11 September 2023

ASX Market Announcements
Via e-lodgment

80.8Mt Mineral Resource increase for RDG's Lucky Bay Garnet Mine

Resource Development Group Limited (**ASX: RDG**) (**RDG** or the **Company**) is pleased to announce a significant Mineral Resource estimate increase for its 100%-owned Lucky Bay Garnet Mine (**Lucky Bay**), in the Mid-West region of Western Australia.

Highlights

- **Total Mineral Resource tonnage increased 18% from 442.5Mt to 523.3Mt**
- **Total Mineral Resource of Heavy Minerals increased 14% from 19Mt to 21.7Mt**
- **Total Mineral Resource of Garnet increased 13% from 15.9Mt to 17.9Mt**
- **90% of Mineral Resource tonnage (473.2Mt) is classified as Measured or Indicated**

RDG acquired Lucky Bay, formerly known as the Balline Garnet Project, in February 2021. Lucky Bay's tenements, located between the coastal towns of Kalbarri and Port Gregory, are contiguous with the world's largest supplier of high-quality alluvial garnet.

High-quality alluvial garnet products are used in the abrasive blasting and waterjet cutting markets. RDG has set its target on the coarse-grade markets in the first instance, that are undersupplied and potentially in deficit.

Since acquiring Lucky Bay, RDG's focus has been on realising the full potential of the project and building on what is already a significant resource through a drilling program designed to evaluate the northern extent of mineralisation beyond the granted mining leases and delivering a comprehensive update of the existing Mineral Resource. The results of the Company's drilling have extended the June 2022 resource by a further 3km to the north. The results of the drilling campaign have also confirmed the continuity of mineralisation that is typical of this style of deposit and identified several high-grade areas within the upgraded resource that will be the focus of future exploration and resource development.

This upgraded Mineral Resource confirms the world class size of the Lucky Bay deposit and supports RDG's strategy of developing projects.

Resource Development Group Managing Director Andrew Ellison commented:
"This significant Mineral Resource upgrade is a great result and confirms the world class potential at Lucky Bay. With 90% of the Mineral Resource in the Measured and Indicated categories, we have the confidence in the project to deliver high quality garnet to the world markets for decades to come."

Overview
Following the acquisition of Lucky Bay in 2021, RDG executed a drilling program and laboratory analysis with the aim to upgrade and extend the project's garnet Mineral Resource. Further drilling was undertaken in November 2022 including analysis of non-garnet heavy minerals for both Lucky Bay and Lucky Bay North.

Lucky Bay is located approximately 530km north of Perth and 35km south of Kalbarri. RDG's wholly owned subsidiary Australian Garnet holds two granted mining leases covering 1,572 hectares and two Exploration Licences totalling 7,394ha, which combined make up the Lucky Bay project area. Lucky Bay comprises of the Menari and Menari North Heavy Minerals (**HM**) deposits, as shown in Figure 1 below.

The Lucky Bay project area is north of GMA Garnet Group's existing garnet operation, which is the world's largest supplier of high-quality alluvial garnet.

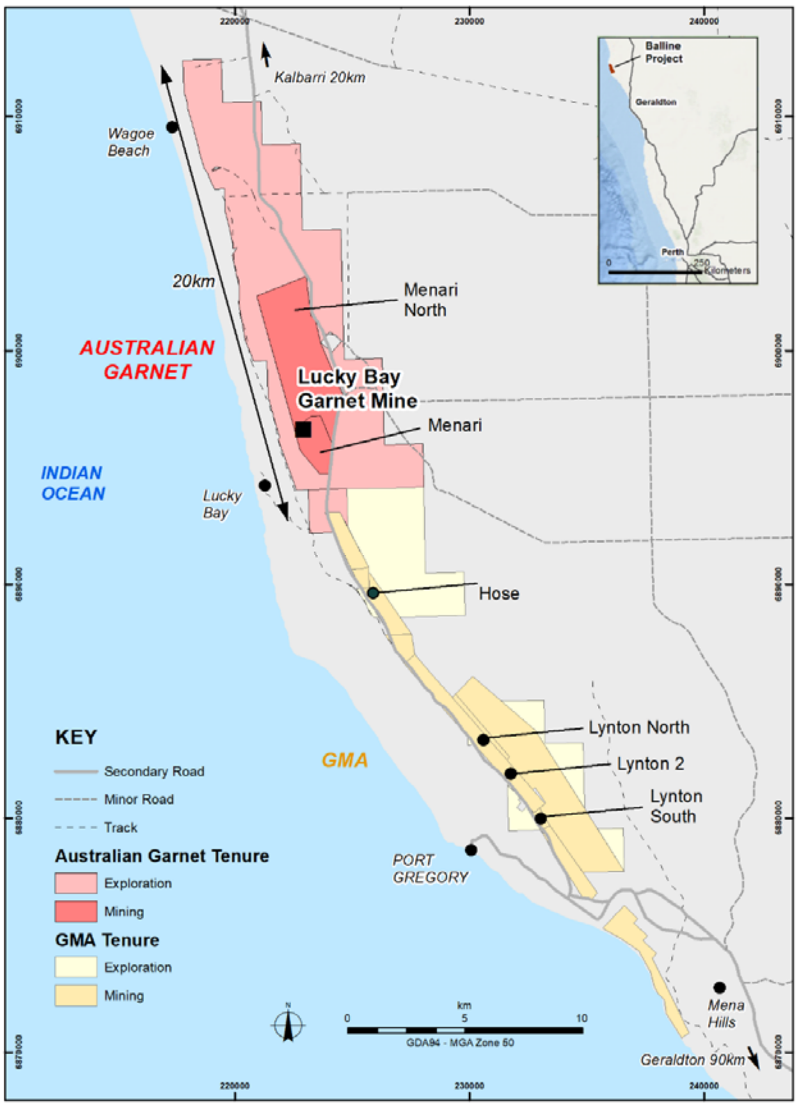


Figure 1: Lucky Bay Garnet Project location.

Mineral Resources

Table 1 outlines the previous Measured Mineral Resource at Menari of 442.5Mt @ 4.3% HM (see ASX announcement dated 23 June 2022). Table 2 details the updated Mineral Resource for both Lucky Bay and Lucky Bay North. The addition of Lucky Bay North to the Mineral Resource estimate increases the total resource to 523.3Mt (+18%) and the tonnage of contained garnet to 17.9Mt (+13%). The updated resource is net of mine depletion of 0.3Mt of material (which yielded 0.01Mt of HMC production and 0.006Mt of recovered garnet), as of 28th June 2023. A re-allocation of 42Mt of material from Lucky Bay to Lucky Bay North was required on designation of the resource at the boundary of M70/1387.

Commodity: Mineral Sands								
Deposit	**Resource Category**	**Type**	**Tonnes (Mt)**	**HM (%)**	**HM (Mt)**	**Slimes (%)**	**Garnet (%)**	**Garnet (Mt)**
Menari	Measured	Dune	31.3	4.0	1.2	5.0	85.5	1.1
	Measured	Strand	10.3	7.9	0.8	5.8	80.7	0.7
Menari North	Indicated	Dune	328.2	4.1	13.4	5.9	83.5	11.2
	Indicated	Strand	14.2	9.3	1.3	6.6	85.5	1.1
	Inferred	Dune	58.3	3.8	2.2	5.2	82.6	1.8
	Inferred	Strand	0.2	4.2	0.0	6.6	89.2	0.0
TOTAL	Measured	All	41.6	5.0	2.1	5.2	83.6	1.7
	Indicated	All	342.5	4.3	14.7	5.9	83.6	12.3
	Inferred	All	58.5	3.8	2.2	5.2	82.6	1.8
TOTAL	**All**	**All**	**442.5**	**4.3**	**19.0**	**5.7**	**83.5**	**15.9**

Table 1: Previous Menari & Menari North Mineral Resource @ 2% HM cut-off (JORC2012) – June 2022.

Commodity: Mineral Sands								
Deposit	**Resource Category**	**Type**	**Tonnes (Mt)**	**HM (%)**	**HM (Mt)**	**Slimes (%)**	**Garnet (%)**	**Garnet (Mt)**
Lucky Bay *	Measured	All	41.2	4.94	2.0	5.2	83.5	1.7
	Indicated	All	344.8	4.30	14.8	5.9	83.7	12.4
	Inferred	All	19.8	3.56	0.7	6.8	87.2	0.6
TOTAL			**405.7**	**4.33**	**17.6**	**5.9**	**83.8**	**14.7**

**Menari & Menari North*

Commodity: Mineral Sands								
Deposit	**Resource Category**	**Type**	**Tonnes (Mt)**	**HM (%)**	**HM (Mt)**	**Slimes (%)**	**Garnet (%)**	**Garnet (Mt)**
Lucky Bay North	Indicated	Dune	87.3	3.74	3.3	5.3	77.4	2.5
	Inferred	Dune	30.3	3.02	0.9	4.9	73.4	0.7
TOTAL			**117.6**	**3.6**	**4.2**	**5.2**	**76.5**	**3.2**

Commodity: Mineral Sands								
Deposit	**Resource Category**	**Type**	**Tonnes (Mt)**	**HM (%)**	**HM (Mt)**	**Slimes (%)**	**Garnet (%)**	**Garnet (Mt)**
Lucky Bay & Lucky Bay North	Measured	All	41.2	4.94	2.0	5.2	83.5	1.7
	Indicated	All	432.0	4.18	18.1	5.8	82.5	14.9
	Inferred	All	50.1	3.24	1.6	5.7	79.4	1.3
TOTAL			**523.3**	**4.15**	**21.7**	**5.7**	**82.4**	**17.9**

Table 2: Lucky Bay & Lucky Bay North Mineral Resource @ 2% HM cut-off (JORC2012) – Aug 2023.

Drilling

Drilling north of Menari undertaken by Westralian Sands from 1990 to 1999 and Iluka Resources from 1997 to 2001 identified several zones of HM. Drilling undertaken by Haddington Resources in 2007 and 2008 confirmed these areas of HM and the high garnet concentration. The project's previous owners undertook two further drilling programs in the area north of Menari prior to RDG's acquisition of Lucky Bay earlier this year. In 2016, 114 aircore holes were drilled for a total of 3,327m followed by 235 aircore drill holes in 2020 for a total of 7,892m.

The aircore drilling program, conducted by RDG in March 2021, comprised 103 holes for 2,935m and further extended the known mineralisation to the north and south of the existing Mineral Resource.

The most recent drilling program undertaken by RDG was conducted in November 2022 and comprised of 87 Aircore drill holes for 2,310 metres of resource extension drilling, plus a further 4 twin holes for 102m.

Significant intercepts from the November 2022 drilling campaign that have been included in the Mineral Resource upgrade can be found in Appendix 5 of Annexure B in this announcement.

Figure 2 below highlights the maximum grade intercepted in each hole.

Please refer to Annexure A for JORC Table 1 and Annexure B for Placer Consulting PL "Lucky Bay North Resource Estimate" Report dated 30th June 2023.

Figure 3 provides an isometic view of the Heavy Mineral distribution within the resource block model for the Lucky Bay North Resource Estimate and Figures 4-6 illustrate the distribution of Heavy Mineral within long and cross sections of the Resource.

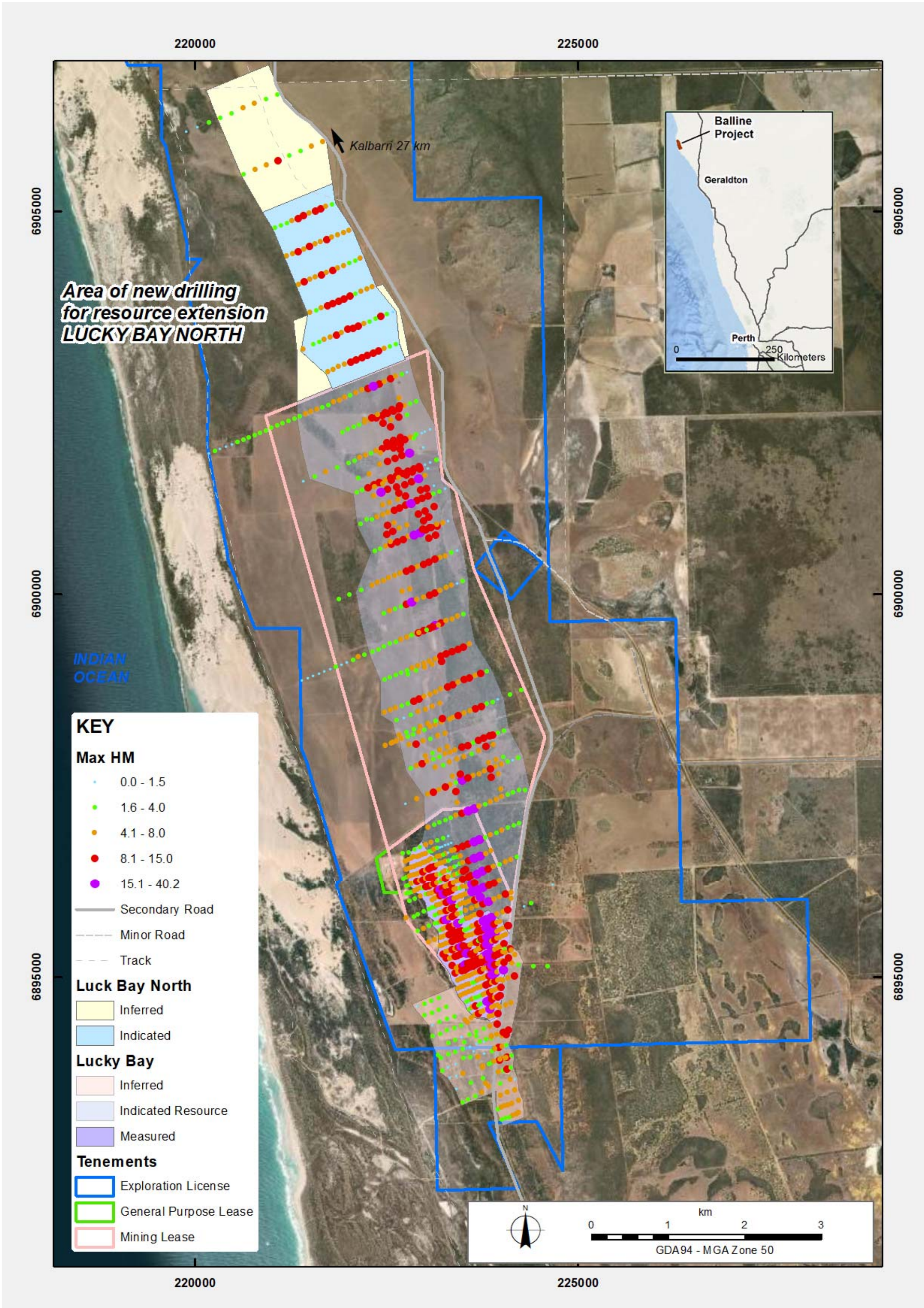


Figure 2: Plan of drill hole collars coloured by maximum heavy mineral assay intercept.

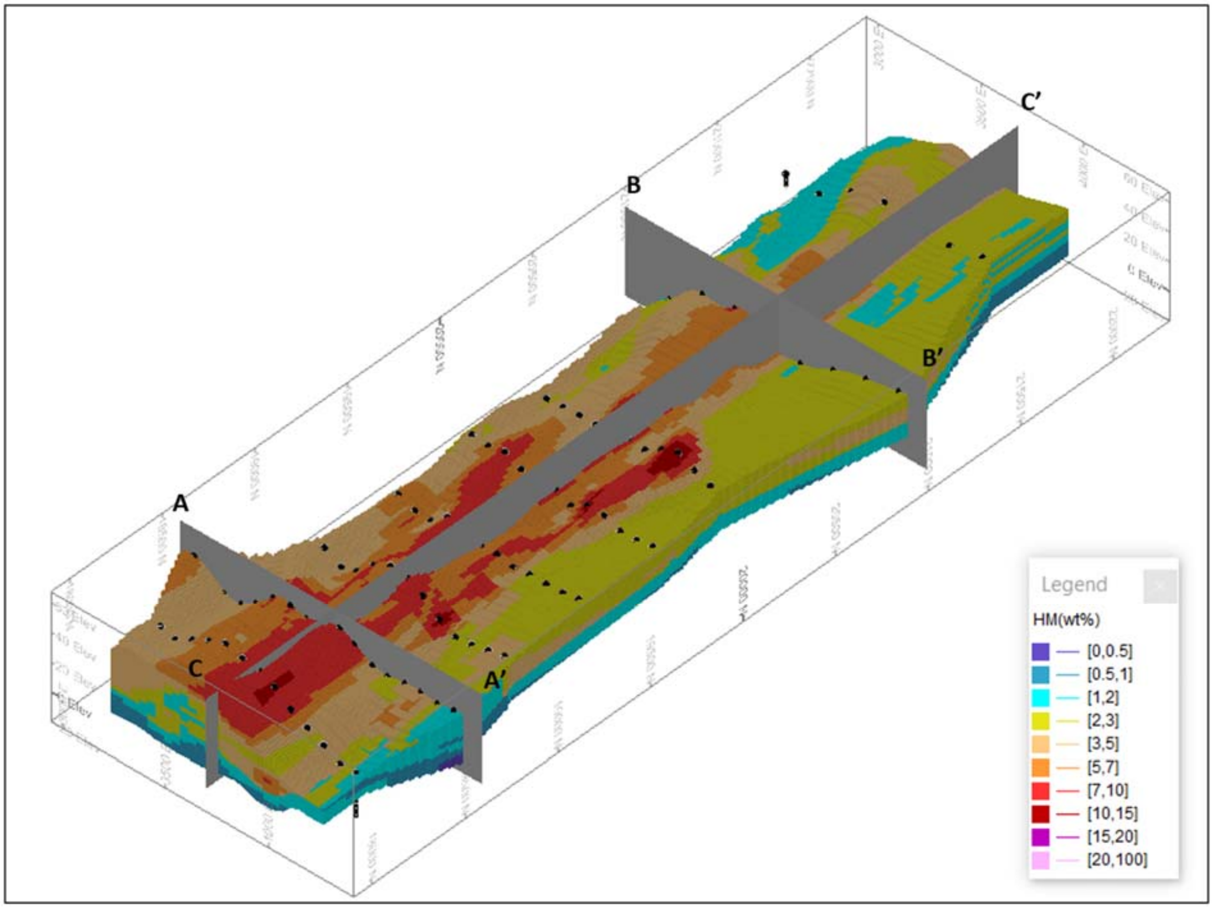


Figure 3: An elevated oblique view of the block model coloured by HM showing reference sections.

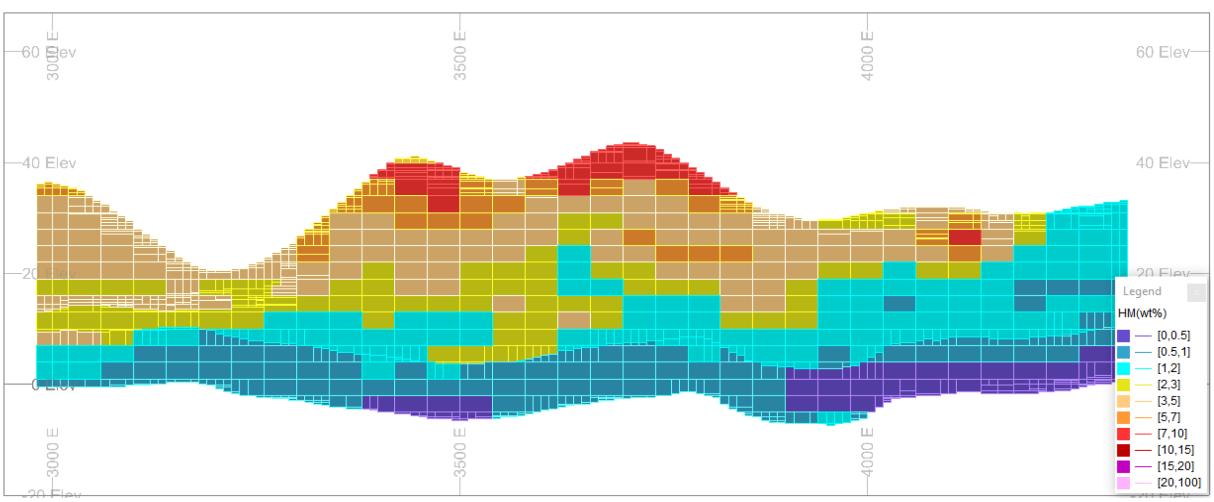


Figure 4: Section orientated A-A' showing HM (V.E. = 7:1).

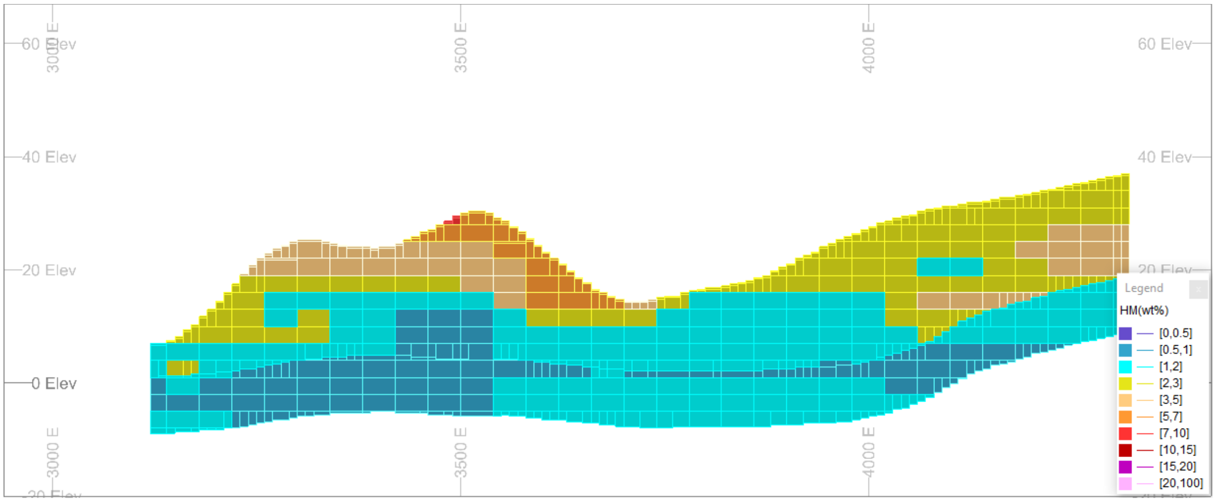


Figure 5: Section orientated B-B' showing HM (V.E. = 7:1).

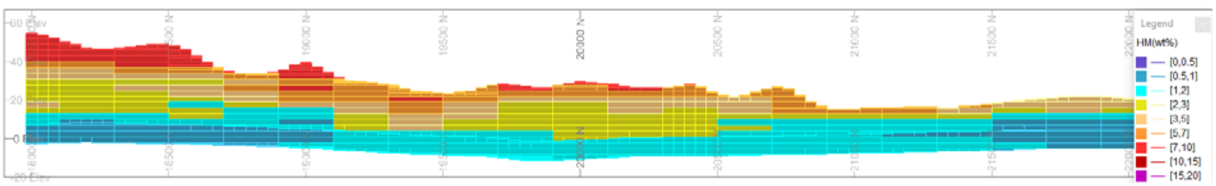


Figure 6: Section orientated C-C' showing HM (V.E. = 7:1).

This announcement dated 11 September 2023 is authorised for market release by the Board of Resource Development Group Ltd.

Michael Kenyon
Company Secretary

For further information, please contact Michael Kenyon on (08) 9443 2928 or at michael.kenyon@resdevgroup.com.au

Competent Person's Statement

The information in this report that relates to the Exploration Results and Mineral Resources is based upon work compiled by Mr Richard Glen Stockwell. Mr Stockwell is a full-time employee of Placer Consulting Pty Ltd and a Fellow of The Australian Institute of Geoscientists. Mr Stockwell has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he has undertaken to qualify as a Competent Person as defined in the JORC Code, 2012. Mr Stockwell consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Forward Looking Statement

This ASX announcement may contain forward looking statements that are subject to risk factors associated with garnet exploration, mining and production businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, metallurgy, Reserve estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimate

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Comment
Sampling techniques	*Nature and quality of sampling (e.g. 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.*	Sampling techniques are described in terms of historic works at by Haddington and Westralian Sands prior to 2013 and modern techniques applied under the guidance of Placer Consulting Resource Geologists for Australian Garnet in subsequent years. The resource data set for the Lucky Bay Deposits includes 84% modern and 16% historic samples. Historic samples inform Indicated and Inferred resource areas only. The Lucky Bay North Deposit is informed by modern data. Historic Haddington samples were taken, in their entirety, at 1m down-hole intervals. These were then composited at 1 – 4m intervals for assay. Westralian Sands applied a 1-metre sampling interval for analysis. For the Lucky Bay 2013 and 2016 drilling campaigns, sample sub-splits were collected at a 2m down-hole interval, using an on-board rotary splitter mounted beneath the rig cyclone. Sample gates are set at 12.5% of the splitter cycle, which delivers about 2kg of sample, dependant on ground conditions. The 2020 – 2022 drilling campaigns at Lucky Bay and Lucky Bay North employed the same sampling regime with a sample interval of 1.5m.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	All drilling was completed above the water table using a Reverse Circulation Aircore (RCAC) drilling rig. Consistency in split sample weights is monitored via intermittent testing in the field with spring scales and through recording of air-dried sample weights at the sample preparation stage. Weights are generally between one and three kilograms and this is considered representative for the detrital material being sampled.
	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 (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	RCAC drilling is used to obtain the sample as described above. Westralian Sands applied the Method A analysis technique whereby a 300g sub-sample split is attritioned by hand, slimes are estimated by drying and weighing the undersize and the sand fraction is dry-sieve sized at 500micron. A 35g sub-sample split of the minus 500-micron sample is then subjected to a heavy mineral (HM) float/sink technique using Tetra-bromo Ethane (TBE: SG=2.96g/cm^3). Haddington samples were composited, riffle split at 50% and screened at +2mm to remove oversize. A 500g sub-sample was then generated by riffle splitter for de-sliming at -63 µm.

Criteria	JORC Code Explanation	Comment
		All modern samples are dried and weighed. A rotary-split sub sample is then wet screened to determine slimes (-63 µm) and oversize material (+1mm). Approximately 100g of the resultant sample is then subjected to a heavy mineral (HM) float/sink technique using TBE. The resulting HM concentrate is then dried and weighed and reported as a percentage of the split and of the in-ground total sample weight. The in-ground HM analysis is then applied to the resource estimate.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).*	All samples are generated by RCAC drilling utilising ~71 mm diameter (NQ) air-core drill tooling. Drill holes are oriented vertically by spirit level.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	Drilling of modern samples is completed with water injection to ensure fine material is retained. No record of drilling methodology could be determined for earlier programmes. There are no recorded intervals in the geology logs that indicate loss or contamination of samples. Sample weight analyses completed by Placer shows consistent sample weights are achieved by the drilling method employed. The configuration of drilling and nature of sediments encountered results in negligible sample loss.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Sampling on the drill rig is observed to ensure that the cyclone and rotary splitter remain clean and in functional operation delivering ~10 – 15 splits per sample interval. Water flush and manual cleaning of the cyclone occurs at regular intervals to ensure contamination is minimised. Drill penetration is halted at the end of each sample interval to allow time for the sample to return to surface and be collected. Drilling proceeds once sample delivery ceases. Applying a 2m sample interval (2013, 2016) required the splitter to be disengaged and diverted during the rod change (every 3m) to avoid additional sample being collected (sample can rill into the bit when air delivery is ceased for the rod change). Despite this practice, there is a minor sample size increase observed for every third sample (average less than 10% increase) from these generations of drilling. This is not considered material to the resource classifications as applied.
	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.	No relationship is believed to exist between grade and sample recovery. The high percentage of silt and absence of hydraulic inflow from groundwater at this deposit results in a sample size that is well within the expected size range.

Criteria	JORC Code Explanation	Comment
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resources estimation, mining studies and metallurgical studies.*	Qualitative digital logs of geological characteristics are collected to allow a comprehensive geological interpretation to be carried out for the resource estimation. Samples are panned in the field to determine dominant and secondary host materials characteristics and heavy mineral content. Logging of the historic samples was less detailed and captured dominant host characteristics only. Westralian Sands relied on the driller to record gross geological character of drilled intervals.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging of RCAC samples is qualitative and includes description of sample colour, lithology, grainsize, sorting, induration type, hardness, estimated rock and estimated HM. A comments field is employed to allow further description or interpretation of materials/formation/sample quality. Logging of HM sinks generated from modern samples is completed by a mineralogist using a binocular microscope. Leica digital image sizing analysis is used to produce Garnet grain size information for the 2013 drill samples only, to inform the geological interpretation and optimisation/product split. Subsequently, all HM sink samples are sized by sieve analysis.
	The total length and percentage of the relevant intersections logged.	All drill holes are logged in full and all samples with observed HM (and designated for assay) are assayed.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all cores taken.*	All samples are unconsolidated and comprise sand, silt, clay and rock fragments.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Historic samples were taken, in their entirety, at 1m down-hole intervals. Modern samples are taken at a 2m down-hole interval (2013, 2016) and at a 1.5m down-hole interval (2020 onwards) using an on-board rotary splitter set at 12.5% of the splitter cycle, which delivers about 2kg of sample. Drill samples are dried and split for analysis.
Sub-sampling techniques and sample preparation, cont'd.	*For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	Little is known of the quality standards applied to historic samples. Modern sample preparation is recorded on a standard flow sheet and detailed QA/QC is undertaken on all samples. Sample preparation techniques and QA/QC protocols are appropriate for the heavy mineral determination and support the resource classifications as stated.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	Includes the training of drill and field staff on managing the rotary splitter to ensure contamination or sample loss are avoided. Use of tightly-woven calico sample bags to remove the potential of sample loss from split samples. Review of laboratory techniques and flowsheet to ensure representative sample splitting. Inspection of laboratory procedure and equipment to ensure appropriate technique, good housekeeping and application of accurate sample handling and sample management procedures.

Criteria	JORC Code Explanation	Comment
		Sample weight is recorded and monitored for outliers or spurious results. When these occur, they are investigated and re-assayed where fault is detected. Field Duplicate, laboratory replicate and standard sample geostatistical analysis is employed to manage sample precision and analysis accuracy.
Sub-sampling techniques and sample preparation, cont'd.	*Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.*	Sample size analysis is completed as discussed above. Field duplicates are collected for precision analysis of the rotary splitting system on the rig. Results indicate a sufficient level of precision for the resource classifications. There was no field duplicate analysis completed during historic programmes. Twin drilling analysis of the Haddington programme indicate a sufficient level of precision was achieved and results support the resource classifications applied.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Given that the grain size of the material being sampled is sand and approximately 70 to 300 µm, an approximate sample size of 2 kg is more than adequate.
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.*	Laboratory analysis was completed in-house by Westralian Sands using a technique (Method A) superseded by more accurate techniques in the mid-1990's. This data is used only to inform Inferred regions of the mineral resource estimate. Laboratory analysis of the Haddington drill samples included sample preparation at Nagrom Laboratory, followed by TBE separation at Western Geolabs and audit analysis by Diamantina laboratory. Laboratory replicates and audit assay procedures were used for QA/QC and results indicate sufficient precision and accuracy for the estimate. Sample preparation and analysis of modern drill samples is completed by Diamantina Laboratory. Laboratory replicates and laboratory standards are used for QA/QC and results indicate sufficient precision and accuracy for the estimate. All analysis is conducted according to a flow sheet that represents standard, best practice for the assessment of HM enrichment and is supported by robust QA/QC procedures (duplicates, replicates and standards).
	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.	None used.

Criteria	JORC Code Explanation	Comment
Quality of assay data and laboratory tests, cont'd.	*Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	To maintain QA/QC in modern campaigns, a duplicate and standard assaying procedure was applied by Placer Resource geologists. Both standards and duplicates are submitted blind to the laboratory. A duplicate sample is collected at the rig at every 40th sample by the application of a second calico bag to the second, 12.5% splitter chute. Both samples are subjected to the complete sample preparation and assaying process. A certified standard sample is submitted in the field at a rate of 1:40, to monitor laboratory analysis accuracy. Diamantina laboratory submits an additional standard sample at a 1:40 frequency and analyse a laboratory replicate sample at a rate of 1:15 – 1:25. QEMSCAN analysis of mineral composites includes replicate analysis at a frequency of 1:10. For the Haddington drill sampling programme, a laboratory replicate (1:20) and audit analysis programme was employed. No quality control procedures are known to have been employed by Westralian Sands. Analysis of sample duplicates is undertaken by standard geostatistical methodologies (Scatter, Pair Difference and QQ Plots) to test for bias and to ensure that sample splitting is representative. Standards determine assay accuracy performance, monitored on control charts, where failure (beyond 3SD from the mean) triggers re-assay of the affected batch. Acceptable levels of accuracy and precision are displayed in geostatistical analyses to support the resource classifications as applied to the estimate.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Results are reviewed in cross-section using Datamine software and any spurious results are investigated. The deposit type and consistency of mineralization leaves little room for unexplained variance.
	The use of twinned holes.	Twinned holes are drilled across a geographically-dispersed area to determine short-range geological and assay field variability for the resource estimation. Twin drilling data account for a total of ~2% of the modern drill database for the Lucky Bay resource estimate and ~4.5% for Lucky Bay North. Further twin drill hole analysis was completed between the Haddington and Australian Garnet drilling datasets at Lucky Bay. The twin pairs are geographically dispersed within and through the deposit. The twin hole paired data shows low variability and only subtle bias is observed as an artefact of alternate sampling and sample compositing methodology. Acceptable levels of precision are displayed in the geostatistical analysis of twin drilling data to support the resource classifications as applied to the estimate.

Criteria	JORC Code Explanation	Comment
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Modern field logging data are entered digitally in the field using ruggedized computer with Micromine logging software (2013 – 2016) and Seequent logging software (2020 onwards). Data are automatically validated through reference to library tables on all fields entered. Field data are uploaded via quarantine tables to the Seequent database - MX Deposit. Population of the database with validated data tables is planned.
	Discuss any adjustment to assay data.	Assay data adjustments are made to convert laboratory collected weights to assay field percentages and to account for moisture.
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 Resources estimation.*	AGPL engaged external surveyors for real time kinematic global positioning system ('RTK GPS') set out of drill collar locations until mid-2021. Survey set out of drill programmes prior to 2020 has been completed by the external surveyors and any adjustments required for setting up the drill rig were conveyed and drill sites were re-surveyed. Subsequent to 2020, drill collar set out has been via hand-held GPS with survey pick up of drill sites by external surveyors until mid-2021 and subsequently by the AGPL site surveyor upon establishment of site operations. Topographical surveys are completed by HTD (Geraldton) using a drone and RTK GPS. The Digital Terrane Model (DTM) for Lucky Bay North was completed by Quantum Surveys (Geraldton) using fixed-wing Lidar. Surveys are completed using registered base stations referenced to local State Survey Markers and tie lines are used to check DTM accuracy.
	Specification of the grid system used.	UTM 50J GDA94 is the global grid reference. The survey geoid model utilised in the survey set-out/pick-up is Ausgeoid98 in both the recorder and in the post-processing. All survey data used in the resource estimate has undergone a transformation to a local mine grid. This seven-parameter grid transformation aligns the average strike direction of the shoreline placers with local north, which is useful for grade interpolation and mining reference for production.
Location of data points, cont'd.	*Quality and adequacy of topographic control.*	The digital terrane model (DTM)was generated by land-based survey conducted in 2008 at a 10*10m and 20*20m grid pattern using a RTK GPS unit. This was extended in 2018, and again in 2021 using an un-manned aerial vehicle (UAV) mounted with similar survey equipment and then by Lidar in 2022. Check lines are flown to verify the previous survey and results are comparable. The DTM is suitable for the classification of the resource as stated.

Criteria	JORC Code Explanation	Comment
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The drill data spacing is nominally 100m North, 40m East, and 2m down hole to inform areas of the resource classified at a Measured level of confidence. Infill drilling of the Menari Measured Resource was conducted at a 10m east spacing. A maximum spacing of 400m North, 40m East and 1.5m down-hole inform areas of the resource classified at an Indicated level of confidence. Inferred areas of the resource include regions informed by historic data or at a 800m North, 80/160m East and 1.5m down-hole spacing by modern drilling.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resources and Ore Reserves estimation procedure(s) and classifications applied.	Variography and Kriging Neighbourhood Analysis completed using Supervisor software informs the optimal drill and sample spacing for the Lucky Bay resource estimate. The same parameters were then applied to the Lucky Bay North estimate. Based on these results and the experience of the competent person, the data spacing and distribution is considered adequate for the definition of mineralisation and adequate for mineral resource estimation.
	Whether sample compositing has been applied.	All samples are regularised to a 2m interval for the Lucky Bay interpolation based on drill hole analysis in Datamine Supervisor. No compositing of drill interval was applied at Lucky Bay North Deposit, all of which is sampled at a consistent 1.5m interval.
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.*	Sample orientation is vertical and approximately perpendicular to the dip and strike of the mineralization, which results in true thickness estimates. Drilling and sampling is carried out on a regular rectangular grid that is broadly aligned and in a ratio consistent with the anisotropy of the mineralisation.
	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.	There is no apparent bias arising from the orientation of the drill holes with respect to the strike and dip of the deposit.
Sample security	*The measures taken to ensure sample security.*	All samples are numbered, with sample splits, residues and HM sinks stored securely at AGPL property.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	Field staff training and supervision is provided by Richard Stockwell (Director/Principal of Placer Consulting Pty Ltd). Drilling and sampling techniques are audited on a continual basis throughout the programme.

Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Comment
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 exploration results are coincident with the granted Mining Licences M70/1387, M70/1280 and granted Exploration Licences E70/2509 and E70/5117. All licences are wholly owned by Australian Garnet Pty Ltd. Upon mining, there is a customary 5%, state government royalty payable. An on-going $4/ tonne of HMC royalty payment is due to a third party and an annual payment of $225,000 is due to the landowner occupying the land in the north of the Project.
	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.	There are no known impediments to the security of tenure over the area containing the reported exploration results.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Previous workers had identified the mineral resources but completed insufficient work to quantify the extent and volume or the resource. Sample assay and lithology information from historic explorers is used for the resource estimate as qualified in Section 1.
Geology	*Deposit type, geological setting and style of mineralisation.*	Exploration results are indicative of aeolian (dunal) overlying palaeo-beach placer, detrital heavy mineral sand deposits. Heavy minerals are derived originally from the metamorphic rocks of the Northampton Complex, which were delivered to the coast via the Hutt River and smaller tributaries. A dominant northward-moving long-shore drift current has spread this mineral along the coast into beach and dune sequences.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* • *easting and northing of the drill hole collar* • *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* • *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.*	An intercept table of all drilling relevant to the resource estimate is listed in the report and in previous releases. These can be viewed on the company website. There are no further drill hole results that are considered material to the understanding of the exploration results. Identification of the wide and thick zone of mineralisation is made via multiple intersections of drill holes and to list them all would not give the reader any further clarification of the distribution of mineralisation throughout the deposit.

Criteria	JORC Code Explanation	Comment
	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 (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	The Lucky Bay and Lucky Bay North Resources are reported at a 2% HM bottom cut-off established by optimisation of the Lucky Bay resources during DFS. No top-cutting of data was required. Data distributions are normal with a positive skew and contain no observable spike or nugget effects.
	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.	No data aggregation was required. The drill hole file is regularised to a 2m interval for the Lucky Bay interpolation.
Data aggregation methods, cont'd.	*The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No metal equivalents were used for reporting of exploration results.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.*	All drill holes are vertical and perpendicular to the dip and strike of mineralisation and therefore all intercepts are approximately true thickness.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	Dune deposits typically approximate a horizontal accumulation over a variable basement topography.
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.*	Refer to main body of the report.

Criteria	JORC Code Explanation	Comment
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.*	Reporting of results is restricted to Mineral Resources estimates generated from geological and grade block modelling. The grade and dimensions of the Resource and the extents of the exploration drilling results is outlined in the report. Intercepts are disclosed in an unambiguous way.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	The bulk density applied to the Lucky Bay Project Resources has been generated for each discrete geological domain. A component-based density algorithm, designed by Placer Resource Geologists, combines density characteristics from each textural and compositional component of the sample. This is then combined with laboratory-generated porosity data. Pore space is variable based on sample composition, hence the need to quantify the volume of the sample represented by saturated pores. A total of 17 porosity assessments were made on a minimum 4kg sample of each geological domain. Calculated density is then applied and recorded, for all intervals based on their geological domain. Where informing data were absent in historic drilling, the zone average (FDENSITY) was applied. Garnet concentration is derived from mineralogical scanning of drill sample HM sinks for the bulk of the Menari Deposit (drilled in 2013). The remaining resource areas are classified mineralogically by QEMSCAN analysis. The two mineralogical regions are domained in the resource model and reported separately. The error on mineralogical scanning results (2013) is quoted at 5%. Garnet concentration results from QEMSCAN are, on average, ~3% lower, by Zone than the mineralogist estimates for the global resource figure. The QEMSCAN results are favoured for reporting of mineralogy herein. Grain size analysis is completed on all drill samples. HM sinks (including garnet) are physically sized by sieve (2016 onwards) and digital image analysis using Leica software (2013) was conducted on the Garnet fraction alone. As the other HM species are included post 2013, there is expected to be a minor under-call in Garnet grainsize in the model. This will result in additional coarse garnet and less fine garnet (actually Ilmenite, Zircon, etc) in production figures. A duplicate analysis of 2013 and 2016 sizing results was completed and showed adequate precision was achieved by the Leica digital image analysis to support their inclusion in the resource estimate.

Criteria	JORC Code Explanation	Comment
		Mineralogical analysis of the Ilmenite by-product is completed on geologically domained HM composites by R.E.D. magnetic separation and XRF (2013) for the Menari Deposit. Subsequent analysis of modal mineralogy has been completed on the Menari North and Menari South regions by QEMSCAN of geologically domained HM composites. Calcite coatings on Garnet grains (where present) is established qualitatively by mineralogist logging of all drill sample HM sinks. Mineralogical analysis conducted on historic samples is considered unsuitable for reporting.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Classification of the resource by garnet-only sizing and the alternative, HM sink sizing by sieve, is required. This will provide clarity on the potential influence of the dilution of coarse garnet by finer, non-garnet grains in the resource estimate. Additional garnet, in the coarser grades, is anticipated upon reconciling processed ore. Further infill drilling of the Lucky Bay Deposits can be considered as mining and mine planning activities progress. Further infill drilling of the Lucky Bay North Deposit will be required to increase the confidence in the MRE. For now, the Indicated resource is considered sufficient for preliminary mine planning and the total resource suitable for tenement application for Retention or Mining Licence. The drill and assay database is poorly populated and represents a data security risk to the project. Population of the MX Deposit database with validated drilling, assay and mineralogical data and the provision of database access to AGPL staff, is recommended. Substantial additional information is available in QEMSCAN results. Placer recommends further interrogation of mineralogy, sizing and image analysis to assist with characterisation of accessory minerals and in particular, the quantification of calcite coatings.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Refer to main body of report.

Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code Explanation	Comment
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.*	Logging, survey and sample data is captured by industry-leading hardware and software equipped with on-board validation and quarantine capability.
	Data validation procedures used.	Look-up tables are employed at data capture stage on logging software equipped with on-board validation and quarantine capability. Cross-validation between related tables is also systematically performed by field logging software. Historic data were reviewed and manually entered into database tables. Sample weight analysis and cross section interrogation of assay fields is conducted in Datamine Studio RM software. Statistical, out-of-range, distribution, error and missing data validation is completed on data sets before being compiled into a de-surveyed drill hole file for resource estimation.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.*	Placer Consulting Resource Geologists established procedures for data capture and storage and completed regular site visits during drilling and laboratory analysis. There were no issues observed that might be considered material to the Mineral Resource under consideration.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.*	The geological interpretation is compiled from field geological observations during drill sample logging, microscope investigation of heavy mineral sinks and interpretation of sample assay and Garnet size data. A strong correlation between these three sources of information was observed and a high degree of confidence results.
	Nature of the data used and of any assumptions made.	Primary resource data comprises 84% generated by modern techniques and 16% by historic methods for the Lucky Bay Deposits. Historic data inform the Indicated and Inferred resource areas only. Modern data is used exclusively at the Lucky Bay North Deposit. No assumptions were made.
	The effect, if any, of alternative interpretations on Mineral Resource estimation.	No alternative interpretations on mineral resource estimation are offered.

Criteria	JORC Code Explanation	Comment
	The use of geology in guiding and controlling Mineral Resource estimation.	The mineral resource is constrained by the topographical surface, which is a lightly-consolidated, undulating dune field. The base to mineralisation comprises the Tamala Limestone and an abutting (to the west) clay-enriched, lagoonal lowland sequence. The deposit comprises two temporally-distinct, mineralised palaeo-beach placer deposits overlain by two, mineralised dune sequences. The mineral resource is controlled by these surfaces/solids and the interpolation is controlled by the physical properties within each horizon.
	The factors affecting continuity both of grade and geology.	Heavy mineral grade is broadly distributed in dune sequences and enriched in strand deposits. Both heavy mineral grade and deposit geology are consistent along strike and are expected to be reinforced by further infill and extensional drilling to the north and south.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Lucky Bay Deposits are approximately 10.7km long, 1.0 - 1.9km wide and is 27m thick on average. The lucky Bay North Deposit extends 4.2km north of the Menari North Deposit, 0.9km wide and extends to an average depth of 27m. Mineralisation occurs from surface over the majority of the deposit to a maximum of 63m depth.
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	Datamine Studio RM and Supervisor software was used for the resource estimation with key fields being interpolated into the volume model using the Inverse Distance weighting (power 3) method. Qualitative induration variables such as hardness and HM coatings were interpolated using nearest neighbour. Appropriate and industry standard search ellipses, informed by variography and kriging neighbourhood analysis, were used to search for data during the interpolation and suitable limitations on the number of samples, and the impact of those samples, was maintained. Topsoil is flagged in the model at 0.3m thickness for mine planning purposes. It is included in the reported resource. Extreme grade values were not identified by statistical analysis, nor were they anticipated in this style of deposit. No top cut is applied to the resource estimation. Interpolation was constrained by hard boundaries (domains) that result from the geological interpretation and mineralogical domaining.
	The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.	Pilot plant-scale test work was completed by AML in 2013 and by IHC Robbins in 2019. The current report considers variations from the previous resource estimate (Q2, 2022) and accounts for mining depletion and the incision of the Lucky Bay North Deposit from the northernmost, Inferred Resource region within the Lucky Bay Deposit.

Criteria	JORC Code Explanation	Comment
	The assumptions made regarding recovery of by-products.	No assumptions were made regarding the recovery of by-products.
	Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).	Deleterious calcite coatings of garnet grains are logged qualitatively by a mineralogist for all drill sample HM sinks. Conditioning of garnet and removal of calcite coatings is the subject of on-going trials and has been considered in plant design.
	In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.	The average parent cell size used was informed by Kriging Neighbourhood Analysis (KNA). It provides a statistically relevant spacing for all resource areas that are defined by a range of drill data spacings. This resulted in a parent cell size of 200m*50m*5m and 100*40*3 for the volume models at Lucky Bay and Lucky Bay North, respectively. To provide for smooth transition of topography and geological domains between data points, parent sub-cells are used. Four cell splits are available in the X orientation, five in the Y orientation and ten cell splits are available in the Z-orientation. Search orientation and range are guided by results of the KNA, augmented by the experience of the Competent Person.
	Any assumptions behind modelling of selective mining units.	No assumptions were made regarding the modelling of selective mining units. The cell size and the sub cell splitting will allow for an appropriate ore reserve to be prepared.
	Any assumptions about correlation between variables.	No assumptions were made regarding the correlation between variables.
	Description of how the geological interpretation was used to control the resource estimates.	Interpolation was constrained by hard boundaries (domains) that result from the geological interpretation and mineralogical domaining.
	Discussion of basis for using or not using grade cutting or capping.	Extreme grade values were not identified by statistical analysis, nor were they anticipated in this style of deposit. No top cut is applied to the resource estimation.
	The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	Validation of grade interpolations was done visually In Datamine by loading model and drill hole files and annotating and colouring and using filtering to check for the appropriateness of interpolations. Statistical distributions were prepared for model zones from both drill holes and the model to compare the effectiveness of the interpolation. Distributions of section line averages (swath plots) for drill holes and models were also prepared for each zone and orientation for comparison purposes. The resource model has effectively averaged informing drill hole data and is considered suitable to support the resource classifications as applied to the estimate.

Criteria	JORC Code Explanation	Comment
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 estimated on a dry basis. No moisture content is factored.
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	A 2% HM bottom cut has been applied to the Resource Estimates, in consultation with mining professionals working on plant design and optimisation of the Lucky Bay Project at projected operational cost and product price.
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.*	Conventional dry mining methods are employed and include a combination of loader and dozer feed to a mobile, in-pit mining unit. Dilution is considered to be minimal as mineralisation commonly occurs from surface. Recovery parameters have not been factored into the estimate. However, the valuable minerals are readily separable due to their SG differential and are expected to have a high recovery through the proposed, conventional wet concentration plant.
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.*	The metallurgical recovery and separability factors are similar to other mineral sand operations. Conventional mining and processing techniques are employed. Ore is wet-slurried and pumped to a conventional wet concentration plant producing a heavy mineral concentrate for on-site, screening and magnetic separation into product lines. There are no fine grained lower shoreface, lagoonal or tidal sediments and HM grain size shows a normal distribution. The mineral separation plant has been designed to cater for anticipated calcite coatings on HM grains.

Criteria	JORC Code Explanation	Comment
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.*	Wet processing uses no environmentally harmful chemicals. Sand and clay tailings are considered non-toxic. Thickened clay tailings are pumped to solar drying dams and then blended upon return to pit voids. Sand tails are stockpiled at commencement and then returned to the pit void by pump and in-pit stacker. Overburden dumps are expected to be minimal as ore occurs at/near surface. Topsoil stockpiles are included in the mine plan and reside off-path, proximal to the area of disturbance. The coincident land package is primarily open pastoral land with minor stands of acacia scrubland. Clearing for drilling purposes has been readily approved. Vegetation is well represented regionally and readily re-vegetated and no floral impediments to mining are anticipated. Water studies are on-going and include groundwater monitoring at a number of sites throughout the Lucky Bay Project area. A geographically dispersed bore field is proposed to reduce individual site drawdown. Waste water recycling is integral in the processing and tails disposal plan.
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 applied to the Lucky Bay Project is determined. It has been generated for each discrete geological domain. A component-based density algorithm, designed by Placer Resource Geologists, combines density characteristics from each textural and compositional component of the sample. This is then combined with laboratory-generated porosity data. Pore space is variable based on sample composition, hence the need to quantify the volume of the sample represented by saturated pores.
	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.	A total of 17 porosity assessments were made on a minimum 4kg sample of each geological domain. Calculated density is then applied and recorded, for all intervals, based on their geological domain.
	Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	No assumptions are made for bulk density.

Criteria	JORC Code Explanation	Comment
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.*	The resource classification for the Lucky Bay Project is based on the confidence in informing data and the resultant geological interpretation; grade and geological continuity, demonstrated by variography and twin drilling analysis; drill hole spacing and accuracy of the model to predict informing drill hole data. Input data are generally of a high quality and are supported by robust QA/QC protocols. Sample HLS results are supported by individual sample composition and Garnet sizing analyses and mineral assemblage and mineral chemistry analysis on geologically-domained HM composites. Post-depositional modification was insignificant and did not influence domaining of geological units or resource classification.
	Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).	The classification of the Mineral Resource is supported by all of the criteria as noted above.
	Whether the result appropriately reflects the Competent Person's view of the deposit.	The results appropriately reflects the Competent Person's view of the deposit categorisation.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	Independent consultants are engaged by Placer to undertake peer review of resource estimates, completed by the Competent Person, Richard Stockwell. Peer review has found mineral resource estimates to be suitable for reserve optimisation in the Indicated and Measured category areas.
Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	The accuracy and confidence of the Lucky Bay Project Resources are conducive to reporting at a Measured, Indicated and Inferred Status. This is largely due to: The drilling and sampling density and the subsequent detailed geological interpretation, which offers good control and confidence for the mineralisation. The reconcilably high accuracy of the survey apparatus and methods applied to the drilling locations and the topographic surface. The demonstrable quality in the input assay and mineralogical data. The results of qualitative assessment of the Mineral Resources estimate and comparison with previous resource estimates indicates the robustness of this particular resource estimation exercise.

Criteria	JORC Code Explanation	Comment
	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.	The estimates are global.
	These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	No production data have been made available to the Competent Person.

Annexure B

LUCKY BAY GARNET PROJECT

LUCKY BAY NORTH RESOURCE ESTIMATE REPORT

Prepared for Australian Garnet Pty Ltd

PRINCIPAL AUTHOR:

Richard Stockwell BSc (Hons) Geol, FAIG

DATE ISSUED:

June 2023

PO Box 110, Darlington WA 6076 | E info@placerconsulting.com.au

www.placerconsulting.com.au

The Directors
Australian Garnet Pty Ltd
Level 1, 46 Edward Street
Osborne Park, WA, 6017
Australia.

Dear Sirs,

RE: Resource Estimate Report: Lucky Bay Garnet Project

Placer Consulting Pty Ltd (Placer) has been commissioned by Australian Garnet Pty Ltd (AGPL) to provide a mineral resource estimate (MRE) for the Lucky Bay North Deposit, owned by AGPL in the mid-west region of Western Australia.

Placer and its employees/associates are not, nor intend to be, directors, officers or employees of AGPL and have no material interest in any of the projects, or of AGPL. The relationship with AGPL is solely one of professional association between client and independent consultant. The MRE and this report are prepared in return for professional fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this Report.

This report was prepared by Mr. Richard Stockwell (Principal Geologist) of Placer in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition).

Mr. Stockwell is a Fellow of The Australian Institute of Geoscientists. He is a full-time employee of Placer and has sufficient experience, which is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the JORC Code 2012 Edition.

Signed for and on behalf of Placer Consulting Pty Ltd,

Richard Stockwell BSc (Hons) Geology, FAIG
Director/Principal

This report has been commissioned from and prepared by Placer for the exclusive use of Australian Garnet Pty Ltd. Each statement or opinion in this report is provided in response to a specific request by Australian Garnet Pty Ltd to provide that statement or opinion. Each such statement or opinion is made by Placer in good faith and in the belief that it is not false or misleading. Each statement or opinion contained within this report is based on information and data supplied by Australian Garnet Pty Ltd to Placer, or otherwise obtained from public searches conducted by Placer for the purposes of this report.

PLACER CONSULTING PL
ABN 34 640 432 024

PO Box 110, Darlington WA 6076

www.placerconsulting.com.au

Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and
Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Report name: Lucky Bay Garnet Project Resource Estimate Report.

For: Australian Garnet Pty Ltd

On: Mineral resource estimate for the Lucky Bay North Deposit, Lucky Bay Project, Western Australia.

Dated: 30th June 2023

ABN 34 640 432 024

PO Box 110, Darlington WA 6076

www.placerconsulting.com.au

Statement

I, Richard Glen Stockwell confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having a minimum of five years' experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Fellow of the *Australian Institute of Geoscientists* or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the data and compiled the Report to which this Consent Statement applies.

I am a full-time employee of Placer Consulting Pty Ltd and been engaged by Australian Garnet Pty Ltd to provide an updated resource estimate for the mineral resources of the Lucky Bay Garnet Project, on which the Report is based, on 30th June, 2023.

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects the form and context in which it appears, and the information in my supporting documentation relating to Exploration Targets, Exploration Results and Mineral Resources.

ABN 34 640 432 024

PO Box 110, Darlington WA 6076

www.placerconsulting.com.au

CONSENT

I consent to the release of the Report and this Consent Statement by the directors of Australian Garnet Pty Ltd.

Signature of Competent Person: Date: 30th June, 2023

Professional Membership: Australian Institute of Geoscientists. Membership Number: 3685

Signature of Witness:

Helen Tarbotton

212 Mangles Road, Stirling Estate

Western Australia, 6271

EXECUTIVE SUMMARY

Background

Australian Garnet Pty Ltd (AGPL) is a subsidiary of Resource Development Group (RDG) and the sole owner of the Lucky Bay Garnet Project, located 35 kilometres north of the township of Port Gregory and 113 kilometres north of the Geraldton Port. It comprises current Exploration Licences (E70/2509 & E70/5117), Mining Licences (M70/1280 & M70/1387) and licences for infrastructure and general purposes (L70/134, L70/166 – L70/170, L70/178, L70/215 & G70/253).

Mining Licence 70/1280 hosts the Menari Deposit and Mining Licence M70/1387 hosts the Menari North Deposit, which collectively are known as the Lucky Bay Deposit. The Lucky Bay North (LBN) Deposit is located within Exploration Licence E70/2509 and represents a continuation of the mineralised sand of the adjacent (to the south) Lucky Bay Deposit. Access agreements are in place with landowners corresponding with the Lucky Bay Deposits.

Step-out drilling of the LBN Deposit, HM analysis, Garnet sizing and QEMSCAN mineralogy composite results, are included in the MRE and discussed in this report.

Geology

The Lucky Bay area is dominated by the Tamala Limestone, a belt of coastal limestone extending up to 8km inland. It is comprised of aeolianite that accumulated originally as coastal sand dunes in the Late Pleistocene. A number of erosional scarps have developed on the seaward side of the Tamala Limestone that have received deposition of HM-enriched sands during times of sea-level still stand. Mobile coastal dunes, equivalent to the Safety Bay Sand are extensively developed and transgress over the Tamala Limestone. Garnet-enriched mineralisation is hosted in palaeo-beach placers against the Tamala Limestone and in overlying dune systems.

The LBN Deposit comprises well washed and sorted coastal sediment. Clay and Silt of the Slimes fraction are very low throughout the region (5.2% on average) and presents as a fine, lime dust. Whilst light cementation of dune sequences is ubiquitous, only minor penetration issues (grinding) are recorded in drill logs. Grain coatings are widespread and comprise calcium carbonate cement on, or agglomerating, HM grains.

Only the Western and Eastern Dunes are interpreted at LBN. There is an indication of the re-appearance of the Eastern Strand at 18200m. The Western Dune is characterised as having a higher Garnet content and containing the majority of the plus 500µm size fraction. It is poorly developed and occurs as a minor onlap in the southwest and northwest of the deposit.

Whilst mineralisation remains open to the north, east and west, the limit of economic mineralisation appears to have been contained.

Sampling and Logging

All holes were drilled with a reverse circulation, Aircore (RCAC) drill rig, using water injection to control the loss of fines. Sample sub-splits are collected at a 1.5m down-hole interval, using an on-board rotary splitter mounted beneath the rig cyclone.

Sample gates are set at 12.5% of the splitter cycle, which delivers about 2kg of material per sample. The collection of drill data is by field computer with industry-specific logging software. Entered data are automatically validated through referenced library tables.

Logging is based on a representative grab sample of all down-hole intervals that is panned for heavy mineral estimate and host unit observation. Logging codes developed by Placer Consulting Resource Geologists are stylised to capture observations on lithology, colour, grainsize, induration and mineralogy. Rock hardness (H) is estimated subjectively by the Geologist, with input from the driller, and is defined numerically by the relative ease of drill penetration through the affected interval.

Heavy Mineral logging is completed on all HM sinks by a mineralogist (Diamantina) to capture information relating to mineralogy, Garnet content and quality. Garnet grain size is determined by physical sieve sizing all drill samples.

Input Data Validation

Sample weights are consistent at an average of 1.9kg across the dataset. This is considered representative for the detrital material being sampled. No significant sample loss is recorded from the drilling programme.

Various quality control samples were submitted routinely. Field duplicates, field standards and lab standards are inserted at a frequency of one in 40 and lab replicates are inserted at a frequency of one in 25 to 1 in 40, to determine the precision and accuracy of results. The host laboratory for these samples is Diamantina.

Scatter, quantile-quantile and pair difference plots were generated for duplicate HM, slimes percentage (SL), sand (SAND), oversize percentage (OS), all garnet grainsize fractions and QEMSCAN results. Standards results were monitored with the use of control charts. The plots of the various routine-control sample pairs and control charts show an adequate level of precision for this estimate.

A total of 4 twin holes were drilled across a geographically dispersed area within the LBN Deposit to quantify short-range variability in grade intersections and lithological character. Variability and bias observed in twin drilling analysis is not considered material to the integrity/quality of the resource database. Results are considered sufficient to support assumptions on grade and lithological character for the resource estimate at the quoted confidence levels.

Survey and Data Spacing

Australian Garnet utilizes on-site surveyors for real time kinematic global positioning system (‘RTK GPS’) set out of drill collar locations with an accuracy of 0.02m in all axes. The LBN Digital Terrane Model (DTM) was flown by Quantum Surveys, Geraldton using a fixed wing aircraft fitted with LiDAR laser survey equipment, which has an elevation accuracy of 10cm. All survey data used in the LBN resource dataset has undergone a transformation to a local, mine grid for the interpolation. This seven-parameter grid transformation aligns the average strike of the shoreline placers with local North, (-20.97˚).

The drill data spacing is nominally 400m North, 80m East, and 1.5m down hole to inform areas of the resource classified at an Indicated level of confidence. A maximum spacing of 800m North, 160m East and 1.5m down-hole inform areas of the resource classified at an inferred level of confidence.

All holes are orientated vertically to penetrate the sub-horizontal mineralisation orthogonally. The dune mineralisation strikes approximately north-south on the local mine grid. Drilling is patterned sympathetic to the geological orientation. Drill lines are aligned east-west (local grid) being approximately perpendicular to the deposit strike.

Mineralogy

Mineralogical input data includes individual sample, mineralogical scanning results, QEMSCAN and Garnet sizing analyses. A series of 29, geologically-domained QEMSCAN composites inform the LBN deposit mineralogy.

Garnet is determined to account for 76.5% of the heavy mineral assemblage for the LBN resource (QEMSCAN). Total contained Garnet accounts for about 3.2Mt. The Western Dune consistently hosts a greater concentration of Garnet, which averages 77.4% of the mineral assemblage. The Western Dune also hosts the majority of the coarse Garnet in the plus 500µm size range.

The bulk of the Garnet resides in the 125-250µm and 250-500µm size classes with each averaging about 56% and 35% of the total Garnet volume, respectively. It also shows the increased dominance of the 125 – 250µm size class at LBN when compared to the Lucky Bay Deposit. There is a continued, gradational reduction in Garnet and increase in Titanium minerals northward through the Lucky Bay and Lucky Bay North deposits.

Further Work

Further infill drilling and analysis will be required at LBN to increase the confidence in the MRE. For now, the Indicated resource is considered sufficient for preliminary mine planning and the total resource suitable for tenement application for Retention or Mining Licence.

Populating the master, MX Deposit database remains a priority. The current method of storing validated batch files does not meet industry best practice.

Substantial additional information is available in QEMSCAN results. Placer recommends further interrogation of mineralogy, sizing and image analysis to assist with characterisation of accessory minerals and in particular, the quantification of calcite coatings.

The characterisation of accessory minerals (Ilmenite, Zircon, Rutile) remains outstanding. Placer recommends the completion of XRF analysis on mineral concentrates to determine the quality of these minerals to assist in placing them in the market.

It appears that only minor resource extension potential remains to the north and laterally, although the limit of economic mineralisation appears to have been tested from this work program (Figure 9). This should be re-visited upon completion of the mining reserve calculations.

Resource Model Construction and Interpolation

Drill hole data tables were imported into Datamine Studio RM mining software, de-surveyed and projected vertically to the trimmed DTM topographic surface. The drill hole file was then zoned according to the geological interpretation wireframes in the same order of addition as applied to the model construction.

The model has been constrained in the XY plane by the model boundary string and Z plane by the topographic surface. Topsoil is designated in the model by a -0.3m vertical translation of the topographical surface.

In a similar manner, the basement DTM surface was translated downward ten metres to define the lower, arbitrary basement horizon.

A total of 2 dune domains, in conjunction with topography and basement wireframes, were used to zone the block model and the resource drill hole file.

A model prototype is created using the model origin, parent cell dimensions, and a sufficient number of parent cells in each direction to extend to the model boundary. The parent cell dimensions are designed to have a minimum of one floating cell in both the X and Y directions with-respect-to the drill hole spacing. The Z direction does not have a floating cell.

Using the prototype, the block model is constructed and zoned and with the drill hole file equivalently zoned the fully constrained interpolation is made possible. Datamine Studio RM is utilised in the computerised estimation of the LBN Resource Estimate.

Interpolation of the resource drill hole data into the block model occurs using an orientated elliptical search volume shape. This interpolation is anisotropic and occurs discretely according to the ZONE key field in both the model and drill hole file. A discretisation array of 3 x 3 x 1 is employed for interpolation averages into each cell. All cells/sub-cells are interpolated individually.

Two different interpolation methods are utilised. Inverse Distance Power method (to the power of three) performed a superior interpolation of data synonymous with the dune deposits. Nearest Neighbour is utilised for more clustered, post-depositional modification: rock hardness (H) rock estimate (RK_EST), HM coatings (COATINGS) and mineralogical composite number (COMPID).

Three search volumes were utilised to populate model cells with a maximum of 30 samples allowable in any search population. A multiplication of the search volume by a factor of 2 and 5 were used for the second and third search, respectively. Model cells are then populated by the estimation search volume applied (EST).

Resource Model Validation

The block model was validated by independent consultant Melinda Clarke and separately by the CP. Findings from each validation process were compiled and minor adjustments to wireframes and interpolation parameters were initiated for re-running the interpolation. The final model (lbnmd3) was then viewed spatially against the resource drill hole file in the XZ, YZ, XY orientations stepping through the model at the parent cell dimension distances. Each data field was individually highlighted to observe the performance of the interpolation.

The Inverse Distance weighting interpolation model values were seen to be adequately similar to the incident drill hole data and intermediate model cells displayed acceptable levels of smoothing. Nearest Neighbour fields in the model also displayed adequate similarity to the incident drill hole data and acceptable levels of smoothing in intermediate cells.

The performance of the resource block model interpolation is also measured by producing a series of swath plots, generated by Datamine Studio RM software, that compare the model to the drilling at set panel widths.

The block model and the drill hole file are both flagged with XPANEL, YPANEL and ZPANEL where X, Y and Z dimensions are integrated into multiples (panels) of 40m, 200m and 3m, respectively. Accumulated averages of HM and SL are then calculated for both model and drilling data and are reported by Resource Class.

Despite variations due to data density, the model has reasonably interpolated interval data with adequate levels of smoothing. The interpolation of HM and Slimes is appropriate for the resource classifications as stated.

Resource Estimate and Classification

The bulk density applied to the Lucky Bay Resource has been generated for each discrete geological domain. A component-based density algorithm combines density characteristics from each textural and compositional component of the sample. This is then combined with laboratory-generated porosity data. A total of 17 porosity assessments were made on a minimum 4kg sample of each geological domain. Calculated density is averaged by zone and applied to the resource model.

The designation of resource category was by the manual construction of resource boundary strings to constrain areas of greater data density and geological continuity.

The resource statement for the Lucky Bay North Resource, at a 2% HM bottom cut, is as follows:

"A combined Indicated and Inferred Resource of 117.6Mt of material containing 4.2Mt of Heavy Minerals at an average grade of 3.5% Heavy Minerals and 5.2% Slimes, which includes:

- an Indicated Resource of 87.3Mt containing 3.3Mt of Heavy Minerals at an average grade of 3.7% Heavy Minerals and 5.3% Slimes and

- an Inferred Resource of 30.3Mt containing 0.9Mt of Heavy Minerals at an average grade of 3.0% Heavy Minerals and 4.9% Slimes."

No previous estimates are known for the Lucky Bay North Deposit and no comparisons can be made.

Resource Review and Confidence

The Competent Person, Richard Stockwell performed a review of drilling, sampling and assay techniques used to produce the LBN dataset and has deemed them to be suitable for the purposes of mineral resource estimation. Richard completed the geological interpretation, the volume model and the interpolation. Independent consultant Melinda Clarke (Datamine Australia) completed the peer review and validation of the grade model.

The accuracy and confidence of the LBN Resource Estimate is conducive to reporting to an Indicated level of confidence. Lower confidence areas are primarily downgraded due to lower data density.

Factors that influence the confidence levels applied to the resource include:

- The drilling and sampling density and the subsequent geological interpretation, which offers sufficient control and confidence for the mineralisation,
- The application of industry best practice data capture techniques and procedures,
- The representative sample size and demonstrable sample quality assurance,

- The reconcilably high accuracy of the survey apparatus and methods applied to the drilling locations and the topographic surface,
- The demonstrable quality in the input assay and mineralogical data,
- The application of Competent Persons to data capture, resource estimation and peer review,
- The use of industry-leading modelling and estimation software and techniques.

Contents

List of Figures

List of Tables

1 Introduction

1.1 Project Location and land tenure status

Australian Garnet Pty Ltd (AGPL) is a subsidiary of Resource Development Group (RDG) and the sole owner of the Lucky Bay Garnet Project, located 35 kilometres north of the township of Port Gregory and 113 kilometres north of the Geraldton Port. It comprises current Exploration Licences (E70/2509 & E70/5117), Mining Licences (M70/1280 & M70/1387) and licences for infrastructure and general purposes (L70/134, L70/166 – L70/170, L70/178, L70/215 & G70/253).

Mining Licence M70/1280 hosts the Menari Deposit, Mining Licence M70/1387 hosts the Menari North Deposit, collectively known as the Lucky Bay Deposit. The Lucky Bay North Deposit currently resides on Exploration Licence E70/2509 and is a continuation of dune and strand formation from Lucky Bay. Tenements are all in good standing with the Department of Mines, Industry, Regulation and Safety (DMIRS) at the time of reporting.

The Lucky Bay Garnet Project (Figure 1) is coincident with the Ajana (to the north) and Geraldton 1:250,000 series map sheets (SG50-13 and SH50-1). Access agreements are in place with landowners corresponding with the Lucky Bay Deposits (Table 1).

Table 1. Summary of land ownership and status.

Tenement Number:	**M70/1280**	**M70/1387**	**E70/2509**	**E70/5117**
Tenement Holder:	Australian Garnet Pty Ltd	Australian Garnet Pty Ltd	Australian Garnet Pty Ltd	Australian Garnet Pty Ltd
Property Location:	Lot 1 on Plan 91564, Lot 300 on Plan 60565, Lot 1431 on Plan 251608.	Lot 1 on Plan 91564, Lot 9 on Plan 45822, Lot 19 on Plan 43159, Lot 20 on Plan 43159, Lot 26 on Plan 43161, Lot 27 on Plan 43161, Lot 32 on Plan 45823, Lot 4623 on Plan 137858 & Lot 4833 on Plan 232423	Lot 1 on Plan 91564, Lot 18 on Plan 43158, Lot 19 on Plan 43159, Lot 20 on Plan 43159, Lot 200 on Plan 45964, Lot 300 on Plan 60565, Lot 301 on Plan 60565, Lot 1431 on Plan 251608.	Lot 200 on Plan 45964,
Title:	Freehold	Freehold	Freehold	Freehold
Property Owner:	Australian Garnet Pty Ltd, Simkin, Graham Keith & Robin Lilian.	Australian Garnet Pty Ltd, Hose, Honora Mary, Robert James & William	Australian Garnet Pty Ltd, Garnet International Resources Pty Ltd, Hose, Honora Mary, Robert James & William, Simkin, Graham Keith & Robin Lilian.	Garnet International Resources Pty Ltd,

1.2 Project Scope and Management

The Lucky Bay North Deposit was drilled late in 2022 to explore the northern continuation of the Lucky Bay Deposit, where identified in remote sensed data and historic drilling. The Mineral Resource Estimate (MRE) is based on this drilling and analysis programme and includes a single line of previous, modern drilling north of M70/1387.

A separation of the MRE at the northern boundary of M70/1387 was promoted as a realistic break between Lucky Bay and Lucky Bay North. This has required the movement of Inferred resource from Lucky Bay (Placer, 2022) that extends 1km north of M70/1387. The write-down of the Lucky Bay MRE for this and mining depletion is proposed.

The resource estimation includes all validated modern data from the LBN Deposit (Table 2). No historic data were used.

Richard Stockwell (Director of Placer Consulting Pty Ltd) is engaged as an independent consultant by Australian Garnet Pty Ltd to provide geological and resource advice and assistance. This work is carried out on a contractual basis with Richard competing the MRE and independent consultant Melinda Clarke (Datamine) completing the peer review.

1.3 Previous Exploration

The exploration history of the Lucky Bay Project is adequately considered in Placer (2022). The Lucky Bay North (LBN) area was discovered by Westralian Sands Limited (WSL) as they extended their exploration north from the Menari Deposit, between 1990 and 1999. Aircore drilling by WSL did not extend into the vegetated dune but sufficient indications of high-grade material were identified by drilling and later by AGPL, in remote sensed data provided by the Geological Survey of WA.

No further on-ground work was conducted till exploration by AGPL extended into the area in March 2021. A single line of drilling 600m north of M70/1387 was completed to demonstrate the anticipated deposit extension into E70/2509. Drill holes were spaced at 160m-east centres and infilled in 2022. This area was included in the Lucky Bay MRE (Placer 2022) as an Inferred resource.

Work completed in November 2022 for this MRE includes 87 Aircore drill holes for 2,310 metres of resource extension drilling, plus a further 4 twin holes for 102m. Drill holes BA440 – BA448 were included from the 2021 programme and comprise 8 holes for 267m.

The LBN drill pattern extends for a total distance of 3.8km north of M70/1387. The first 2.2km is drilled at a 400mN* 80mE spacing after which, two lines are drilled at 800mN*160mE spacing. All samples (including QA samples) were subjected to assay by Heavy Liquid Separation (HLS) from which all Heavy Mineral (HM) sinks were scanned by mineralogist and then sieved for sizing analysis. Customarily, this work programme includes a substantial QA component, which comprises field duplicate, field standard, twin drilling and laboratory QA sample analyses.

A total of 29 QEMSCAN analyses (plus 2 replicates) were completed on HM sink composites, designed sympathetically to geological zone boundaries and limited, in most cases to a single drill line.

1.4 Geology

1.4.1 Regional Geology

The Lucky Bay area is dominated by the Tamala Limestone, a belt of coastal limestone extending up to 8km inland (Gibson, 1997). It is comprised of aeolianite that accumulated originally as coastal sand dunes in the Late Pleistocene. This has accreted over a basement of Late Cretaceous aged Winning Group sediments and the Ordovician (Isaky & Mory, 1999) Tumblagooda Sandstone in the north of the project area.

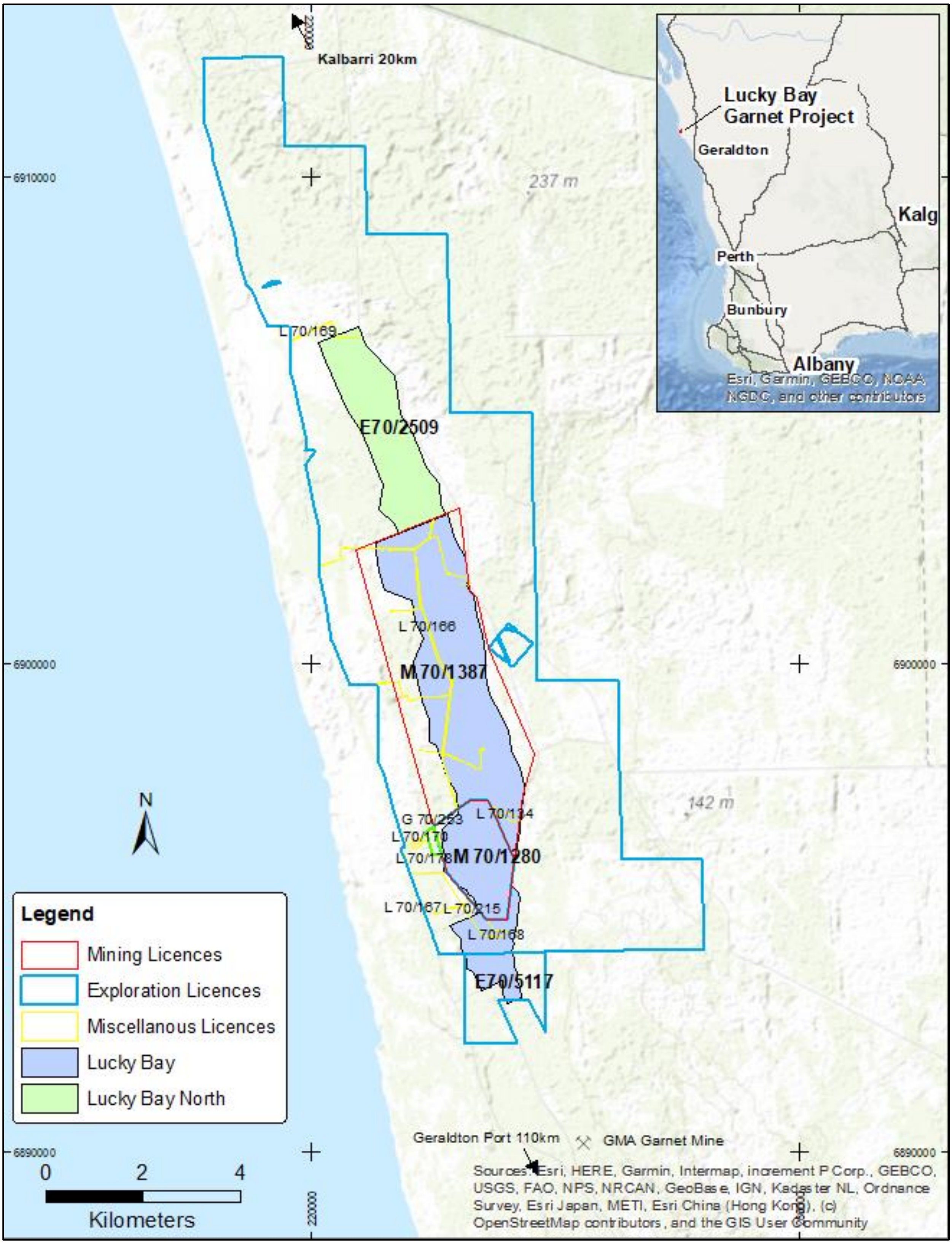


Figure 1. Location plan showing land tenure, resources and access.

A number of erosional scarps have developed on the seaward side of the Tamala Limestone that have received deposition of HM-enriched sands during times of sea-level still stand. Typically, this deposition and preservation is enhanced in the protected environment northward of prominent coastal headlands. Mobile coastal dunes, equivalent to the Safety Bay Sand are extensively developed and transgress over the Tamala Limestone.

They are divided into a coastal zone of large mobile longitudinal and crescent dunes from an inner zone of older, stabilized and more sparsely distributed crescent dunes (Gibson, 1997). The older and more sparsely distributed crescent dunes host the mineralisation within the Lucky Bay project area.

Proterozoic Granulite, Granite and Dolerite of the Northampton Complex crop out to the east of the project area. Regional geology of the area is further described by the GSWA Ajana and Geraldton 1:250,000 Geological Series Explanatory Notes.

1.4.2 Project Geology

Heavy minerals at Lucky Bay are derived originally from the metamorphic rocks of the Northampton Complex, which were delivered to the coast via the Hutt River and smaller tributaries. A dominant northward-moving long-shore drift current has spread this mineral along the coast into beach and dune sequences such as the Tamala Limestone and Safety Bay Sand.

It is most likely that the immediate and most dominant provenance of mineral at Lucky Bay results from the erosion and re-working of the Tamala Limestone and Safety Bay Sand. Heavy mineral grades are typically much higher in the strand deposits and average around 10%, whereas dune occurrences are typically half of that.

The LBN deposit comprises well washed and sorted coastal sediment. Clay and Silt of the Slimes fraction are very low (5.7% on average) and typically presents as a fine, lime dust. Laboratory-determined Oversize presents as limestone cemented sand aggregates and lesser limestone chips in caprock areas, limited to older dune ridges. Whilst light (soft) cementation of dune sequences is ubiquitous, only minor penetration issues (grinding) are recorded in drill logs. Grain coatings are widespread and comprise calcium carbonate cement on, or agglomerating, HM grains.

Only the Eastern and Western dunes are interpreted at LBN. There is some Eastern Strand apparent at 18200m but was not intersected elsewhere at this drill spacing. The Western Dune is poorly developed and occurs as a minor onlap in the south and north of the deposit.

Grain coatings are widespread and comprise calcium carbonate cement on, or agglomerating, HM grains. Coatings are logged by mineralogist during the HM logging stage (post HLS).

2 Sampling Techniques and Data

The data collected for the Lucky Bay resource estimate is presented in Table 2.

2.1 Sampling techniques

Aircore drill sample sub-splits are collected at a 1.5m down-hole interval, using an on-board rotary splitter mounted beneath the drill rig cyclone. Sample gates are set at 12.5% of the splitter cycle, which delivers about 2kg of sample, dependent on ground conditions.

Table 2. Summary of Lucky Bay Database.

Owner	Australian Garnet
Holes	95 holes (Excludes 4 twins)
Metres	2,577m (excludes 102 twinned metres)
Sample type	12.5% rotary split, 1.5m interval
Assays	1,748 field samples (Excludes 43 field duplicates, 41 field standards, 42 lab repeats; 45 lab standards, 68 twin assays)
HM logging - microscope	1,748 HM mineralogy + Garnet/HM sizing
Bulk/test-work samples	Composites: 29 QEMSCAN
Survey reference accuracy	DGPS (0.02m)
Nominal data spatial density	80m (X); 400m (Y); 1.5 (Z), 160m (X); 800m (Y); 1.5m (Z)

A plan of drill holes completed at Lucky Bay North is located in Appendix 1.

2.2 Drilling techniques

All drilling was completed above the water table using a Reverse Circulation Aircore (RCAC) drilling rig. All holes are at a fixed orientation and are orientated vertically using a spirit level prior to the commencement of drilling. Outer diameter of the drill column is NQ drill pipe size at 75mm.

Consistency in split sample weights is monitored via intermittent testing in the field with spring scales and through recording of air-dried sample weights at the sample preparation stage. Weights are generally between one and three kilograms and this is considered representative for the detrital material being sampled.

2.3 Drill sample recovery

Drilling is completed using water injection to assist both penetration through clays/rock and maintain sample quality and delivery. A sample quality field is logged which records poor recovery intervals.

No significant sample loss is recorded from the drilling programme, although surface samples are typically smaller due to lower compaction. The configuration of drilling and nature of sediments encountered results in negligible loss.

2.4 Logging

The collection of drill data is by field computer with industry-specific logging software (MX Deposit). Data entered are automatically validated through reference to library tables on all fields entered. Typing or logging code errors, repetition of key identifiers (e.g. BHID, SAMPLE) and conflicts in related tables (e.g. down-hole depth) are quarantined by the software and require resolving immediately before logging can proceed.

Logging is based on a representative grab sample, for all down-hole intervals that is panned for heavy mineral estimate and host unit observation.

Logging codes, developed by Placer Resource Geologists, are stylised to capture observations on lithology, colour, grainsize, induration and mineralogy (Table 3). Rock hardness (H) is estimated subjectively by the Geologist, with input from the driller and is defined numerically (Appendix 6) by the ease of drill penetration through the affected interval.

Heavy Mineral logging is completed on all HM sinks by a mineralogist (Diamantina) to capture information relating to mineralogy, Garnet content and quality (Table 4). Grain size analysis is completed on all drill samples. HM sinks are physically sized by sieve

2.5 Sub-sampling and sample preparation

Sample cuttings are collected in calico bags via an on-board rotary splitter, located beneath the cyclone, as drill feed and rotation occur. Routine split sample weights do vary subtly with depth but remain largely within the 1.5kg – 2.0kg average weight range.

An analysis of sample weights is included in Figure 2 for the LBN drilling. Greater variability is observed at depth as an artefact of the low sample population and the influence of positive groundwater pressure in some holes. Sample weights are very consistent and confirm the quality of drilling and sampling technique. The average sample weight is 1.9kg, once dried and this is considered representative for the detrital material being sampled.

Field duplicates are collected to establish sampling precision. Duplicate samples are collected using an identical method to the routine split samples by hanging a calico sample bag consistently from a second set of gates, directly beneath the rotary splitter.

All field samples are routinely dispatched to Diamantina where they are placed on racks and dried prior to the routine assay process.

2.6 Quality of assay data and laboratory tests

The assay process adopted for LBN resource samples is performed by Diamantina Laboratory and is summarized in the assay flow diagram shown in Appendix 2.

Table 3. Description of fields used in the standard logging template.

Field	Description
BHID	Hole Identifier
FROM	Depth from
TO	Depth to
SAMPLE	Sample identifier
SAMPLE TYPE	Routine or QA, QA type
SAMPLE QUALITY	Observation on drill sample representivity
COL1	Major lithology colour observed in grab sample
LI1	Major Lithology observed in grab sample
Li1PCT	Major lithology estimated percentage of total grab sample
DGS	Dominant grainsize observed in grab sample
CGS	Coarse grainsize observed in grab sample
SORT	Estimated sorting (grainsize range) of the sediment in grab sample
COL2	Minor lithology colour observed in grab sample
LI2	Minor Lithology observed in grab sample
HM_EST	Estimated heavy minerals panned in grab sample
ROCK	Observed Rock type
RK_EST	Estimated rock percent of interval
H	Estimated rock hardness based on drill penetration; scale of 1 - 5
TERM	Additional drill qualifier
COMMENT	Commentary on drilling/sampling, mineralogy (incl. grainsize), rock/clay bands, drill method (wet/dry)

Table 4. HM logging template field descriptions.

Field	Description
SAMPLE	Sample identifier
GARNPCT	Estimated percentage of Garnet in heavy mineral sample (+/- 5%)
MINUS125	Sub-125 micron HM grain size range (photomicrograph sizing analysis)
125-250	125-250 micron HM grain size range (photomicrograph sizing analysis)
250-500	250-500 micron HM grain size range (photomicrograph sizing analysis)
PLUS500	Plus-500 micron HM grain size range (photomicrograph sizing analysis)
OTHER	Estimated heavy mineral percentage excluding Garnet (dominantly titanium minerals)
COATINGS	Estimated level of grain (calcite) coatings
LOGGER	Name of person completing microscope logging
DATE	Date of Logging

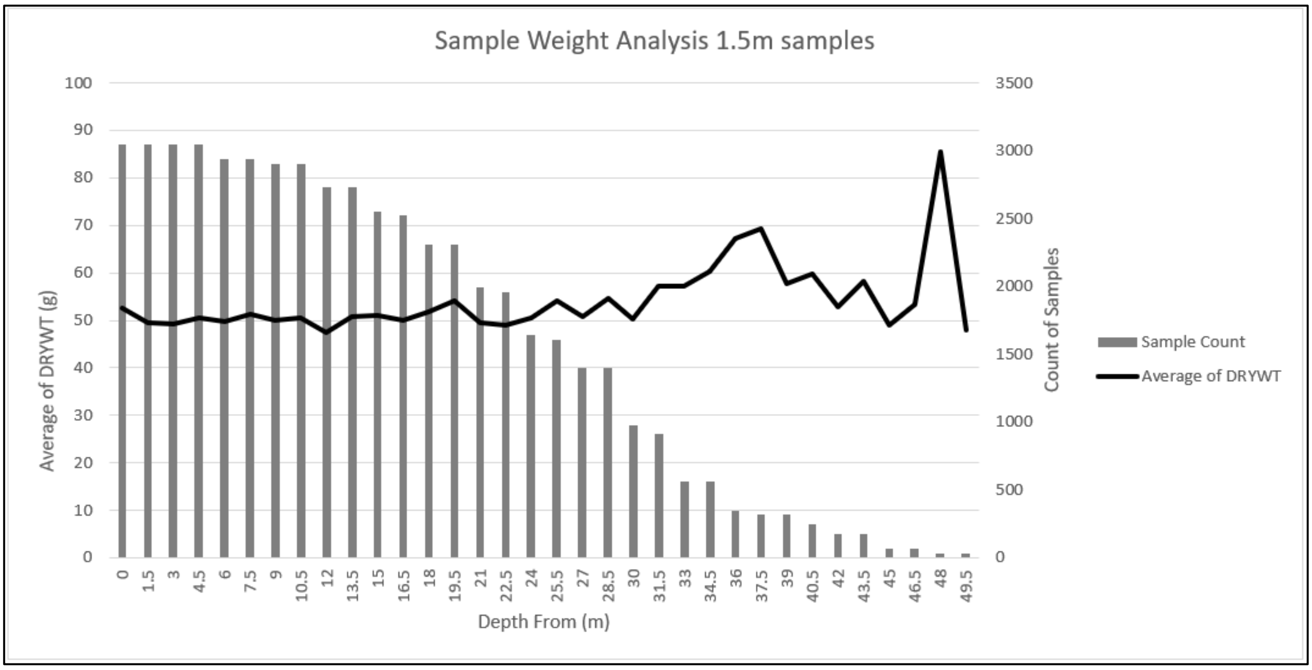


Figure 2. Graphs showing rotary-split (dried) sample weights [DRYWT] and sample count by interval type.

To maintain QA/QC, a duplicate and standard assaying procedure was applied by Placer Resource geologists. Both standards and duplicates are submitted blind to the laboratory at a frequency of 1 in 40 routine samples. Diamantina laboratory submits an additional standard sample at a 1:40 frequency and analyse a laboratory replicate sample at a rate of 1:15 – 1:40. Replicate analyses of HM grainsize and QEMSCAN mineralogy are also performed.

Analysis of sample duplicates is undertaken by standard geostatistical methodologies (Scatter, Pair Difference and QQ Plots) to test for bias and to ensure that sample splitting is representative. Standards determine assay accuracy performance, monitored on control charts, where failure (beyond 3SD from the mean) triggers re-assay of the affected batch. The following sections and Appendix 3 present all QA data.

2.6.1 Field Duplicates

Field duplicate pairs performed well with 93% of all SL pairs and 91% of all HM pairs being within 20% relative difference. Oversize performed poorly with only 33% of all pairs being within 20% relative difference. This is customary for the larger particles and does not impact the estimate.

2.6.2 Laboratory Duplicates

Laboratory duplicates are performed by Diamantina at a frequency of one in 15 to one in 40 to track laboratory precision in screening and HLS stages of analysis. These duplicate pairs performed well with 93% of all SL pairs and 100% of all HM pairs being within 20% relative difference. This is an enviable level of precision for this estimate.

The investigation of laboratory duplicates was extended to assess the duplicate precision in sieve sizing results. Results indicate a very high level of precision in sizing analyses with negligible average relative difference between pairs in the 125 - 250µm and 250 - 500µm size ranges.

A 3.8% and -2.51% relative bias was identified in the duplicate when compared to the original sample in the minus 125µm and plus 500µm size fraction, respectively.

As detailed in Placer (2022), the plus 500µm fraction suffers from a low grain count and presenting a representative population of grains to the sieve is often not possible. The same can be said of the minus 125 µm fraction in this study. The bias observed in the duplicate analysis is not considered material to the confidence in the resource estimate. However, duplicate analysis of the very fine and very coarse Garnet fraction does demonstrate the lower relative confidence in this fraction compared to the more-populated, mid-sized fractions.

A total of 2 replicate samples were processed by the CSIRO on composite samples submitted for QEMSCAN modal mineralogy analysis. Comparative statistics were processed for a selection of mineral species and results indicate a high level of precision for all, with 100% of pairs being within 10% relative difference and an absolute average relative difference for Garnet of 0%. A relative difference of 1.05% was returned for Alt Ilmenite pairs and 5.8% for Rutile pairs as a result of a low population of Rutile grains in the HMC.

QEMSCAN replicate results suggest, as with sizing analyses, that grain population is intrinsic to the repeatability of sample analysis results. Those species with a high grain count will naturally generate a more precise result.

2.6.3 Standard samples

Standard samples are used to test laboratory accuracy and can also be used to highlight assay batch error. A 1:40 insertion frequency is employed in the field and, independently, in the laboratory. Standards performance is monitored using control charts.

All laboratory standard results for HM and SL are within 3 standard deviations (SD) of the mean. The P1 standard submitted in the field performed very poorly with 73% of HM and 41% of all HM results being outside 3SD of the mean. Rather than being the fault of the standard, it appears the processing of the test batch, prior to field work commencing, was not completed to real-world conditions. The SD on HM is 0.04% and the SD on SL is similarly precise at 0.19%. This indicates a spectacular level of accuracy in the standard and a preferential treatment during trial analysis. As further results are received, the SD limits will be re-calibrated from a greater population of data. Results demonstrate an adequate level of accuracy is established for this estimate.

2.7 Verification of sampling and assaying

2.7.1 Significant Intersections

The LBN Deposit is a moderate HM grade, stacked dune accumulation that does not carry excessive grades or suffer from 'nugget' effects, typical of other commodities. A low HM grade variance is characteristic of the dataset that records only 1% of samples assayed in excess of 10% HM and an average HM grade of 4.1% at a 2% bottom cut.

2.7.2 Twinned Holes

A total of 4 twin holes were drilled across a geographically dispersed area at LBN. These twins are used to quantify short-range variability in grade intersections and lithological character and to inform on resource confidence for the estimation.

Variability and bias observed in twin drilling analyses (Appendix 4) is not considered material to the integrity/quality of the LBN resource database. Results are considered sufficient to support assumptions on grade and lithological character for the resource estimate at the quoted confidence levels.

2.8 Data Validation and Handling

Modern field logging data are entered digitally in the field using ruggedized computer with Seequent logging software (MX Deposit). Data are automatically validated through reference to library tables on all fields entered. Data are uploaded via quarantine tables to the MX Deposit database.

Assay, microscopy and sieve sizing results are delivered via email in batches from Diamantina and all QEMSCAN results are received from the CSIRO. All analysis results are delivered in the form of Microsoft Excel tables. These are then compiled and classified according to routine, duplicate (field/lab) and standard samples.

Field-captured drill data are exported from MX Deposit and checked for missing records and out of range or spurious values. Once corrected/validated, the geology field logging, assay, collar/survey, HM logging and mineralogy/chemistry tables are saved to a master table location on the author's laptop and to a secure cloud drive with access provided to AGPL. Placer has recommended the migration of validated data tables to the master database (MX Deposit) to ensure data security and allow AGPL staff to their data. This work remains outstanding at this time.

2.9 Location of data points

Australian Garnet utilizes on-site surveyors for real time kinematic global positioning system ('RTK GPS') set out of drill collar locations with an accuracy of 20mm Easting, 20mm Northing and 25mm Elevation. This is adequate for the purposes of resource estimation, optimisation and general mine site survey data capture.

The LBN Digital Terrane Model (DTM) was flown by Quantum Surveys, Geraldton using a fixed wing aircraft fitted with LiDAR laser survey equipment, which has an elevation accuracy of 10cm. Point data are filtered to a 10m grid (Figure 3) and wireframed in Datamine Studio RM software to produce the topographic surface.

All survey data used in the LBN resource dataset has undergone a transformation to a local, mine grid. This seven-parameter grid transformation aligns the average strike of the shoreline placers with local North, (-20.97˚) which is useful for both grade interpolation and mining reference during production.

2.10 Data spacing and distribution

The drill data spacing is nominally 400m North, 80m East, and 1.5m down hole to inform the LBN Indicated Resource and 800m North, 160m East, and 1.5m down hole to inform the Inferred Resource at the north of the deposit. No primary assay sample compositing has been applied to the analysis or the interpolation.

2.11 Orientation of data in relation to geological structure

With the geological setting being a series of mineralised dunes, the orientation of the deposit mineralisation is generally sub-horizontal. All holes are orientated vertically to penetrate the sub-horizontal mineralisation orthogonally.

Drill hole centres are spaced nominally at 80m. This cross-profiles the deposit, which strikes northward. Down-hole intervals are nominated as 1.5 metres. This provides adequate sampling resolution to capture the distribution and variability of geology units and mineralisation encountered vertically down hole.

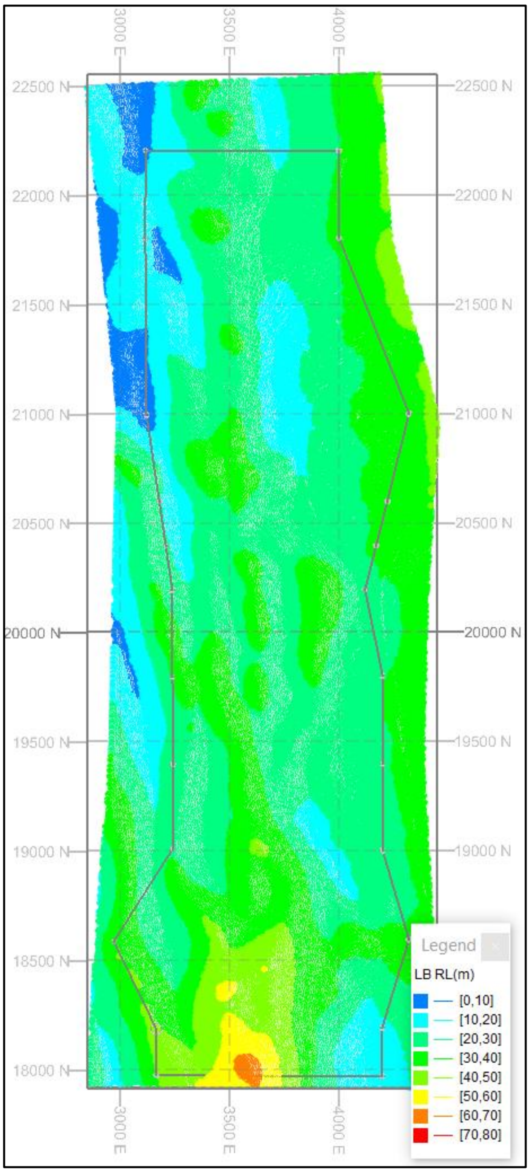


Figure 3. Plan view of the trimmed DTM point cloud, coloured by elevation. Model perimeter shown.

2.12 Sample security

All samples are numbered, with sample splits, residues and HM sinks stored securely at AGPL property.

2.13 Drill hole Information

The extent and spacing of drilling data used in the MRE, are displayed in Figure 4. Drill holes omitted from the resource include:

- Twin drill holes;
- Historic holes;
- Extraneous or isolated holes that lie outside the zone of contiguous mineralisation and thereby, outside the resource envelope.

Summary intersection tables for AGPL drilling are located in Appendix 5. All holes are vertical (negative down-dip convention = - 90°). Azimuth and bearing are set to zero for all holes.

2.14 Mineralogy Information

Mineralogical input data includes individual sample, mineralogical scanning of all drill sample HM sinks, Garnet sizing analysis and composite HM sink analyses by QEMSCAN. Heavy mineral scans are completed by Diamantina laboratory and include an estimate of Garnet% and Calcite coatings. Diamantina also completes a Garnet sizing analysis by sieve that reports into 4 bins from -125 micron to +500 micron.

The CSIRO complete QEMSCAN analysis of HM sink composites. Composites are designed by the resource geologist to honour geological zone boundaries and are typically limited to a single drill line to ensure representivity. Sinks are composited by Diamantina by splitting each on a minimum weight basis. This ensures a 1:1 relationship between all sinks in the composite.

A mineral library table has been developed previously for the Lucky Bay deposits by CSIRO using QEMSCAN and XRD. This is used to notify mineral assemblage from the analysis. A Titanium mineral deportment has also been developed in collaboration with the AGPL team as described below:

Mineral	TiO2 (%)
• Ilmenite	40 - 57
• Altered Ilmenite	57 - 62
• Leucoxene	62 - 85
• Rutile/Anatase	85 – 95

A total of 29 samples (LBC087 – LBC115) were composited from LBN, HM sinks. Two replicates were also requested.

Based on reported mineral assemblages from QEMSCAN analyses, there is an expectation that every ton of resource produced will generate 765kg of Garnet, 57.5kg of Ilmenite, 52.8kg of Leucoxene, 20kg of Rutile, 10kg of Zircon and 1.7kg of Monazite. The remainder will be a mixture of aluminosilicates, iron oxides, composite/aggregate grains, tourmaline and other light heavy gangue species.

All accessory valuable heavy minerals are presented in Table 5, weighted to HM tonnes by resource category. Garnet is presented by Mineralogist (GARNPCT) and QEMSCAN (GARN_QS); the QEMSCAN results are favoured for the resource reporting. The field TOT_ILM is created by summing Altered Ilmenite, Ilmenite and low-Ti Ilmenite, all of which are also detailed separately in Table 5 and in the MRE.

The resource model, excluding the Basement zone, was accumulated in the Z orientation (by application of the Datamine Flatmod macro. Figure 5 includes a plot of accessory minerals for the MRE (lbnmdflat.dm).

Confirming Placer (2022), there is a continued, gradational reduction in Garnet and increase in Titanium minerals northward through the Lucky Bay and Lucky Bay North deposits.

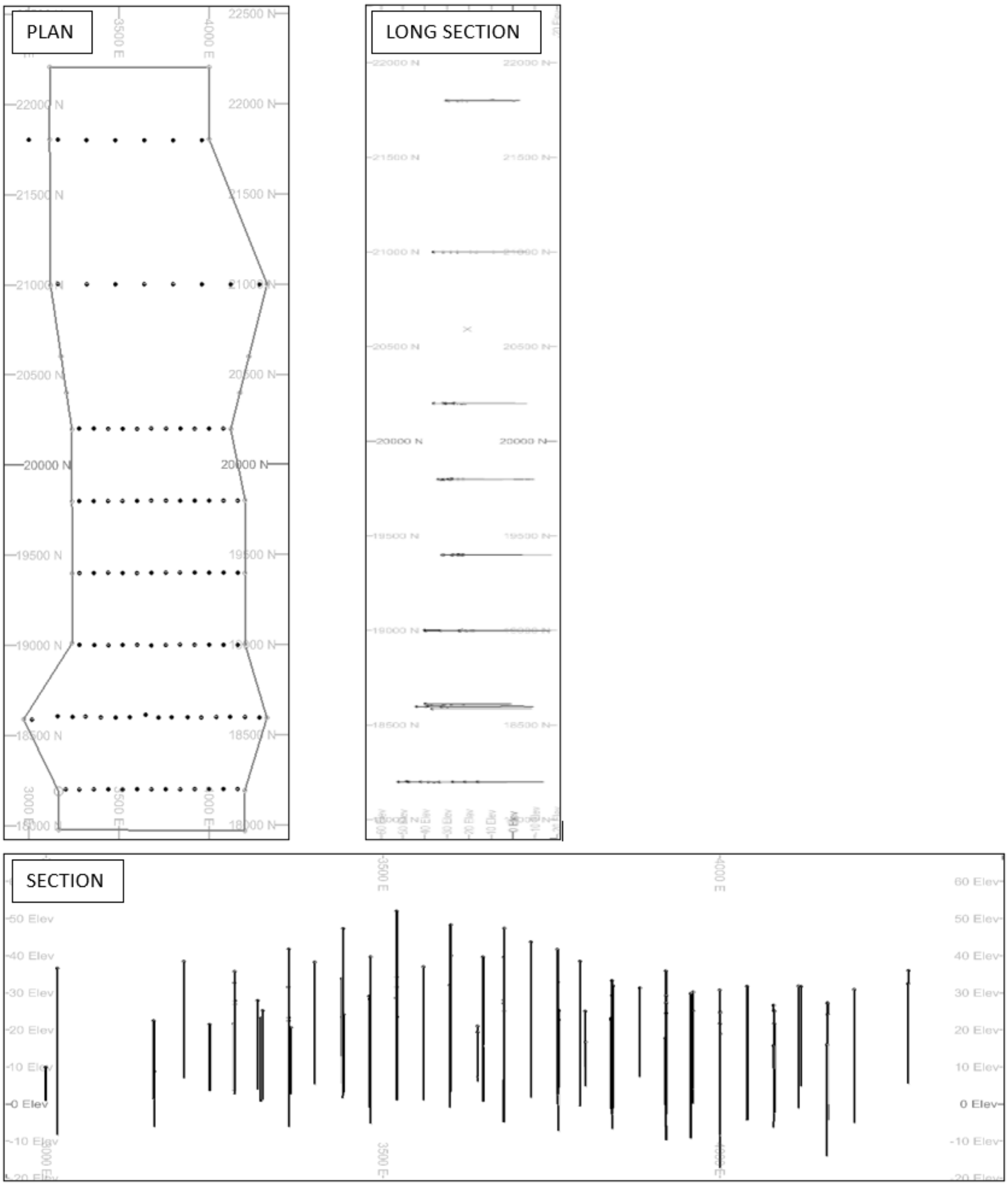


Figure 4. Exploded plan and section views (local grid) of the extent and spacing of drilling data in metres.

Table 5: Distribution of accessory minerals within the reportable resource (2% HM bottom cut).

RESCAT	GARNPCT	GARN_OS (%)	ALT_ILM (%)	ILMENITE (%)	LoTI_ILM (%)	ILM_TOT (%)	RUT (%)	LEUC (%)	ZIRC (%)	MON (%)
Indicated	80.38	77.36	5.50	0.06	0.06	5.63	1.99	5.05	1.01	0.18
Inferred	78.12	73.42	6.03	0.07	0.06	6.17	2.38	6.10	0.96	0.17
Average	**79.88**	**76.50**	**5.62**	**0.06**	**0.06**	**5.75**	**2.07**	**5.28**	**1.00**	**0.17**

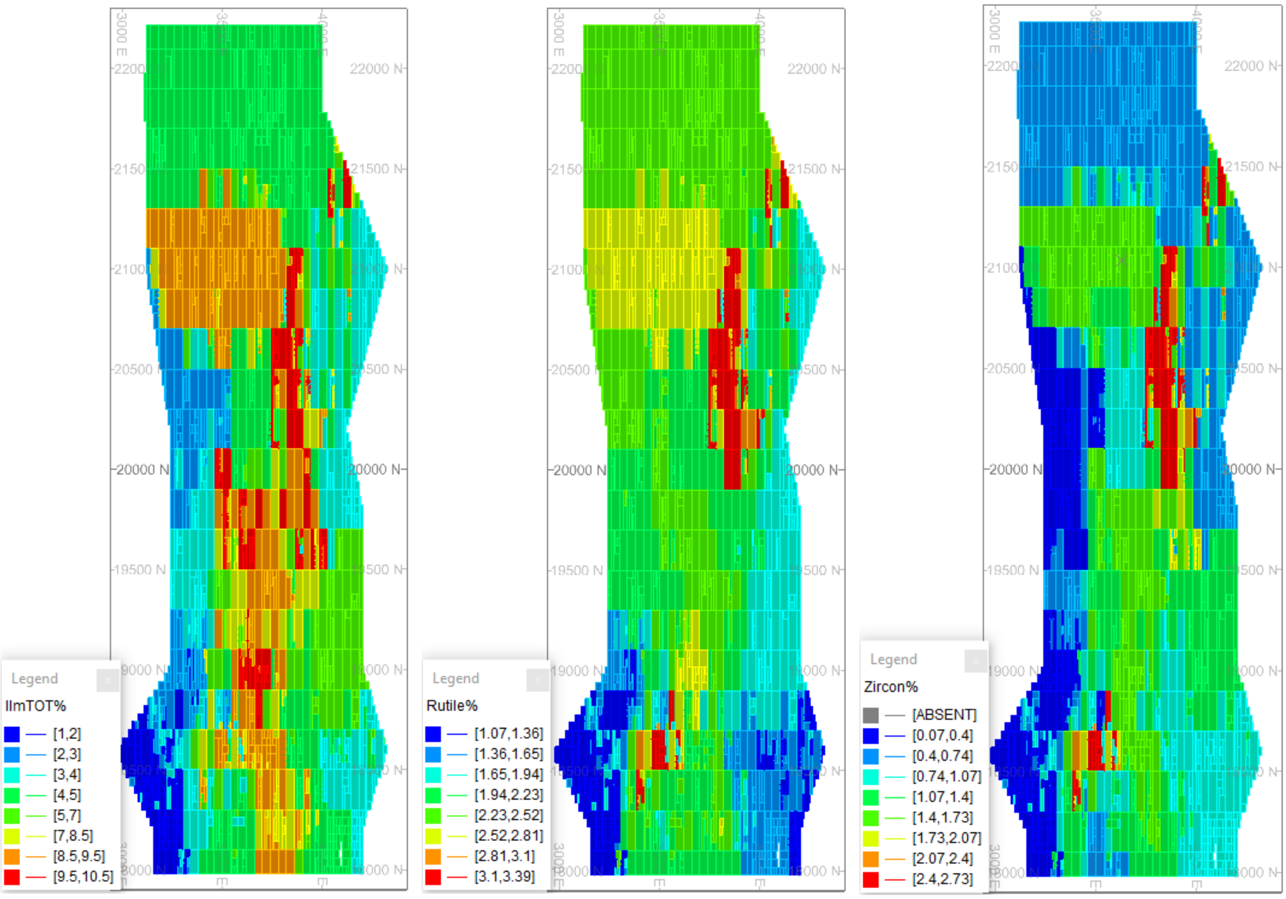


Figure 5. Accessory mineral distribution.

2.14.1 Garnet Grainsize

Presented in Table 6 is the Garnet Resource table for the LBN Deposit, based on the results of HM sink sizing and QEMSCAN analysis.

As the total HM fraction is included in the sieve analysis, there is an expected over-call in the proportion of finer grain size fractions, due to the influence of ilmenite, rutile, leucoxene, zircon, etc.

Garnet is determined to account for 76.5% of the heavy mineral assemblage for the LBN resource (QEMSCAN). Where comparative data exists, there is a down-grading of Garnet % from the mineralogist qualitative result to the QEMSCAN, semi-quantitative result. Each method of analysis has shortcomings and the actual result will not be known until reconciliation of the mining reserve. Placer advises the application of the more conservative, semi-quantitative, QEMSCAN result. Total contained (combined) Garnet accounts for about 3.2Mt at Lucky Bay North (Table 6).

The Western Dune consistently hosts a greater concentration of Garnet, which averages 77.4% of the mineral assemblage. The Western Dune also hosts the majority of the coarse Garnet in the plus 500µm size range.

Table 6. Garnet distribution by CLASSIFICATION and ZONE at a 2% HM bottom cut.

RESOURCE CATEGORY	ZONE	VOLUME (cubic metres)	DENSITY (g/cm3)	TONNES	HMTONNES	GARNPCT - Mineralogist	GARNTONNES	GARNET_QS (%)	GARNTONNES_QS	MINUS125 (%)	125-250 (%)	250-500 (%)	PLUS500 (%)
Indicated	East Dune [1]	47,364,120	1.75	83,113,149	3,114,075	80.2	2,496,407	76.9	2,394,914	3.81	55.08	36.17	4.94
	West Dune [2]	2,377,200	1.75	4,148,990	151,771	84.8	128,655	86.7	131,533	1.37	42.37	43.11	13.14
		49,741,320	**1.75**	**87,262,139**	**3,265,846**	**80.4**	**2,625,061**	**77.4**	**2,526,447**	**3.69**	**54.41**	**36.53**	**5.37**
Inferred	East Dune [1]	17,308,320	1.74	30,198,419	912,208	78.1	712,506	73.4	669,514	5.92	60.06	29.64	4.38
	West Dune [2]	64,200	1.79	115,117	3,961	81.0	3,210	79.4	3,145	1.88	51.44	34.81	11.80
		17,372,520	**1.74**	**30,313,536**	**916,170**	**78.1**	**715,717**	**73.4**	**672,659**	**5.90**	**60.02**	**29.67**	**4.41**
Indicated		49,741,320	1.75	87,262,139	3,265,846	80.4	2,625,061	77.4	2,526,447	3.69	54.41	36.53	5.37
Inferred		17,372,520	1.74	30,313,536	916,170	78.1	715,717	73.4	672,659	5.90	60.02	29.67	4.41
TOTAL		**67,113,840**	**1.75**	**117,575,674**	**4,182,016**	**79.9**	**3,340,778**	**76.5**	**3,199,106**	**4.15**	**55.59**	**35.09**	**5.17**

The bulk of the Garnet resides in the 125-250µm and 250-500µm size classes with each averaging about 56% and 35% of the total Garnet volume, respectively (Figure 6). The finer and coarser class sizes average in the single digits with the valuable, plus 500µm size fraction accounting for 5.2% of the total resource. The plus 500µm Garnet is preferentially hosted by the Western Dune.

The composited resource model (lbnmdflat.dm) is coloured by Garnet grain size classes in Figure 7. The results indicate an accumulation of the plus 500µm Garnet where cuspate Western Dunes coalesce with the high-grade Eastern Dune. Further extension drilling and analysis will resolve the extent of this anomalous area. It also shows the increased dominance of the 125 – 250µm size class at LBN when compared to the Lucky Bay Deposit.

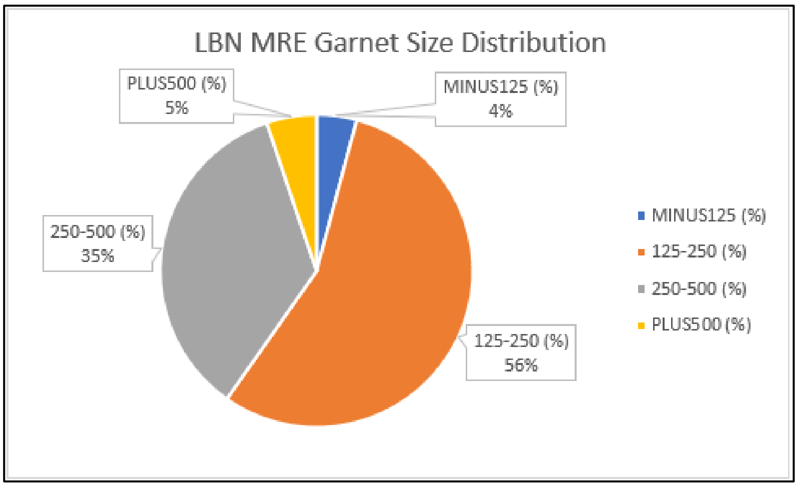


Figure 6. Lucky Bay total resource Garnet volume and percentage by size class.

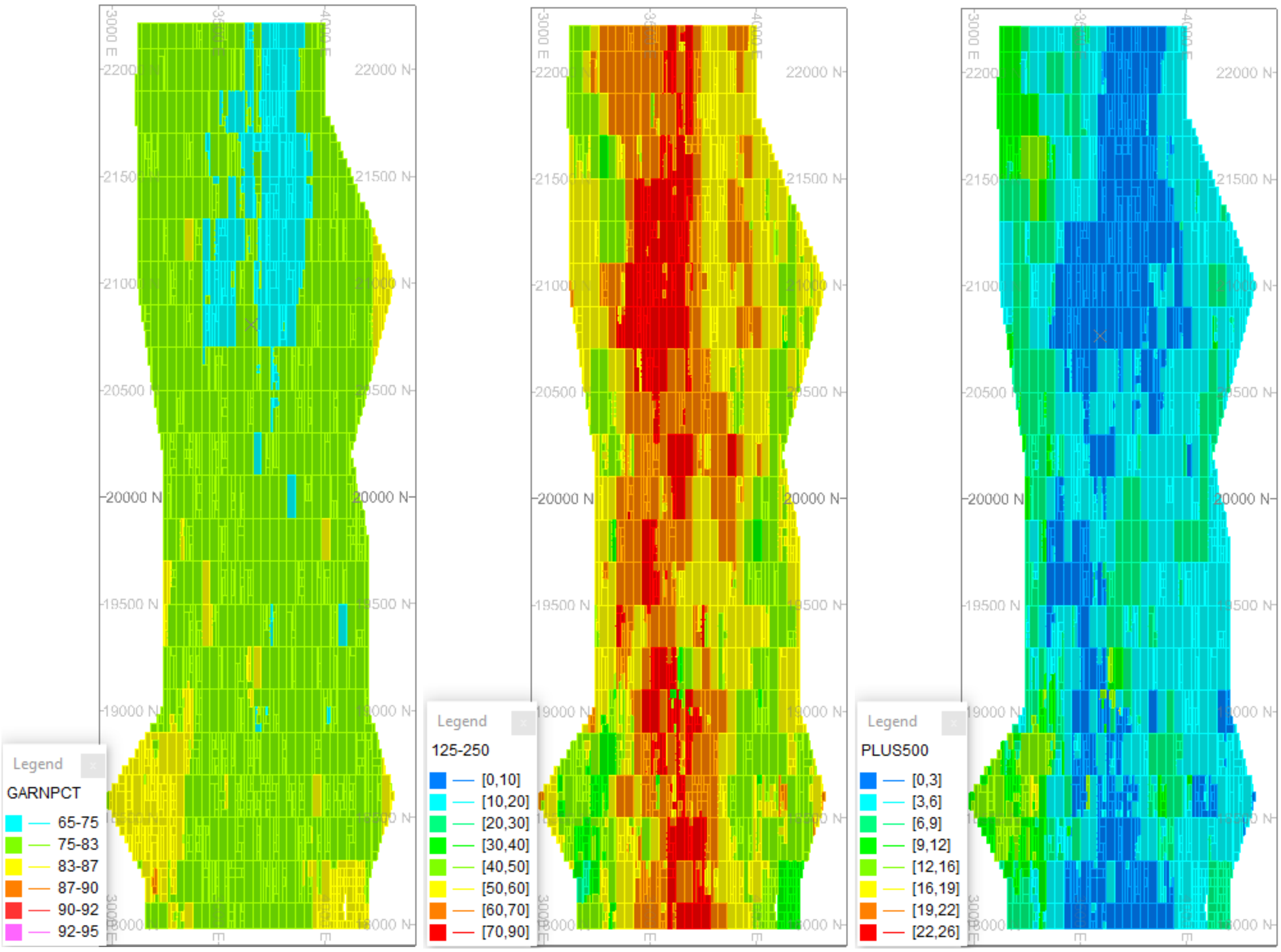


Figure 7. Lucky Bay composited model Garnet distribution by coarse size classes (at a 2% HM bottom cut).

2.15 Further recommended work

Further infill drilling and analysis will be required at LBN to increase the confidence in the MRE. For now, the Indicated resource is considered sufficient for preliminary mine planning and the total resource sufficient for tenement application for Retention or Mining Licence.

Populating the master, MX Deposit database remains a priority. The current method of storing validated batch files does not meet industry best practice.

Substantial additional information is available in QEMSCAN results. Placer recommends further interrogation of mineralogy, sizing and image analysis to assist with characterisation of accessory minerals and in particular, the quantification of calcite coatings.

The characterisation of accessory minerals (Ilmenite, Zircon, Rutile) remains outstanding. Placer recommends the completion of XRF analysis on mineral concentrates to determine the quality of these minerals to assist in placing them in the market.

It appears that only minor resource extension potential remains to the north and laterally, although the limit of economic mineralisation appears to have been tested from this work program (Figure 8). This should be re-visited upon completion of the mining reserve calculations.

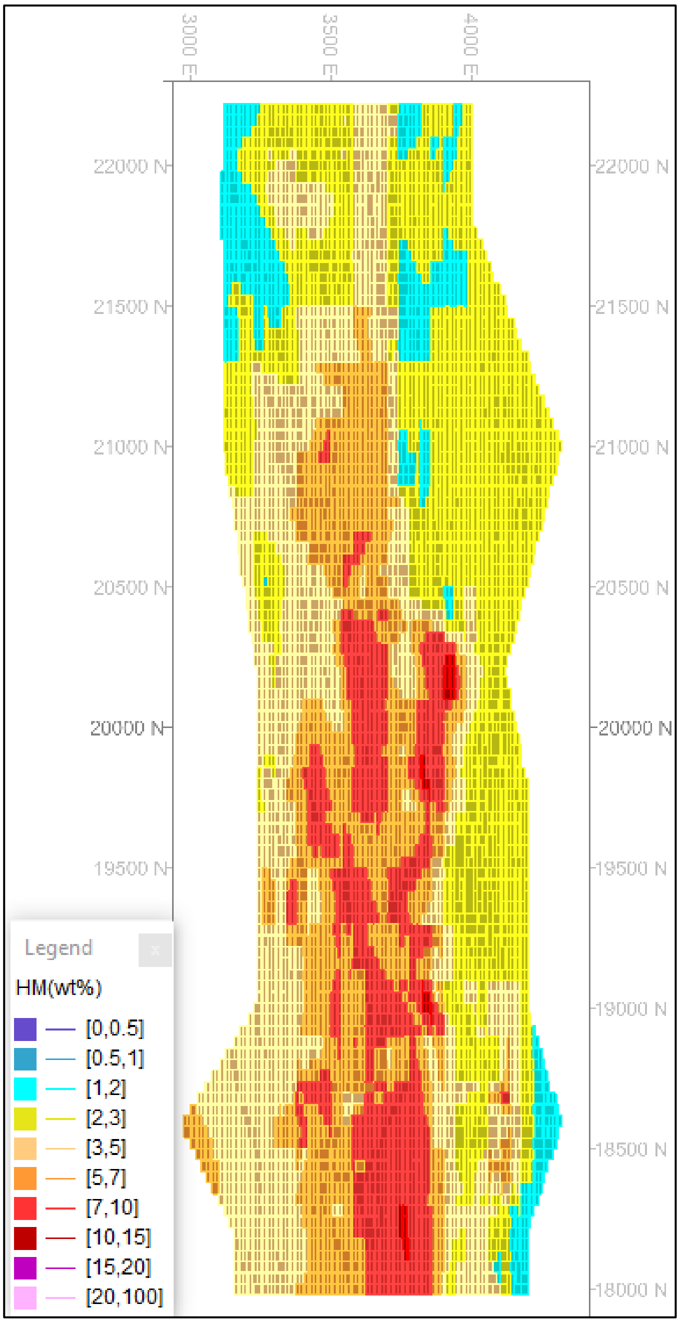


Figure 8. Lucky Bay North resource coloured by surface HM.

3 Estimation of Heavy Mineral Resource

3.1 Database Import & Validation

The following validated drill hole data tables were imported into Datamine Studio 3 mining software (Datamine):

1. Collar (Coll.csv);
2. Assay, HM Logging and sizing (Ass.csv);
3. Field-logged geology (Lith.csv);
4. Mineralogy composite and constituent sample numbers (Compid.csv);
5. Mineralogy data (comps.csv).

Selective fields in these tables were then combined and de-surveyed using the Holes3D super-process to produce a Datamine drill hole file in local mine grid coordinates. Only minor transcription errors were created and these were rectified during the subsequent validation stage. The drill hole file contains a total of 95 drill holes for 1,715 records. Drill hole collar elevations are then projected vertically to the trimmed DTM topographic surface (lbntopotr/pt.dm).

Logged Calcite coating on HM grains (COATINGS) is converted to a numeric value in order to estimate it as an integer in the model interpolation (Table 7).

Table 7 Numeric conversion of estimated HM coatings applied to the resource drill hole file.

Database Coatings Value	Description	Numeric
NO	No calcite coatings	1
L	Low amount of calcite coatings (0 – 10%)	2
M	Medium amount of calcite coatings (10 – 50%)	3
H	High amount of calcite coatings (>50%)	4

The drill hole file is then zoned according to the interpretation wireframes (Section 3.3.1) in the same order of addition as applied to the model construction and the composite ID is joined. This resultant resource drill hole file is called lbndhzc.dm.

The Basement zone is referenced in the resource drill hole file and model as Zone 100. It is excluded from the reported resource. The application of ZONE to the drill hole file is recorded in the Datamine macro lbndhz.mac.

3.2 Resource Dimensions

The strike length of the Mineral Resource is 4.2 kilometres (Figure 9). The dimensions of the Mineral Resource can be expressed in plan by the model boundary. The model boundary was extended laterally by one half of the nominal drill hole spacing, or 40m and extended along-strike by half the drill line spacing (200m in the south & 400m in the north).

The resource averages about 0.9km in width and mineralisation begins from surface to an average depth of 27.3m.

Low to moderate grade mineralisation remains unconstrained to the north, east and west, however the extent of economic mineralisation appears to be contained within the drilling array. This should be re-assessed after optimisation of the mining reserve.

The southern boundary of the resource is designed to stitch to the Lucky Bay Resource (Placer 2022) at the M70/1387 tenement boundary.

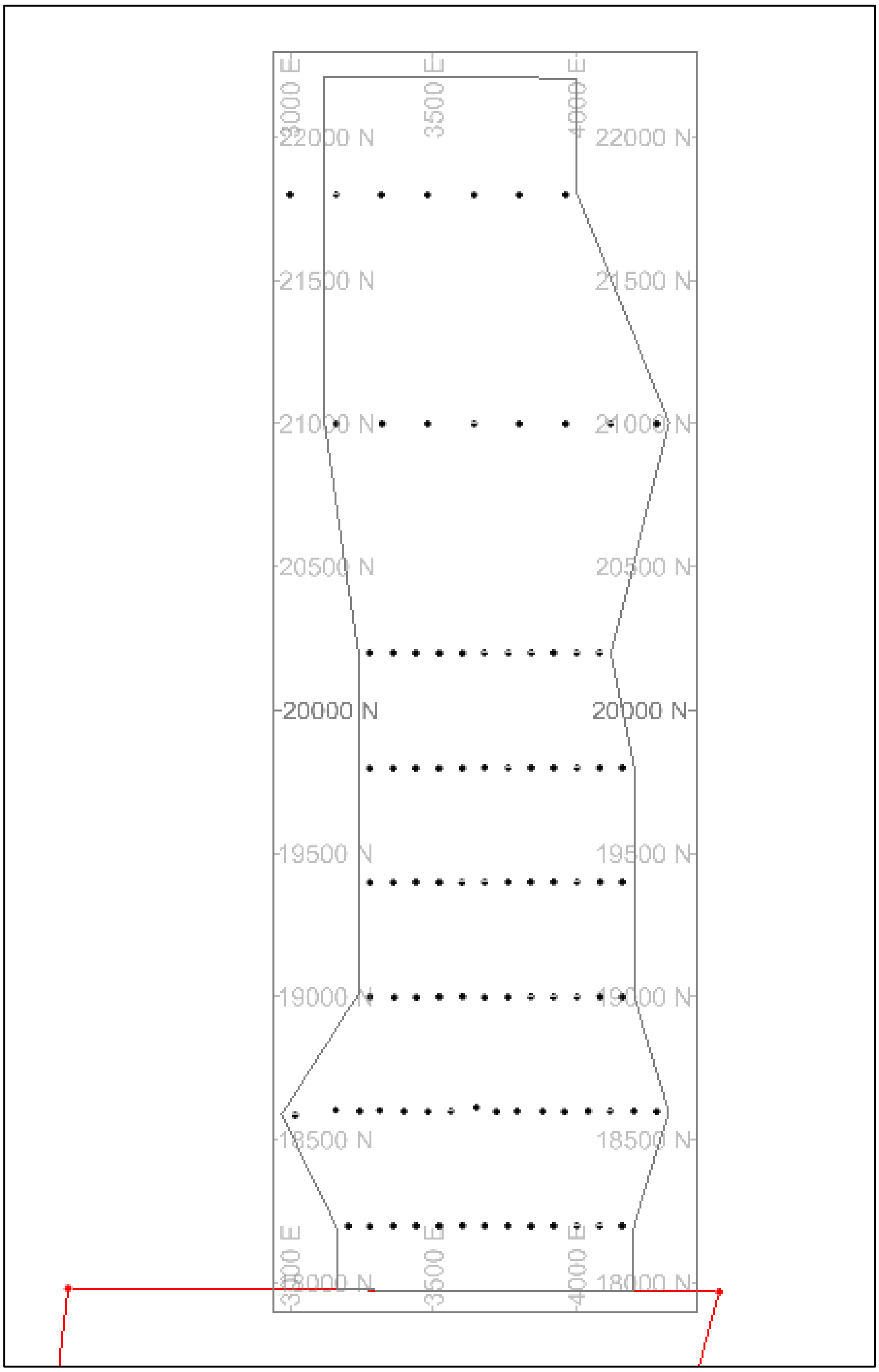


Figure 9. Plan view of drill hole collars and model boundary. M70/1387 boundary also shown.

3.3 Geological Interpretation

3.3.1 Wireframes

The model has been constrained in the XY plane by the model boundary string mdbdy.dm and in the Z plane by the topographic surface (lbntopotr/pt).

The topographic surface has been translated vertically by -0.3m and renamed lbntsoiltr/pt.dm. This wireframe surface defines the base of the allocated topsoil horizon. This horizon is flagged in the model (TSOIL = 1) and it is included in the reported resource.

In a similar manner, the basement DTM surface was translated downward ten metres to define the lower, arbitrary basement horizon. This horizon is needed to assist in defining the material directly underlying the host mineralisation units. It is excluded from the reported resource.

A total of 2 dunes, in conjunction with topography and basement wireframes, were used to zone the block model and the resource drill hole file. Table 8 is a summary of the wireframes used and their order of addition.

Shown on Figure 10 is a typical east-west cross-section illustrating the geologically-zoned block model (excluding topsoil). The geological interpretation wireframes that inform the block model, were designed to overlap, sympathetic to the order of addition, to ensure gap-free model zone boundaries.

All sectional interpretation strings and wireframes were completed in Datamine Studio RM software.

Table 8. A summary of the interpretation and topographic wireframes (including the respective order of addition).

ORDER	WIREFRAME	DESCRIPTION	FILL	ZONE	LABEL
1	lbntopotr/pt.dm	Topographic DTM surface	below	1	East Dune
2	lbnwdunetr/pt.dm	Western Dune surface	above	2	West Dune
3	lbnbasetr/pt.dm	Basement surface	below	100	Basement
4	lbnbase10tr/pt.dm	Basement -10m surface	below	200	Lower Basement limit
5	lbntsoiltr/pt.dm	Topographic DTM surface translated by -0.3m	above	tsoil=1	Topsoil

3.4 Estimation and Modelling Techniques

3.4.1 Model Prototype

A model prototype (lbnprot.dm) is created using the model origin, parent cell dimensions, and a sufficient number of parent cells in each direction to extend to the model boundary (Table 9).

The extents of the model prototype are guided by the distribution of drill hole data. The parent cell dimensions are designed to match the drill hole spacing in the Indicated category area such that each drill hole is centred within the cell. These cell dimensions provide for a single, floating cell in the X and Y orientation through Indicated category areas. The Z direction does not have a floating cell.

Using the prototype, the block model is constructed and zoned (as described in Section 3.3.1). With the drill hole file equivalently zoned, a fully constrained interpolation is made possible.

Table 9 Parameters used in the construction of the model prototype

Dimension	Minimum (m)	Maximum (m)	Difference (m)	Parent Cell Size (m)	Number of Parent Cells	Number of Sub-block Splits
Easting [X]	2,940	4,420	1,490	40	38	4
Northing [Y]	17,900	22,300	4,400	100	44	5
Elevation [Z]	-20	67	87	3	29	10

3.4.2 Grade Interpolation

Datamine Studio RM was utilised in the computerised estimation of the Lucky Bay Resource.

Interpolation of the resource drill hole data into the block model occurs using an orientated elliptical search volume. This interpolation is anisotropic and occurs discretely within each zone (hard boundary) according to the ZONE key field in both the model and drill hole file. A discretisation array of 3 x 3 x 1 is employed for interpolation averaging into each cell. All cells/sub-cells are interpolated individually.

Two different interpolation methods are utilised. Inverse Distance Power method (to the power of three) is used for selected data fields that are known to be synonymous with the dune deposits (Table 9). Nearest Neighbour has been utilised for the rock estimate (RK_EST), rock hardness (H) and HM coatings (COATINGS) and COMPID. Table 10 summarises the search orientation and search distances in each axis by model Zone.

Three search volumes are utilised to populate model cells with a maximum of 30 samples allowable in any search population. Model cells are populated by the search volume applied (EST=1, EST=2 & EST=3).

A multiplication of the search volume by a factor of 2 and 5 was used for the second and third search, respectively. Table 11 summarises the number of samples used in each search and Figure 11 displays an oblique view of the model coloured by estimation search (EST).

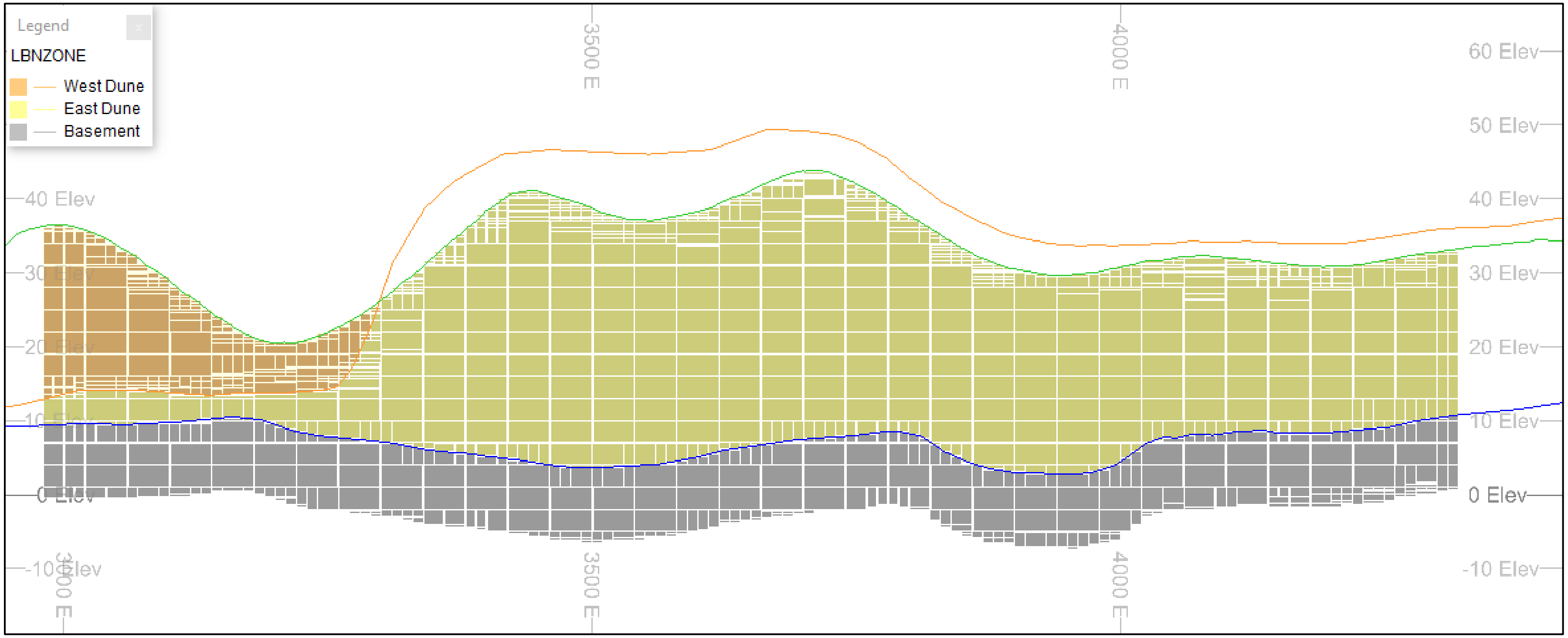


Figure 10. Cross section 18600mN showing the wireframe-generated, zoned block model at the Lucky Bay North Deposit.

Table 10. A summary of the interpolation methods applied to the individual data fields.

DH FIELD	MODEL FIELD	INTERPOLATION METHOD	POWER
HM	HM	Inverse Distance Power	3
HMSAND	HMSAND	Inverse Distance Power	3
GARNPCT	GARNPCT	Inverse Distance Power	3
OTHPCT	OTHPCT	Inverse Distance Power	3
MINUS125	MINUS125	Inverse Distance Power	3
125-250	125-250	Inverse Distance Power	3
250-500	250-500	Inverse Distance Power	3
PLUS500	PLUS500	Inverse Distance Power	3
SL	SL	Inverse Distance Power	3
SAND	SAND	Inverse Distance Power	3
OS	OS	Inverse Distance Power	3
H	H	Nearest Neighbour	0
COATINGS	COATINGS	Nearest Neighbour	0
RK_EST	RK_EST	Nearest Neighbour	0
COMPID	COMPID	Nearest Neighbour	0

Table 11. A summary of the search ellipse orientation and distance applied to each of the model zones.

Zone	Plunge	Dip	Bearing	Search X	Search Y	Search Z
East Dune 1	0	0	0	120	600	10
West Dune 2	0	0	0	220	800	15
Basement 100	0	0	0	120	600	10

Table 12. A summary of the number of samples by search number applied to the model interpolation.

Zone	Min samp. 1	Max samp. 1	Min samp. 2	Max samp. 2	Min samp. 3	Max samp. 3
East Dune 1	5	20	6	30	6	30
West Dune 2	3	12	4	15	4	15
Basement 100	5	20	6	30	6	30

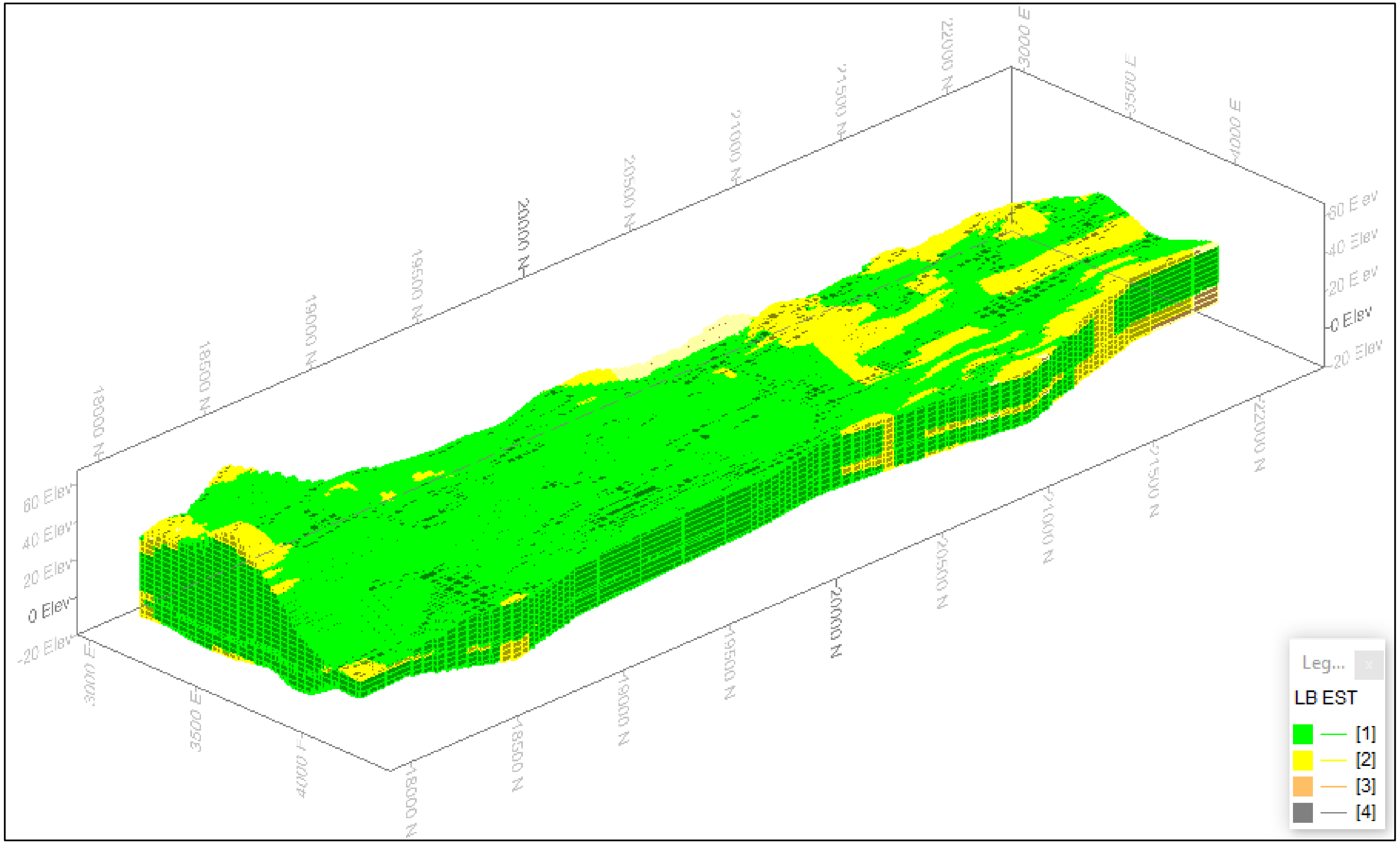


Figure 11. An elevated oblique view of the Lucky Bay North block model coloured by estimation search volume (EST).

At the completion of each interpolation run, the block model is then viewed spatially against the resource drill hole file in the XZ, YZ, XY orientation stepping through the model at the parent cell dimension distances. Each data field is individually highlighted to observe the performance of the interpolations. Adjustments are made to the interpolation and the model is re-run until the Competent Person is satisfied that informing data are adequately represented by the resource model.

The Inverse Distance weighting interpolation model values were seen to be adequately similar to the incident drill hole data and intermediate model cells displayed acceptable levels of smoothing in Zone 1. Nearest Neighbour fields in the model also displayed adequate similarity to the incident drill hole data and acceptable levels of smoothing in intermediate cells. Figures 12 – 15 illustrate the distribution of some key fields in the final model.

The final model is called lbnmd3.dm.

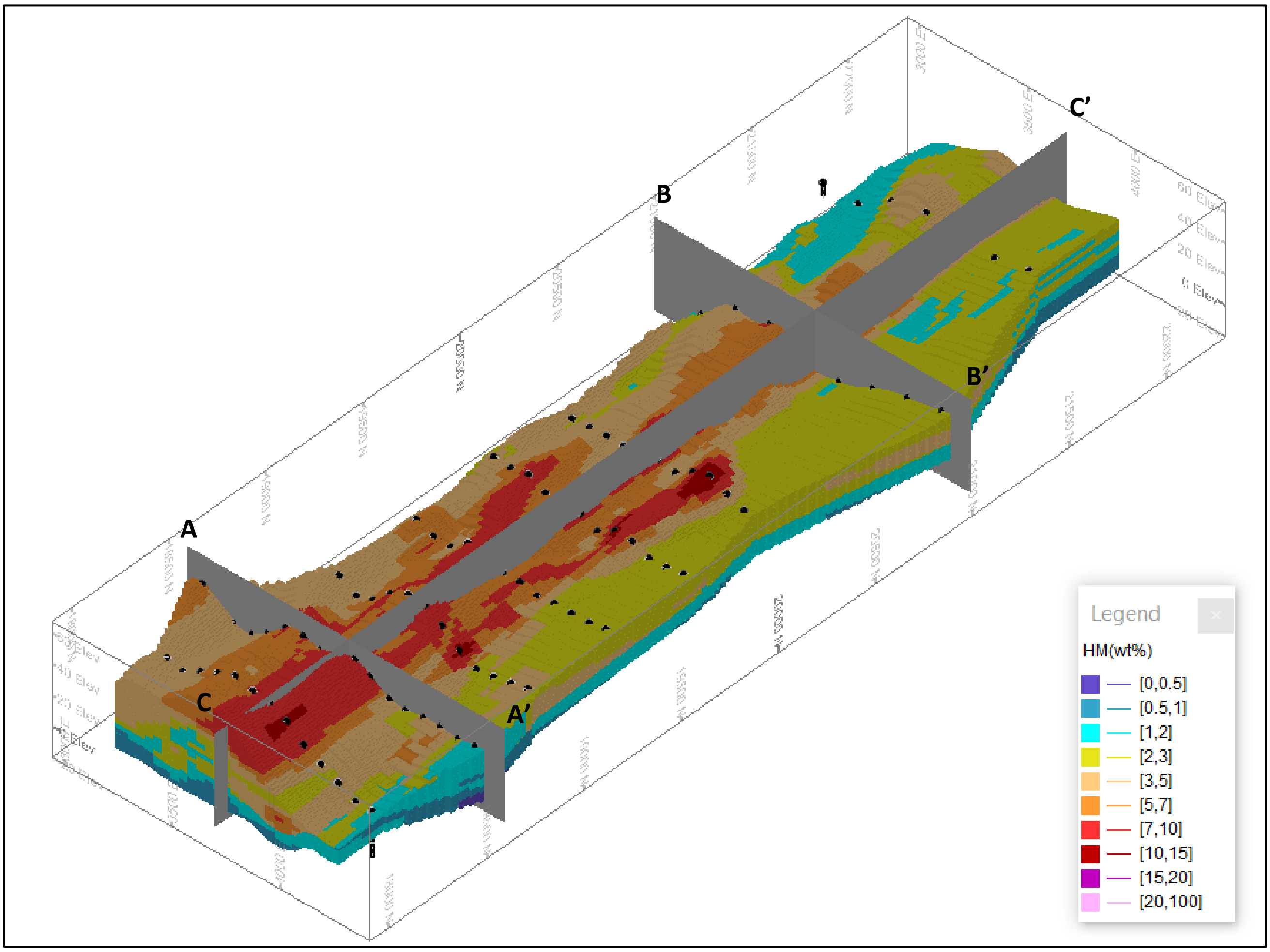


Figure 12. An elevated oblique view of the block model coloured by HM showing reference sections.

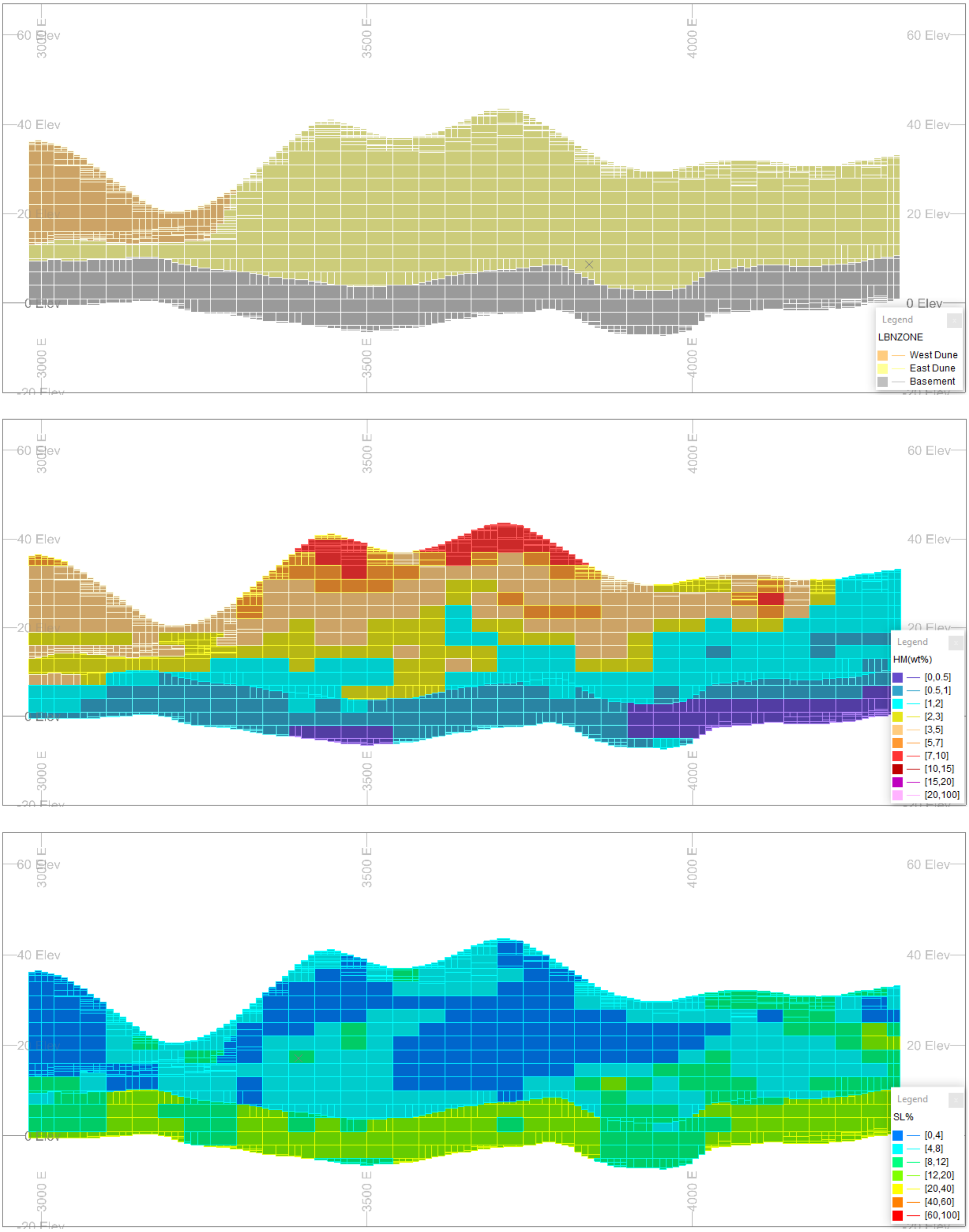


Figure 13a. Stacked sections orientated A-A' showing ZONE, HM and SL (V.E. = 7:1).

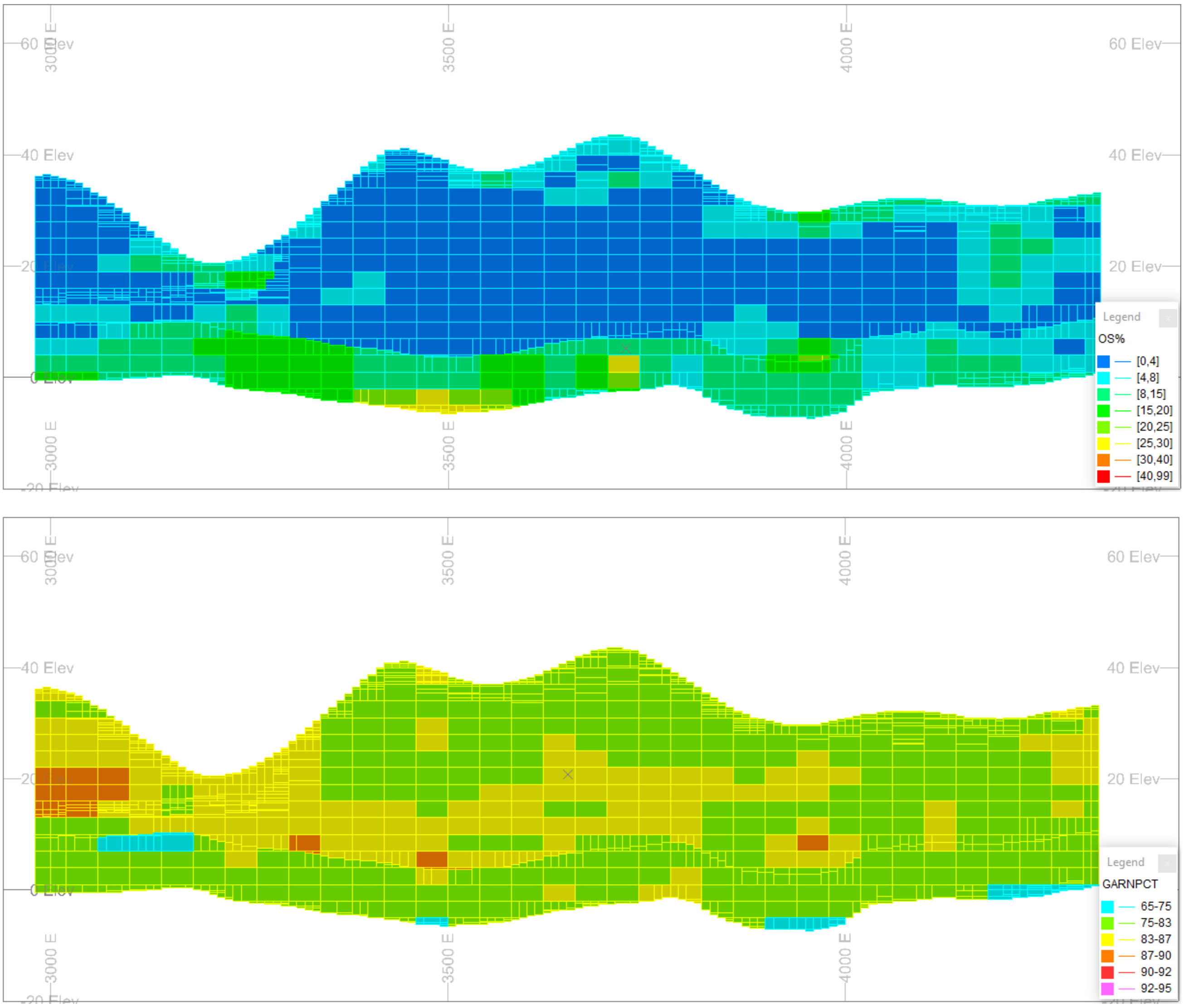


Figure 13b. Stacked sections orientated A-A' showing OS, and GARNPCT (V.E. = 7:1).

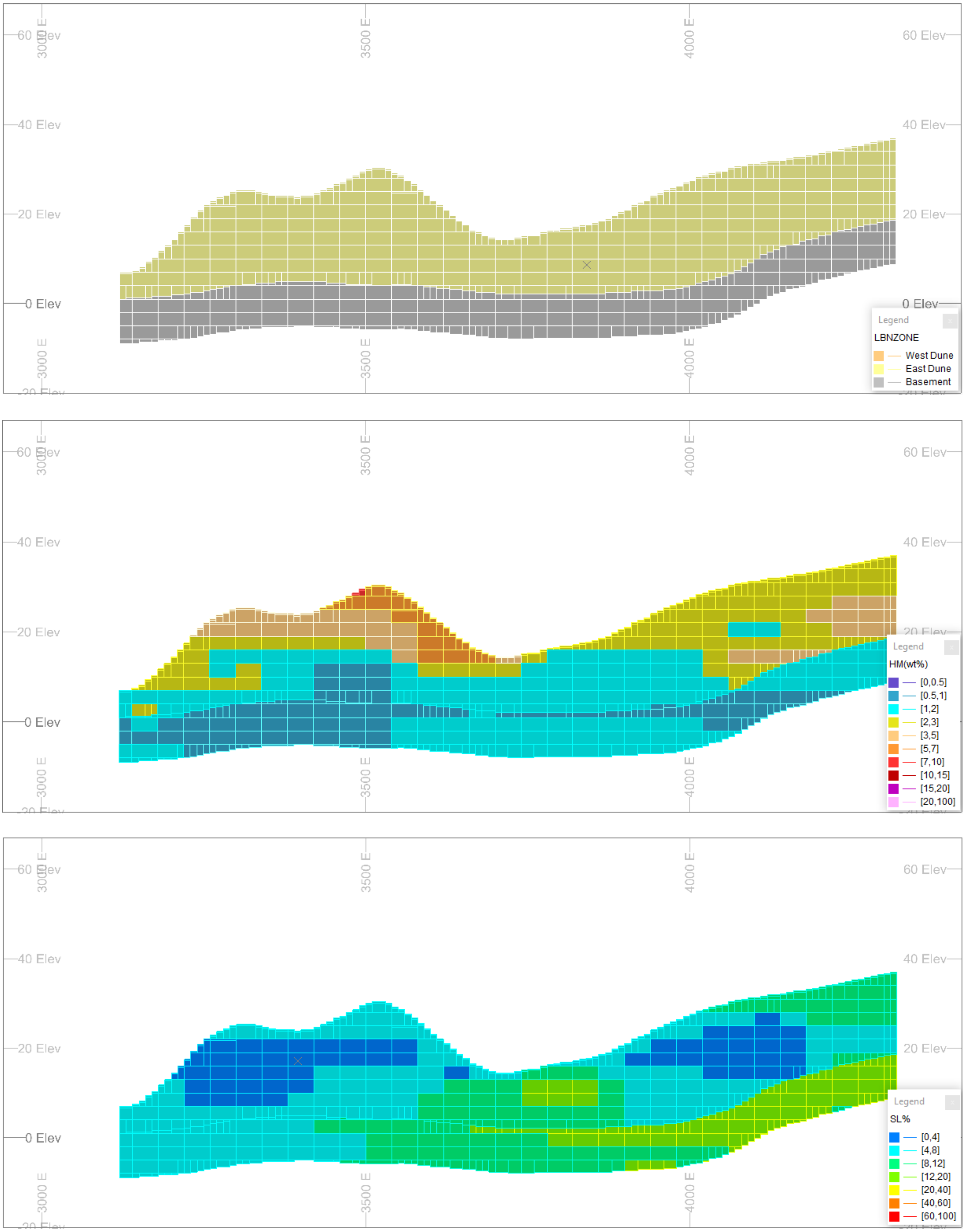


Figure 14a. Stacked sections orientated B-B' showing ZONE, HM and SL (V.E. = 7:1).

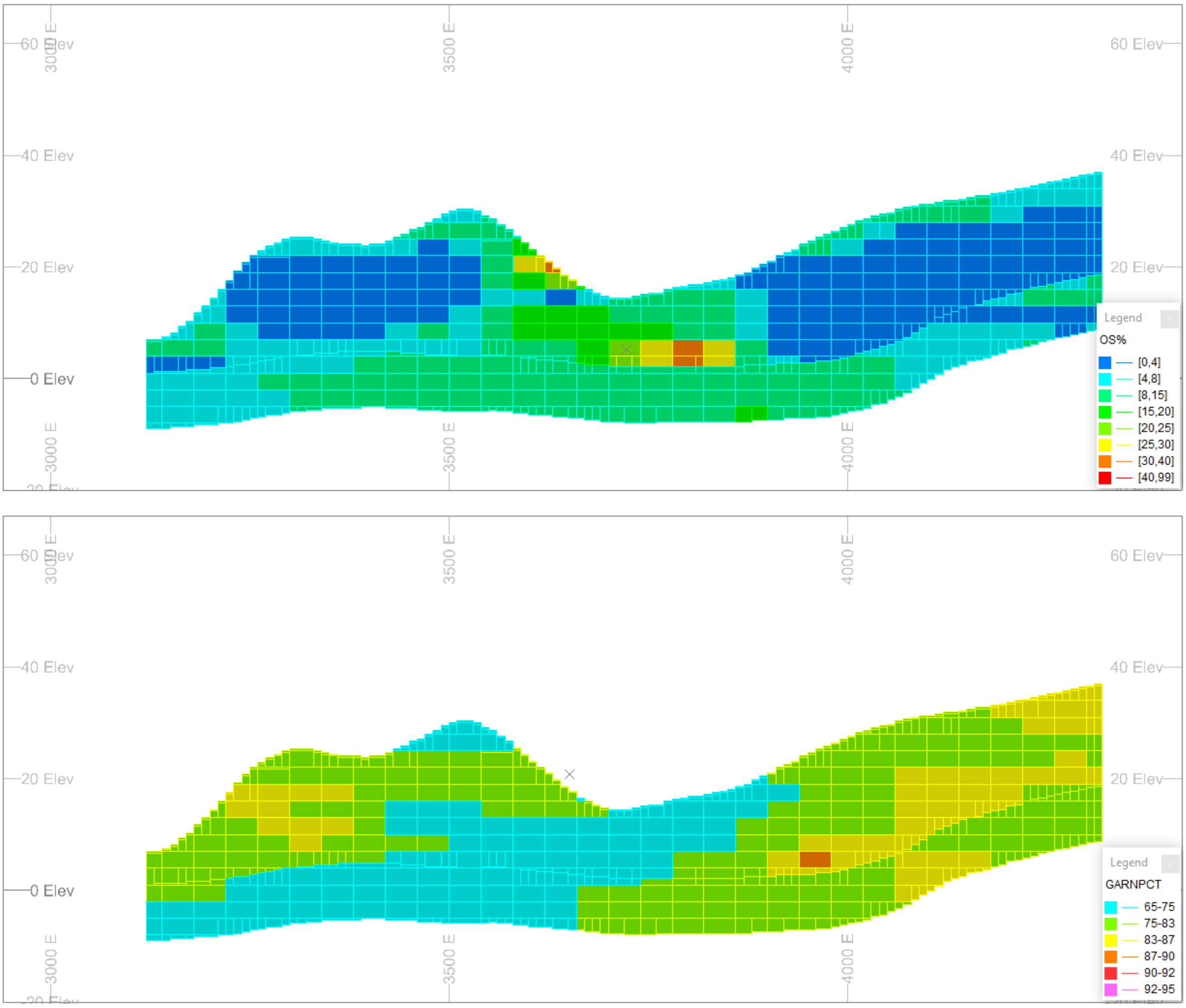


Figure 14b. Stacked sections orientated B-B' showing OS, and GARNPCT (V.E. = 7:1).

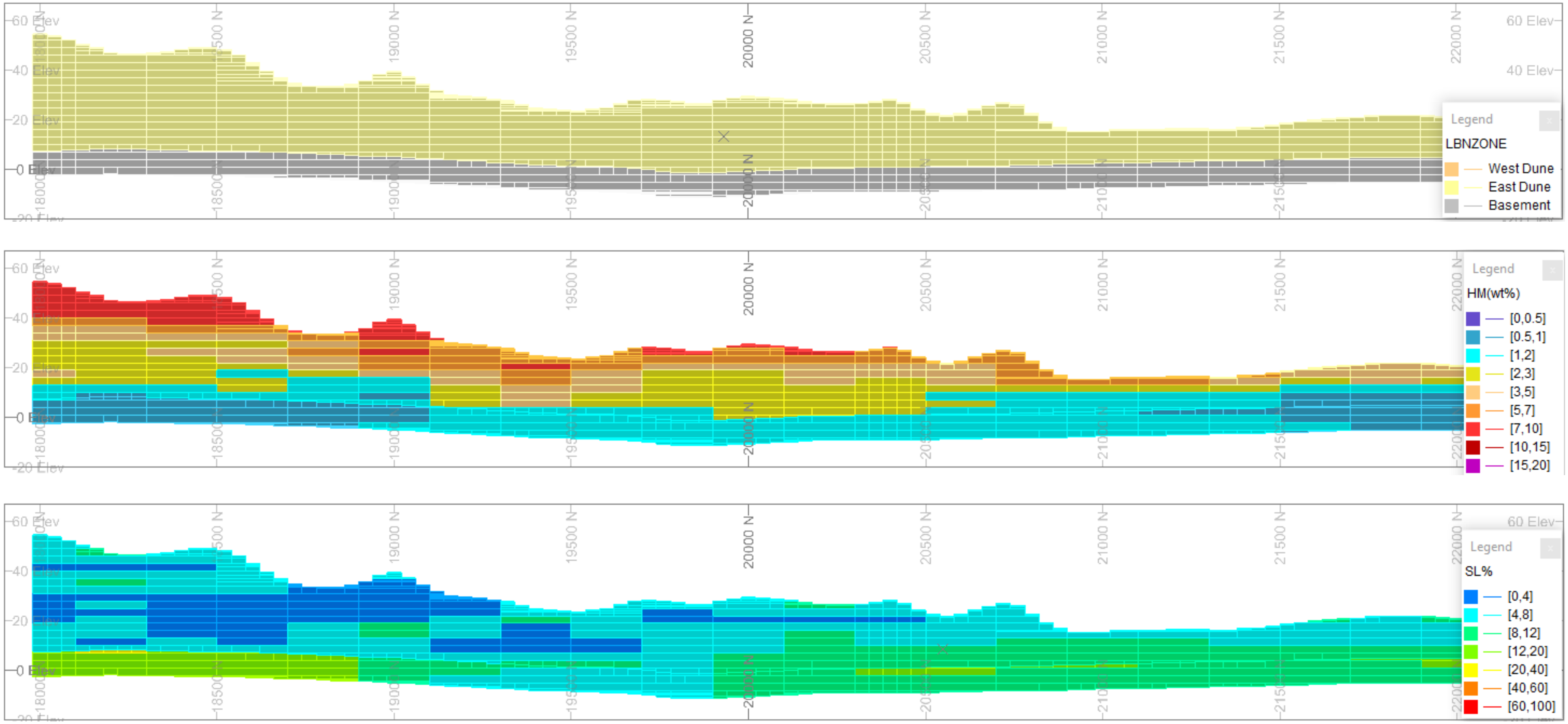


Figure 15a. Stacked sections orientated C-C' showing ZONE, HM and SL (V.E. = 7:1).

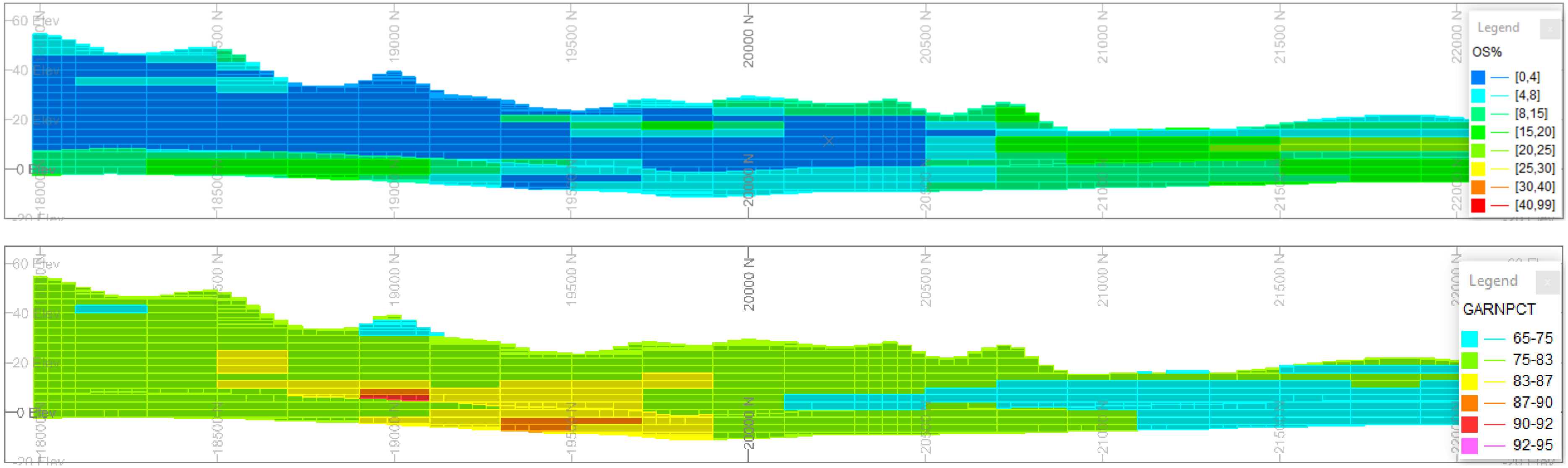


Figure 15b. Stacked sections orientated C-C' showing OS and GARNPCT (V.E = 1:7).

The performance of the resource block model interpolation is also measured by producing a series of swath plots, generated by Datamine Studio RM software that compare the model to the drilling, at set panel widths. The block model and the drill hole file are both flagged with XPANEL, YPANEL and ZPANEL where X, Y and Z dimensions are integrated into multiples (panels) of 40m, 200m and 3m, respectively. Accumulated averages of HM and SL are then calculated for both model and drilling data and are reported by Zone.

Panel averages are plotted in the three orientations. The sum of the averaged drilling sample counts is also plotted to indicate how well-informed model cells are in any given panel. The resultant swath plots can be found in Appendix 7. A file reference list comprises Appendix 8.

Generally, where the model cells are populated on the first estimation search volume run (EST=1) and there is a high summed drilling sample count (>50), it is expected the averaged model panel values will be quite close to the averaged drilling panel values.

Swath plots demonstrate that the interpolation performed satisfactorily where model cells are well informed by sample data. As anticipated, model extremities and in particular the Western Dune are represented by insufficient informing data and perform poorly in the resultant swath plots.

Despite variations due to data density and drill depth, the model has reasonably interpolated interval data with adequate levels of smoothing. The interpolation of HM and Slimes is considered to be appropriate for the resource classifications as stated.

3.5 Cut-off Parameters

A HM lower cut-off of 2% has been maintained for the LBN estimate. Typical of HM deposit resource estimation (where localised extreme-grade effects are absent, due to the mode of deposition) no top cut was applied.

3.6 Bulk Density

The bulk density applied to the Lucky Bay Resource has been generated for each discrete geological domain. A component-based density algorithm, designed by Placer Resource Geologists, combines density characteristics from each textural and compositional component of the sample. This is then combined with laboratory-generated porosity data. Pore space is variable based on sample composition, hence the need to quantify the volume of the sample represented by saturated pores.

A total of 17 porosity assessments were made on a minimum 4kg sample of each geological domain. Calculated density is averaged by zone and applied to the resource model, recorded by the macro VBD2.MAC.

3.7 Model Report and Classification

The designation of resource category was by the manual construction of resource boundary strings to reflect the relative confidence in different regions of the resource. The application of these boundaries to the model allowed Indicated and Inferred regions to be flagged and reported separately.

Areas of higher resource confidence are assigned RESCAT = 2 in model cells and carry an Indicated Resource status. Those areas with lower resource confidence that fell outside the Indicated Resource boundary string, were automatically classified as CLASS = 3. Resource category boundaries are displayed in Figure 16 and summarised, for the total resource, in Table 13.

Table 13. Summary of the interpolation performance by CLASS.

RESCAT	Estimation Search Volume (EST)	VOLUME	% of RESCAT Volume by EST	TONNES	% of Total Resource Tonnes
Indicated (2)	1	64,554,360	99.0	113,538,553	65.3
	2	586,200	0.9	1,035,596	0.6
	3	42,240	0.1	76,000	0.0
Inferred (3)	1	29,713,200	88.5	52,324,640	30.1
	2	3,787,800	11.3	6,760,938	3.9
	3	69,240	0.2	124,334	0.1

The Indicated region of the resource model coincides well with cells interpolated during the first pass and comprise a total of 99% (by volume) of first-pass informed cells (EST = 1). The remaining cells have been populated by the second pass interpolation (EST = 2) with insignificant number of cells informed by the third pass. The Inferred Resource (RESCAT = 2) is similarly informed by the first and lesser second search passes at 88.5% and 11.3%, respectively.

Assessing the performance of the interpolation, by resource tonnes, shows that just over 95% of the total declarable resource is informed by first-pass populated model cells (Table 14). The average sample count informing each cell for this search is high, at 15 samples in Zone 1 (Eastern Dune) and 5 samples in Zone 2 (Western Dune) on account of very few drill holes penetrating this formation.

The remainder of the resource was mostly populated during the second search pass and recorded a similar sample count as the first pass filled cells. The high sample count informing the bulk of the MRE demonstrates search ellipses are appropriate and each cell is filled with an average from a large population of data.

Table 14. Summary of the interpolation performance by EST.

ZONE	Estimation Search Volume (EST)	VOLUME	% of Zone by Volume	Average Number of Informing Samples	TONNES	% of Total Resource
1	1	92,093,760	88.7	15	162,079,168	93.2
	2	4,211,880	11.3	17	7,505,907	4.3
	3	6,000	0.0	13	10,878	0.0
2	1	2,173,800	51.7	5	3,784,024	2.2
	2	162,120	45.4	6	290,627	0.2
	3	105,480	2.6	9	189,455	0.1

At over 97% of the total declarable resource, the Eastern Dune (Zone 1) dominates the LBN resource and attributes substantially to average mineral assemblage and grainsize data. The Western Dune occurs on the western margin of the resource and further coarse-grained garnet material is anticipated if extensional drilling is warranted. The Eastern Strand re-appears at 18,200mN, having been absent for some 5.4km southward but as it only presents on a single section, it was not domained separately in the block model. It has been constrained to a single composite analysis: LBC093 to distinguish it from surrounding dune material. Further definition of this domain is recommended upon infill drilling.

The classification analysis indicates an adequate population of data and appropriate search distances were applied during the interpolation. The demonstrable geological continuity of the Lucky Bay Project domains at LBN, the density assessment and the drilling and analysis quality suggests there is no reasonable doubt that the subsequent estimate for the LBN resource attains an Indicated Resource classification. The resource is summarised in Table 15.

The resource statement for the Lucky Bay North Resource, at a 2% HM bottom cut, is as follows:

"A combined Indicated and Inferred Resource of 117.6Mt of material containing 4.2Mt of Heavy Minerals at an average grade of 3.5% Heavy Minerals and 5.2% Slimes, which includes:

- an Indicated Resource of 87.3Mt containing 3.3Mt of Heavy Minerals at an average grade of 3.7% Heavy Minerals and 5.3% Slimes and
- an Inferred Resource of 30.3Mt containing 0.9Mt of Heavy Minerals at an average grade of 3.0% Heavy Minerals and 4.9% Slimes."

3.8 Comparison with Previous Estimates

No previous estimates are known for the Lucky Bay North Deposit and no comparisons can be made.

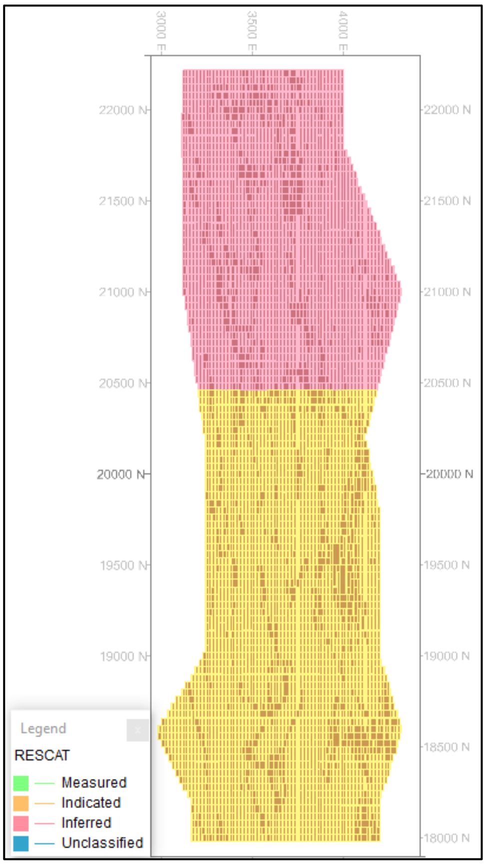


Figure 16. Regions of the model designated by Resource Classification (RESCAT).

Table 15. Lucky Bay Resource Summary.

RESOURCE CATEGORY	ZONE	VOLUME (cubic metres)	DENSITY (g/cm3)	TONNES	HMTONNES	HM (%)	SL (%)	SAND (%)	OS (%)	HMSAND (%)	COATINGS	HARDNESS	GARNTONNES_OS	GARNET_OS (%)	MINUS125 (%)	125-250 (%)	250-500 (%)	PLUS500 (%)	ILM_TOT (%)	RUTILE (%)	LEUCOXENE (%)	ZIRCON (%)	MONAZITE (%)	CARBONATES (%)
Indicated	**East Dune [1]**	47,364,120	1.75	83,113,149	3,114,075	3.75	5.29	91.39	3.32	4.10	2.84	1.15	2,394,914	76.91	3.81	55.08	36.17	4.94	5.83	2.03	5.20	1.05	0.18	2.01
	West Dune [2]	2,377,200	1.75	4,148,990	151,771	3.66	4.81	91.45	3.74	4.01	2.97	1.20	131,533	86.67	1.37	42.37	43.11	13.14	1.47	1.11	1.86	0.17	0.03	2.48
		49,741,320	**1.75**	**87,262,139**	**3,265,846**	**3.74**	**5.27**	**91.39**	**3.34**	**4.09**	**2.84**	**1.16**	**2,526,447**	**77.36**	**3.69**	**54.41**	**36.53**	**5.37**	**5.63**	**1.99**	**5.05**	**1.01**	**0.18**	**2.03**
Inferred	**East Dune [1]**	17,308,320	1.74	30,198,419	912,208	3.02	4.93	90.49	4.57	3.40	2.66	1.06	669,514	73.39	5.92	60.06	29.64	4.38	6.18	2.38	6.11	0.96	0.17	2.75
	West Dune [2]	64,200	1.79	115,117	3,961	3.44	7.37	87.45	5.18	3.94	4.00	1.00	3,145	79.39	1.88	51.44	34.81	11.80	2.73	2.23	3.92	0.28	0.03	2.53
		17,372,520	**1.74**	**30,313,536**	**916,170**	**3.02**	**4.94**	**90.48**	**4.57**	**3.40**	**2.67**	**1.06**	**672,659**	**73.42**	**5.90**	**60.02**	**29.67**	**4.41**	**6.17**	**2.38**	**6.10**	**0.96**	**0.17**	**2.74**
Indicated		49,741,320	1.75	87,262,139	3,265,846	3.74	5.27	91.39	3.34	4.09	2.84	1.16	2,526,446.76	77.36	3.69	54.41	36.53	5.37	5.63	1.99	5.05	1.01	0.18	2.03
Inferred		17,372,520	1.74	30,313,536	916,170	3.02	4.94	90.48	4.57	3.40	2.67	1.06	672,659.32	73.42	5.90	60.02	29.67	4.41	6.17	2.38	6.10	0.96	0.17	2.74
TOTAL		**67,113,840**	**1.75**	**117,575,674**	**4,182,016**	**3.56**	**5.18**	**91.16**	**3.66**	**3.91**	**2.81**	**1.13**	**3,199,106**	**76.50**	**4.15**	**55.59**	**35.09**	**5.17**	**5.75**	**2.07**	**5.28**	**1.00**	**0.17**	**2.19**

3.9 Audits or Reviews

The Competent Person, Richard Stockwell performed a review of drilling, sampling and assay techniques used to produce the LBN dataset and has deemed them to be suitable for the purposes of mineral resource estimation. Richard completed the geological interpretation, the volume model and the interpolation. Independent consultant Melinda Clarke (Datamine Australia) completed the peer review and validation of the final grade model.

3.10 Discussion of Relative Accuracy/Confidence

The accuracy and confidence of the LBN Resource Estimate is conducive to reporting to an Indicated level of confidence. Lower confidence areas are primarily downgraded due to lower data density.

Factors that influence the confidence levels applied to the resource include:

- The drilling and sampling density and the subsequent geological interpretation, which offers sufficient control and confidence for the mineralisation,
- The application of industry best practice data capture techniques and procedures,
- The representative sample size and demonstrable sample quality assurance,
- The reconcilably high accuracy of the survey apparatus and methods applied to the drilling locations and the topographic surface,
- The demonstrable quality in the input assay and mineralogical data,
- The application of Competent Persons to data capture, resource estimation and peer review,
- The use of industry-leading modelling and estimation software and techniques.

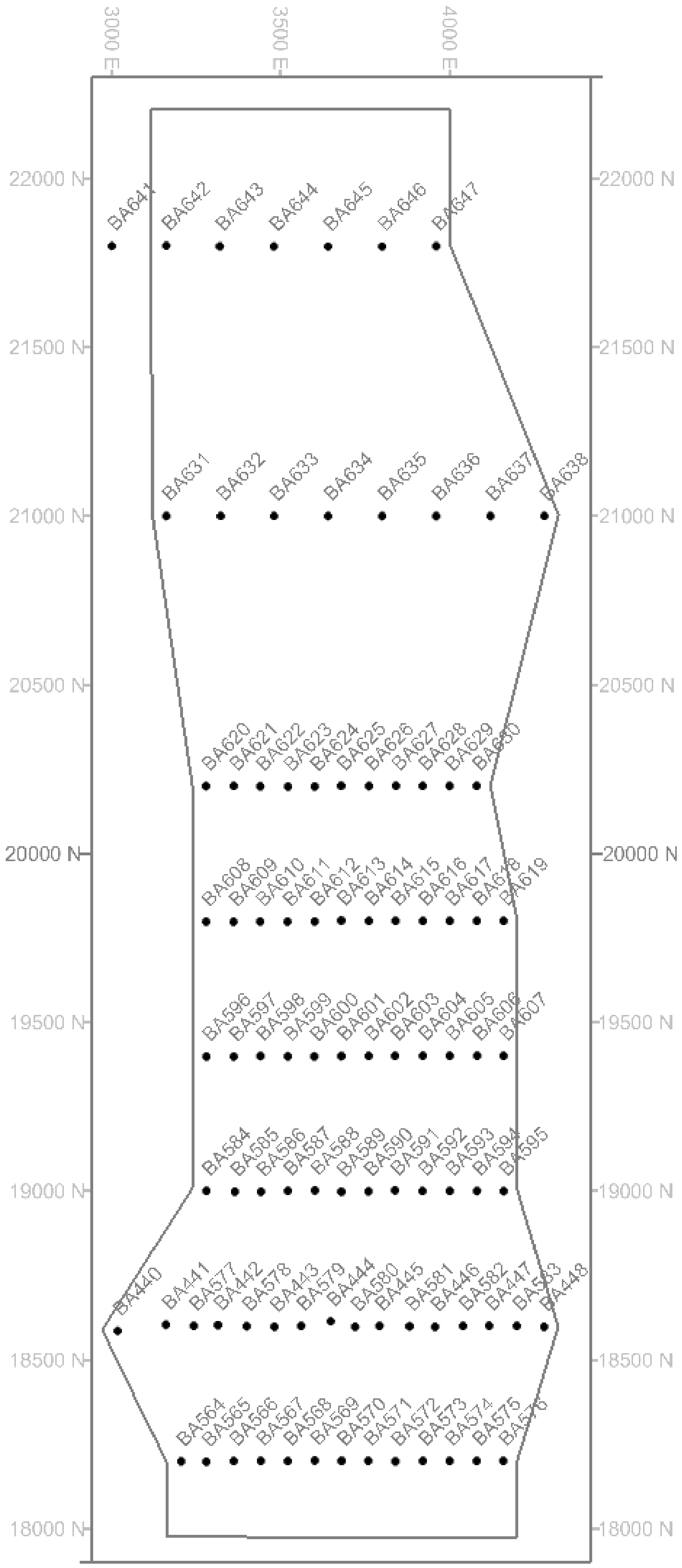
4 References

Gibson, B., 1997. Surrender Report on Exploration for Heavy Minerals over E70/1026, Port Gregory/Lucky Bay, Western Australia. Westralian Sands Limited Technical Report, WSL-TR97/28, 3p.

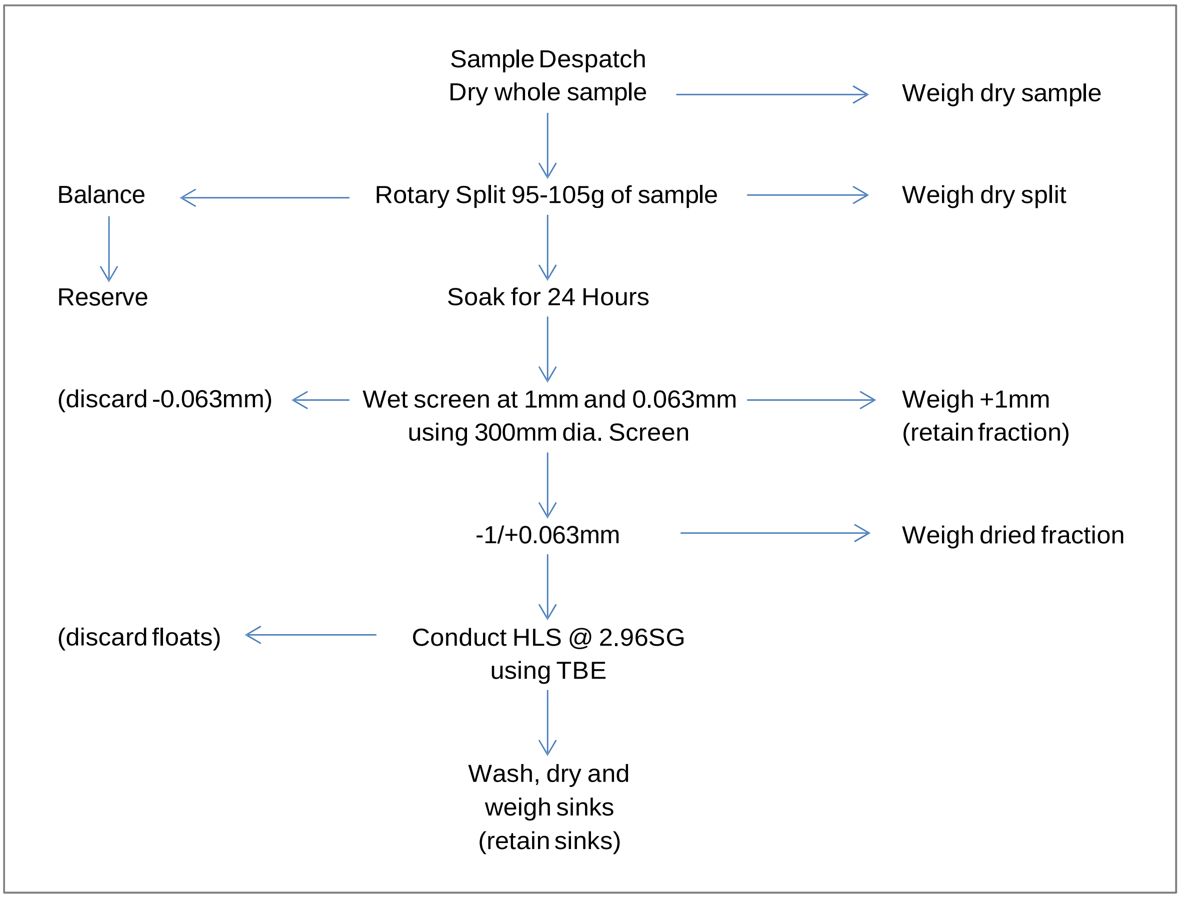
Iasky, R.P.; Mory, A.J. (1999). Geology and Petroleum Potential of the Gascoyne Platform, Southern Carnarvon Basin, Western Australia. Geological Survey of Western Australia.

Placer Consulting Pty Ltd (2022). Lucky Bay Garnet Project: Resource Estimate Report, 45p.

APPENDIX 1: Lucky Bay North Drill Hole Plan: Local Grid

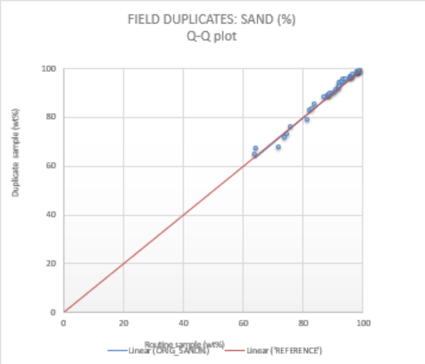


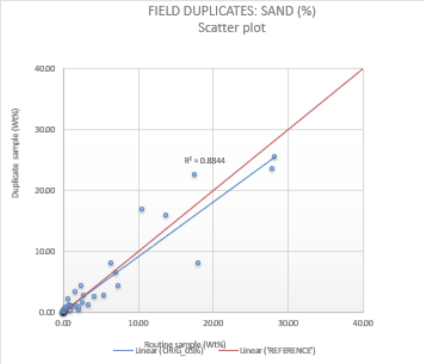
APPENDIX 2: Diamantina Routine Assay Flow Diagram

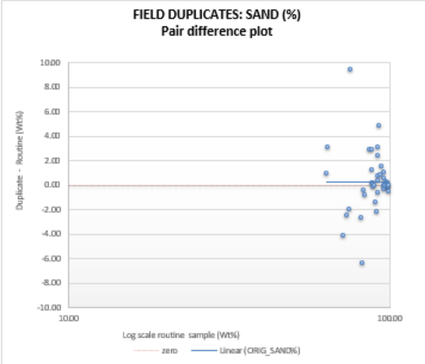


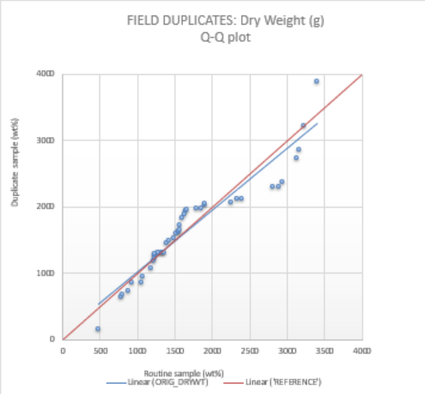
APPENDIX 3: QA-QC.

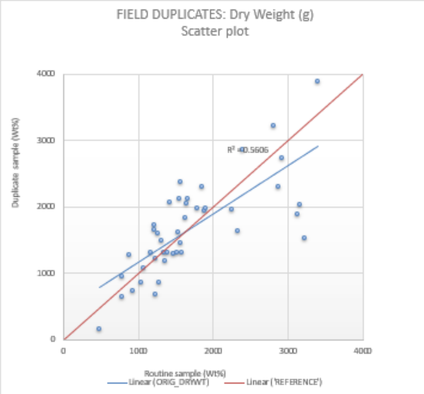
Field Duplicates Plots

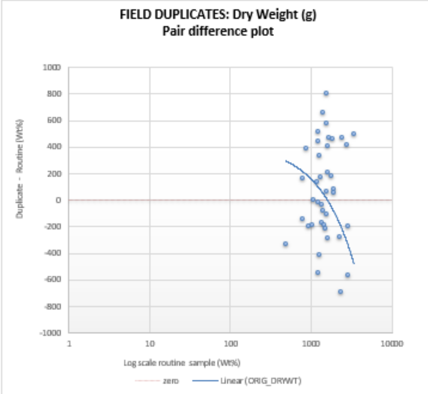


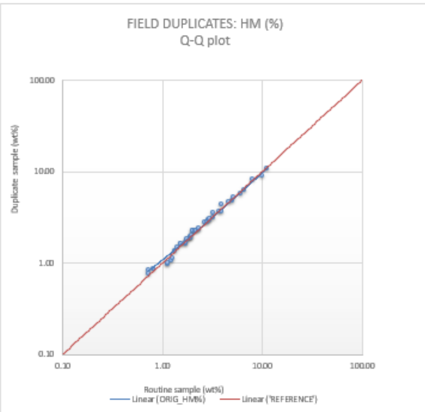


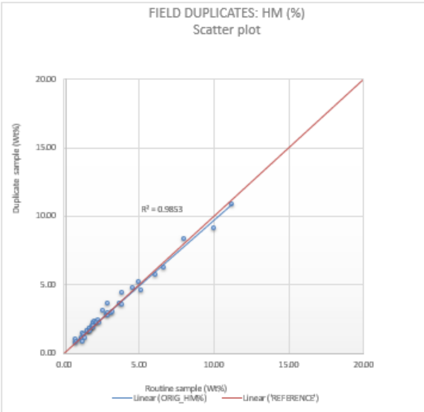


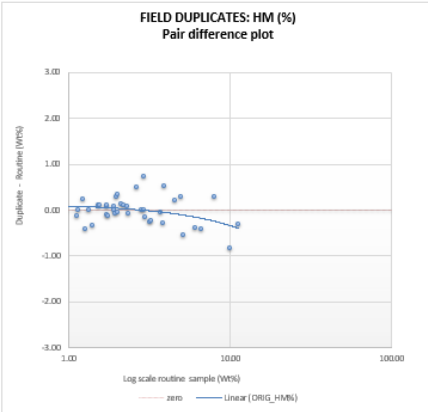


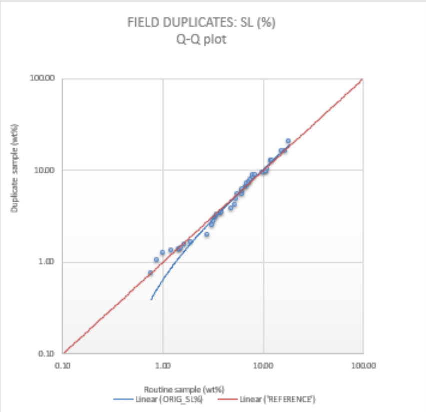


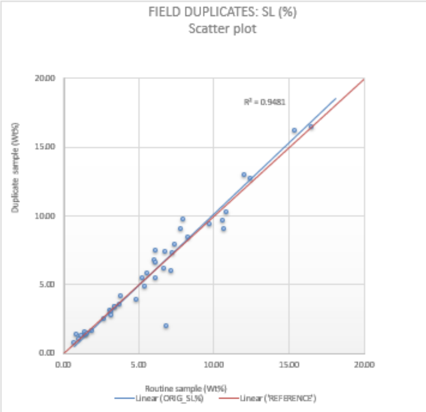


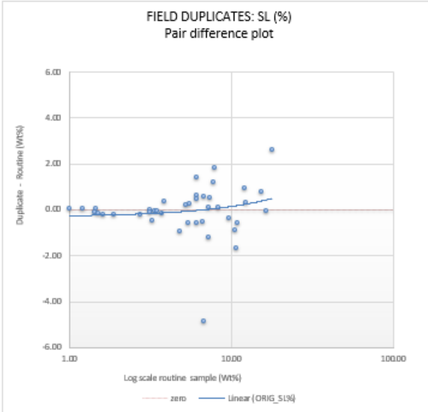


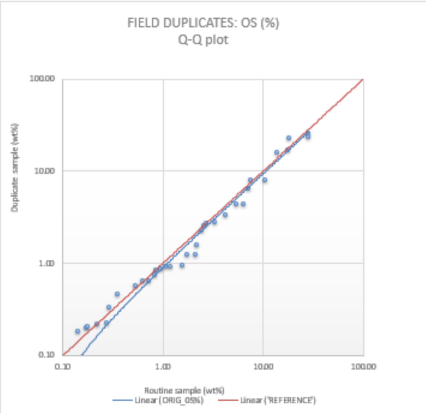


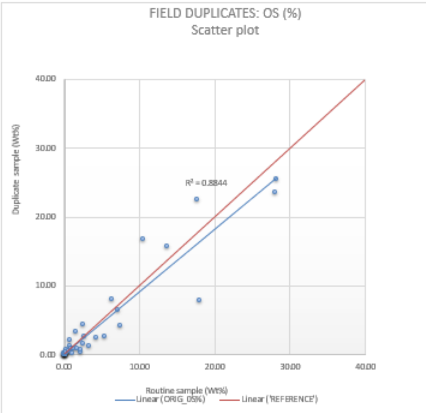


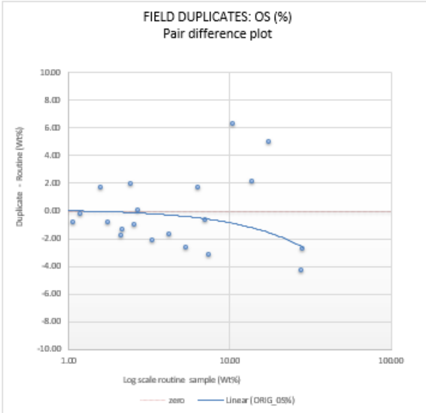




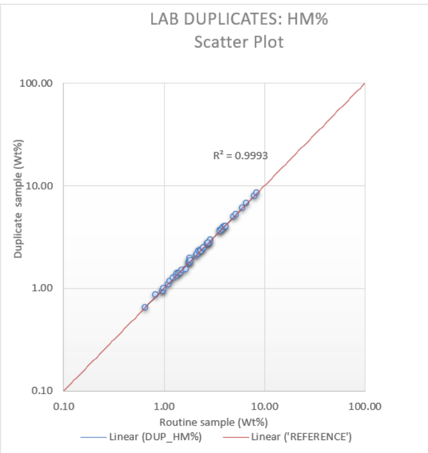


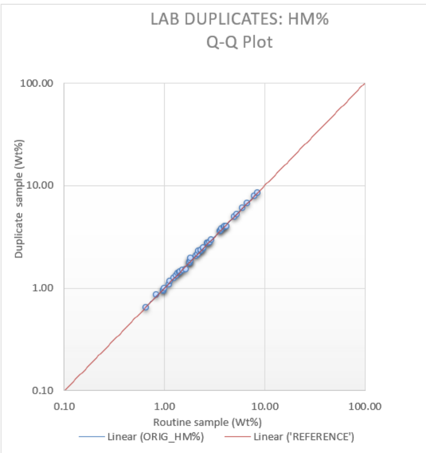


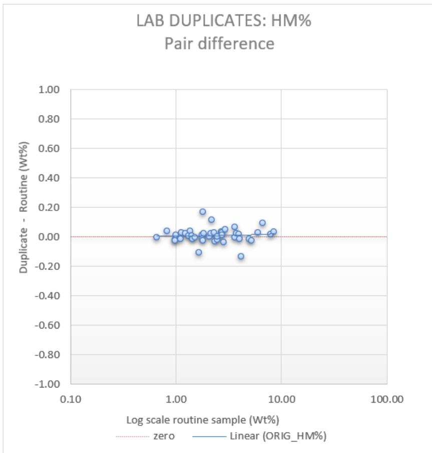


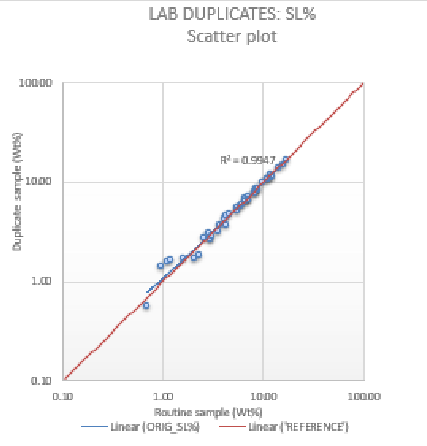


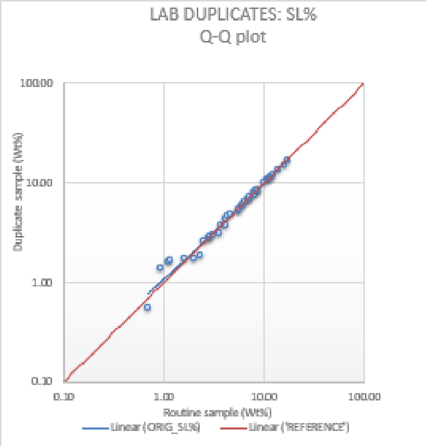
Lab Duplicates Plots

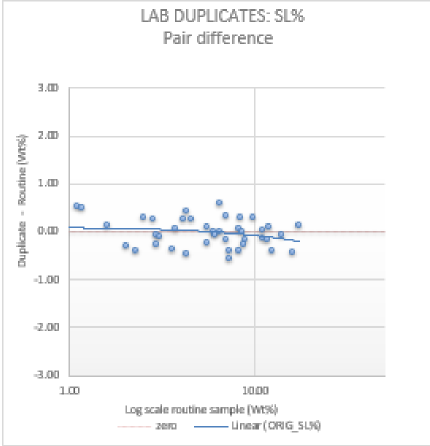


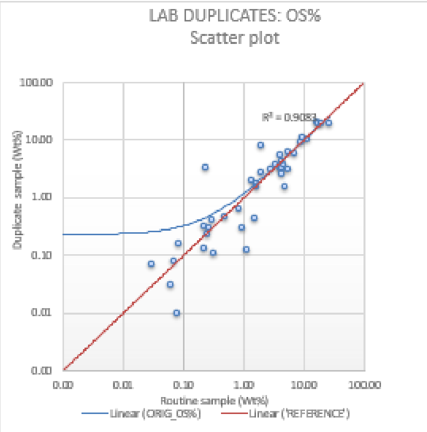


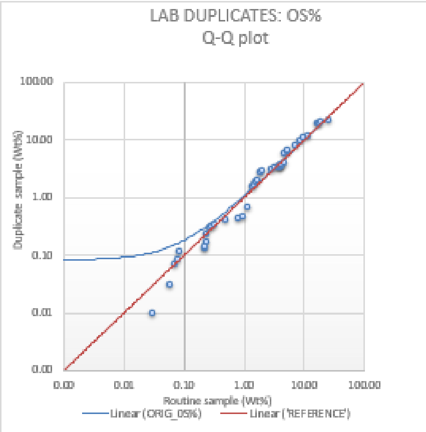


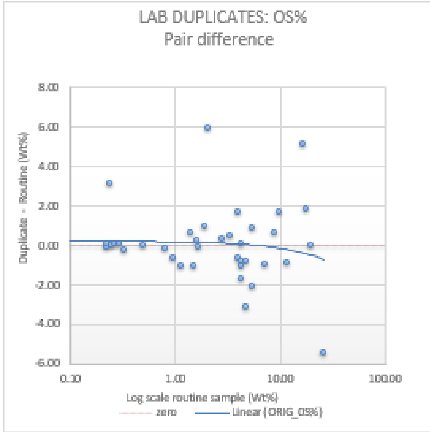

LAB DUPLICATES: SL%
Scatter plot
R² = 0.9947
Duplicate sample (Wt%)
Routine sample (Wt%)
Linear (ORIG_SL%)
Linear ('REFERENCE')

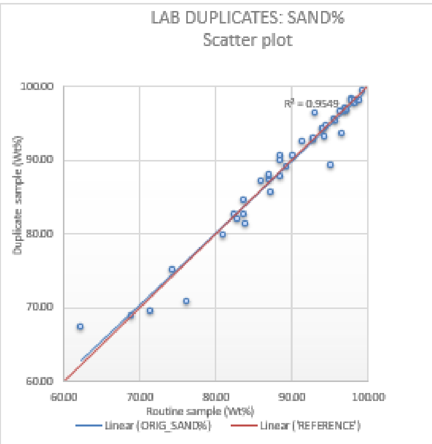

LAB DUPLICATES: SL%
Q-Q plot
Duplicate sample (Wt%)
Routine sample (Wt%)
Linear (ORIG_SL%)
Linear ('REFERENCE')

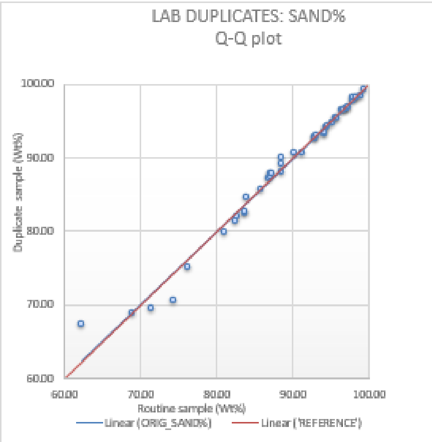

LAB DUPLICATES: SL%
Pair difference
Duplicate - Routine (Wt%)
Log scale routine sample (Wt%)
zero
Linear (ORIG_SL%)

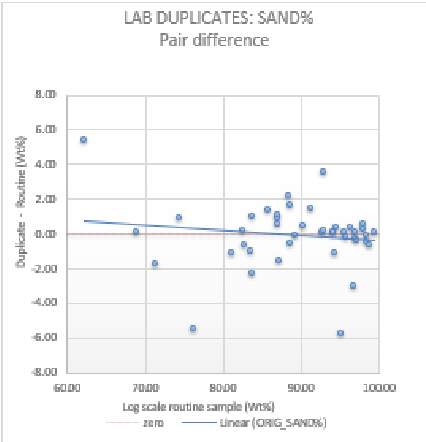

LAB DUPLICATES: OS%
Scatter plot
R² = 0.9087
Duplicate sample (Wt%)
Routine sample (Wt%)
Linear (ORIG_OS%)
Linear ('REFERENCE')


LAB DUPLICATES: OS%
Q-Q plot
Duplicate sample (Wt%)
Routine sample (Wt%)
Linear (ORIG_OS%)
Linear ('REFERENCE')

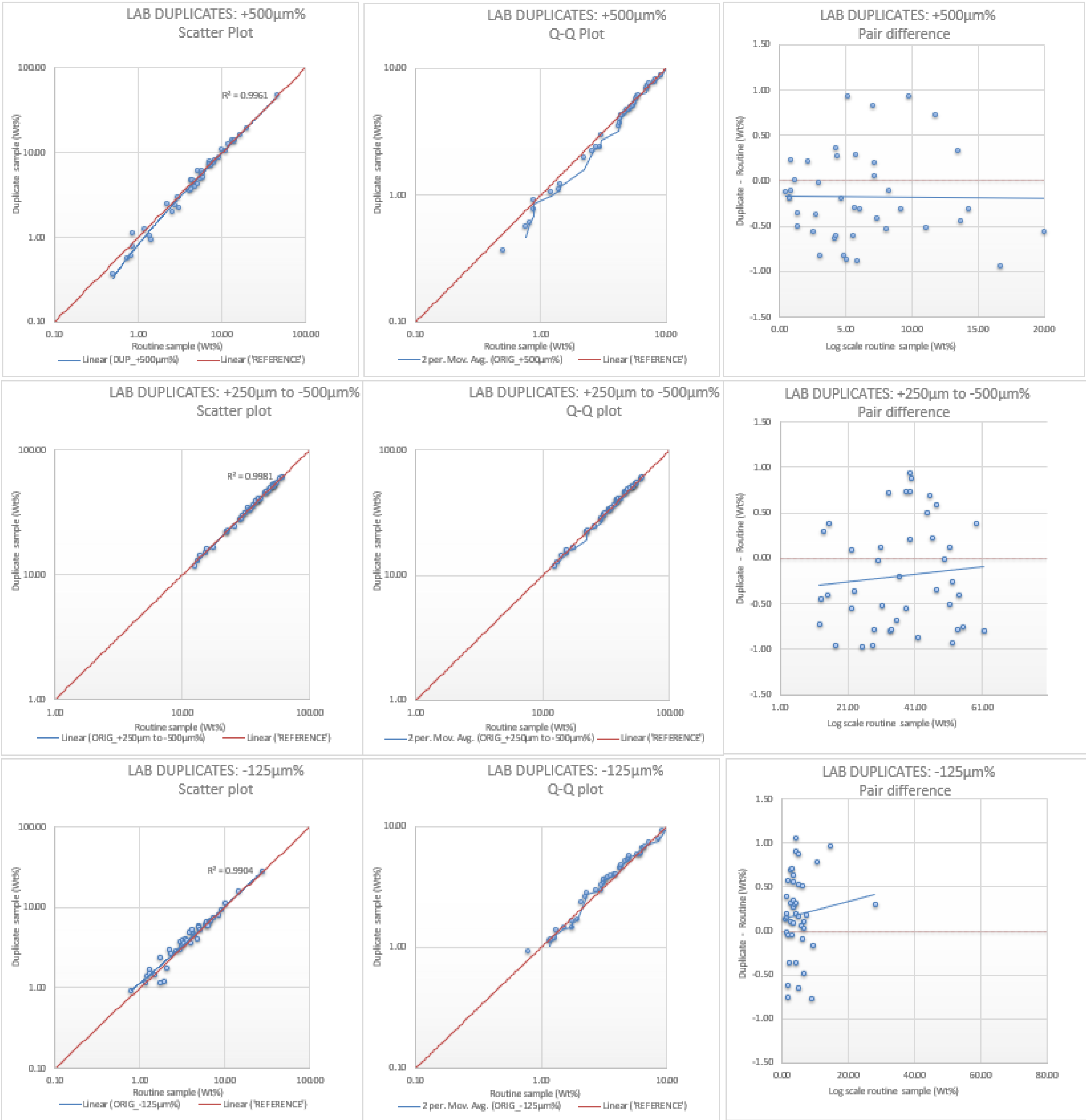

LAB DUPLICATES: OS%
Pair difference
Duplicate - Routine (Wt%)
Log scale routine sample (Wt%)
zero
Linear (ORIG_OS%)

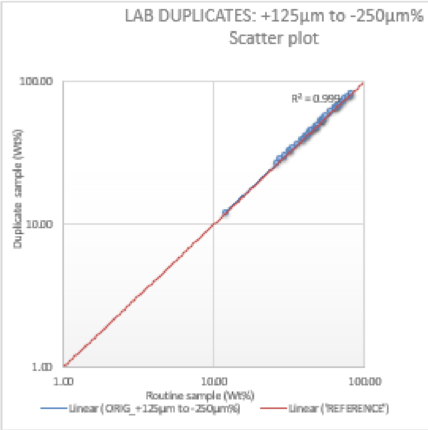

LAB DUPLICATES: SAND%
Scatter plot
R² = 0.9549
Duplicate sample (Wt%)
Routine sample (Wt%)
Linear (ORIG_SAND%)
Linear ('REFERENCE')

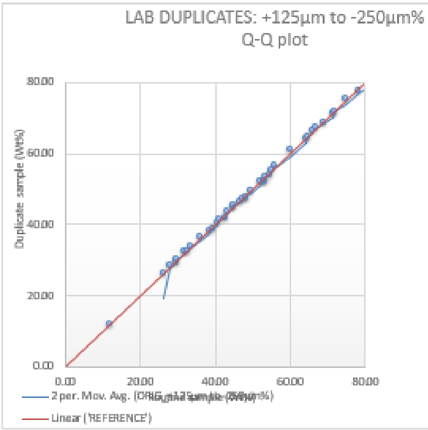

LAB DUPLICATES: SAND%
Q-Q plot
Duplicate sample (Wt%)
Routine sample (Wt%)
Linear (ORIG_SAND%)
Linear ('REFERENCE')

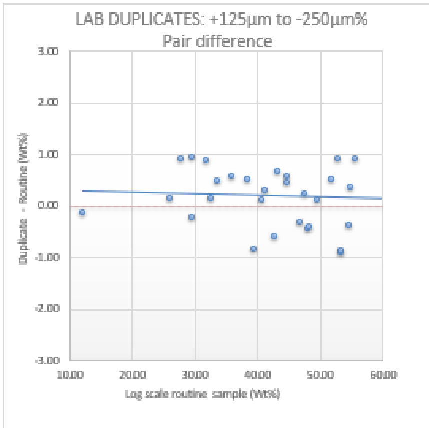

LAB DUPLICATES: SAND%
Pair difference
Duplicate - Routine (Wt%)
Log scale routine sample (Wt%)
zero
Linear (ORIG_SAND%)

Lab Duplicates Garnet Sizing



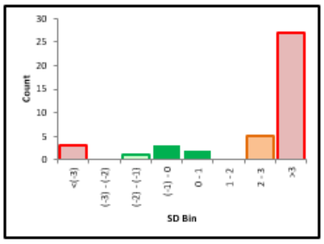


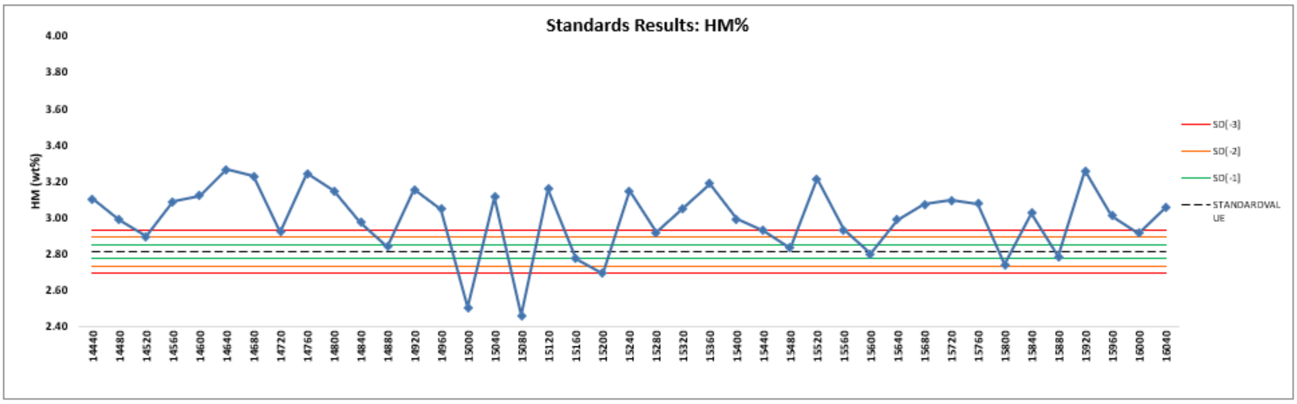




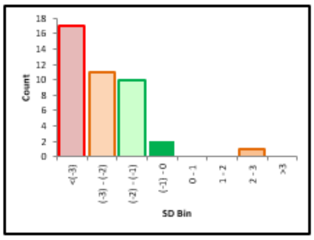
Standards Results – Field

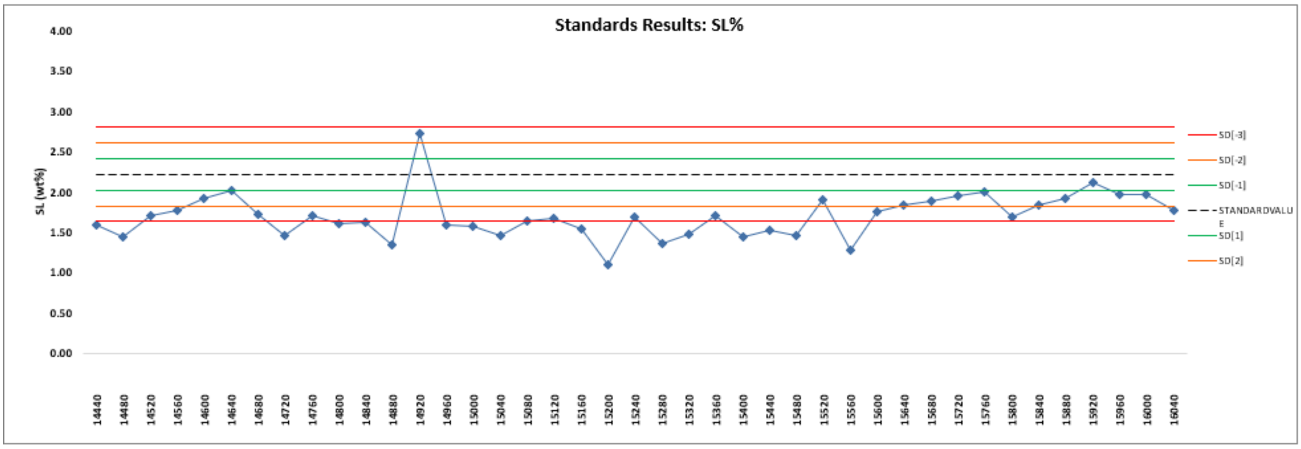
ASSAY AVERAGE	2.99
EXPECTED VALUE	2.81
%DIFF	6.4%
COEFFICIENT OF VARIATION	1.0722
STANDARD DEVIATION (ASSAY)	3.209
STANDARD DEVIATION (EXPECTED)	0.040
COUNT OF ASSAY_SD < (-3)	3
)UNT OF ASSAY_SD = (-3) - (-2)	0
)UNT OF ASSAY_SD = (-2) - (-1)	1
COUNT OF ASSAY_SD = 1 - 2	0
COUNT OF ASSAY_SD = 2 - 3	5
COUNT OF ASSAY_SD > 3	27
TOTAL NUMBER OF STANDARDS =	41





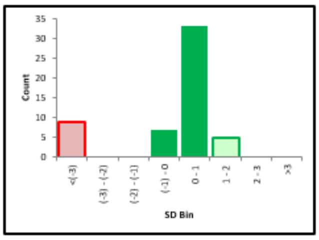
ASSAY AVERAGE	1.70
EXPECTED VALUE	2.22
%DIFF	-23.2%
COEFFICIENT OF VARIATION	1.2707
STANDARD DEVIATION (ASSAY)	2.163
STANDARD DEVIATION (EXPECTED)	0.194
COUNT OF ASSAY_SD < (-3)	17
UNT OF ASSAY_SD = (-3) - (-2)	11
UNT OF ASSAY_SD = (-2) - (-1)	10
COUNT OF ASSAY_SD = 1 - 2	0
COUNT OF ASSAY_SD = 2 - 3	1
COUNT OF ASSAY_SD > 3	0
TOTAL NUMBER OF STANDARDS =	41

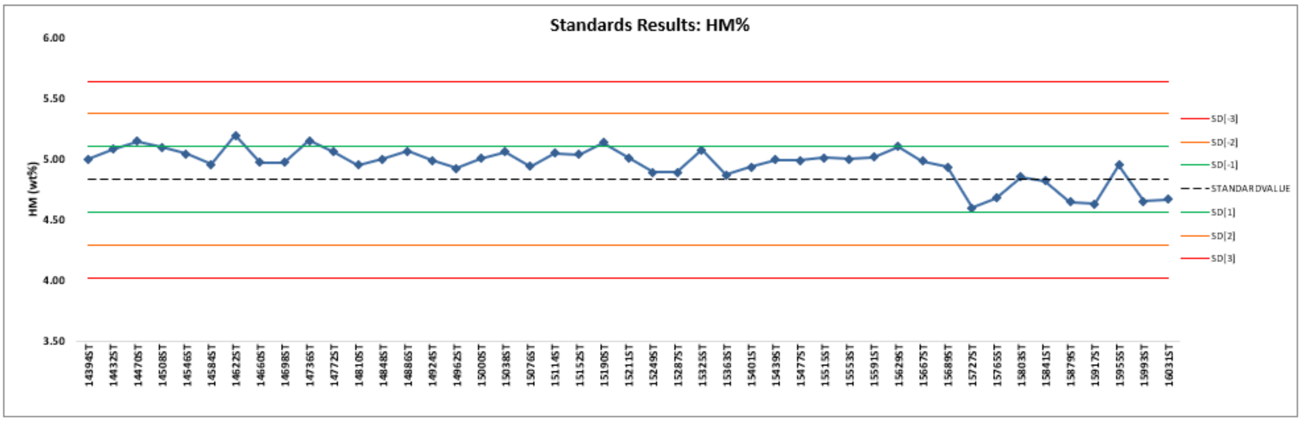




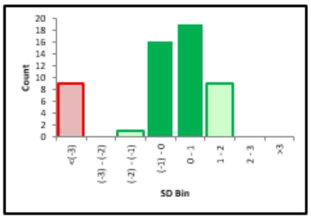
Standards Results – Lab

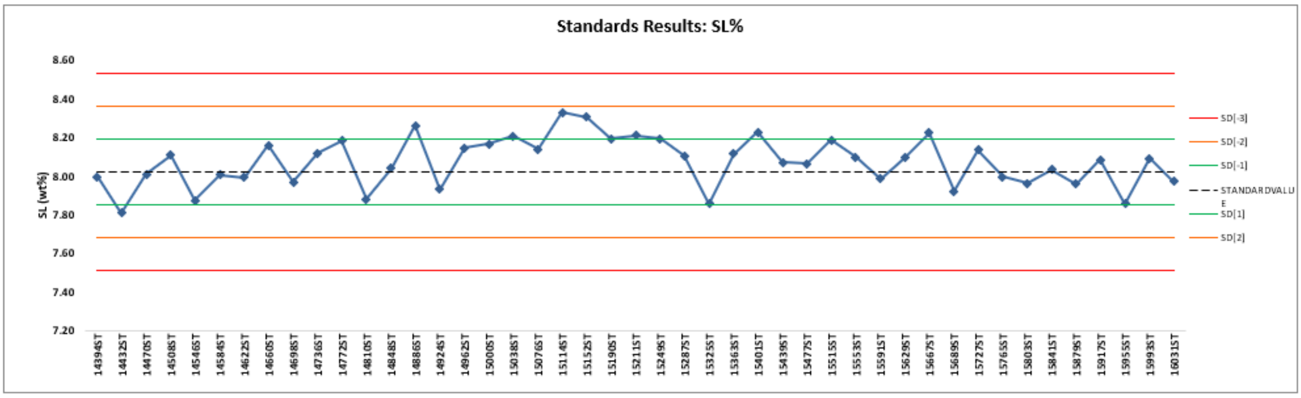
ASSAY AVERAGE	4.95
EXPECTED VALUE	4.83
%DIFF	2.6%
COEFFICIENT OF VARIATION	1.3107
STANDARD DEVIATION (ASSAY)	6.492
STANDARD DEVIATION (EXPECTED)	0.270
COUNT OF ASSAY_SD < (-3)	9
UNT OF ASSAY_SD = (-3) - (-2)	0
UNT OF ASSAY_SD = (-2) - (-1)	0
COUNT OF ASSAY_SD = 1 - 2	5
COUNT OF ASSAY_SD = 2 - 3	0
COUNT OF ASSAY_SD > 3	0
TOTAL NUMBER OF STANDARDS =	54





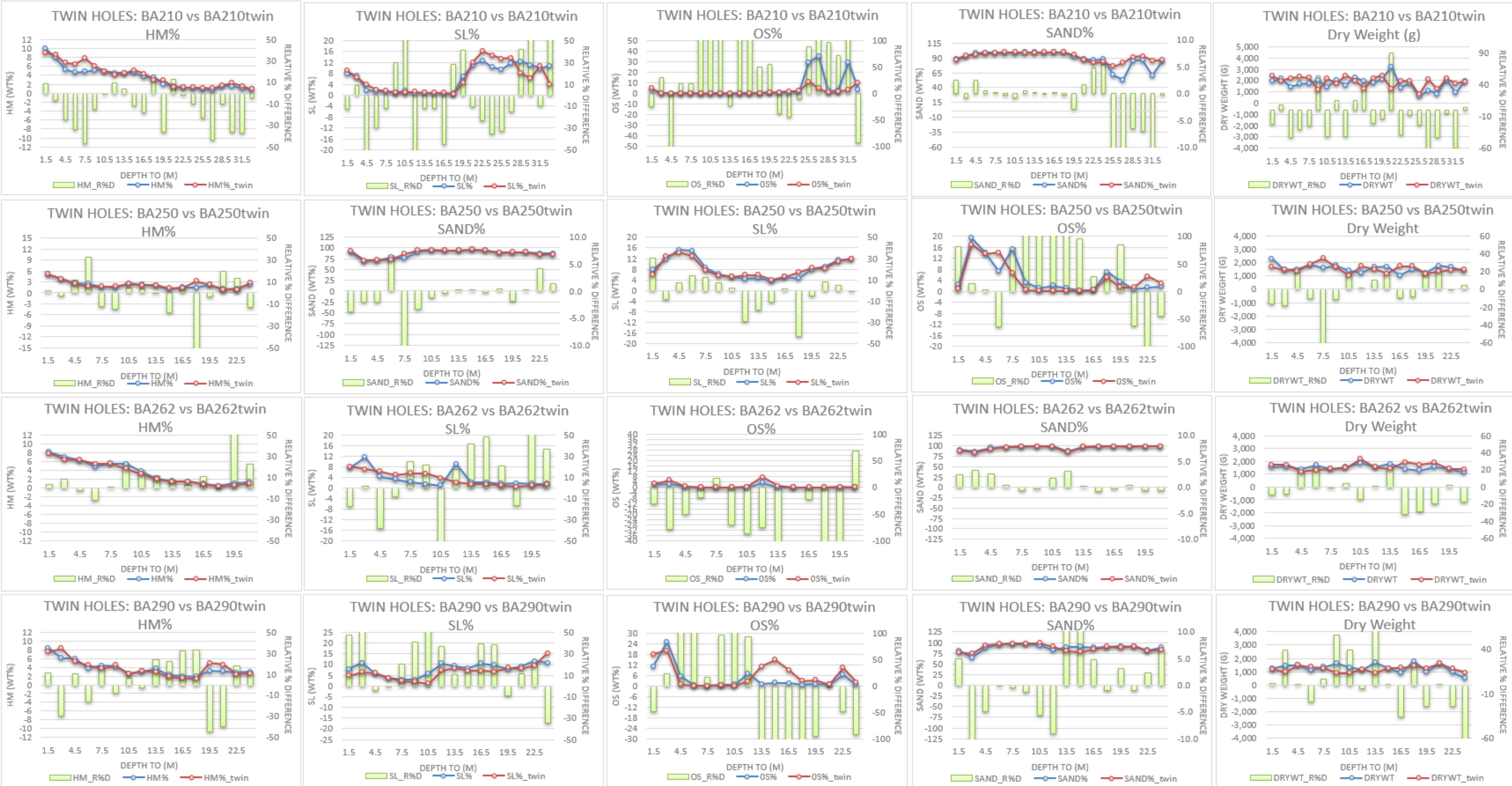
ASSAY AVERAGE	8.07
EXPECTED VALUE	8.02
%DIFF	0.7%
COEFFICIENT OF VARIATION	0.0552
STANDARD DEVIATION (ASSAY)	0.445
STANDARD DEVIATION (EXPECTED)	0.170
COUNT OF ASSAY_SD < (-3)	9
)UNT OF ASSAY_SD = (-3) - (-2)	0
)UNT OF ASSAY_SD = (-2) - (-1)	1
COUNT OF ASSAY_SD = 1 - 2	9
COUNT OF ASSAY_SD = 2 - 3	0
COUNT OF ASSAY_SD > 3	0
TOTAL NUMBER OF STANDARDS =	54





Replicates - QEMSCAN

APPENDIX 4: Twin Holes Plots



APPENDIX 5: Resource Drill hole Intersection Table

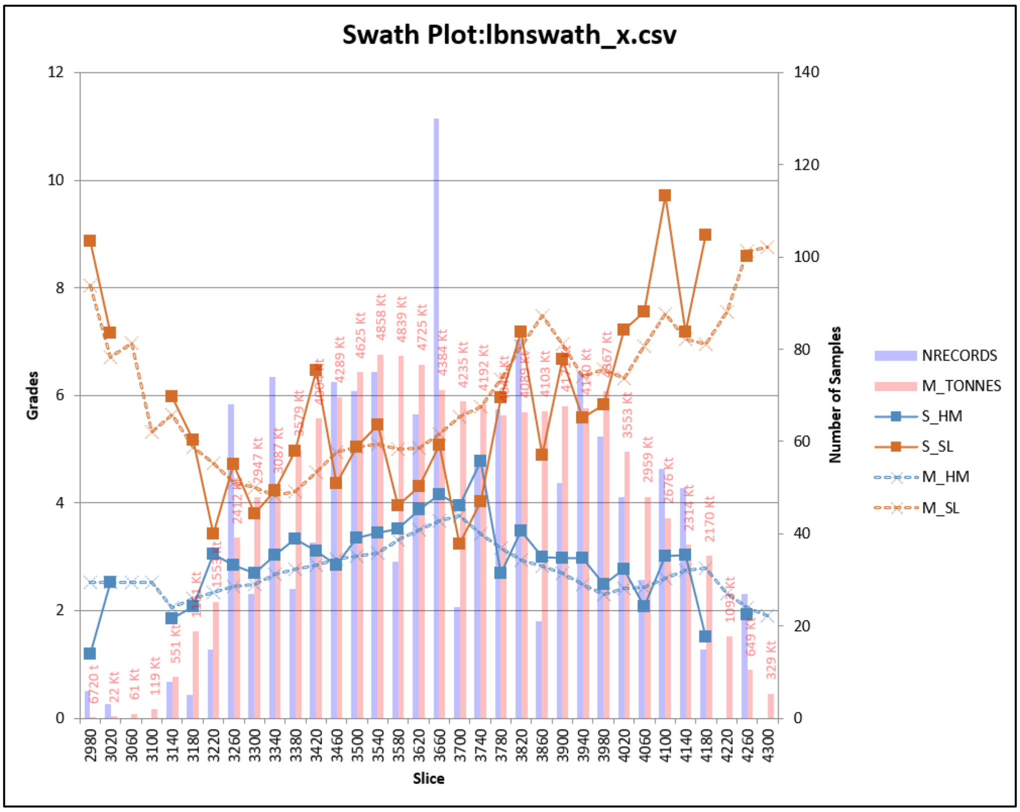
BHID	MGA_EAST	MGA_NORTH	INTERCEPT
BA440	221419.021	6903187.40	30m @ 3.6%HM from 0m
BA441	221544.517	6903258.29	12m @ 3.1%HM from 0m
BA442	221687.965	6903315.94	13.5m @ 4.4%HM from 0m
BA443	221845.063	6903374.94	36m @ 5.4%HM from 0m
BA444	221993.552	6903452.74	30m @ 5.7%HM from 0m
BA445	222132.087	6903495.13	24m @ 5.1%HM from 0m
BA446	222285.197	6903555.26	10.5m @ 3%HM from 0m
BA447	222432.12	6903619.03	13.5m @ 5.6%HM from 0m
BA564	221739.76	6902900.73	25.5m @ 3.7%HM from 0m
BA565	221809.92	6902928.19	25.5m @ 2.9%HM from 0m
BA566	221883.58	6902960.66	36m @ 3.5%HM from 0m
BA567	221958.22	6902991.55	42m @ 3.6%HM from 0m
BA568	222031.79	6903021.17	34.5m @ 4.2%HM from 0m
BA569	222105.71	6903053.27	36m @ 4.2%HM from 0m
BA570	222179.79	6903082.51	33m @ 4.6%HM from 0m
BA571	222252.64	6903112.26	33m @ 5.3%HM from 0m
BA572	222328.17	6903141.78	30m @ 4%HM from 0m
BA573	222402.2	6903173.60	25.5m @ 5.8%HM from 0m
BA574	222476.06	6903203.67	18m @ 3.9%HM from 0m
BA575	222549.81	6903233.99	6m @ 2.6%HM from 0m
BA577	221622.68	6903286.44	10.5m @ 3%HM from 0m
BA578	221767.71	6903345.06	27m @ 4.1%HM from 0m
BA579	221916.87	6903406.98	33m @ 3.6%HM from 0m
BA580	222065.4	6903465.56	25.5m @ 5.1%HM from 0m
BA581	222214.67	6903527.93	19.5m @ 4.4%HM from 0m
BA582	222361.53	6903589.34	10.5m @ 3%HM from 0m
BA583	222508.9	6903649.90	7.5m @ 2.3%HM from 0m
BA584	221505.87	6903671.19	16.5m @ 3.8%HM from 0m
BA585	221583.69	6903700.67	10.5m @ 3.1%HM from 0m
BA586	221656.26	6903730.05	13.5m @ 4.6%HM from 0m
BA587	221728.1	6903762.51	18m @ 5.3%HM from 0m
BA588	221802.38	6903794.27	22.5m @ 5.9%HM from 0m
BA589	221876.52	6903820.50	24m @ 6.5%HM from 0m
BA590	221949.9	6903851.84	18m @ 5.4%HM from 0m
BA591	222022.4	6903884.54	22.5m @ 5.8%HM from 0m
BA592	222097.62	6903913.40	12m @ 2.5%HM from 0m
BA593	222173.02	6903944.43	22.5m @ 3.4%HM from 0m
BA594	222247.17	6903974.59	19.5m @ 3.5%HM from 0m
BA595	222320.82	6904004.59	18m @ 4.2%HM from 0m
BA596	221354.78	6904039.94	16.5m @ 3.3%HM from 0m
BA597	221428.88	6904070.08	13.5m @ 5.3%HM from 0m
BA598	221502.14	6904101.75	9m @ 3.3%HM from 0m
BA599	221576.91	6904131.37	19.5m @ 4.5%HM from 0m
BA600	221649.96	6904161.22	19.5m @ 4.6%HM from 0m
BA601	221724.29	6904192.69	19.5m @ 5.4%HM from 1.5m
BA602	221798.46	6904223.62	15m @ 6.7%HM from 0m
BA603	221871.09	6904253.60	24m @ 2.8%HM from 0m
BA604	221946.55	6904284.90	30m @ 3.1%HM from 0m
BA605	222020.97	6904315.24	25.5m @ 2.7%HM from 0m
BA606	222095.52	6904345.76	16.5m @ 2.8%HM from 0m

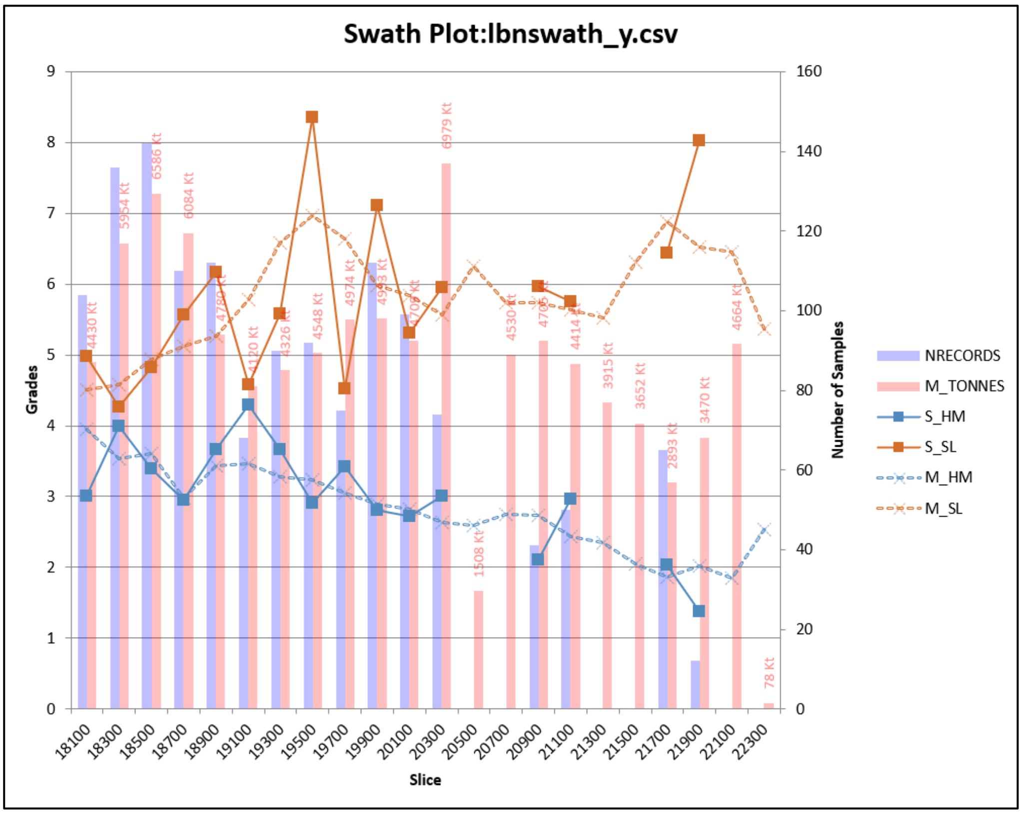
BA607	222168.49	6904375.41	18m @ 2.9%HM from 0m
BA608	221202.1	6904409.44	18m @ 3.4%HM from 0m
BA609	221276.63	6904439.57	13.5m @ 4.6%HM from 0m
BA610	221350.12	6904470.54	16.5m @ 5.4%HM from 0m
BA611	221424.38	6904500.55	24m @ 4.2%HM from 0m
BA612	221499.13	6904531.85	12m @ 5.4%HM from 0m
BA613	221571.43	6904564.27	15m @ 4.8%HM from 0m
BA614	221647.19	6904594.23	28.5m @ 2.9%HM from 0m
BA615	221720.79	6904624.31	34.5m @ 4.3%HM from 0m
BA616	221795.24	6904654.76	27m @ 3.3%HM from 0m
BA617	221869.22	6904685.14	21m @ 3.5%HM from 0m
BA618	221943.19	6904715.42	18m @ 2.8%HM from 0m
BA619	222016.76	6904745.83	15m @ 3%HM from 0m
BA620	221049.18	6904781.06	10.5m @ 2.9%HM from 0m
BA621	221124.58	6904812.36	9m @ 2.9%HM from 0m
BA622	221198.55	6904841.60	12m @ 2.7%HM from 0m
BA623	221274.03	6904871.77	21m @ 3.7%HM from 0m
BA624	221347.5	6904902.11	25.5m @ 4%HM from 0m
BA625	221419.47	6904933.71	25.5m @ 3.8%HM from 0m
BA626	221495.97	6904964.36	27m @ 3.2%HM from 0m
BA627	221570.16	6904995.43	30m @ 3.4%HM from 0m
BA628	221642.69	6905024.87	28.5m @ 5%HM from 0m
BA629	221716.92	6905055.08	21m @ 3.1%HM from 0m
BA630	221790.74	6905085.53	15m @ 2.5%HM from 0m
BA631	220636.05	6905477.13	7.5m @ 2.3%HM from 0m
BA632	220785.09	6905538.40	18m @ 3.1%HM from 0m
BA633	220932.11	6905598.65	12m @ 4.6%HM from 0m
BA634	221080.38	6905659.37	12m @ 5.3%HM from 0m
BA635	221228.87	6905720.00	7.5m @ 2.1%HM from 0m
BA636	221376.63	6905780.64	10.5m @ 2.5%HM from 0m
BA637	221524.99	6905841.50	19.5m @ 2.9%HM from 0m
BA638	221672.76	6905902.22	18m @ 2.9%HM from 0m
BA643	220479.68	6906277.47	16.5m @ 2.6%HM from 0m
BA644	220628.25	6906338.15	16.5m @ 3%HM from 0m
BA645	220777.22	6906399.00	7.5m @ 4.1%HM from 0m
BA646	220925.23	6906459.72	4.5m @ 2.3%HM from 0m
BA647	221073.08	6906521.25	16.5m @ 2.5%HM from 0m

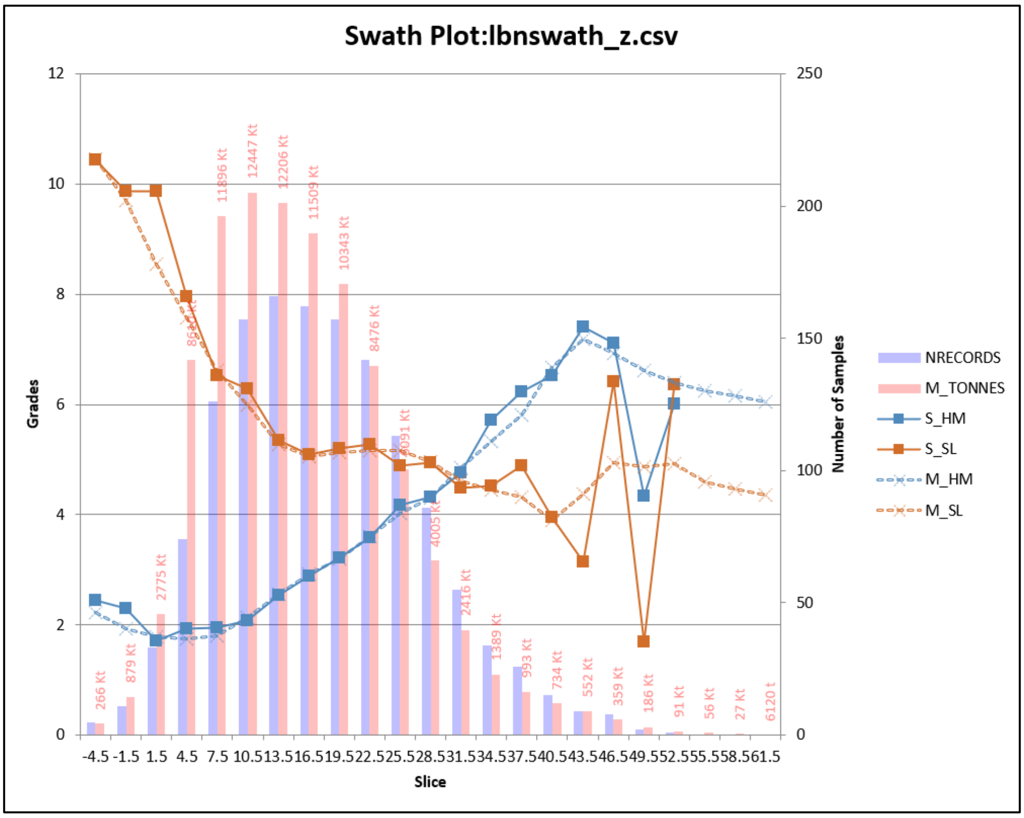
APPENDIX 6: Hardness Logging Codes

HARDNESS	DESCRIPTION
None	**Drilling unimpeded**
2	**Drilling virtually unimpeded** • Drill bit crunches through induration, • Cuttings generally contain a small amount of cemented material. • Cemented pieces crush/break easily manually
3	**Drilling slows noticeably for short intervals** • Mostly crunching with minimal grinding, • Grinding for < 30 second intervals • Cemented pieces are difficult to crush or break manually
4	**Drilling slows noticeably for long intervals** • Grinding for > 30 second intervals but < 3 minutes, • Coring for significant part of the sample. • Core can be crushed/broken with a hammer, cannot break manually
5	**Progress very slow to absent** • Coring for > 3 minute intervals, • Most of the sample is cored, • Abandon hole after 10 minutes without progress (subject to discretion) • Core rings when hit with a hammer

APPENDIX 7: Swath Plots of Model (lbnmd3.dm) vs. Drilling (lbndhzc.dm)






Swath Plot:lbnswath_z.csv
Grades
Number of Samples
Slice
NRECORDS
M_TONNES
S_HM
S_SL
M_HM
M_SL
266 Kt
879 Kt
2775 Kt
11896 Kt
12447 Kt
12206 Kt
11509 Kt
10343 Kt
8476 Kt
4005 Kt
2416 Kt
1389 Kt
993 Kt
734 Kt
552 Kt
359 Kt
186 Kt
91 Kt
56 Kt
27 Kt
6120 t

APPENDIX 8: File Reference list

File Name	Description
hole 2.dm	Drill hole file (ass, lith, coll) projected to topo wf and extraneous holes removed
lbndhz.dm	Zoned (hole2) drill hole file
lbndhz.mac	Drill hole zoning macro
lbnprot.mac	prototype model macro
lbnmdvol.mac	volume model macro
vbd2.mac	density macro
lbnest.mac	grade interpolation et.al., macro
lbndhzc.dm	zoned dh file with composite ID attached
vbd2.mac	updated density macro to assign fdensity where (variable) density is absent
mdbdy.dm	model boundary string
mdbdytr/pt.dm	model boundary wireframe
m1387st.dm	mining lease M70/1387 boundary string file
topobdy.dm	topo boundary string
lbntopotr/pt.dm	topo dtm
mlplane.dm	wireframe sectional plane at nth end of ML1387
lbnbase.dm	string file basement interpretation
basetag.dm	tag strings to direct string linking
lbnbasetr/pt.dm	basement wireframe - ZONE = 100
lbnwdune.dm	string file west dune interpretation
lbnwdunetr/pt.dm	west dune wireframe - ZONE = 2
lbnedunetr/pt.dm	lower limit (basement renamed) of east dune for drillhole and model zoning - ZONE = 1
sectionstr/pt.dm	view planes for model report figures
lbncomps.dm	composite string file for sample selection
Compselec.mac	sample selection by compid macro
compid.dm	composites list sorted by sample ID for joining to dh file
comps.dm	composite data results
indbdy.dm	indicated boundary string
lbnindbdytr/pt.dm	ccutter indicated for modsplt
lbn3esp	ID3 estimate par file
lbn3svp	ID3 search par file
lbnprot.dm	prototype model
lbnmdvol.dm	zoned volume model
lbnmd3dr.dm	ID3 grade model with density and rescat interpolated. No composite data
lbnmd3dro.dm	Optimised grade model for report, no comps.
lbnmd3	Final reportable resource model with composite data attached
ass.dm	imported assay file
coll.dm	imported collar file
lith.dm	imported lithology file