement, 22nd June 2020
[4] Refer to Sipa Resources International ASX Announcement, 29th September, 2003
[5] Refer to Kalamazoo Resources ASX announcement, 11th March, 2022

For personal use only

Grey tenements around Hemi. Any development of Ashburton would follow the development and commissioning of Hemi to leverage Hemi's operating cashflows.

If the outcomes of the assessment of the Ashburton Project are positive, then De Grey may have multiple development opportunities spanning the Regional Deposits around Hemi and at the Ashburton Project with which to optimise future capital deployment and gold production.

De Grey's planned initial work programmes comprise geological mapping and relogging to update the geological and structural model at Mt Olympus and drilling of twin holes to confirm grade and continuity from previous drilling. The drilling of metallurgical holes and associated testwork to assess the metallurgical characteristics of the mineralisation and its potential recoveries and performance within the Hemi processing circuit will also be an important component of the planned work programmes.

All Heritage Agreements at Ashburton are in place with Native Title parties. All five of the existing deposits are contained within granted Mining Leases. A pre-existing 1.75% royalty on gold production (excluding the first 250,000oz) is applicable across the Ashburton project area. In addition, the following pre-existing payments and royalties to previous owner Northern Star Resources Limited will be assumed by De Grey in the event it elects to exercise the Option:

- $5.0M on mining of the first 250,000 tonnes of Ore; and
- a 2% Net Smelter Return ("NSR") Royalty on the first 250,000oz of gold produced, with a 0.75% NSR Royalty on any subsequent gold produced from the tenements; and
- the same NSR Royalty will also apply on any other metals produced from the tenements.

Ashburton Tenements Prospectivity

The Ashburton Gold Project is located in the Ashburton Goldfields in the Southern Pilbara region of Western Australia. Within the project gold mineralisation is predominantly hosted in siltstones, sandstones, conglomerates and dolomites of the Mt McGrath Formation, adjacent to a fault system that dismembers the Diligence Dome which is large, regional scale antiform cored by the older Cheela Springs Basalt.

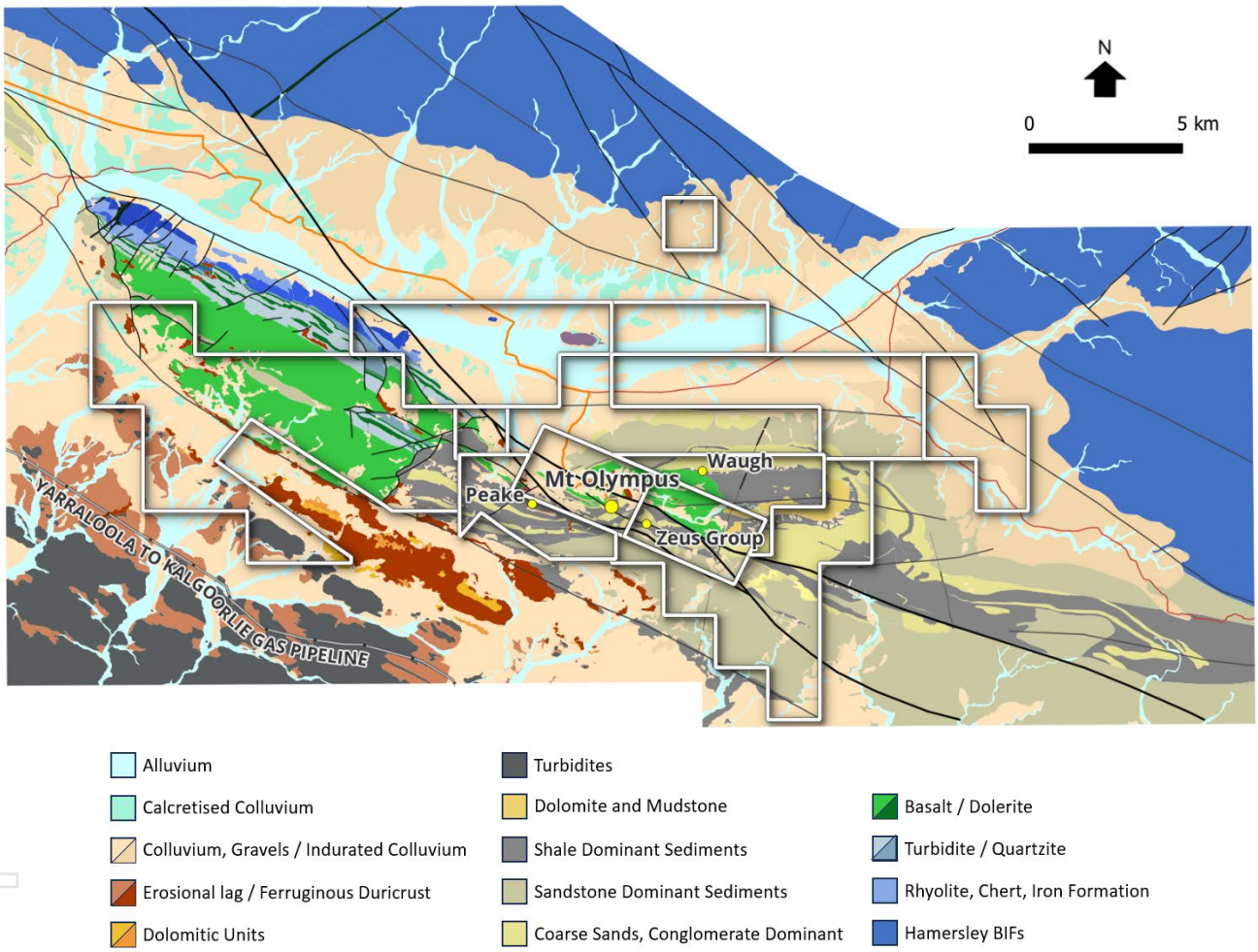
Around the Mt Olympus gold deposit the geological units predominantly dip to the south and the geology becomes complicated by folding and faulting east of Mt Olympus. The project is situated along an axis of a distinct southeast plunging antiform which has its southern limb truncated by a large sub-vertical NW-SE striking fault known as the Zoe Fault.

Gold mineralisation is focussed around the Zoe Fault and is structurally controlled, associated with minor sulphidic quartz veins and with zones of intense sulphides. Coarse grained, highly fractured pyrite (typically 5 to 15% of the rock) is the dominant sulphide with minor arsenopyrite and small amounts of chalcopyrite, digenite, covellite and tetrahedrite. Gold occurs as veinlets and blebs in the pyrite.

For personal use only

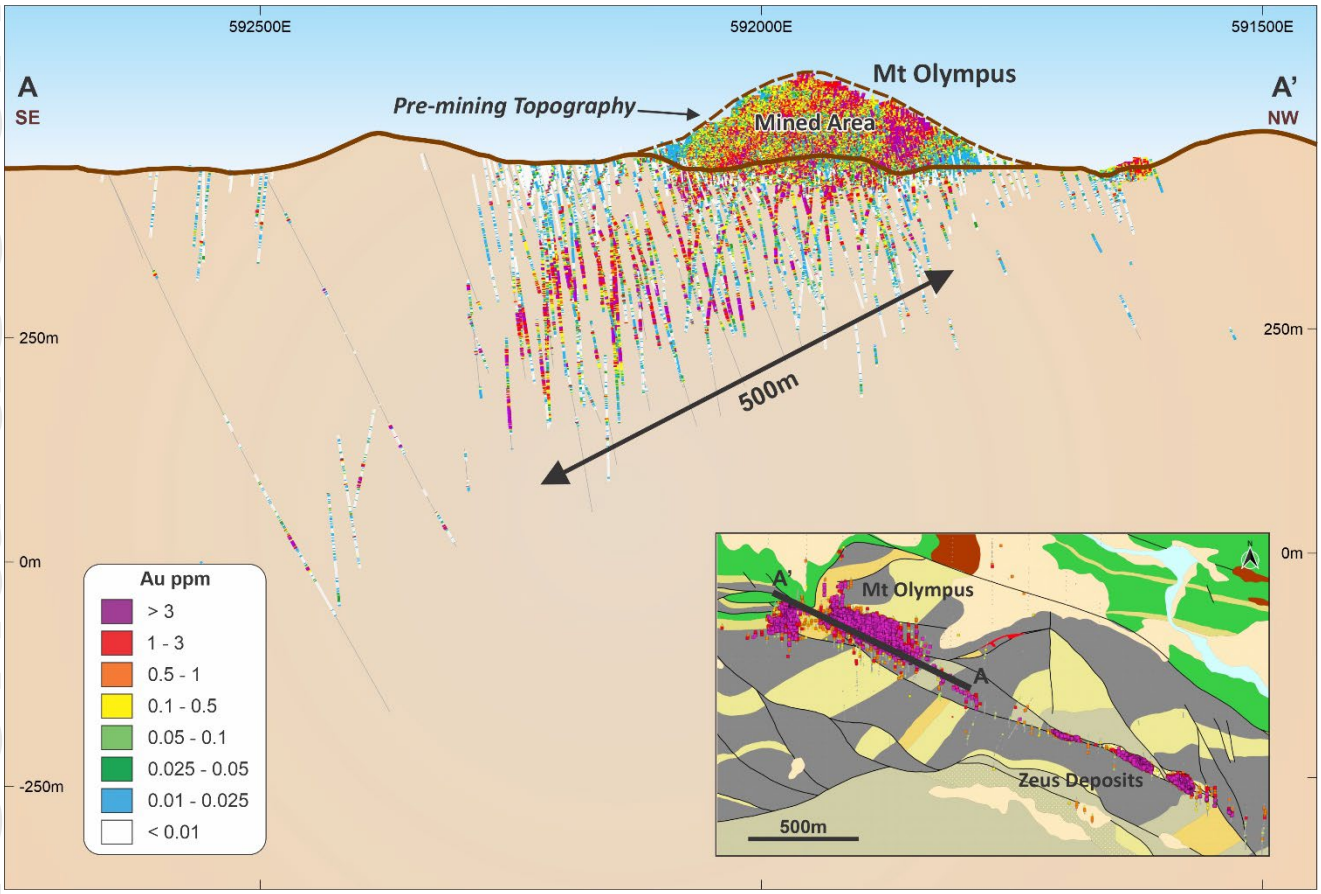
There is potential that further exploration across Ashburton could delineate a new discovery or new zones of gold mineralisation along strike of the known prospective structures, down-dip from the currently known deposits, in new structural targets that are structurally blind or hidden beneath recent cover.

Figure 2: Map of the Ashburton Project showing gold deposits, geology, key structures and tenements



For personal use only

Figure 3: Long Section of the Mt Olympus gold deposit (looking southwest) showing the extent and gold tenor of previous grade control and Resource drilling, current topographic surface and the previously mined portion of the deposit.



Key Terms of the Option Agreement

A summary of the key terms of the Ashburton Option Agreement include:

- De Grey has been granted an exclusive Option to acquire 100% of the Ashburton Project tenements held by Kalamazoo.
- The Ashburton tenements comprise Exploration Licences E47/4913, E47/4914, E52/1941, E52/3024, E52/3025 and E52/4052 and Mining Leases M52/639, M52/640, M52/734 and M52/735.
- De Grey is to pay a $3 million Option Fee to Kalamazoo within five business days of signing the Option.
- The Option Period is 12 months and is extendable by a further six months to a total of 18 months at De Grey's election.

For personal use only

- During the Option Period, De Grey will have sole and exclusive right to access and undertake exploration and due diligence activities at Ashburton including drilling and test work.
- During the Option Period, De Grey may exercise the Option to acquire Ashburton through the payment of $30 million in two tranches:
  - A payment of $15 million upon exercise of the Option
  - A payment of $15 million within 18 months of the date of exercise of the Option
  - The payments can be made in cash or De Grey shares at De Grey's election

If the Option is exercised, an agreement for the sale and purchase of the Ashburton Project tenements comes into force and effect ("Purchase Agreement"). Under the Purchase Agreement, completion will be five business days after this agreement becomes unconditional.

The Purchase Agreement is subject to standard conditions, including the receipt of Ministerial consent for the transfer of the relevant Mining Leases and Exploration Licence 52/4052, the assumption of obligations under the existing royalty agreements, a rehabilitation access agreement, a heritage agreement and the deferred consideration obligations owing to Northern Star (by entering into deeds of assumption or covenant as required), the consent of any and all caveators over any of the tenements and the consent of any and all mortgagees over any of the tenements to enable registration of the transfers in favour of the purchaser. The conditions must be satisfied or waived within 90 days after the Option is exercised, or a later date as the parties may agree in writing.

Next Steps

Entry into the Ashburton Project represents an important first step in De Grey's long term growth plans and emphasises the strategic importance of the Hemi pressure oxidation (POx) processing plant's utility in the potential treatment of refractory ore types within trucking and shipping distance of the plant and wharf facilities at Port Hedland.

Subject to completion of the Option Agreement, all previous geochemical, geophysical and drilling data at Ashburton will be consolidated for detailed review by De Grey to identify resource extension and exploration priorities. Preliminary drilling of initial targets will be undertaken in 2024. Development potential will be assessed in detail with a key focus on metallurgy, geotechnical studies and costs.

This announcement has been authorised for release by the De Grey Board.

For further information, please contact:

Glenn Jardine **Managing Director** +61 8 6117 9328 admin@degreymining.com.au	**Allan Kneeshaw** **General Manager, Business Development** +61 8 6117 9328 admin@degreymining.com.au	**Michael Vaughan** **(Media enquiries)** Fivemark Partners +61 422 602 720 michael.vaughan@fivemark.com.au

For personal use only

ADDITIONAL INFORMATION

Previously released ASX Material References – Ashburton (Gold) Project

Independent Mineral Resource Estimate Ashburton Gold Project, 24% Gold Grade Increase to 2.7g/t Au at Mt Olympus Deposit. Kalamazoo Resources ASX announcement, 7 February 2023

Excellent Metallurgy Results from Initial Flotation Test Work at Mt Olympus. Kalamazoo Resources ASX announcement, 11 March 2022.

Kalamazoo Acquires 1.65Moz Ashburton Gold Project from Northern Star. Kalamazoo Resources ASX announcement, 23 June 2020.

Northern Star Divests Ashburton Project. Northern Star Resources ASX announcement, 22 June 2020

Northern Star set for Further Production Growth as Reserves and Resources Jump +30%. Northern Star Resources ASX announcement, 30 June 2019.

Northern Star Acquires 668,000oz Ashburton Gold Project. Northern Star Resources ASX announcement, 14 February 2011.

Sipa Divests Ashburton Gold Project to Northern Star Resources Limited to Concentrate on Promising Core Assets. Sipa Resources ASX announcement, 14 February 2011.

Significant Upgrade to Identified Mineral Resource Statement. Sipa Resources International ASX Announcement, 29 September 2003.

Kalamazoo Resources' 2023 Mineral Resource Estimate for the Ashburton Gold Project (February 2023)

Table 1: Mineral Resource Estimate for the Ashburton Gold Project

ASHBURTON GOLD PROJECT MINERAL RESOURCES										
	Indicated			Inferred			Total			
	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Tonnes	Grade	Ounces	Cut off
	(000's)	(g/t)	(000's)	(000's)	(g/t)	(000's)	(000's)	(g/t)	(000's)	Grade g/t Au
Mt Olympus[1-3]	8,896	2.9	821	3,346	2.3	252	12,242	2.7	1,073	0.5 - 1.5
Peake[4]	349	5.3	60	1,571	3.0	150	1,920	3.4	210	1.5
Waugh[5]	218	2.0	14	292	1.9	18	510	1.9	32	0.5
Zeus[6,7]	236	2.0	15	1,282	2.6	106	1,518	2.5	121	0.5 - 1.5
TOTAL RESOURCES[8]	**9,699**	**2.9**	**911**	**6,491**	**2.5**	**525**	**16,190**	**2.8**	**1,436**	

1. OP (Open Pit) resource: >0.5 g/t, inside optimised pit Rev factor = 1.2
2. UG (Underground) resource: >1.5g/t below Rev factor = 1.2 pit, inside domain wireframes
3. West Olympus OP: >0.5 g/t, inside optimised pit Rev factor = 1.2
4. UG: >1.5g/t below Rev factor = 1.2 pit, inside domain wireframes
5. OP: >0.5g/t above 395mRL (equivalent to base of current pit)
6. OP: Optimised Pit 11 with Indicated + Inferred, > 0.5g/t
7. UG: Below Optimised pit >1.5g/t
8. The previous inferred resource at Romulus remains unchanged at 329kt @ 2.6g/t for 27k oz Au. Romulus was not included in this update and is therefore in addition to the total Resource quoted in the above table

For personal use only

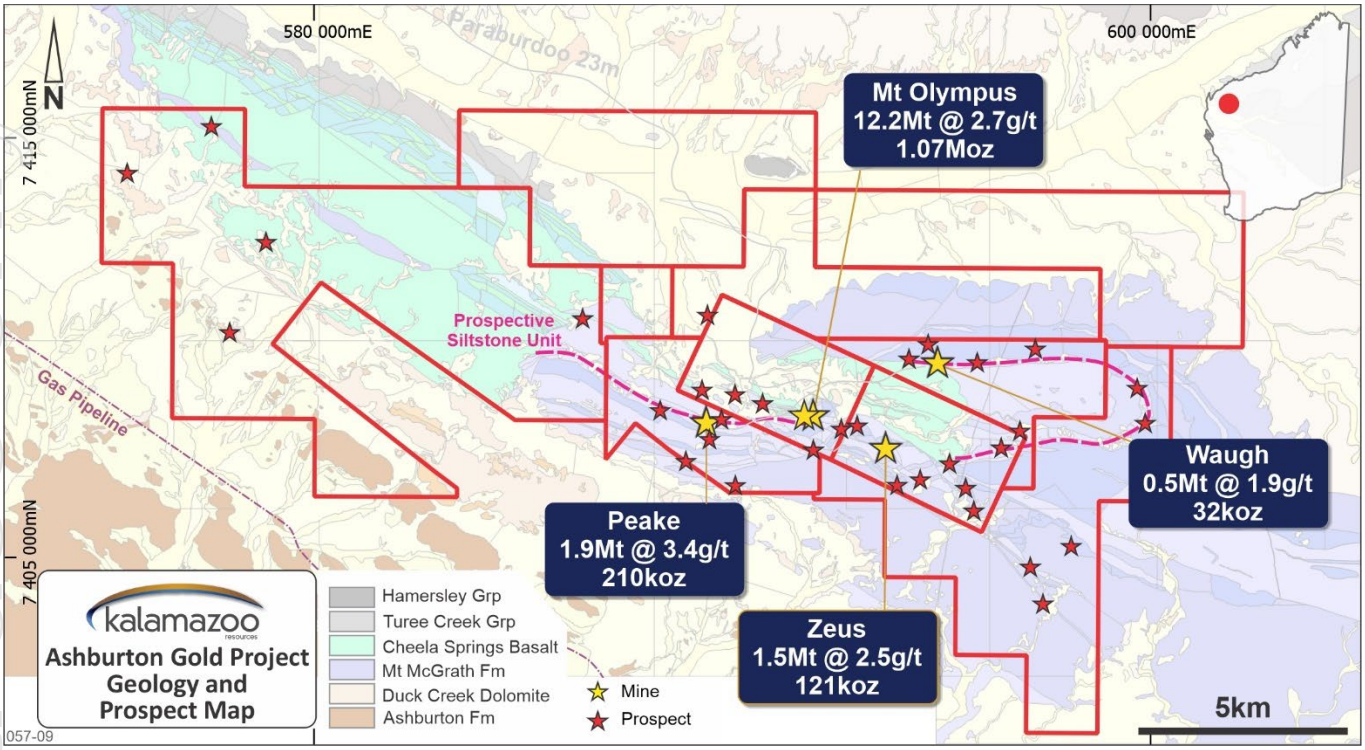


Figure 4: Geology map as presented in the February 2023 Kalamazoo Resource update announcement, showing the historical open pit mines, locations of mines and prospects and new resource estimate numbers for each deposit

Competent Person's Statement

Mineral Resources – Ashburton Gold Project

The information in this announcement that relates to the estimation and reporting of mineral resources at the Ashburton Gold Project is based on information compiled by Mr Phil Jankowski, who is a Fellow of Australasian Institute of Mining and Metallurgy. Mr Jankowski is an employee of ERM International Group Limited (previously CSA Global Pty Ltd) who were engaged as consultants to Kalamazoo Resources Limited. Mr Jankowski has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Jankowski consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

For personal use only

Mineral Resources reporting – Hemi Gold Project - Regional

The information in this Report that relates to the Mineral Resource Estimates has been extracted from previous ASX announcements including:

- Hemi Gold Project Resource Update – November 2023. De Grey Mining ASX announcement 21 November 2023; and
- Total Gold Mineral Resource increases to 2.2Moz. De Grey Mining ASX announcement 2 April 2020.

De Grey confirms that it is not aware of any new information or data that materially affects the information included in those announcements and, in relation to the estimates of DEG's Mineral Resources and Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the announcements continue to apply and have not materially changed. DEG confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from those announcements.

Mineral Resources - Toweranna (Regional)

The Information in this report that relates to the Toweranna Mineral Resources is based on information compiled by Mr. Michael Job, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Job is a full-time employee of Cube Consulting. Mr Job has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Job consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resources - Wingina and Withnell (Regional)

The Information in this report that relates to Wingina and Withnell Mining Centre Mineral Resources (excluding Toweranna) is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

Forward looking statements disclaimer

This announcement as prepared by De Grey Mining Limited (the "Company") includes forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance and achievements to differ materially from any future results, performance or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary shareholder approval(s), licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the Company operates or may in the future

operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant securities exchange listing rules, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

For personal use only

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section were documented by Kalamazoo Resources in support of their 2023 Independent Mineral Resource Estimate for the Ashburton Gold Project. The criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• The reverse circulation samples were taken with a rig-mounted static cone splitter with the aperture set to yield a primary sample of approximately 3kg for every metre. • The splitter apparatus was cleaned regularly with compressed air via the sample hose between 1m samples and by washing with water at the end of each hole as a minimum. • 4m composite samples of approximately 3kg were collected with a sampling tube from the 1m bagged RC drill cuttings. Wet, damp, or dry sample condition was recorded for each metre of reverse circulation drill cuttings based on visual inspection of the offcut sample bag. • Diamond core was logged and sample intervals selected based on the presence and character of mineralisation with minimum and maximum interval lengths of 0.5m and 1.2m respectively. • The core sample interval was marked with a cut line by the logging geologist to define an approximate even distribution of mineralisation on each side. The core was then cut to the line with a standard core cutter and half-core sampled. • Reverse circulation drilling to industry standards was used to obtain samples between 1m and maximum 5m length from which 3kg was pulverised to produce a 30g charge for fire assay. • Diamond core drilling to industry standards were used to obtain diamond core from which a half core sample between 0.5m and 1.2m length was pulverised to produce a 30g charge for fire assay.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple*	• Reverse circulation drilling was carried out using a face sampling hammer and a 5-inch diameter bit.

personal use only

personal use only

Criteria	JORC Code explanation	Commentary
	or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• Diamond drilling was carried out from surface using a HQ3 (triple tube) diameter core barrel configuration. Diamond core from the inclined hole was orientated using an electronic core orientation tool every 6m or at closer spaced intervals in broken ground. • The resource database used was supplied on 8 May 2022, containing records of holes drilled by eight separate companies. For the resource models, only the RC and DDH data were used.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure*	• Approximate recoveries for reverse circulation drill samples were recorded on formatted paper sheets as percentage ranges based on a visual estimate of the 1m offcut sample bag and entered

Company	Type	Metres	Holes
BP	DD	340.7	4
BP	RC	305	5
Kalamazoo	DD	103.99	1
Kalamazoo	RC	13966	135
Lynas	DD	618.21	10
Lynas	RC	15379	452
Mt King	RC	547	10
Newcrest	DD	7822.4	18
Newcrest	RC	16119.2	93
NST	DD	16998.83	61
NST	RC	27079.2	155
RT Mining Corp	RC	1080	8
Sipa	DD	7016.35	27
Sipa	RC	217428.4	10449

Criteria	JORC Code explanation	Commentary
	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.*	and stored in the drillhole database. • The majority of reverse circulation samples had 100% recovery. 25% of reverse circulation samples had recoveries of 50% to 90% and 10% of reverse circulation samples had recoveries >100%. • Diamond core recovery is systematically recorded by the driller on core drill-run depth blocks and the length and location of core loss independently reconciled during core metre marking and the interval of core-loss recorded during logging and stored in the drillhole database.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Core and chip samples have been logged by a qualified Geologist. Percussion hole logging were carried out on a metre by metre basis and at time of drilling. All diamond holes were photographed before cutting, both as wet and dry state. The logging is both qualitative and quantitative in nature. Historical logging is assumed of a similar standard.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the insitu 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.*	• Diamond core was cut with a standard core saw and half core sampled on site. • Reverse circulation rig-mounted static cone splitter used for dry and wet 1m reverse circulation samples and a sampling tube used for dry and wet composite sampling. Pre-Kalamazoo reverse circulation sub sampling assumed to be at industry standard at that time. Both reverse circulation and diamond core samples are sorted at ALS Laboratory in Perth and weights recorded in LIMS. Any reconciliation issues (extra samples, insufficient sample, missing samples) are noted at this stage. • Following drying at 105°C to constant mass, all samples below approximately 3kg are totally pulverised in LM5's to nominally 85% passing a 75µm screen. The few samples that are above 3kg are riffle split to <3kg prior to pulverisation. The sample preparation technique is industry standard for Fire assay. • The same or similar sample preparation is stated in previous Resource Estimates or otherwise assumed for older pre-Kalamazoo samples.

personal use only

Criteria	JORC Code explanation	Commentary
		• Kalamazoo field QC procedures involve the use of high, medium and low- grade gold certified reference standards inserted at a ratio of 1:20 and crushed feldspar blanks at 1:25 for standard sampling (1m for reverse circulation or 0.5m – 1.2m for diamond core). • For 1m resampling of composited intervals Kalamazoo use high, medium and low-grade gold certified reference standards inserted at a ratio of 1:20 and crushed feldspar blanks at 1:25.
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• For all drill samples the total gold is determined by fire assay using the lead collection technique with a 50 gram sample charge weight. An AAS finish is used. Various multi-element suites are analysed for using a four-acid digest with an ICP-OES finish. Duplicate samples are taken from the cone splitter at an incidence of 1 in 25 samples, - Coarse blanks are inserted at an incidence of 1 in 30 samples, - Commercially prepared certified reference materials (CRM) are inserted at an incidence of 1 in 25 samples. The CRM used is not identifiable to the laboratory, - NST's QAQC data is assessed on import to the database and reported monthly and yearly. In addition to the above, about 5% of samples are sent to an umpire laboratory. Failed standards are followed up by re-assaying a second 50g pulp sample of all samples in the fire above 0.1ppm by the same method at 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.*	• There are no purpose-drilled twinned holes. • Field data for reverse circulation drilling was recorded on restricted cell excel spreadsheets and collated into a master spreadsheet and checked for completeness before periodic digital transfer and storage in the SQL database hosted by Rock Solid Data Consultancy Pty Ltd. • There has been no adjustment to assay data.
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.*	• Collar positions were surveyed using a hire DGPS with better than 30cm accuracy and recorded in MGA94 Zone 50 grid. Drill rig alignment was achieved using a handheld Suunto sighting compass. Down hole surveys are taken every 30m with a True

personal use only

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	North seeking Gyro. Surveys were occasionally taken more frequently to monitor deviation. Pre-Kalamazoo survey data is available to KALAMAZOO in the SQL database but has not been reviewed at the time of this report. • MGA94 grid, zone 50. • Topographic control is from the Fugro 2002 and 2006 Aerial photo data.
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.*	• Drill section and drill fan spacings vary between 40m at the Zoe Fault to 120m at Peake West. Drill fans are designed to create intercept spacings >20m and with a maximum of 60m spacing between drill holes at Zeus. • The spacing is adequate for the estimation of Mineral Resources, and the spacing is a key factor used to determine resource classification
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.*	• The orientation of sampling is generally perpendicular to Zoe shear zone mineralisation and slightly oblique to the main sedimentary beds and mineralisation. Steep topography has also affected the orientation of drilling. The orientation achieves unbiased sampling of all possible mineralisation and the extent to which this is known.
Sample security	• *The measures taken to ensure sample security.*	• All samples were bagged in tied numbered calico bags at the splitter and these were then bagged in larger cable tied numbered poly weave bags at the rig. The poly weave bags were put in large durable nylon bulka bags at the exploration camp and tied with a sample submission sheet affixed to the side of the bulka bag. The bulka bags are transported via freight truck to Perth with a consignment note and receipted by an external and independent laboratory. • All sample submissions were emailed to the lab and hard copies accompanied the samples. All assay results were returned in digital format via email. Sample pulp splits are returned to Kalamazoo via return freight and stored at a storage facility in Malaga, Western Australia.

personal use only

Criteria	JORC Code explanation	Commentary
		• Pre-Kalamazoo operator sample security assumed to be similar and adequate.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• A thorough audit of data received from NST was performed by KZR's data management consultant prior to importation of the data into the KZR database.

Section 2 Reporting of Exploration Results

(Criteria listed in section were documented by Kalamazoo Resources in support of their 2023 Independent Mineral Resource Estimate for the Ashburton Gold Project. The 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.*	• Mining tenements M52/639, M52/640, M52/734 and M52/735 and exploration tenements E52/1941, E52/3024 and E52/3025 are wholly owned by KZR and there are no heritage issues with the prospects or tenement. • A 2% Net Smelter Royalty on the first 250,000 oz of gold produced and a 0.75% net smelter royalty is held by Northern Star Resources and a 1.75% royalty on gold production excluding the first 250,000oz is held by Vox Royalty Australia Pty Ltd (previously held by Sipa Resources). • M52/639 was granted in 1996, renewed in 2018, now expiring on 27/05/2039. • M52/640 was granted in 1997, renewed in 2018, now expiring on 27/05/2039. • M52/734 was granted in 2001, renewed in 2022, now expiring on 08/05/2043. • M52/735 was granted in 2001, renewed in 2022, now expiring 08/05/2043. • E52/1941-I was granted 14/09/2007, expiring 13/09/2023. • E52/3024 was granted in 2015, expiring 17/06/2025. • E52/3025 was granted in 2015, expiring 17/06/2025

personal use only

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration was conducted by BP Minerals and the Shell/Billiton-Austamax Mt McGrath Joint Venture between 1987 and 1989 comprising regional drainage geochemical surveys, soil geochemistry, geological mapping, costeaning and drilling. Mt Olympus was discovered by regional stream sediment sampling 1988, with assays up to 79 ppb BLEG gold and 122 ppm arsenic. • In 1996 Sipa entered into Dublin Hill Joint Venture agreements with Mt King Mining and Arcadia Minerals NL. Follow up drilling by Sipa in 1996 delineated a substantial gold resource at Mt Olympus. Geological mapping led to the discovery of the Zeus prospect, 1 km east of Mt Olympus. The Peake deposit was also discovered during early exploration work by Sipa. The first resource drilling at Peake was completed in 1999. • At the end of 1997, Sipa entered into the Paraburdoo Gold Project joint venture (PGP) with Lynas Gold NL, which subsequently brought the Mt Olympus Gold Mine into production late in 1998. Lynas' interests were bought-out by Sipa in late 2001. The Waugh deposit was discovered shortly after Sipa consolidated ownership. Mining operations continued through to March 2004 when the operation was placed into care and maintenance, which continued until the end of August 2005 when the plant was sold to Austindo Resources Corporation NL. The plant and associated infrastructure was removed in the first half of 2006. Full site rehabilitation was completed in 2007. • Total production from the Mt Olympus deposit and the satellite deposits was 3.55M t of ore for the recovery of 338,000oz of gold.
Geology	• *Deposit type, geological setting and style of mineralisation*	• The Mt Olympus Project is located in the Ashburton Goldfields in the Southern Pilbara region of Western Australia. Mineralisation is hosted in siltstones, sandstones, conglomerates and dolomites of the Mt McGrath Formation and the Cheela Springs Basalt The units dip to the south and around Mt Olympus the geology becomes complicated by folding and faulting. The base of oxidation at Mt Olympus is up to 100m below the original surface. The project is situated along an axis of a distinct SE plunging synform which has

personal use only

Criteria	JORC Code explanation	Commentary
		its southern limb truncated by a large sub-vertical NW-SE striking fault known as the Zoe Fault. Mineralisation is controlled structurally and is associated with minor sulphidic quartz veins and with zones of intense sulphides. Coarse grained, highly fractured pyrite (typically 5 to 15% of the rock) is the dominant sulphide with minor arsenopyrite and small amounts of chalcopyrite, digenite, covellite and tetrahedrite. Gold occurs as veinlets and blebs in the pyrite. • The Peake Deposit developed within a planar and steeply south dipping fault cutting mudstones and sandstones and shows significant continuous gold mineralisation over 2,000m strike that is open to the west. Historical mining has targeted shallow supergene enriched oxide gold to a maximum depth of 30m in a single 600m long open pit with 80kt @ 7g/t Au recovered. • The Zeus Deposit occurs within a south dipping package of coarse clean sandstone beds in the footwall of the Zoe Fault. The mineralised lode outcrops for over 800m along strike before plunging shallowly to the southeast along the contact with the Zoe Fault. • The Waugh Deposit occurs on the northern side of the Diligence Dome and is located approximately 3km north east of the Mt Olympus Deposit. It is hosted by moderately north dipping siltstones of the Mt McGrath Formation, but most of the mineralisation is within a slightly discordant ironstone breccia, which in very few primary zone drill intersections is dominated by arsenical pyrite.
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*	• Exploration results are not being reported.

personal use only

Criteria	JORC Code explanation	Commentary
	○ *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.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Exploration results are not being reported.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Exploration results are not being reported
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.*	• Exploration results are not being reported.
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.*	• Exploration results are not being reported.
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*	• Exploration results are not being reported.

personal use only

Criteria	JORC Code explanation	Commentary
	density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Beneath the Mt Olympus OP resource, besides the detailed interpreted domains reported as the underground resource, there are significant tonnes of mineralisation estimated in the unconstrained indicator domain. These are suitable for reporting as on open pit resource, as shown by the reconciliation of the model including the indicator domain to recorded production, however the lack of demonstrated continuity between drillholes, and uncertainty on the orientation of the mineralisation means that the reasonable prospects test for reporting this estimate as an underground resource cannot be met. However, as it is part of the same mineralisation system as the reported resource, it can be reasonably assumed that the style of mineralisation and grade-tonnage relationships will be similar to the reported resource, and that further drilling will confirm the continuity and the orientation of the mineralised lodes. Furthermore, the very wide spacing of the drilling at depth does not show continuity between drillholes; the current dataset is probably insufficient to fully quantify the mineralisation by the indicator method. This mineralisation presents a target for future exploration by Kalamazoo.

personal use only

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section were documented by Kalamazoo Resources in support of their 2023 Independent Mineral Resource Estimate for the Ashburton Gold Project. The 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.*	• Rock Solid Data Consultancy Pty Ltd perform data QC checks before loading the data to the SQL database. Hard copies of KZR assays are kept at head office once completed. Data from previous operators thoroughly vetted and imported to SQL database.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• No site visits were undertaken by the Competent Person. • However, detailed consultation was undertaken between the Kalamazoo's Senior Geologist for the Ashburton Project and the Competent Person in order for the Competent Person to become familiar with the geology, mineralisation style and the historical context of the project activities.
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.*	• For Mt Olympus and West Olympus, the previous grade control data was inspected by flitch. This revealed the complex structural trends; these were digitized and formed into wireframe surfaces. These were then used to guide the interpretation of the resource drilling only (i.e. holes >30m deep) with the trends extended vertically, laterally and down plunge. The resultant wireframes are therefore based on wide spaced data but use the unique trends of the close spaced data. • Multiple alternative interpretations are plausible if the resource drillhole data is viewed in isolation from the grade control data, however the use of the grade control reduces the range of possible interpretations. • Two main trends are present. Along the Zoe Fault, steeply south dipping mineralisation is developed discontinuously. To the north of the Zoe Fault, moderately south dipping multiple lodes are developed in favorable horizons of the sedimentary package; these are truncated to the northwest by the basalt. The sediment hosted lodes tend to be thicker and higher grade progressively towards the Zoe Fault, and the highest-grade material forms moderately south plunging shoots at the intersection of the Zoe Fault lode and the sediment hosted lodes. • A minimum downhole width of 2m was used, with a nominal lower cutoff grade of 0.3g/t. Numerous intersections outside the interpreted lodes were not included due to wide spaced drilling and the uncertainty in how they should be joined to any other intersection. These have been estimated using a 0.5g/t Indicator method.

personal use only

personal use only

Criteria	JORC Code explanation	Commentary
		• For Peake, a nominal 0.3g/t cutoff and minimum 2m downhole width was used to produce sectional interpretations in Surpac. In the open pit, the closer spaced grade control data was used; away from the pit data was extrapolated half the drillhole spacing up or down dip. The interpreted surface geology has numerous NS striking late faults; the interpreted sections were projected to these faults and terminated. A total of 9 separate wireframes were interpreted. • For Waugh, Leapfrog software was used to create two nested grade-based shells, at nominal cutoffs of 0.3g/t (Low Grade) and 5.0g/t (High Grade). Drillhole intersections >0.3g/t were extracted from the database and used to define the mineralisation in the drillholes. To control the shapes of the shells, the centreline from the previous manual wireframe interpretation was digitised into a curved surface, with additional points to honour the intersections from recent Kalamazoo drilling. This curved surface was used as an anisotropy to allow the program to model around the structural flexure. • For Zeus, the mineralisation trends were digitised from the previous manual interpretations and formed into a single dipping surface. Leapfrog was used to create nested grade shells at nominal 0.5g/t (Low grade) and 0.8g/t (high Grade) cutoffs (Figure 5).
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.*	• Mt Olympus extends 950m down plunge, to a maximum depth of -20mRL more than 500m below the natural surface. The lodes are parallel and sub-parallel over a width of 150m. West Olympus has a strike length of 350m, and extends to 225mRL with parallel and sub-parallel lodes over a width of 130m. • Peake is a series of lodes that has a strike length of 1800m and extends to 200mRL, approximately 250m below the natural surface. The lodes have typical thicknesses of 5m to 8m. • Waugh has a strike length of 700m and extends to the 320mRL. The lode has a variable thickness ranging from 3m up to 15m. • Zeus is in four separate lodes over a 1.4km strike length; these range from 120 to 450m in strike length, and highly variable widths up to 40m.
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*	• A Surpac block model was created to cover the volume of the Mt Olympus and West Olympus deposits, sub-blocked to honour the volume of the wireframes. •

	Y	X	Z
Minimum Coordinates	740 7850	591 330	-100
Maximum Coordinates	740 8700	592 610	600
Parent Block Size	10	20	5
Subblock Block Size	2.5	2.5	2.5

Criteria	JORC Code explanation	Commentary
	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 (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *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.*	• 1m downhole composites of Au and S were extracted for each interpreted domain. Some domains had large populations of composites; others were much smaller. After an inspection of the means of each of the smaller domains it was decided to group the Mt Olympus domains into Group 1, Group 2 and Group 3; and to group all of the West Olympus domains into a group. Each group of Au assays (except for Domain 22) required top-cutting to reduce the excessive variability. Top-cuts were chosen from inspection of log-probability and mean and variance plots; the top-cuts selected gave the best reduction in variability (as measured by the CV) whilst not reducing mean by more than 5%, except in the case of West Olympus where a single extreme value required severe cutting.

Statistic	Domain 1	Domain 2	Domain 9	Domain 22	Group 1	Group 2	Group 3	West OI	Sulphur
Count	957	2693	1850	42	1141	617	589	2737	2211
Minimum	0.001	0.004	0.002	0.01	0.001	0.005	0.01	0.002	0
Maximum	536.0	138.0	77.7	7.52	36.27	134.0	116.0	2540.0	136204
Mean	3.89	3.38	2.71	1.00	2.86	4.27	4.78	2.73	23881
Median	1.50	1.59	1.34	0.55	1.46	2.17	3.24	0.91	16623
Standard Deviation	19.13	7.02	4.56	1.39	3.60	9.41	10.13	48.94	22950
CV	4.922	2.08	1.69	1.39	1.26	2.20	2.12	17.93	0.96
	100	50	50	na	25	80	80	20	na
Cut Mean	3.32	3.25	2.68	na	2.85	4.10	4.59	1.62	na
Cut CV	2.03	1.67	1.57	na	1.23	1.80	1.81	1.44	na

• Au grades were estimated into blocks inside the domains using ordinary kriging; kriging parameters were optimised using the Kriging Neighbourhood Analysis option in Supervisor software. Variograms were modelled in Supervisor software: in general, the experimental variograms are poorly structured and required a normal scores transformation for modelling, before being transformed back into sample space with the use of Hermite polynomials. For the material outside the domains, an indicator approach was chosen, using a 0.5g/t cutoff. 1m composites outside the domains were set to 1 if their grade was > 0.5g/t, and the indicator value kriged to estimate the proportion in the block as a value between 0 and 1. For reporting purposes, the proportion was converted into a block ore tonnage by the formula Ore tonnes = x size*y size*z

personal use only

Criteria	JORC Code explanation	Commentary

size*proportion>0.5*density. The ore tonnage in the block was assigned a grade of 2.2 (Mt Olympus) or 1.6 (West Olympus); these being the mean grade of the composites > 0.5g/t for the two areas.

- For Domain 1, some blocks were not estimated in the search; a second pass of double the search distance but the same kriging parameters was used to ensure all blocks were filled.

Domain	1	2	9	22	Group 1	Group 2	Group 3	MtO >0.5 Ind	West Olympus	WO >0.5 Ind
Search Distance	100	260	200	200	280	120	200	40	90	90
Bearing	318	59	88	127	240	284	127	117	31	31
Plunge	39	49	21	-19	0	29	-19	-19	-28	-28
Dip	77	-41	-41	-47	80	-79	-49	-68	-67	-67
Major/semi major ratio	2.4	1.63	1	2	2.33	2.5	2	2.5	1.3	1.3
Major/minor ratio	2.4	2.17	1	5	2.33	2.5	5	1	2.1	2.1
Minimum Composites	8	8	8	8	8	8	8	4	8	8
Maximum Composites	30	30	24	30	24	30	30	24	24	24
Nugget	0.67	0.73	0.66	0.42	0.48	0.5	0.42	0.55	0.64	0.64
C1	0.21	0.11	0.26	0.29	0.24	0.26	0.29	0.15	0.32	0.32
A1	7	5	30	2	4	3	2	6	3	3
C2	0.1	0.1	0.06	0.12	0.15	0.13	0.12	0.06	0.02	0.02
A2	35	20	50	20	50	6	20	30	8	8
C3	0.02	0.06	0.02	0.17	0.13	0.11	0.17	0.24	0.01	0.01
A3	50	65	100	65	70	30	65	60	45	45

personal use only

Criteria	JORC Code explanation	Commentary

- A Surpac block mode was created to cover the volume of the Peake deposit sub-blocked to honour the volume of the wireframes:

	Y	X	Z
Minimum Coordinates	740 7750	587 250	-200
Maximum Coordinates	740 9250	590 010	600
Parent Block Size	10	20	5
Subblock Block Size	1.25	2.5	0.625

- Due to the small numbers of composites, all domains in Peake were combined into a single estimation domain. A topcut was applied to reduce the variability. It is worth noting that the denser drilling inside the pit returns a higher mean grade than the wider spaced drilling below and along strike of the pit.

Statistic	Estimation Domain	In Pit	Outside Pit
Count	1811	955	856
Minimum	0.001	0.01	0.001
Maximum	120.42	120.42	33.85
Mean	6.22	7.74	4.52
Median	4.28	6.40	2.40
Standard Deviation	6.96	8.06	4.97
CV	1.12	1.04	1.10
Top Cut	40	na	na
Cut Mean	6.14	na	na
Cut CV	1.01	na	na

- Au grades were estimated into blocks inside the domains using ordinary kriging; kriging parameters were optimised using the Kriging Neighbourhood Analysis option in Supervisor software.

personal use only

personal use only

Criteria	JORC Code explanation	Commentary
		• Variograms were modelled in Supervisor software: in general, the experimental variograms are poorly structured and required a normal scores transformation for modelling, before being transformed back into sample space with the use of Hermite polynomials.

Statistic	Value
Search Distance	200
Bearing	273
Plunge	-58
Dip	70
Major/semi major ratio	1.33
Major/minor ratio	6
Minimum Composites	4
Maximum Composites	26
Nugget	0.15
C1	0.52
A1	2
C2	0.16
A2	15
C3	0.15
A3	90

- A Surpac block mode was created to cover the volume of the Waugh deposit sub-blocked to honour the volume of the wireframes.

	Y	X	Z
Minimum Coordinates	740 9250	594 250	0
Maximum Coordinates	741 0000	595 350	540
Parent Block Size	10	20	5
Subblock Block Size	2.5	2.5	2.5

personal use only

Criteria	JORC Code explanation	Commentary
		• The 1m downhole composites were extracted from the resource dataset and selected by the nested Leapfrog shells. For both, topcuts were chosen from inspection of log-probability and mean and variance plots; the topcuts selected gave the best reduction in variability (as measured by the CV) whilst not reducing mean by more than 5%

Statistic	High Grade	Low Grade
Count	1452	5387
Minimum	0.006	0.001
Maximum	473.0	378.0
Mean	23.68	2.15
Median	8.10	0.77
Standard Deviation	44.50	7.86
CV	1.88	3.65
Top Cut	250	40
Cut Mean	23.16	1.97
Cut CV	1.77	1.94

- Au grades were estimated into blocks inside the domains using ordinary kriging; kriging parameters were optimised using the Kriging Neighbourhood Analysis option in Supervisor software.
- Variograms were modelled in Supervisor software: in general, the experimental variograms are poorly structured and required a normal scores transformation for modelling, before being transformed back into sample space with the use of Hermite polynomials.

Statistic	High Grade	Low Grade
Search Distance	90	120
Bearing	90	127
Plunge	0	10
Dip	25	25
Major/semi major ratio	1	1
Major/minor ratio	4.5	2
Minimum Composites	16	8

Criteria	JORC Code explanation	Commentary

Maximum Composites	36	36
Nugget	0.73	0.48
C1	0.18	0.41
A1	2	0.08
C2	0.05	15
A2	8	0.02
C3	0.04	75
A3	60	

- A Surpac block mode was created to cover the volume of the Zeus deposit sub-blocked to honour the volume of the wireframes.

	Y	X	Z
Minimum Coordinates	740 6190	592 200	120
Maximum Coordinates	740 8250	594 560	600
Parent Block Size	10	10	5
Subblock Block Size	2.5	2.5	2.5

- The 1m downhole composites were extracted from the resource dataset and selected by the nested Leapfrog shells. For both, topcuts were chosen from inspection of log-probability and mean and variance plots; the topcuts selected gave the best reduction in variability (as measured by the CV) whilst not reducing mean by more than 5%

Statistic	High Grade	Low Grade
Count	8505	2289
Minimum	0.003	0.002
Maximum	224.0	13.90
Mean	1.92	0.42
Median	1.11	0.16
Standard Deviation	3.61	0.75
CV	1.88	1.79

personal use only

Criteria	JORC Code explanation	Commentary

Top Cut	30	4
Cut Mean	2.12	0.42
Cut CV	1.43	1.45

- Au grades were estimated into blocks inside the domains using ordinary kriging; kriging parameters were optimised using the Kriging Neighbourhood Analysis option in Supervisor software.
- Variograms were modelled in Supervisor software: in general, the experimental variograms are poorly structured and required a normal scores transformation for modelling, before being transformed back into sample space with the use of Hermite polynomials.

Statistic	High Grade	Low Grade
Search Distance	80	80
Bearing	118	90
Plunge	-5	0
Dip	-60	-35
Major/semi major ratio	1.5	2
Major/minor ratio	2	1
Minimum Composites	8	8
Maximum Composites	26	26
Nugget	0.49	0.63
C1	0.29	0.24
A1	3	5
C2	0.16	0.20
A2	6	20
C3	0.06	0.05
A3	20	40

Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages are reported on a dry basis

personal use only

Criteria	JORC Code explanation	Commentary
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	
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.*	• Previous mining at Mt Olympus has been of the oxide ore only, using conventional drill and blast with backhoe excavators and off road dump trucks. The form and dimensions of the transition and fresh ore are similar to the oxide; previous mining was restricted by the refractory nature of the fresh ore. It is assumed that any future open pit mining would use similar methods.
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.*	• KZR completed initial metallurgical test work on several zones at Mt Olympus to determine whether the resource would be amenable to the production of a high-grade gold sulphide concentrate via an industry standard crush-grind-float processing circuit. The initial results indicate, that subject to completion of a robust financial business case, production of a high-grade gold concentrate is likely to represent the most straight forward, technically least challenging, and lowest capital-intensive method of processing ore. The results were Excellent rougher concentrate gold recovery between 85% and 94%. • High rougher sulphur recovery between 87% and 96%. • 90-95% silica rejection in rougher concentrate. • Multi-stage cleaning resulted in increased gold grades from the rougher concentrate by an average of >40%, with a maximum of 75.8%. • Gold in concentrate grade averaged 31.8 g/t across all four composites with a maximum of 39.2 g/t. • Sulphur grade consistently achieved 49-50%, representing approximately 93% sulphur recovery. • SiO_2 grade reduced to between 1.9% and 3.6% in the final concentrate. • Open circuit gold recovery up to 85% (gravity recovery and closed-circuit test work still to be performed.

personal use only

personal use only

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.*	• The deposits have been previously mined by open pits, and the disturbed areas have been rehabilitated. Future mining would likely re-use many of the previously disturbed areas, such as waste dumps, tailings storages and infrastructure sites.
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.*	• Densities were assigned using interpreted weathering surfaces and values copied from the previous Northern Star resource models. A total of 4,440 bulk density measurements from 30 diamond drill holes have been taken from mineralised and unmineralised intervals within the project area. Bulk Density measurements were calculated using a water dispersion technique. The bulk density for oxide and transition material was assumed due to the low number of measurements within these zones. In fresh material, a correlation between the bulk density value and gold assay grade exists and was used to assign bulk density values. | | Mt Olympus | Peake | Waugh | Zeus | | Oxide | 2.65 | 2.65 | 2.20 | 2.55 | | Transition | 2.75 | 2.75 | | 2.65 | | Fresh | 3.10 | 3.10 | | 2.75 |
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.*	• Classification was based on consideration of data spacing, confidence in the interpretation, data density, and geostatistical measures such as slope of regression. For Mt Olympus and West Olympus, most of the resource is drilled to at least 40m spacing; this has been classified

Criteria	JORC Code explanation	Commentary
	• *Whether appropriate account has been taken of all relevant factors (i.e. 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.*	Indicated. To the east, the drill spacing is between 80m and 120m and the resource classified Inferred. • For Peake, the largest domain includes the grade control drilling near the surface; all material above 340mRL (approximately 120m from the surface) in this wireframe has been classified Indicated, the remainder is Inferred; this includes the domains that have 1 to 3 drillhole intersections and are interpreted as fault bound. • For Waugh, the base of the dense surface drilling at 400mRL was chosen as the base of the Indicated, with easting limits defined by the nominal 30m spaced drilling; the balance is classified Inferred. • All of the unconstrained Indicator estimate in the resource reporting pit at West Olympus / Mt Olympus was classified Inferred; below the pit the uncertainty on the orientation and continuity means that it has not been included in the resource estimates. • For Zeus, the dense surface grade control data exists west of 593 775mE; this has been classified Indicated, the volume to the east where drilling is > 40m spaced on lines was classified Inferred.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Kalamazoo has performed manual checks between the CSA block model grades and the drill hole intercept grades for a number of holes located throughout the Mt Olympus deposit. Holes were chosen to provide a representative coverage across the deposit, from shallow to deep, east to west, high grade and low grade and thin and thick intersections, within CSA derived wireframes. The results from the check verified that the average of the block model grades and the average for each intercept correlated closely (3.65 g/t Au vs 3.62 g/t Au). Kalamazoo is therefore satisfied that the CSA derived block model correlates reasonably well with the grades of the intercepts. In addition, there does not appear to be any bias between the block model grades and the intercept grades.
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*	• For all the models, the current estimates are reasonable global estimates; due to the high amount of short-scale variability, and the relatively wide spacing of the data, none can be relied on for accurate local block estimates. • Further infill drilling or grade control spaced drilling would be required to increase the quality of the local estimates to allow detailed mine planning. • Mine production records for Mt Olympus are in summary form only, at a low level of precision. The reserve before mining was 2.15Mt @ 3.3g/t, with actual production of 2.5Mt @ 3.3 g/t (back calculated from recovered metal, assuming 92% metallurgical recovery). The present model has a total in the pit at 0g/t (Indicated and Inferred) of 2.39Mt @ 3.4g/t, with the metal content within 5% of reported production. To convert the resource to the

personal use only

Criteria	JORC Code explanation	Commentary
	qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	production would require the addition of 10% dilution at 0g/t. • For Peake, the present model predicts 84kt@6.9g/t, compared with recorded production of 80kt@ 7g/t. • For both these comparisons, the majority of the resource compared to production is classified Indicated. It is expected that the Inferred resource would have a currently unquantified higher level of risk for predicting tonnes and grades at these scales.

personal use only