ASX/Media Announcement 27th July 2015

MAIDEN RESOURCE ESTIMATE COMPLETED FOR COPI NORTH HEAVY MINERAL SANDS DEPOSIT

Broken Hill Prospecting Limited ('BPL') today announced a maiden resource estimate for the Copi North Heavy Mineral Sands Deposit in the Murray Basin, NSW, of 11.6 million tonnes at an average 6.9% Heavy Minerals.

Resource Status	Tonnes (millions)	THM (%)	Average Density (g/cm^3)	Slimes <53um (%)	Oversize >2mm (%)
Inferred	4.6	6.5	1.82	3.0	1.8
Indicated	7.0	7.1	1.84	2.6	2.0
Total	**11.6**	**6.9**	**1.83**	**2.8**	**1.9**

Table 1: Copi North JORC Resource (2.5% Total Heavy Mineral (THM) cut-off)

Tonnes (millions)	THM (%)	Ilmenite (%)	Rutile (%)	Zircon (%)	Monazite (%)	Leucoxene (%)	Other HM (%)
11.6	**6.9**	**54.4**	**10.8**	**11.3**	**1.0**	**10.0**	**12.6**

Table 2: Copi North Resource with Heavy Mineral (HM) assemblage.

Highlights

- **High-grade HM content with average grade (6.9%) nearly twice the reported head grades of nearby operating heavy mineral sands (HMS) mines (~3.5% - 4% HM)**
- **Substantial proportions of high-value zircon (11.3%) and rutile (10.8%) compared with many other HMS deposits**
- **A considerable portion of the Resource has relatively high level of confidence (7.0Mt at 7.1% HM is Indicated Resource)**
- **The Resource occurs at shallow depths (ranging between 6.75-47.7 metres, averaging 23m) under friable sand, silt and clay**
- **Low slime content (2.8%) may help maximise HM recovery, and limited groundwater could support lower capital cost, dry, open-cut mining**
- **Potential to substantially extend the deposit length from 10km to up to 30km**
- **Copi North, combined with BPL's nearby deposits and prospects (e.g. Magic, Copi South, Nulla), could provide a pipeline of HMS mine developments**
- **Maiden Resource estimate for the Magic HMS deposit is anticipated in August**
- **Scoping and pre-feasibility studies on Copi North HMS Deposit are expected to be completed in late 2015**

Summary

Geos Mining, a Sydney-based Mineral Consultant company, has undertaken a resource estimation and classification of the Copi North deposit (Appendix 1) in accordance with Joint Ore Reserves Committee 2012 guidelines (JORC).

The Copi North Heavy Mineral Sands (HMS) deposit is a strandline-type, ilmenite-rutile-zircon-leucoxene (titanium, zirconium) placer deposit located in the Murray Basin in western NSW. Similar deposits are mined by Cristal (e.g. Ginkgo, Snapper) and Iluka (Woornack) in Victoria.

Drilling by BPL in early 2015 returned excellent thickness and continuity of mineralisation with high grade zones ranging up to 34.5% HM. The results of drill work and assay data were reported in a recent Company ASX announcement (21 May 2015) and is posted on BPL's website (www.bhpl.biz).

Geos Mining carried out compilation and validation of the exploration database prior to the resource estimation and a site visit was undertaken by Geos Mining during resource drilling to confirm that work practices and sampling procedures were best practice. Some 312 air core drill holes (129 undertaken by BPL in March 2015 and 183 completed by Iluka between 1998-2002) were used for the resource estimation. They were drilled along traverses perpendicular to the trend of the deposit and with an approximate traverse spacing of 450 metres (refer Figure 4 in Appendix 1).

Micromine 2014 and Leapfrog Geo software were used for the Resource Estimation (Table 1). Geological modelling and definition of the primary mineralised domains were undertaken with Leapfrog Geo and block modelling and grade interpolation was completed in Micromine. Geostatistical investigation was carried out to define interpolation parameters.

The block model contains grade estimates for Total Heavy Mineral (THM), slimes (<53um) and oversize sand (+2mm). Tonnage was calculated on a dry block by block basis using specific gravity weighted mineral point count data adjusted for estimated heavy mineral content of each block. Average slime content (<53um) for the Resource is 2.8% (Table 2) and the relatively coarse nature of the deposit (~97% of grains coarser than 0.053mm) is likely to be conducive for conventional spiral separation.

Confidence in the geological model, sampling procedures, data spacing and available data enabled the classification of both Indicated and Inferred Mineral Resource according to the Joint Ore Reserves Committee 2012 guidelines (JORC).

Background

Exploration Licence 8312 (Copi) is located approximately 70km northwest of Wentworth and approximately 60km WSW of Cristal Mining's Ginkgo and Snapper Mineral Sands wet dredging operations (Figure 1). In March 2015, air core drilling was undertaken at the Copi North deposit (EL8312) and the Magic Deposit in EL8311. This work is summarised in the Company's ASX release dated 16 April, 2015. Both deposits are placer accumulations of heavy mineral sands associated with well-defined ancient beach sand strandlines. BPL drilled 129 holes along the trend of the Copi North deposit and 88 air core drill holes were completed at the Magic deposit located in EL8311, 50km to the north of Copi North. A maiden resource estimation for the Magic HMS deposit is expected to be finalised in August.

Drill results from the Copi North HM deposit include HM grades in single sampled intervals (1 metre) ranging over 34% HM. The deposit contains numerous intersections between 1-4 metres thick which grade >20% HM and widespread zones with more than 10% HM content. The Copi North strandline is a 100-220 metre wide linear zone trending 303 degrees (average width 130m).

Both the Copi North and Magic deposits are considered to be at advanced exploration status and have been the subject of significant past exploration activities (including substantial amounts of drill testing) by other HMS explorers and miners. The majority of this work was undertaken by Iluka Resources in the 1990's and early 2000's.

The evaluation is fully financed by the private mining investment group Relentless Resources Limited (RRL) which is providing $2m of funding through a recently announced Joint Venture to earn a 50% interest in the two tenements. Broken Hill Minerals Pty Ltd, a fully owned subsidiary of BPL, is manager of the Joint Venture.

Planned Work

The Joint Venture intends to immediately commence scoping studies to investigate development options for a relatively high-grade, small tonnage mine development with low capital and operating costs and a small environmental footprint.

Consulting engineers will be commissioned to produce preliminary design criteria suitable for the size, shallow depth and high grades of the Copi North mineralisation as well as nearby deposits (e.g. Magic, Copi South) which could be mined sequentially or in parallel. Lower tonnage throughput will assist to minimize costs through advantages of relatively small and modular mobile mining equipment and plant.

Completion of Pre-feasibility studies including preliminary environmental and commercial studies are expected to be completed before year end.

Comments

BPL's Managing Director Dr Ian Pringle commented:

"This comprehensive Copi North Maiden Resource estimate provides the confidence for the JV to progress into scoping and feasibility work."

"Fortuitously, the deposit is very well located – not far from Wentworth which provides logistical and accommodation support for Cristal's Ginkgo and Snapper wet dredge mines and west of the Silver City Highway along which Cristal's HM separates are trucked to Broken Hill."

"The shallow nature and excellent grade continuity of the Copi North HMS deposit may allow for a cost effective, dry open-cut mining operation with a relatively small and mobile plant. The abundance of high HM grades with over 20% HM, some exceeding 35% HM, will likely provide some flexibility for future mining scenarios at Copi North. Magic and other nearby HMS

deposits provide additional prospects for either parallel or sequential fast-track mine developments."

"Copi North also has considerable upside and it is conceivable the deposit could trend for another 2-3 times the length of this Resource. This possible extension is not included in the Copi North Resource estimate."

Yours faithfully,

Ian J Pringle
(Managing Director)

Competent Person Statement

Exploration activities and sampling results contained in this notice are based on information compiled by Mr Ian Spence, Managing Director of Broken Hill Minerals Pty Ltd and reviewed by Dr Ian Pringle who is a Member of the Australasian Institute of Mining and Metallurgy. Dr Pringle is the Managing Director of Broken Hill Prospecting Ltd and also a Director of Ian J Pringle & Associates Pty Ltd, a consultancy company in minerals exploration. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Dr Pringle has consented to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to Exploration Results and Mineral Resources is based on information reviewed by Sue Border, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Sue Border has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the exploration activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Sue Border consents to the inclusion in the report of the matters based on this information in the form and context in which it appears. Sue Border in not an employee or a related party of the Company or its subsidiaries. Sue Border is a Director/Principal Geologist of Geos Mining.

About Broken Hill Prospecting Limited ("BPL")

BPL has commenced assessment of Heavy Mineral Sand ("HMS") deposits (titanium and zirconium) located south of Broken Hill in western NSW. These deposits have been extensively explored and drill tested by other parties and provide the Company with an opportunity to progress advanced evaluation and fast-track development of several substantial high-grade heavy mineral sand deposits.

Australia has the world's largest deposits of the titanium minerals ilmenite and rutile. Australian mines extract and refine Ti, but don't process it in large quantities. It is used in many *applications in light and heavy industries as well as in jewellery and 3D printing. However approximately 95% is used in an oxide form as the pure white colour crucial in products from paint to cosmetics. Titanium's strength-to-weight ratio, corrosion resistance and biocompatibility make it perfect for aerospace, medical and sport applications.*

BPL Cobalt and Pyrite (Sulphuric acid) deposits

BPL is progressing with exploration and evaluation of cobalt-pyrite deposits in the Broken Hill area within two exploration tenements (EL6622 and EL8143) and two mining leases (ML86 and ML87).

Broken Hill Prospecting Limited is in a strong strategic position to take advantage of increasing demand for cobalt to meet growth in environmental and industrial uses including rechargeable batteries in automobiles and super alloys. Co-product sulphuric acid could address Australian reliance on imported sulphur and provide opportunities for phosphate fertiliser and mineral processing industries.

For further information contact;

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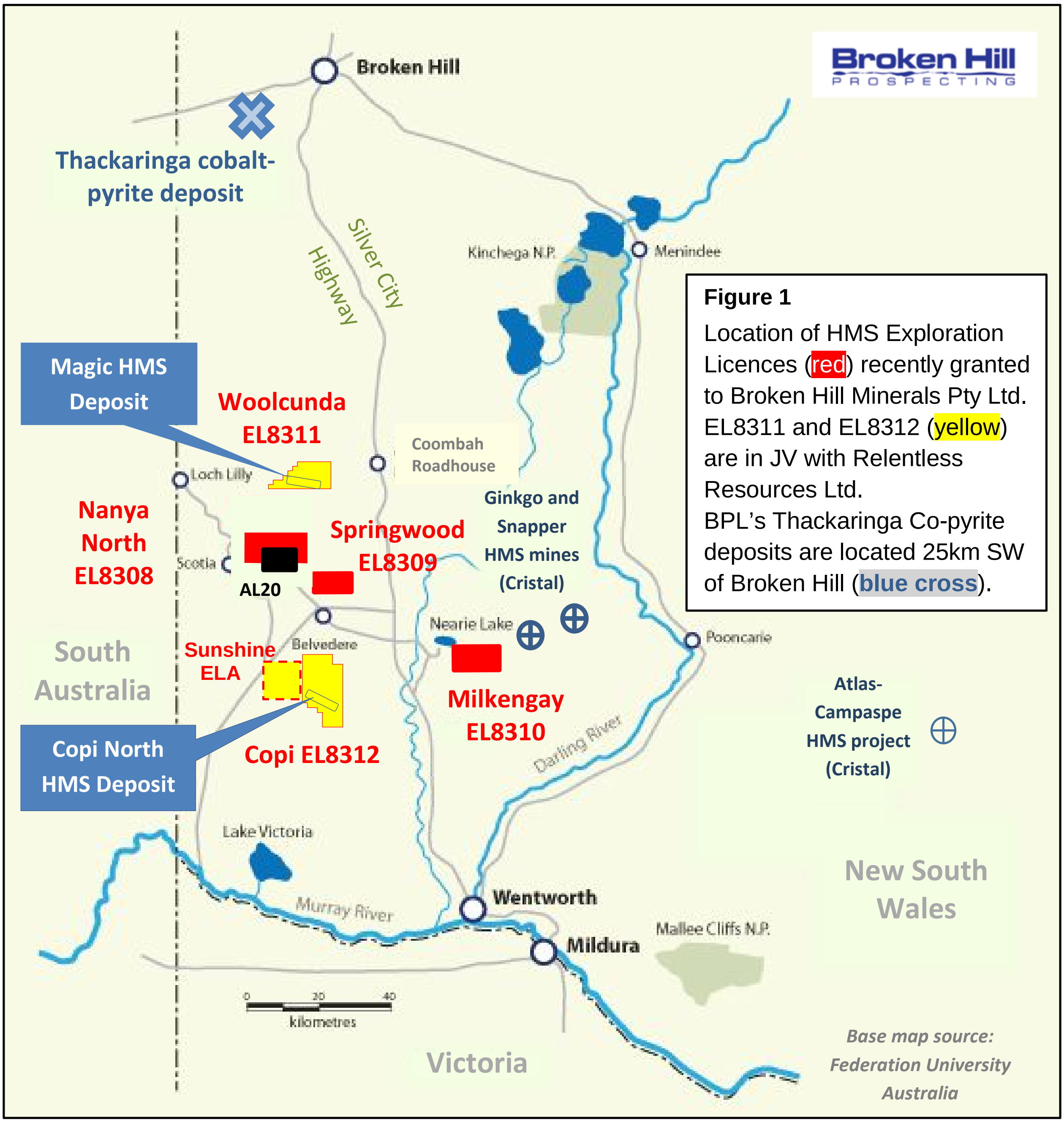
Figure 1. Map of western NSW showing the location of the Magic Heavy Mineral Sands Deposit and Exploration Licences held by Broken Hill Minerals Pty Ltd. The map also shows the location of Cristal Mining's Pooncarie Mineral Sands Project (Ginkgo and Snapper Mines) and Atlas-Campaspe HMS project.



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Mineral Resource Estimate

Copi North

Broken Hill Minerals Pty Ltd

Job No. 2660-01

Report Date: 17 July 2015

Prepared for:

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Executive Summary

Geos Mining was contracted by Broken Hill Minerals to undertake a resource estimation and classification in accordance with Joint Ore Reserves Committee 2012 guidelines (JORC) of the Copi North prospect, a heavy mineral strandline located in the Murray Basin extending for 16km in length.

The Murray Basin is host to the Loxton-Parilla sands, within which numerous heavy mineral strandline deposits are found. During the early Pliocene the Loxton-Parilla sands were deposited during marine transgression/regression, often comprising long linear beaches, subject to on-shore wave action and contemporaneous sorting and heavy mineral concentration.

Exploration activities to date consist of air core drilling and geophysical interpretation. 312 drill holes were available for the resource estimation at an approximate spacing of 450m. An infill drilling program was carried out by Broken Hill Minerals in March 2015 to improve drill line spacing.Geos Mining undertook compilation and validation of the exploration database leading up to the resource estimation, ensuring the resource dataset was as robust as possible. A site visit was conducted in February 2015 to witness and advise on exploration and sampling procedures.

Resource estimation was performed in Micromine 2014 and Leapfrog Geo. Leapfrog Geo was used to model the local geology and define the primary mineralised domain, while block modelling and grade interpolation was conducted in Micromine. A thorough geostatistical investigation was undertaken to justify interpolation parameters. Flattening was employed to maximise grade continuity between data points and preserve the vertical grade profile, characteristic of the majority of intersections.

The resultant block model contains grade estimates for Total Heavy Mineral (THM), Slimes (<53um) and Oversize (+2mm). Tonnage was calculated on a dry block by block basis using S.G. weighted mineral point count data adjusted for estimated block heavy mineral (HM) content and combined with a global assumed bulk sand density.

Confidence in the geological model, sampling procedures, data spacing and available data resulted in the classification of both Indicated and Inferred Mineral Resource according to the Joint Ore Reserves Committee 2012 guidelines (JORC).

Table 1: Copi North JORC Resource at 2.5% THM cut off

Status	Volume (m^3)	Tonnes Millions	Average Density (g/cm^3)	THM (%)	Slimes (%)	Oversize (%)
Inferred	2539500	4.6	1.82	6.5	3	1.8
Indicated	3781500	7	1.84	7.1	2.6	2
Total	6321000	11.6	1.83	6.9	2.8	1.9

Table 2: Copi North Resource Total Heavy Mineral (THM) assemblage

Volume (m^3)	Tonnes Millions	THM (%)	Ilmenite (%)	Rutile (%)	Zircon (%)	Monazite (%)	Leucoxene (%)	Other HM (%)
6321000	11.6	6.9	54.4	10.8	11.3	1	10	12.6

Competent Person Statement

The information in this report that relates to Exploration Results and Mineral Resources is based on information reviewed by Sue Border, a Competent Person who is a Fellow of The Australasian Institute of Mining and Metallurgy and Fellow of the Australian Institute of Geoscientists.

Sue Border has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the exploration activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mrs Border consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The following Geos Mining Consultants have taken responsibility for different aspects of this project as follows:

Alison Cole reviewed BHM's drilling, data collection techniques and the deposit geology. Alison has relevant experience in heavy mineral exploration and mining in the Murray and the Eucla Basins and has visited the project in February 2015.

Resource modelling, estimation and management of the project database were undertaken by Geos Mining's Senior Resource Geologist Oliver Willetts and Resources & Data Geologist David Biggs. Both have significant relevant experience in these activities.

Sue Border has reviewed the work and accepts overall responsibility for this report.

Disclaimer

While every effort has been made, within the time constraints of this assignment, to ensure the accuracy of this report, Geos Mining accepts no liability for any error or omission. Geos Mining can take no responsibility if the conclusions of this report are based on incomplete or misleading data.

Geos Mining and the authors are independent of Broken Hill Minerals Pty Ltd, and have no financial interests in Broken Hill Minerals Pty Ltd or any associated companies. Geos Mining is being remunerated for this report on a standard fee for time basis, with no success incentives.

1.1 Contents

Tables

Figures

1 Introduction

1.1 Terms of Reference

In 2015, Broken Hill Minerals contracted Geos Mining to assist in the development of a JORC-compliant Mineral Resource over Copi North Heavy Mineral Sand Prospect in the Murray Basin of New South Wales, Australia. Geos Mining assisted in the development of the Broken Hill Minerals field program in February and March 2015. The drilling, field recording, sampling and analytical procedures were set up to provide a compatible dataset with the extant Iluka data.

1.2 Project Location

The Copi Project is located in western New South Wales, approximately 30km from the South Australian Border, (-33.63° Latitude, 141.37° Longitude). The closest town, Wentworth is located 70km away and a further 20km on is the regional centre of Mildura. Access to the project area is via network of unsealed roads over flat topography (Figure 1).

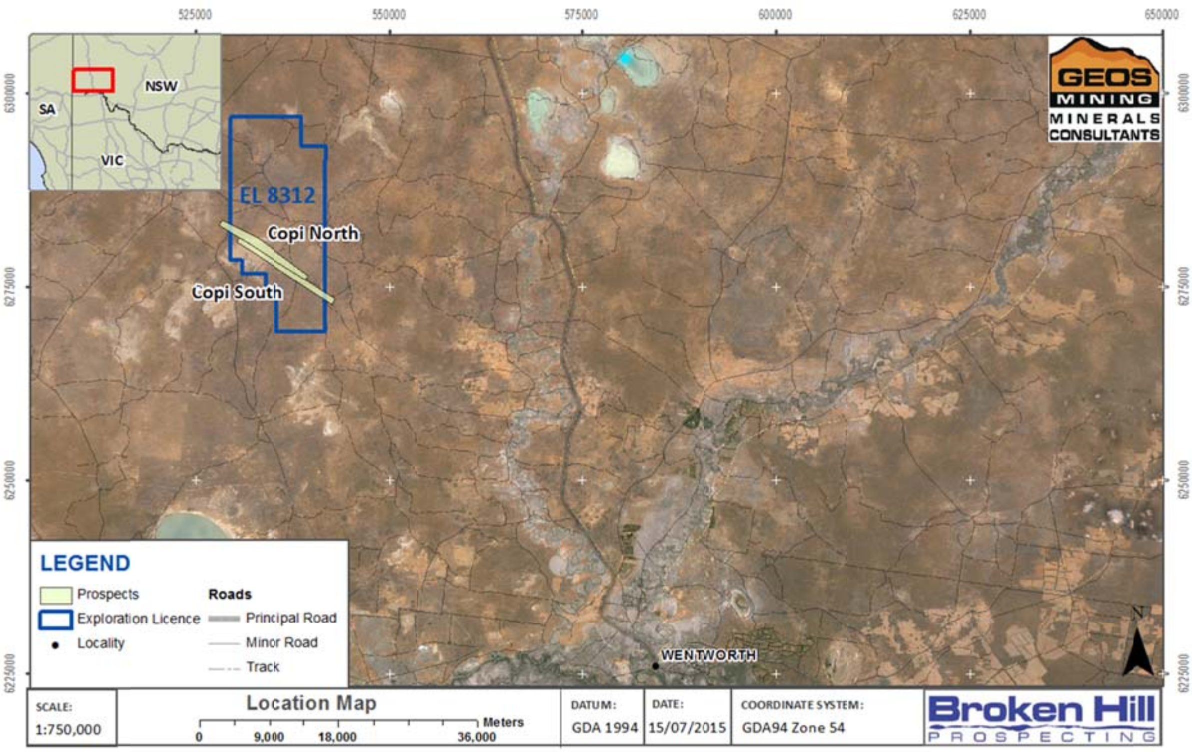


Figure 1: Location of EL 8312 and Copi Prospects

This part of the Murray Basin hosts a number of known deposits including Gingko and Snapper strandline deposits, which are currently being exploited.

1.3 Tenure

The Prospect is located in EL8312, granted to Broken Hill Minerals Pty Ltd on the 13 Oct 2014 for 2 years.

1.4 Exploration History

Heavy Mineral Sands (HMS) within the region of the Murray Basin hosting the Copi prospect were first targeted in 1988-89 by Aberfoyle Resources (ELs 3168, 3455, 3454). Aberfoyle's work (drilling) was undertaken to a maximum depth of 18m and failed to intersect the anticipated stratigraphy. In 1989 BHP Minerals regional scale drill traverses did intersect the Loxton-Parilla sands, which at the time was identified as host to other significant heavy minerals sand deposits, such as WIM150 in Victoria.

After three years of drilling various strandlines from 1988-91 (112 holes for 2,601m), a resource of 14M tonnes at 1.3% HM with an average 14m of overburden were defined at the Tarawi South Prospect, located to the northwest of the Copi Strand. Total HM assemblage was reportedly 51% Ilmenite, 12% leucoxene, 9%rutile, 16% zircon, 1% other and 11% trash. BHP Minerals licences over the area were then cancelled.

South of BHP Minerals' area, during the same period, Peregrine Mineral Sands were also undertaking exploration (ELs 3190 and 3191), defining the thickness of the Loxton-Parilla sands and, reporting Valuable Heavy Minerals (VHM) as ilmenite +-50%, rutile +-6% and zircon +-8%. Drilling comprised 3 holes for 81m in 1988, 7 holes for 245m in 1989 and 8 holes for 351m 1990, after which the prospects were dropped.

From 1997-2004 Bemax Resources NL was active to the north of EL8312. During this period four drilling programmes comprising of 1,307 holes for 39,761m were undertaken. After which the ground was relinquished citing the lack of potential for "sizeable" HMS deposits.

1.4.1 EL 5436

During 1998 Westralian Sands Limited drilled 989 holes for 33275m. In addition the company also undertook magnetic, radiometric and digital terrain modelling in conjunction with seismic interpretation to delineate the mineralised barrier systems. This work delineated the Coombah, Copi North, Copi South Nulla, Yabby and Magic Strandlines. Heavy mineral assemblage work on the Copi North Strand reported 11% rutile, 10% Zircon, 60% Ilmenite with HM grain size in the range 150 to 200 micron.

1.4.2 EL6023

From 1999 onwards to 2012 Iluka Resources held tenure over the Copi Prospects. Iluka calculated a JORC Inferred Mineral Resource in 2004 using a 3% HM cut off and their results are summarised in Table 3 Iluka JORC Inferred Mineral Resource(Merat, 2007). No data is publicly available to substantiate VHM make up or bulk density of this Resource.

Resource	Ore Tonnes	In Situ HM Tonnes	HM (%)	SLIMES (%)	OS(%)	ILM(%)	ZIR(%)	RUT(%)	M_LX(%)	NM_LX(%)
Copi North	8,870,000	872,000	9.8	3.7	0.3	38.7	6.9	9.1	8.0	6.2

Table 3 Iluka JORC Inferred Mineral Resource

1.5 Prospects

The current Exploration Licence EL 8312 covers 286sq kilometres and is host to the Copi prospects. Copi North is potentially a 30km long strandline bounded by the tenement in the north west and open to extension in the south east. Copi South is a deeper strandline located south of Copi North, with similar geometry. Nulla is a strandline partially within EL8312, with documented thin mineralisation at 40m depth.

2 Geological Setting

2.1 Regional Geology

The Murray Basin extends over the three Australian States of SA, Vic and NSW for roughly 300,000 square kilometres. During the Tertiary up to 600m of sediments accumulated over the Palaeozoic to Mesozoic basement. The evolution of the Cainozoic intracratonic Murray Basin is linked tectonically to a subducted slab. Evidence from seismic tomography and tectonic modelling interpretation predict fossilised subducted slab to be the root cause of basin formation (W.P. Schellart a, 2015).

The eastern portion of the basin contains the record of palaeo-shorelines from the previous 6 million years, extending in a south westerly direction from 500km inland to the present coast. The stratigraphy of the Murray Basin has been subject to numerous studies and revisions (Stephenson & Brown, 1991) (Miranda et al 2008). The basal units of the Murray Basin are the Renmark Group ranging from the late Palaeocene to mid Miocene. The earliest unit, the Warina Sand is overlain by the Olney Formation and deep marine limestone and marls of the Murray Group in the western part of the basin; shallow marine Geera Clay in the central portion and shallow regressive sands of the Upper Renmark Group in the east.

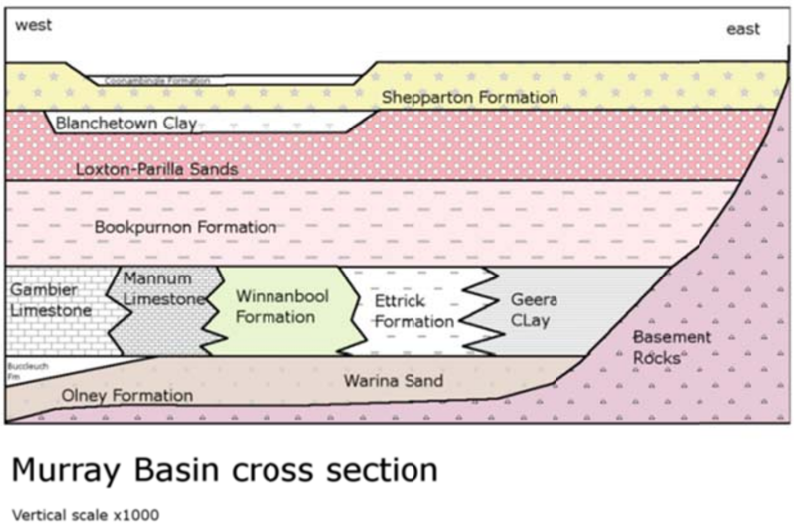


Figure 2: Simplified Stratigraphy of the Murray Basin

After an upper Miocene hiatus, periods of transgressive and progressive sedimentation formed the river and lake sands of the Calivil Formation in the east and the clays and marls of the Bookpurrong Formation in the centre and west of the basin.

The economically significant unit of the Loxton-Parilla Sands (LPS) formed during the early Pliocene during a marine transgression and subsequent regression. Reworking of material allowed for concentration of coarse grained heavy minerals in beach strandlines and finer grained heavy minerals in deeper marine environments. Background heavy mineral (HM) content within LPS averages 0.5% HM, with concentrations above this used to define strandlines. High grade strandlines usually have a central portion >15%HM. Figure 3 shows the topographic expression of the NW-SE aligned LPS strandlines in the southwest area of the basin.

Following another hiatus resulting in the development of the Karoonda Surface in the late Pliocene, the LP Sands were dis-conformably overlain by the Blanchetown Clay as uplift and/or draw down of topography from remanent crust resulted in the formation of the paleo Lake Bungunnia. Finally during the late Quaternary sands and clays of the Shepparton formation were deposited in elevated back basins within the Riverine Plain in the east of the Basin. The environment of deposition was largely extensive fluvial flood plains and meandering paleo channels (R.G., 1996). The Holocene aeolian Woorinen Formation forms the red sand dunes on the surface, characteristic of the present day Mallee landforms.

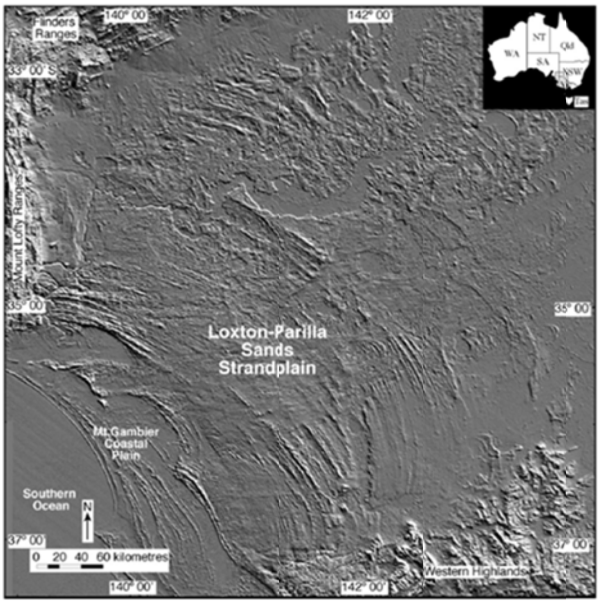


Figure 3: Paleo-shore lines of the Murray Basin

2.2 LOCAL GEOLOGY

EL 8312 lies in the central Murray Basin and stratigraphy is defined through geophysical surveying and interpretation of the drilled paleo beach and marine facies. Mineralised strand lines of the Loxton-Parilla Sands, striking at 303 degrees, remain open at both ends of the tenement. Potentially the strandlines may be disrupted by an interpreted fault located to the east of the tenement or unrecognised washouts between drill lines and increased fluvial disturbance to the south east (Bracher, 2003).

The two Copi strandline prospects that have been defined to date are similar in broad scale geometry having both been generated from on shore wave action with seemingly little influence by longshore drift. From the current drilling, Copi South presents itself as a deeper, reworked analogue of the Copi North strand.

The mineralised portion of the strandline defined at Copi North pinches and swells in width and thickness but has a maximum width of 120m and varies in thickness from 1 to 10m. Interpretation of grade data and variography indicate that mineralisation occurs as stacked lenses of heavy minerals concentrated from storm events and wave action. Mineralisation is also present as thin extensions to the stacked lenses, potentially from continuous regression or storm over throw and aeolian ablation, as compared to the high grade strands developed from periodic regression.

The thickness of Blanchetown Clay and Quaternary sediments overlying the Loxton-Parilla Sands varies across the tenement from 6m to 47m. Within in the central portion of the Copi prospect their thickness is at a minimum of 10m for over one kilometre along strike. Either side of this area, the units thicken to the north to 36m before beginning to thin again. Along strike to the south the overlying units thicken to a consistent 40m.

The lower contact of the Blanchetown Clay with the Loxton-Parilla Sand is well defined, often with 1- 3m indurated clay lenses occurring, particularly evident in the northern section of Copi North. There is little other induration noted where the Karoonda surface would be expected to occur at the top of the LPS. The lower extent of the target strandline HM concentrations is typically defined by the surf zone facies within the Loxton-Parilla sands.

2.3 Heavy Mineral Sands Assemblage

The makeup of heavy mineral composition in this central region of the Murray Basin is largely dominated by ilmenite (>50%) with rutile ranging from 5-15%, zircon 5-20% and the remainder being other HM including leucoxene and trash minerals (tourmaline, andalusite, pyrite, iron oxides and corundum) . Regional bulk sampling from Westralian Sands Limited in the late 1990s also shows a general fining trend of the HM grainsize towards the northwest. This trend is a potential indication of a sediment transport pathway moving further from the source in the southeast along strike to the northwest.

3 Exploration

3.1 Historical Data Compilation

Lithology logging, sampling, test work and collar data for historical Iluka drilling and current Broken Hill drilling were reconciled to a single database schema. Historical samples were attributed according to the method of sampling described in technical reports. (Iluka Resources Limited, Tess Rynold, 2008).

Oversize classification between BHM and Iluka differ significantly i.e. +1mm vs +2mm. As a result estimates of oversize material are stated as +2mm, and thus are conservatively biased upwards by the proportion of 1-2mm material in each sample for all BHM data.

3.2 Points of Observation

Company	Drill Holes	Meters drilled	# Samples
Broken Hill Minerals	129	3838	826
Iluka	183	5961	2351
Total	**312**	**9799**	**3177**

Table 4: Copi North Drilling and Sampling

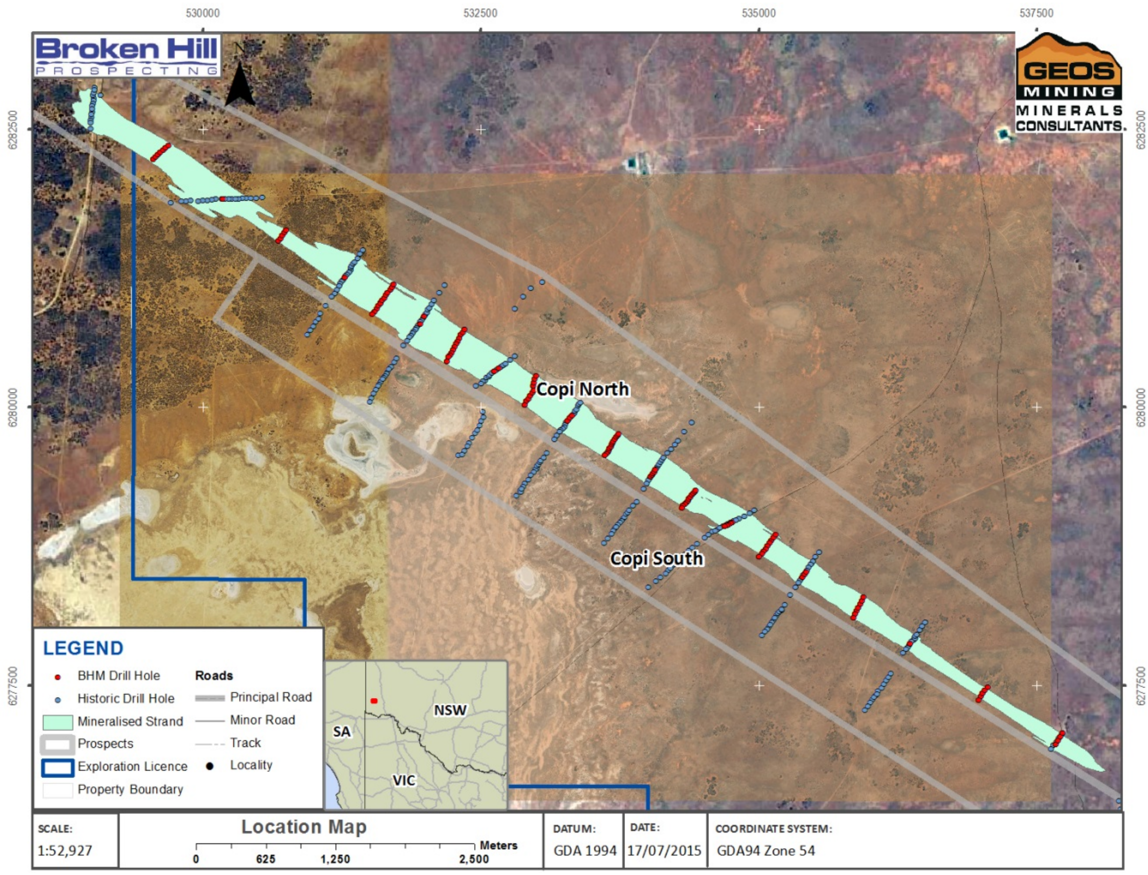


Figure 4: Copi Prospects and points of observation

3.3 Data Handling & Storage

Geos Mining was contracted to compile the raw project data into an exploration database prior to resource estimation. Project data was stored in a custom-designed Microsoft SQL Server 2008 R2 database, hosted on Geos Mining servers.

Field observations were logged into purposed Excel spreadsheets, while laboratory assay reports were supplied as direct laboratory exports. Incoming raw data was subject to validation prior to upload to the database to ensure a robust and reliable master dataset. All data was uploaded to the project database using software data importers to minimise data handling errors and perform routine validation. Any errors or queries were referred back to the client for clarification.

The resource estimation process was directly linked to the project database, allowing many data operation to be applied at the database level and exposed to a variety of different software packages.

3.4 Drilling

3.4.1 Drilling Equipment

Drilling was carried out by Wallis Drilling, using a Toyota Landcruiser mounted Mantis 80 Air core drill rig. Standard features fitted to the rig include drill rod clamps, hydraulic rod bins, on board water storage, hydraulic height adjustment of the cyclone and 6 x 6 all-wheel drive. Holes were drilled using NQ rods. It is noted the vast majority of the historic exploration drilling compiled in the data base was performed by the same drilling contractor using comparable rigs and rod diameter.

3.4.2 Location Surveys

Drill hole collars were positioned using hand held GPS. MGA94 coordinates and the Relative Level from the Australian Height Datum were measured. After drilling was completed the collars were surveyed with a DGPS, SF3040 hired from GlobalPOS. The instrument was set to MGA94, Zone 54, with an accuracy tolerance of 0.3m. Before using the instrument the accuracy was checked on state survey mark SSM 3908 located north of Coombah at the eastern edge of the Silver City Highway.

Historical drill hole collar coordinates were located using GPS and DGPS survey equipment. Collar elevations used were taken from a digital elevation model. Where required, coordinates were transformed to MGA94, Zone 54.

Topographic control was from drill hole collar elevation, discrepancies between historic drilling elevation were found to be an absolute maximum of 1.5m.

3.4.3 Water table

Mention is made in historic drilling that all drilling was above the water table. Current drilling intercepted water between 5 and 36m in 119 holes. Weather data show above average rainfall in the period leading up to BHM drilling. It is believed that the water intersected was a periodic perched water table.

3.4.4 Sample Recovery

Historic and BHM sample masses were reviewed for this estimation. Thirty historic samples (Iluka) were reportedly below 0.5kg, of these only 3 were found to be above cut-off grade. In addition twin holes increase the confidence in sampling and recovery.

3.4.5 Twinned Holes

Twinned holes were reviewed in section. The HM grade was assessed and no major discrepancies identified.

3.4.6 Down-hole Surveys

No down-hole surveys were conducted during the drilling program. All drilling was undertaken at 90 degrees (vertical) and assumed to be representative of true thickness. The combined effects of the shallow drilling depth (<50m) and soft drill substrate are assumed to have minimised down-hole deviation of the drill string. Any deviation from vertical is likely to be minor and not significant to the economic potential of the project.

3.5 Field Logging

Logging of drill samples was conducted by Broken Hill Minerals geologists at the rig at the time of drilling. An industry-standard logging system was used to record mineral and rock types and their abundance, as well as grain size, sorting, texture, colour, cementation and fines content (slimes).

A sample of each of 1m interval was panned at the rig for an in-field visual estimate of the HM content and used for the general logging description. A small representative sample of each metre sample was retained in a plastic chip tray for future reference and logging checks.

Comparable logging techniques are documented for previous exploration logging by Iluka.

Comparison of pan sample estimates with assayed HM content shows are shown in Figure 5. The correlation is poor, with a distinct bias towards overestimation of panned grades and a wide spread of assayed concentrations associated with each panned estimate. The spread becomes notably broader at higher HM concentrations. Note that these differences can be expected as the estimated HM contents (Pan Estimate) were undertaken on small (50-100 grams) hand-grab samples whereas the laboratory determined

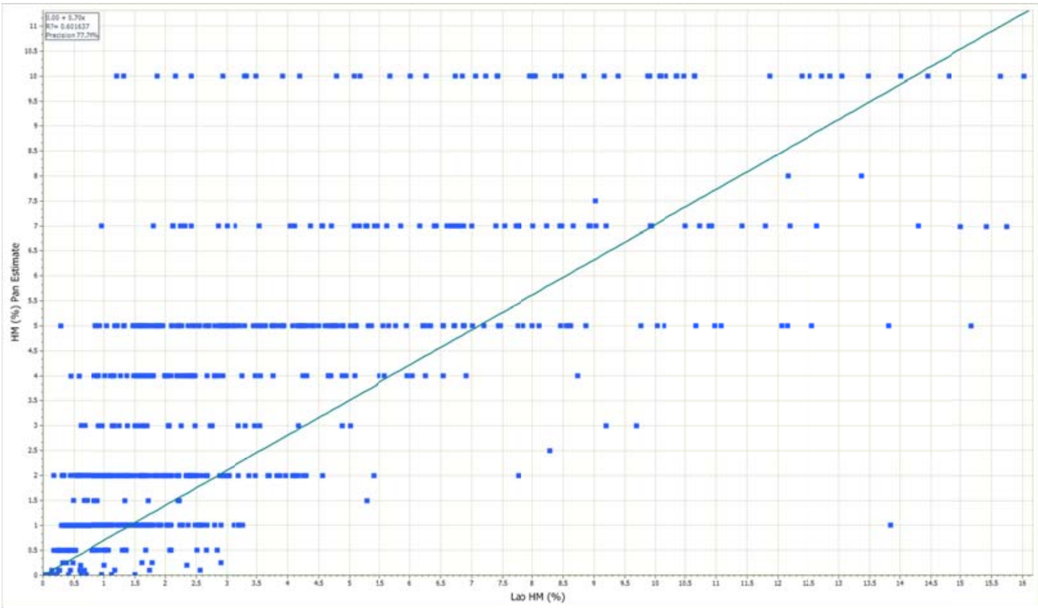


Figure 5: Panned HM content estimate vs assayed results.

HM contents (Lab HM) were determined on a well-mixed quarter splits of the drill sample (commonly 1-2 kilograms).

3.6 Sampling Procedures

Each sample consisted of a 1 quarter split, taken from the drill rig-mounted cyclone and collected into tight weave calico bags for storage. Submission for laboratory analysis was controlled by visual identification of Heavy Minerals in the panned sample.

Submitted samples were weighed, dried and analysed for Heavy Mineral Sand content at the laboratory. Residual sample material was returned under secure chain-of-custody procedures via a registered transport courier and stored in a secure location for possible future analysis.

3.6.1 Sample Processing

Sample processing occurred in two stages:

- ALS Perth performed initial analysis of sizing, slimes oversize and HM content. Sizing bins were defined from preliminary sizing work to determine HM size fraction. The -1mm heavy mineral fraction of samples was subjected to Heavy Liquid Separation (HLS) and then composited for magnetic separation.
- The various fractions were then analysed using XRF to determine approximate mineral assemblage. Refer to Figure 8: ALS Testwork flowsheet.
- Composites were created and subjected to magnetic separation and point count analysis to determine assemblage. Two composites were submitted to Diamantina Laboratories of Malaga (Western Australia), representing high and low grade material. To ensure that the composites were

representative of the mineralised zone, each composite comprised samples taken along strike and across width of the Copi North strand.

3.6.2 FIELD STANDARDS

Field standards were implemented in the sampling procedures to quantify relative accuracy and repeatability of the laboratory test work. Three reference materials were created and used by Broken Hill Minerals in their field standard QAQC program. These samples were identified as CNHG (high grade: ~16.5%HM), CNLG (low grade ~1.23%HM) and MAAV (average grade 3.9%HM) in the database.

Baseline average grade of the standards was established from 10 data points for each standard determined by ALS. Laboratory analysis of the available field standards is presented in Plots of field standard analytical results showing deviation from the mean grade. Red & green limits drawn +/- 5% mean grade. Figure 6 below:

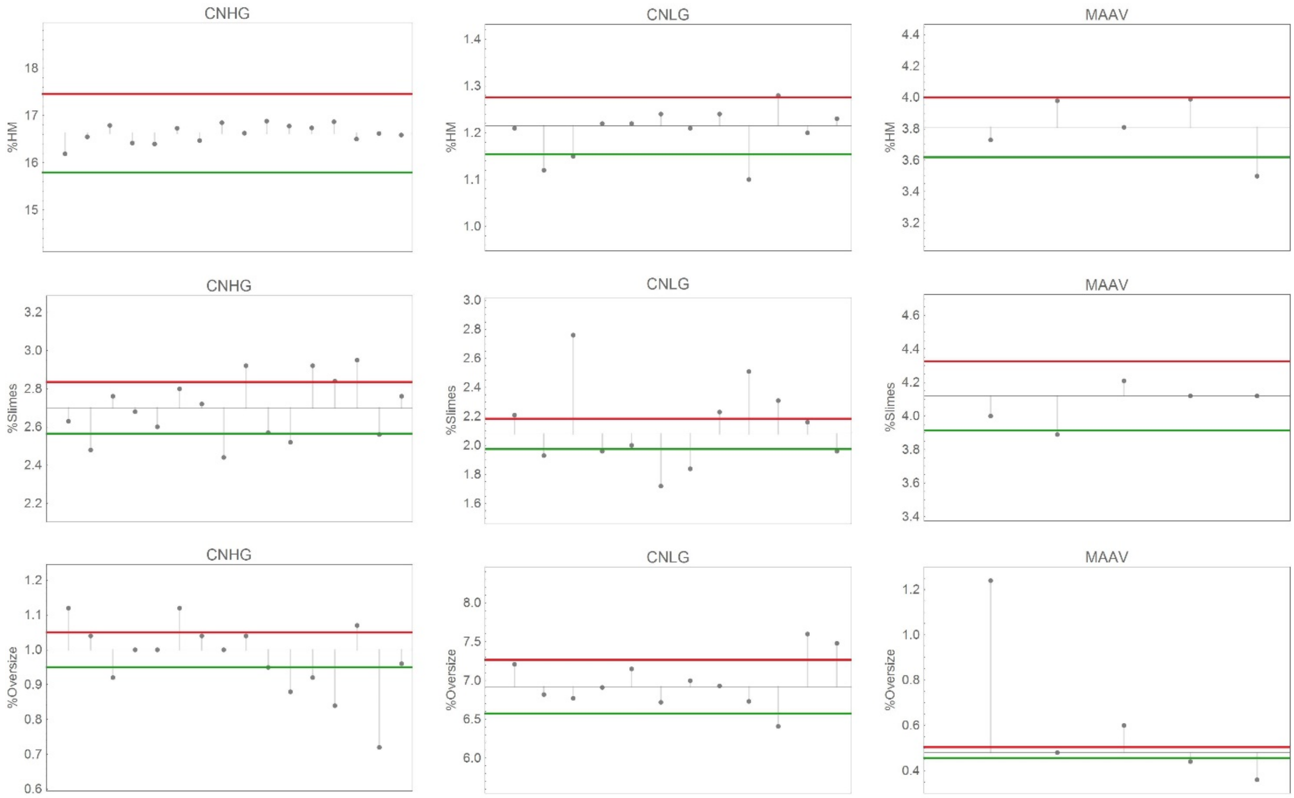


Figure 6: Plots of field standard analytical results showing deviation from the mean grade. Red & green limits drawn +/- 5% mean grade.

HM results were found to be within acceptable error margins, with higher relative variance evident in the low grade standard. Greater variability was evident in the slimes and oversize results, in particular the CNLG slimes and MAAV and CNHG oversize. It should be noted that variability appears considerably higher in each of these cases because the average baseline grade is low.

3.6.3 FIELD BLANKS

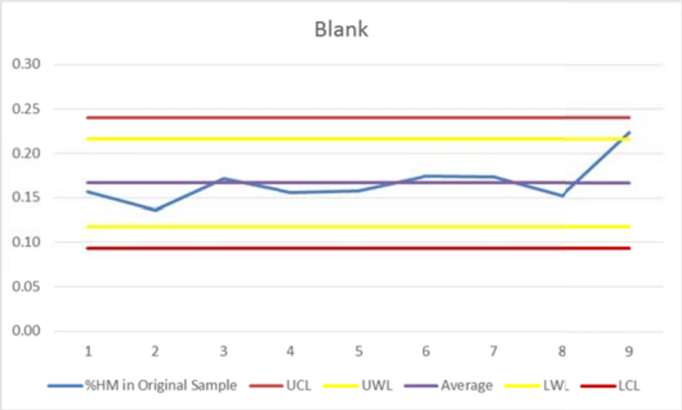


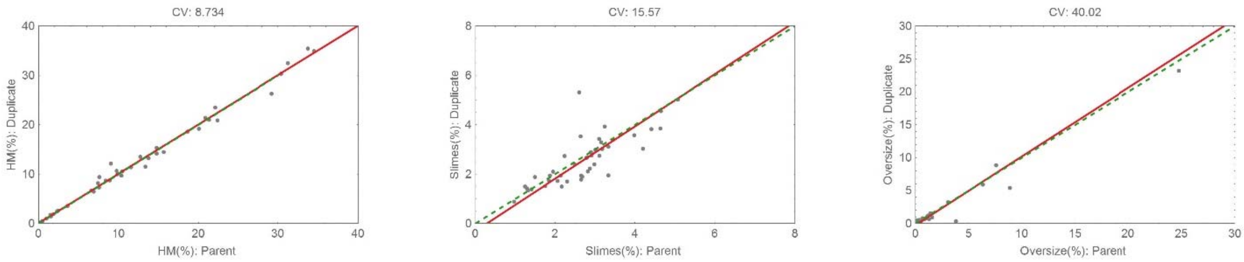
Figure 7: Field blanks inserted into sampling stream

The blank used was bricklayer's sand which does contain a trace of HM. Blanks within the sample stream served as a check for contamination within sample preparation procedures and a check against sample mix ups.

3.6.4 LABORATORY DUPLICATES AND REPLICATES

Duplicate samples were included in the sample stream to check the relative precision of the HM test work and entire sampling process. Replicates were a split of the sand fraction run through HLS only to provide a further check on the precision and repeatability of HLS results.

Duplicates were regularly taken to evaluate representativeness and repeatability. Results for HM determination were found to be in good agreement. Slimes and over size had higher variance, potentially due to minor inhomogeneity between duplicates and differences in liberation of slimes within sample attrition processes.



3.6.5 LABORATORY ANALYSIS

3.6.6

Samples submitted to ALS were subject to test work described by the flowsheet in Figure 8: ALS Testwork flowsheet.

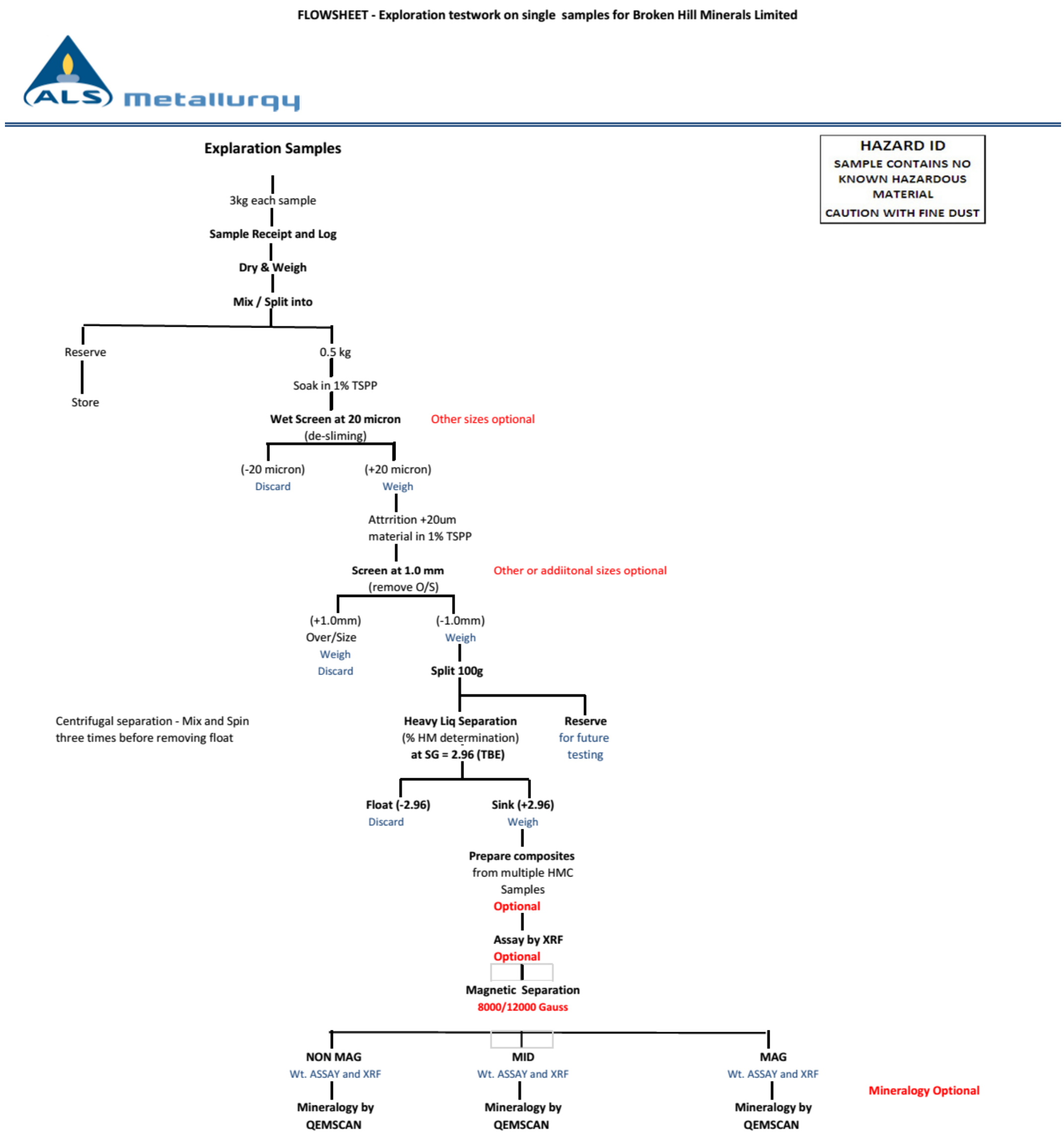


Figure 8: ALS Testwork flowsheet

The results of the ALS work determined total HM content of samples, the proportion of slimes (<53um material), oversize (+1mm material) and the approximate mineralogy using XRF. Combined floats were assayed for Zr and Ti and found to be consistently <0.01% or 0.01% for Zr and between 0.04 and 0.06% for Ti; indicating all HM was being recovered to sinks during HLS. The final step of undertaking QEMSCAN to determine mineralogy on the samples was not undertaken by ALS. At this point samples were retained or composited by ALS and submitted to Diamantina Laboratories.

Diamantina Laboratories

Two samples CNHG and CNLG, delivered from ALS Labs, were weighed and soaked overnight in water only, then de-slimed through the 300mm sieves (1.00 mm and +53microns screens). The +1.00 mm and the -1.00mm +53microns fractions were collected, dried and weighed. The +1.00mm was retained, whilst the -1mm +53 microns fraction was put through the HM separation plant using TetraBromoEthane (T.B.E), density 2.96. The weighed heavies were then subject to magnetic separation producing five fractions. The fractions were then point counted using a swift point counter under reflected and transmitted light. The results are described in Table 5: Heavy Mineral Assemblage from Point Count Analysis

Bulk Number	CNHG	CNLG	average	Total HM Assemblage
HS Ilmenite	0	0.3	0.15	
Ilmenite Mag 1	21	7	14	
Ilmenite Mag 2	35	45.4	40.2	
				54.4% Ilmenite
Mag Leucoxene	5.6	5.7	5.65	
Non Mag Leucoxene	3.7	4.8	4.25	
				10% Leucoxene
Rutile	12.5	9.1	10.8	10.8% Rutile
Zircon	10	12.6	11.3	11.3% Zircon
Total VHM	87.8	84.9	86.35	
Non Mag Oth	5.4	7.2		
Topaz (3.5)	2.4	1.7		
Kyanite (3.4)	0.8	0.6		
Andalusite (3.2)	0.4	0.5		
Sillimanite (3.2)	0.1	0		
Quartz (2.65)	1.1	3.2		
NM Gangue (3.5)	0.6	1.2		
Mag Oth	6.7	7.8		
Monazite (5.0)	1	0.9		1% Monazite
Chromite (5.0)	1.1	1.6		
Hematite (5.0)	0	0		
Goethite (4.0)	0.5	0.1		
Staurolite (3.8)	0.5	0.5		
Tourmaline (3.2)	2.9	4.4		
Aggregates (3.3)	0.2	0		
Mag Gangue (3.5)	0.5	0.3		
>0.4mm Aggregates	0	0		
				12.6% Trash HM
Grand Total	**99.9**	**99.9**		**100**

Table 5: Heavy Mineral Assemblage from Point Count Analysis

3.6.7 Bulk Density Data

Currently there are no direct measurements of bulk density in the Copi Prospect. Bulk densities for historical resource estimates appear to be un-documented.

4 Statistics

Available sampling data was subjected to various statistical and geostatistical analyses to gain insight into mineralisation characteristics and quantify important parameters employed in resource estimation. Analyses were performed in Leapfrog 3d, SQL Server, Mathematica 9.0 and Micromine 2014 software.

4.1 Raw Sample Statistics

	Combined	BHM	Iluka
Count	2502	826	1676
Max	44.3	35.88	44.3
Min	0.03	0.03	0.1
Mean	2.73	4.81	1.71
Geom Mean	0.94	2.64	0.57
Median	0.9	2.41	0.4
IQ Range	2.3	5.14	1.1
Std Dev	4.86	5.8	3.95
Variance	23.63	33.6	15.57

Table 6: Raw HM(%) Sample Statistics

The difference in sampling strategies is visible in the tabulated statistics presented in Table 6. The lower mean grade of the Iluka population results from full sampling down-hole, whereas the higher mean grade in the BHM data arises from selective sampling based on panned-concentrate estimation.

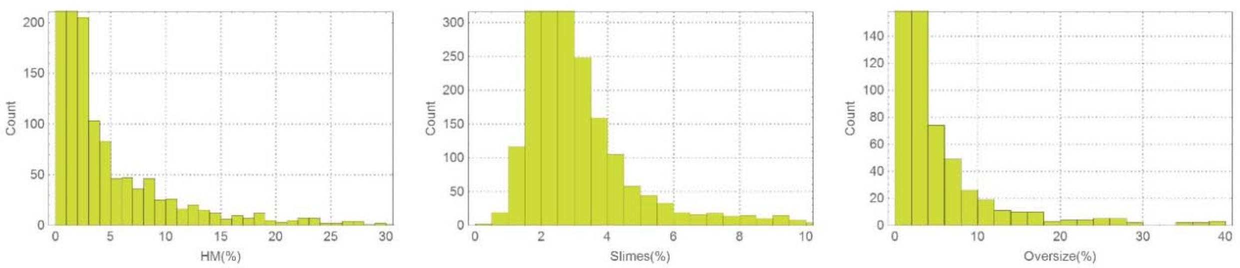


Figure 9: Modelled parameter histograms

Histograms of the grade populations reveal typical log-normal/gamma-trending distributions. A notable step in the HM distribution occurs between 2-5%, marking the transition into the high grade region within the mineralisation envelope. The distribution tail gradually decreases with increasing grade for HM; however, the tails of the slimes and oversize populations appear flat and may constitute a sub-population. This may be attributable to clay lenses and indurated horizons encountered during exploration.

4.2 Sample Length Statistics

Sample lengths were investigated statistically to determine the optimal composite sample length and provide insight into the sampling practices employed in the historic and current datasets.

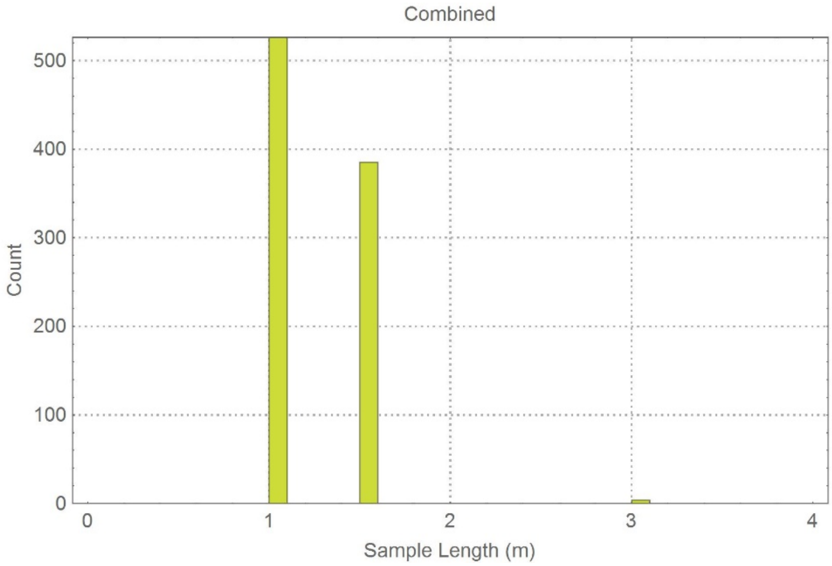


Figure 10: Sample length histogram for the combined historic & current dataset.

BHM exclusively sampled at 1m intervals down-hole, while Iluka employed a dominant sample length of 1m, with an additional ~400 samples taken at 1.5m intervals and a small number of longer 3m sample lengths. Sample lengths were composited to a consistent length of 1m in accordance with the dominant field sample length to ensure regular sample support.

4.3 VARIOGRAPHY

Spatial trends in grade were sought within the dataset to determine the critical orientations of the mineralised domain. Variography was performed on the composited sample set within the 0.5%HM mineralised domain yielding search neighbourhood and kriging parameters for grade interpolation of heavy mineral, slimes and oversize proportions.

Given the directionality of the mineralisation and consistency of grade profile between drill lines, directional variography was the most-appropriate method of spatial variability assessment. Axial tolerances were minimised to ensure correlation of related samples within the depositional sequence and to emulate the stratified nature of the mineralisation.

Trends were strongest along-strike at 303°±3° which conforms to the observed strike of strandline. Across-strike measurements were taken perpendicular at 213°±25°, with a broader tolerance to account for differences in orientation of the individual drill lines. The mineralisation appears flat in both planes, reflected in the low axial plunge tolerances.

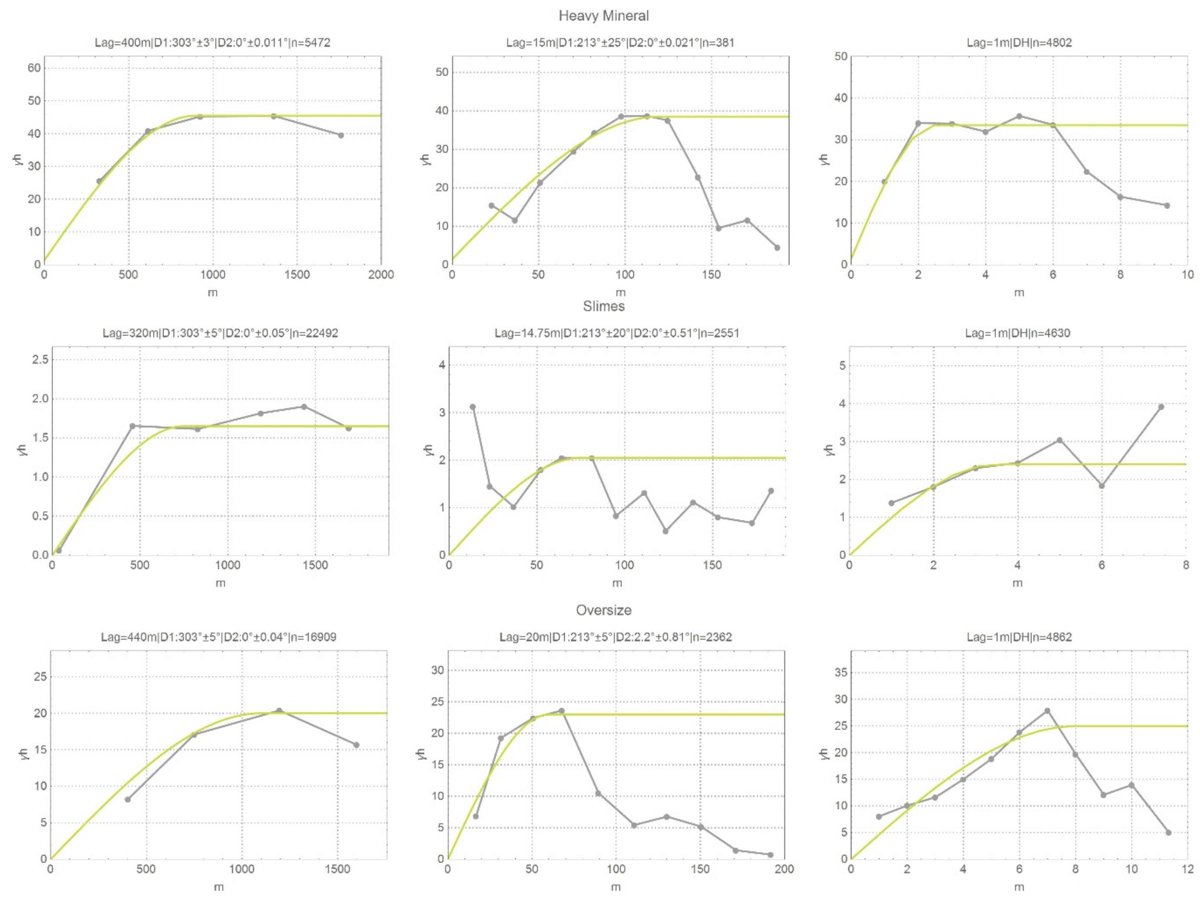


Figure 11: Directional semi-variograms for major estimation analytes with fitted experimental distributions (green).

Relatively stable variograms were obtained for all key directions and parameters. Broad trends evident across analytes include:

- The drill spacing is visible in the lack of data points below 400m along strike and 30m across the strand.
- Along-strike mineralisation range of 750-1100m (implying continuity up to 2-3 drill fences distant); across-mineralisation continuity of 40-75m, approximating the width of the high grade lineations within the strand; down-hole continuity of 2.5 - 3.5m (oversize exhibits continuity over longer range, due to sporadic induration occurrences).
- Sensitivity testing was used to locate the optimal variography parameters used for model-fitting and many different combinations were tested. During this process evidence for shorter-range nested structures was encountered, suggesting reduction in the drill spacing (especially along-strike) would be valuable to improve resource confidence.

Model parameters are presented in Table 12 below:

Table 12: Spherical experimental distribution parameters

	HM%			Slimes%			Oversize%		
Search	**Nugget**	**Sill**	**Range**	**Nugget**	**Sill**	**Range**	**Nugget**	**Sill**	**Range**
D1	1.5	44	900	0	1.65	750	0	20	1100
D2	1.5	37	120	0	2.05	75	0	23	60
D3	1.5	120	2.5	0	2.4	3.5	0	25	8

5 Geological Modelling

Leapfrog 3d was used to construct wireframes of geology and mineralisation and perform the initial exploratory data analysis. The software excels at generating the complex 3D volumes encountered in the mineralised domain and allowed a variety of different geological assumptions to be trialled until the most-suitable scenario was located. The wire framing work flow is described below in Figure 13: Leapfrog

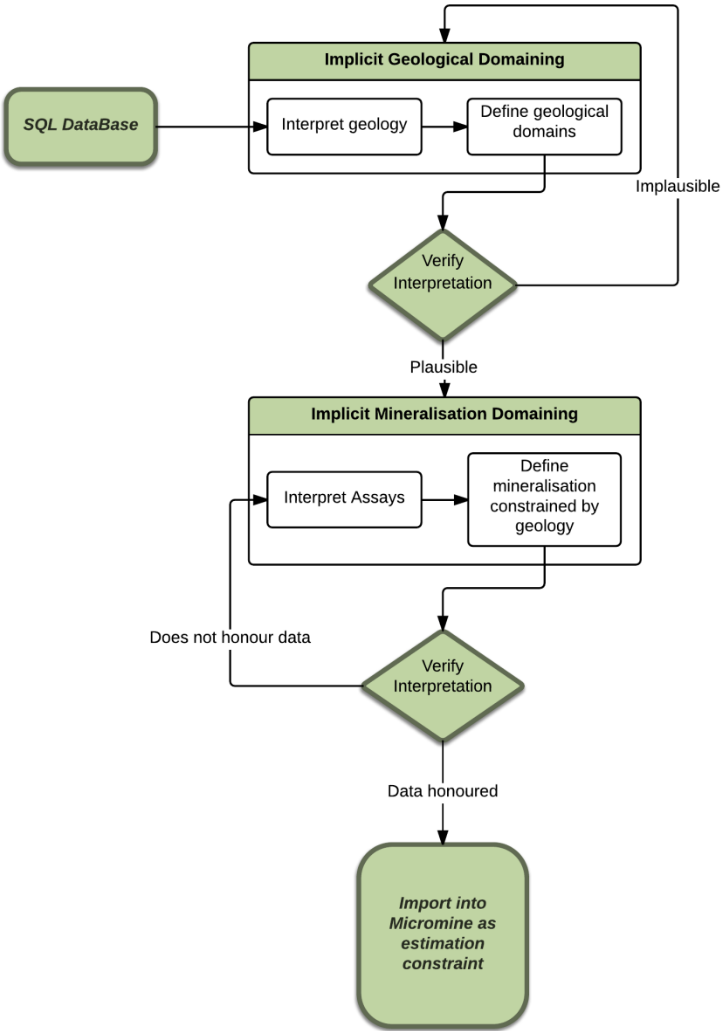


Figure 13: Leapfrog modelling workflow

modelling workflow

5.1 Topographic Control

A topographic surface was generated from drill collar elevations and used to constrain the upper surface of the geological model. Minor differences between BHM and the historical Iluka RL's were apparent; however, the discrepancies were not significant enough materially impact the resource.

5.2 Geological Model

Collar location, assay and logged geology data were imported into Leapfrog 3d and spatial validation of the historic and current logging undertaken. The geology codes were interpreted with consideration given to spatial distribution of logged codes. Codes were ignored where insufficient data for interpolation was present; the remainder were grouped into one of three units:

- Sand : representing the Loxton Parilla Sand (LPS)
- Sandy Clays: representing the Blanchetown Clay
- Clays: representing another unit of the Blanchetown Clay

These horizons were used to create a basic geological model. The Loxton Parilla Sand formed a distinct basal unit, whose upper contact represents the Karoonda Surface. Overlying this surface were the sandy clays and clays of the Blanchetown Clay.

Induration is noted in the logging of sandstone, mudstone and clay; however, data was too sparse to create geologically-plausible wireframes of the indurated regions. The most common induration encountered were 1-3m thick lenses of clays, located above the top of the Loxton Parilla Sand. Occasional ironstone induration was noted (e.g. within CNA092). The logged hardness of any induration within mineralisation was equal to or less than 2 (H2) and would be unlikely to adversely impact extraction via dry mining or dredge.

5.3 Mineralisation Domaining

The direction of greatest heavy mineral grade continuity was determined by examining grade trends and confirmed from variography as 303°. Heavy mineral iso-surfaces were created using a combination of geological constraints and grade interpolants. The primary geological constraint was the modelled Loxton Parilla Sand unit, which was used as an enveloping boundary constraint to construct the grade shell within. Interpolant parameters are listed in Table 7: Leapfrog Interpolant parameters below:

	Interpolant parameters						Global trend			Global trend anisotropy		
Interpolant	**Model Type**	**Nugget**	**Sill**	**Range**	**Drift**	**HM Cut-off**	**Dip**	**Dip-azimuth**	**pitch**	**max**	**int**	**min**
Indicator	Linear	0	20	4000	Linear	0.8	0	33	0	150	10	1
Normal	Linear	0	20	4000	Linear	0.5	0	33	0	50	10	1

Table 7: Leapfrog Interpolant parameters

The wireframe defines above back ground mineralisation in the strand from the base of the surf zone to below or the top of the Karoonda surface.

Where samples were missing, grade was conservatively assumed to be 0. Twin holes that exist without sampling data and were ignored, specifically: CNA062, CNA036, and CNA004. Broken Hill Minerals indicated there were sampling issues with these holes and samples were not submitted for analysis.

6 Resource Estimation Procedures

Resource estimation was undertaken in Micromine 2014 software within the Leapfrog-generated anomalous mineralisation grade shell. The estimation procedure was specifically designed to maximise grade continuity between drill fences, as shown in Figure 14: Micromine Estimation Workflow.

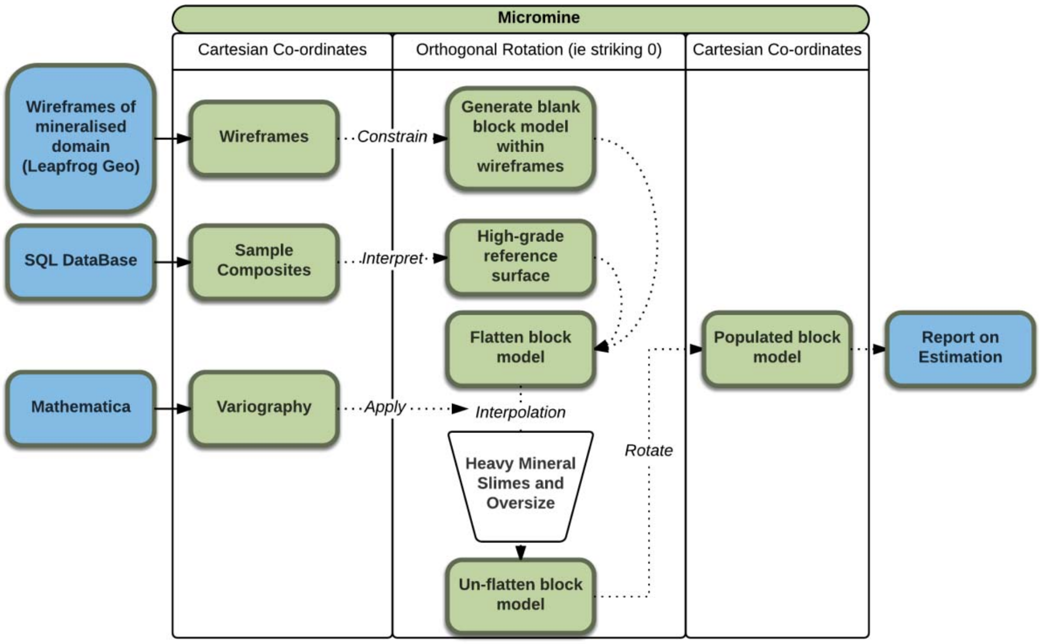


Figure 14: Micromine Estimation Workflow

6.1 GRADE MODEL PREPARATION

6.1.1 COMPOSITING

As stated above sample lengths were composited to a consistent length of 1m. Composites were referenced in 3D space and Cartesian coordinates generated.

Compositing had a negligible effect on the grade distributions of the modelled parameters, due to the prevalence of the 1m sample length in the sample population.

6.1.2 BLOCK MODEL SETUP

The coordinates of the anomalous grade shell wireframe and composites were translated from their in-situ position so that the strike of the strandline was oriented to grid North (a rotation of 57°).

A block model was constructed within the translated anomalous grade shell using the following dimensions:

- 100mN x 5mE x 1mZ

These dimensions complement the drill spacing of ~400m between fences, ~20m between holes within each fence and match the 1m down-hole sample length. This ensures that each block receives reasonable sample support and enables the block model to closely represent the stratified geology and respond appropriately to changes in sample grade and local mineralisation geometry. Sub-blocks were not employed.

The mineralisation geometry was constrained from wireframes using the wireframe constructed in leapfrog 3d. In section, points were digitised at the centre of significant grade intercepts within the Copi North Strand. These points were then used to form a high-grade reference surface.

6.1.3 Block Model Constraint & Flattening

Minor undulations in the geometry of the high grade core of the deposit were found to disrupt grade continuity between drill fences in preliminary grade interpolation run. To combat this issue the geometry of the high grade core was referenced and flattened to a common plane, allowing preservation of the vertical grade profile between points of observation.

The high grade core of mineralisation within each drill-hole (where present) was identified and the midpoint referenced. This was accomplished programmatically and was followed with a manual sectional review to correct exceptions. The high grade mid-point was then interpolated to a DTM and was used as a reference surface to flatten the block model and composite RL values.

6.2 Grade Interpolation

6.2.1 Data Search & Kriging Parameters

Three-dimensional Ordinary Kriging (OK) was used to interpolate all grade parameters into the prepared block model. Kriging parameters were obtained from variography results and influenced the dimensions of the data search ellipse. The selected data search was highly anisotropic reflecting known geological continuity.

The data search ellipsoid was configured as follows:

- D1: 35m x D2: 750m x D3: 1m
- Directionality was NS & flat due to operation in rotated, flattened 3D space.

A restriction was imposed on the number of sample points permitted per hole to prevent excessive dilution within the thin blocks. The limit was set at two points of observation per hole with a minimum total point count of 2 points to populate a grade value. Block discretisation was set to 5 subdivisions in the 100mN direction only.

6.2.2 Model Checks & Validation

Kriged results were compared against Inverse Distance Weighted (IDW) interpolation runs which were performed as preliminary runs. IDW (powers 2 & 3 trialled) failed to replicate the known grade continuity of the strandline and resulted in sub-optimal grade distributions. These additional model runs served as validation of the final run because they established baseline volumes at various grade cutoffs which were comparable with the final volumes.

Additional grade shells were generated in Leapfrog at a selection of grade cutoffs which provided another form of volume validation, this time in alternate software to corroborate the key estimate metrics.

6.2.3 Second Pass Modifiers

Slimes and oversize content presented an additional challenge during grade interpolation as a result of gaps in the historic dataset compared to the primary heavy mineral population. A small number of samples (dominantly in the north of the deposit) reported heavy mineral content only, resulting in NULL local block grades for slimes and oversize.

As this only applied to a small number of blocks, the majority of which were located in the Inferred resource zone, the search criteria was relaxed after the initial grade interpolation run and a second pass was conducted using a broader search to populate grade values. The second pass ellipse used the following dimensions:

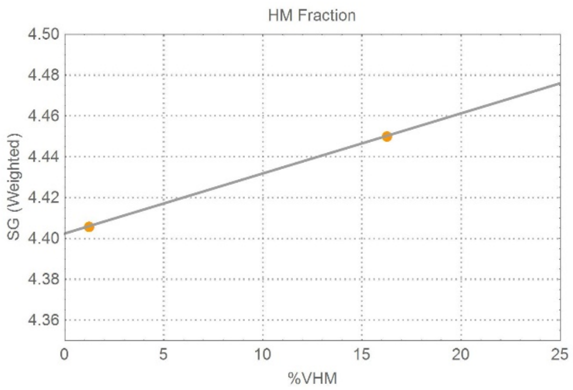
- D1: 75m x D2: 100m x D3: 3m

Any NULL blocks remaining after the second pass were populated with statistically-derived grades. Slimes were populated with a locally-derived average of 3.86% for the northern portion of the strandline, since slimes appear elevated in this region.

A median oversize grade of 0.67% was selected based off the BHM +1mm data population, providing a conservative estimate.

6.3 Bulk Density Calculations

In situ bulk density was calculated on a block by block basis from two components: calculated HM grain density and an assumed sand bulk density of 1.65g/cm^3. The HM bulk density used was based on a model derived from HM S.G weighted by their relative proportion in point count bulk samples.



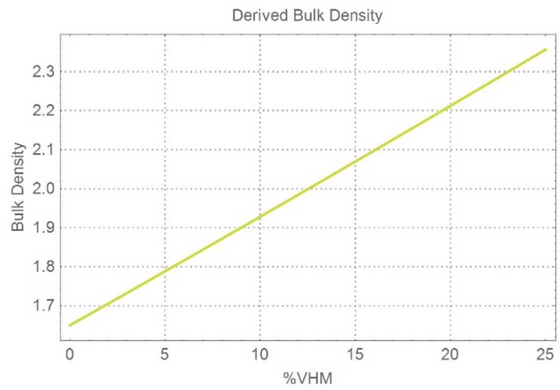


Figure 15: Bulk density linear models

7 Resource Estimation Results

7.1 Model Discussion

The resource model was validated on a cross-sectional basis, superimposing composites, raw assays and block values in the same view. This allowed reconciliation of block grades with proximal samples and identification of any anomalies. Refer to Appendix 4: Sections. Block grades closely resemble their parent samples and the continuity of mineralisation between points of observation appears realistic and representative of the data currently available.

Statistical reconciliation of the cumulative frequency distributions of the composite and the block model grades (Figure 16) showed the model to be representative of the composites, despite minor differences. Modelled VHM grades exceeding 5%HM account for a lower proportion (~4%) of the total sample population than in the composite dataset, suggesting the model may be slightly conservative - likely a result of the tight search criteria. Below 5%HM the distributions are near-identical. Lower oversize and slimes grades occur more frequently in the model, but even out quickly to closely represent the composites at mid to high grades.

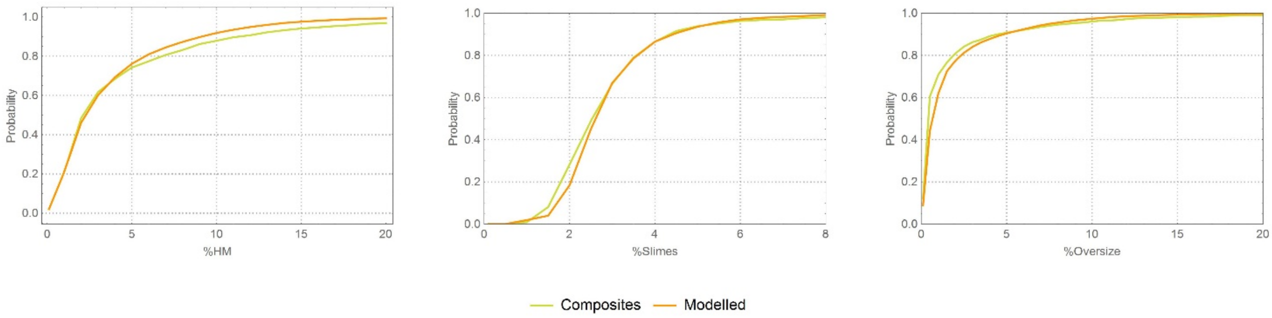


Figure 16: Cumulative frequency distributions of composite & block grades.

One of the core assumptions of the grade model is that high grade zones of mineralisation are continuous along strike. While the potential for localised wash-outs and disruptions to grade continuity exist, we reason that any significant event (such as a large channel) would disrupt local deposition on a scale visible at the current drill spacing of ~400m. We have not witnessed any indication of grade disruption within the central portion of the strandline and regions of instability are restricted to northern and southern regions where the exploration density is lower and additional geological factors are present. The potential for small-scale interruptions to deposition remain; however, these are unlikely to significantly impact the fundamental project economics.

Future estimations should benefit from increased density of points of observation which will support use of smaller blocks.

7.2 Resource Classification

The classification of the Resource considered qualitative and quantitative criteria (Refer Figure 17: Resource Category Plan). The criteria considered included the geological model, logging data, sampling techniques, data quality, data distribution, variography, deleterious materials and factors such as induration and overburden.

The basis for inclusion as Indicated Resource category was an approximate 400m drill spacing with regular samples intervals, ample HM, slime and oversize data. HM grade continuity within this area is well understood and grade variables were populated in first pass OK interpolation. Here twinned holes with current and historic bulk sample mineralogy also provide further confidence of the VHM assemblage.

Areas of Inferred Resource in the North West portion of Copi North had drill fences at larger spacing, sub-optimal drill line orientation and a relative paucity of slimes and oversize data. Locally this area also has elevated slimes. With wider drill fence spacing there is greater potential for washouts to exist and poorer overburden definition as topography is derived from drilling. The portion is also distal from historical VHM mineral assemblage data that provides greater confidence. To the south west of the Indicated category there exists a similar portion of Inferred resource. Primarily this is due to the wider drill fence spacing. Overburden is also thickening to a maximum of 40m over the Inferred Resource areas. No resource was classified beyond the extents of data. These areas are deemed to have exploration potential to extend the strandline.

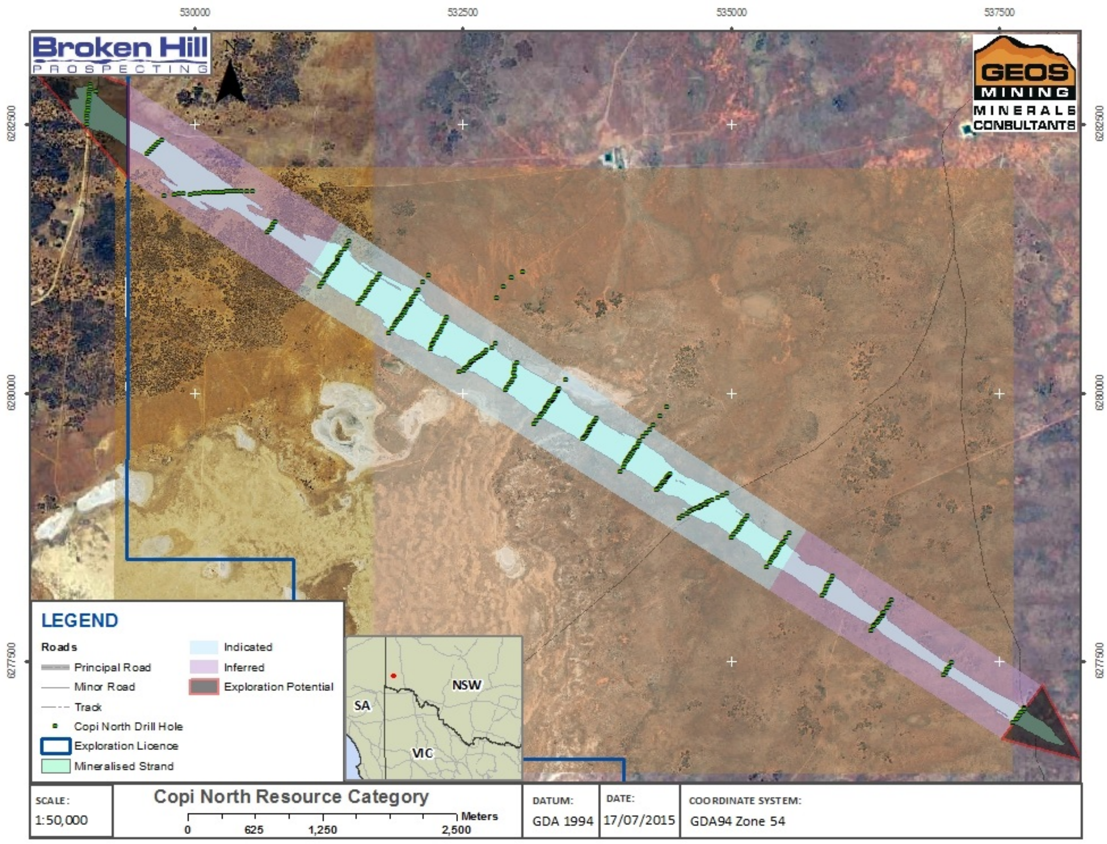


Figure 17: Resource Category Plan

7.3 Grade-Tonnage

Current Resources are stated at a 2.5% HM cut off. This is slightly lower than other strandline deposits within the Murray Basin although still considered reasonable for this style of deposit. Grade-tonnage curves are presented in Figure 18.

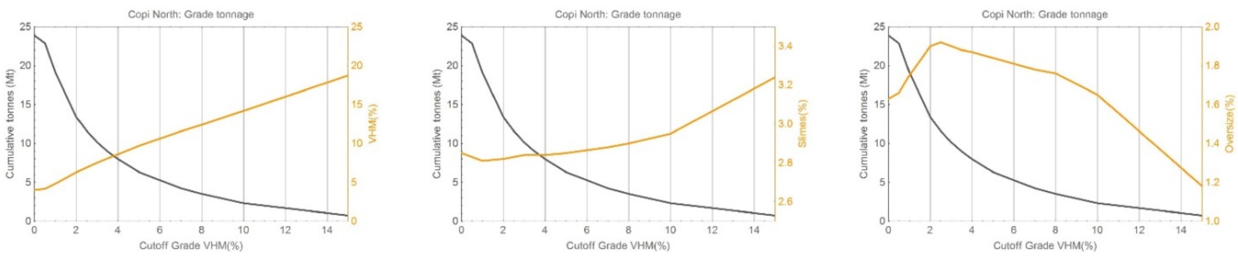


Figure 18: Global grade-tonnage curves

Figure 18

8 Potential for Economic Development

8.1 Potential Mining and Processing Methods

The potential mining method is an open pit and dozer push once overburden has been removed by scrapers. Ore could then be fed into a mining processing plant to remove oversize material and pumped to a thickener to removes slimes and clays. At this point slurried ores could be pumped to a wet concentrator plant to produce a heavy mineral concentrate.

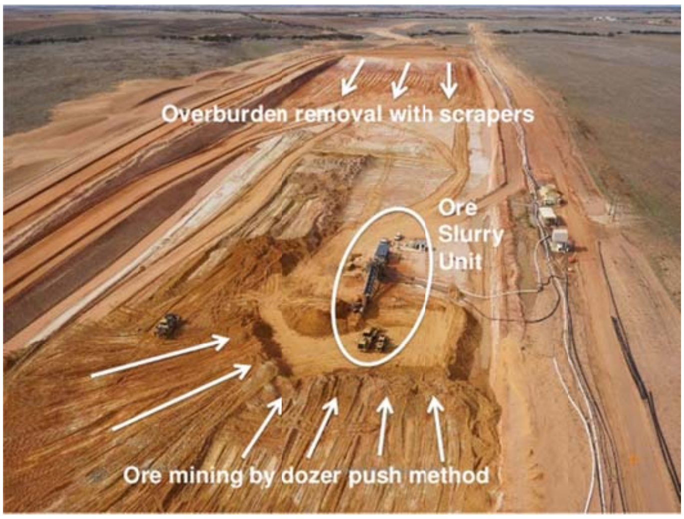


Figure 19: Strandline dozer push mining and processing

Due to the scale and elongate form of the deposit, the processing plant and concentrator design are likely to be mobile, either mounted on skids or as a tracked unit. Mobile in-pit processing units are currently being used by Iluka on strandlines in the Murray Basin. The final product heavy mineral concentrate (HMC) would likely be trucked and sold as feed for a heavy mineral separation plant in Broken Hill or Victoria.

8.2 Radioactive Elements

Based on Uranium and Thorium assays, calculated accumulation in VHM concentrate would not be classed as radioactive material (Government, 2013).

8.3 Over Burden, Interburden and Strand thickness

The overburden above modelled mineralisation at Copi North varies from 6.75m to 47.7m along strike of the deposit. Depth to mineralisation averages 23m over the entire deposit. Thickness of overburden between drill fences is, as yet, unconstrained, as no high resolution digital elevation model was available. It is noted from figures Figure 21 and Figure 20 that thicker portions of the mineralised strand coincide with thinner overburden. Significant interburden is not present within a 2.5% HM cut off. Current and former operations within the Murray mine at depths ranging from 23m to 40m.

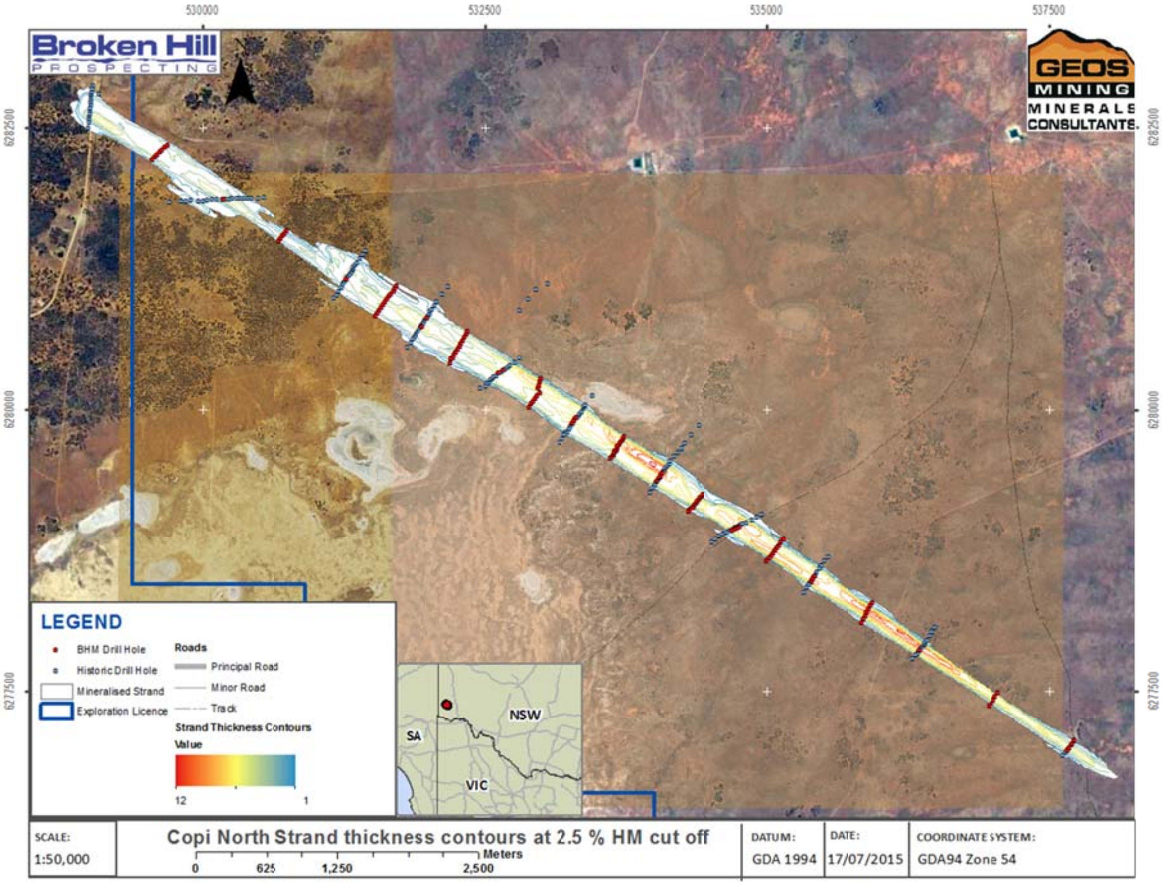


Figure 20: Copi North strand thickness contours

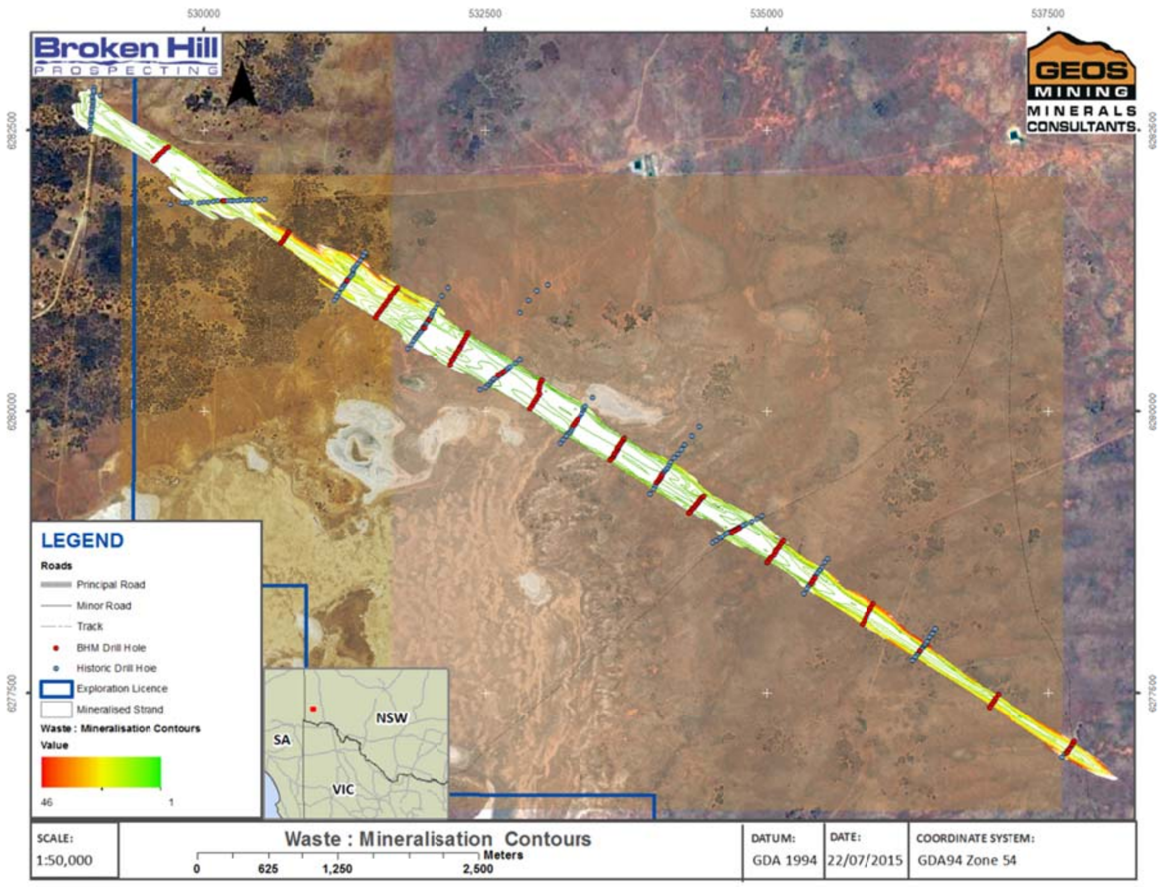


Figure 21: Waste: Mineralisation Contours

Strip ratio contours combined with detailed definition of VHM assemblage within the strand line are required to gain an indication of in-ground value to best understand the economic potential, beyond using a basic block cut off (Jones, et al., 2014).

8.4 Comparable Strandline Deposits

Mines of comparable strandline deposits are located 80km to the west (Gingko and Snapper) and 200km along strike (Kulwin and Worrnack). The geometry, scale and VHM assemblage of Woornack and Kulwin strandlines compare favourably to Copi North (Madden, 2008) (Iluka, 2012). This comparison gives us confidence that there are reasonable prospects for eventual economic extraction. It should be noted that both deposits are deeper and below the local water table.

9 Exploration Potential

A high resolution DEM would help define prospective overburden for all strandline exploration.

9.1 Copi North

Exploration potential exists along strike of the current resource in the same strandline. To the north overburden is apparently thinning. Overburden to the south appears from current drilling to remain at a consistent thickness.

9.2 Nulla

Nulla is a strand line that lies partially within tenure of BHM to the south of Copi North, from historic sections the strandline is expected to be narrower and deeper than Copi North.

9.3 Copi South

Copi South located 450m to the south west and parallel to Copi North mineralisation, consists of substantial shallow lower grade lenses and potentially higher grade ones at greater depth (Bracher, 2003). High grade has been intercepted in 2 holes intercepting the lower strand from 34m, however, samples of >5% HM average 8% slimes. It is of note that laterally the deeper intersections have not been constrained as a single strand or of a definite strike. Current intercepts represent 9m of low grade HM material (Dipping NW) within a single or multiple strands of some 300m width. Any drilling should aim to constrain the lateral continuity of the strand or strands.

10 Recommendations

Following the resource estimation and site visit, Geos Mining is in the position to make a series of recommendations to increase resource confidence and further the development of the Copi North resource towards measured status.

10.1 Drilling Procedures

10.1.1 Data Capture

It is recommended that data capture be undertaken in a format that corresponds to database design. This minimises the potential for formatting errors when importing data into the data base. Ideally field logging would occur directly into a digital device to minimise transcription errors and sample mix ups.

10.1.2 Panned Grade Estimates

The current logging of HM pan estimate is highly variable. If there is available standard material for different grade ranges loggers should test their accuracy and personal calibration before and during drilling campaigns.

10.1.3 Sampling

Once HM is identified in a hole continuous sampling should take place from 2m prior to that interval and 2m past the base of the surf zone or until end of hole. This will provide better control on mineralised bounds for the purposes resource estimation and mine design.

10.2 Infill Sampling

Existing samples where they exist should be submitted for analysis to close out the strand in fence lines and upper and lower mineralisation bounds.

10.3 Drill Spacing

Infill drilling will be required to provide more confidence in the current resource. Variography indicates that data additional drilling at 200m spacing would be significantly improve the geostatistical model used for grade interpolation. Several close-spaced drill fences at 100m spacing within a high grade region of the deposit are also highly recommended to fully understand the continuity of grade along strike. Drill type could be predominantly of air core.

10.4 Bulk Sampling

In situ bulk density samples of mineralisation and representative overburden would assist in determining tonnage strip ratios and bulk material for work to determine recoverable heavy mineral. Sonic drilling would be an appropriate exploration method to obtain bulk samples for further testwork.

10.5 Lab Procedures

Consult with plant designers to determine the optimal oversize fraction. Following this either, undertake test work to determine the +2mm fraction in current BHM work or undertake a study to build a reliable method to reconcile +1mm and +2mm data.

10.6 Topographic control

Better topographic control is required for mine design and to determine stripping ratios. Noted RL discrepancies of CNA044 and CNA043 surveys should be checked, via re-survey or pressing onto a DEM.

10.7 Recoverable HM Assemblage determination

Recoverable HM assemblage determination should ensure that VHM assemblage spatial distribution is well understood. This may involve bulk samples composites across the strand at a given bench height. Composites should aim to define mineable geometallurgical domains.

10.8 Saleable Products

Potential saleable products need to be tested for deleterious elements (Cr,V,Nb,Ca,P,U,Th,Ra) specifically ilmenite.

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12 Appendix 1: JORC Compliance Table

12.0 Section 1 : Sampling Techniques and Data

Sampling Techniques	• All air-core drill holes were routinely sampled at 1m intervals down hole. • Samples were collected in situ at the drill site collecting 2kg to 3 kg per sample. • Sample duplicates and company standards were inserted at random intervals. • Twin drill holes were undertaken for approximately every 5th hole. • Samples were submitted to internationally accredited ALS Metallurgical Laboratories in Perth for Heavy Mineral Sand (HMS) analysis. Point count analysis of the HMS fraction to determine the HMS assemblage was undertaken by Diamantina Laboratories in Perth. • Comparable drilling and sampling techniques were used by previous explorers.
Drilling Techniques	• Drilling was carried out using a Toyota Landcruiser mounted Mantis 80 drill rig. Standard features fitted to the rig include drill rod clamps, hydraulic rod bins, on board water storage, hydraulic height adjustment of the cyclone and 6 x 6 all-wheel drive. • The rig is capable of drilling NQ diameter holes to 120 metres and HQ diameter holes to 80 metres. • Previous exploration drilling was performed by the same drilling contractor using comparable rigs and diameter.
Logging	• All drill samples were geologically logged at the rig by the Company's geologists. • Geological logging using an industry standardised logging system was used to record mineral and rock types and their abundance, as well as grain size, cementation and clay content. • A sample of each sampled interval was panned at the rig for an in-field visual estimate of the Heavy Mineral content • A small representative sample was retained in a plastic chip tray for future reference and logging checks. • Comparable logging techniques are documented for previous exploration logging.
Sub-sampling techniques & sample preparation	• All samples were riffle split at the drill rig. • Duplicates were regularly taken to evaluate representativeness. • At the laboratory, samples were weighed, dried and analysed for Heavy Mineral Sand content by microscope point counting methods. Residual sample material will be returned from the ALS laboratory under secure ''chain of custody'' procedure by ALS staff, registered transport courier and Broken Hill staff and will be stored in a secure location for possible future analysis. • Further sample preparation was undertaken at the ALS laboratories by experienced HMS specialists. • Sample sizes and laboratory preparation techniques are considered to be appropriate for the Resource categories and the commodity being targeted. • Samples submitted to ALS were dried, split, weighed, soaked, attritioned then Wet screened to 9.5mm and 0.020mm. The -0.020mm were then discarded. Remaining fractions were recombined after the -9.5/+0.020mm fraction was subject to further attrition. The sample was wet screened at 1mm and 0.020mm using stacked screens after which fractions were dried and weighed. A riffle spit was taken of the 1/+0.020mm fraction and processed via heavy liquid separation at 2.96 SG using Tetrabromoethane (TBE.) Percent slimes, percent oversize and percent HM were calculated for the entire sample. • Previous explorers reported samples were dried, weighed, and attritioned, then wet screened to remove the slime (-75 micron) fraction. The samples were again dried, weighed, and screened to remove the fraction greater than 2 mm. The samples were further screened at 710 microns and a subsample from the -710um +75 um fraction underwent Heavy Mineral (HM) separation using TBE at an SG of 2.95. The weights were then used to calculate percent slimes, percent oversize and percent HM for the entire sample.
Quality of assay data & laboratory tests	• Assaying, separation and point counting analysis for heavy mineral content was undertaken at ALS Laboratories Perth and Diamantina Laboratories Malaga. • Point counting is considered a "total" assay technique. • No field non-assay analysis instruments were used in the analyses reported. • A review of standard reference material was undertaken and checked for significant

	analytical bias or preparation errors in the reported analyses. • Results of analyses for field sample duplicates were checked for consistency with the style of mineralisation evaluated and considered to be representative of the geological zones which were sampled. • Internal laboratory QAQC checks were reported by the laboratory. The reports were reviewed and the laboratory found to be performing within acceptable limits.
Verification of sampling & assaying	• All drill hole data was paper logged at the drill site and then digitally entered by Company geologists at the site office. • All digital data was verified and validated by the Company's database consultant before loading into the drill hole database. • Twinning of holes was undertaken in this program, assay results confirm continuity of mineralisation. • Reported drill results were compiled by the Company's geologists and verified by the Company's database administrator and Managing Director. • No adjustments to assay data were made.
Location of data points	• Drill hole collars were positioned using hand held GPS. MGA94 coordinates and the Relative Level from the Australian Height Datum were measured. All measurements were made with a GPS using differential correction. The instrument used was an SF3040 hired from GlobalPOS. The instrument was set to MGA94, Zone 54, with an accuracy tolerance of 0.3m. Before using the instrument the accuracy was checked on state survey mark SSM 3908 located north of Coombah at the eastern edge of the Silver City Highway. • Historical drill hole collar coordinates were located using GPS and DGPS survey equipment. Collar elevations used were taken from a digital elevation model. Where required, coordinates were transformed to MGA94, Zone 54.
Data spacing & distribution	• Air-core holes are spaced at a nominal 20-40 metres along lines spaced at 250-700 metres (dominantly 400m). • Drilling results reported in this program will be used in conjunction with historical drilling results to estimate mineral resources. • Samples were not subject to compositing prior to the determination of their THM content. • Samples were composited within the deposit to determine THM assemblage.
Orientation of data in relation to geological structure	• Significant exploration has been undertaken and the location of mineralisation and its relation to lithological and structural boundaries has been investigated. The current data pattern is appropriate to assess prospectivity of the mineralisation present and complements the deposit geometry.
Sample security & audits	• A review of the Company's sampling techniques and data has been undertaken by independent geological consultants Geos Mining Limited. Geos Mining is based in Sydney and has significant local Heavy Mineral Sands exploration experience and will be engaged to undertake an independent resource estimate in accordance with the JORC 2012 code.

12.1 Section 2: Reporting of Exploration Results

Mineral tenement & land tenure status	• The drill holes reported in this report are all contained within the recently granted Copi exploration licence (EL8312) are held 100% by Broken Hill Prospecting Limited's wholly owned subsidiary company Broken Hill Minerals Pty Ltd. • Private mining investment group Relentless Resources Limited (RRL) under Joint Venture with Broken Hill Prospecting is earning a 50% interest by expenditure of $2m • Broken Hill Prospecting is the Joint Venture and Project Manager. RRL's participation in the Joint Venture is purely as a passive investor level. RRL is not undertaking or involved with any of the fieldwork or associated future resource estimation activities. • The Copi Exploration Licence is in good standing. • The lease is held over privately held goat and sheep grazing terrain consisting of poor quality arid soils sustaining sparse shrubs and spinifex with limited tree cover. No naturally occurring surface freshwater is present. • No native title interests, historical sites, wilderness or national park and environmental settings are located within the drill program area.
Drill hole information	• See Appendix 3: Exploration Data

Exploration done by other parties	• Historical data documented by previous explorers was collated with current work in an SQL Server database. The work carried out by previous explorers comprised of geophysics, DEM analysis and multiple drilling campaigns by Westralian Sands and Iluka between 1999 and 2009. • Techniques and methods for drilling, logging, sampling and HMS determination used have been appraised and are comparable to current work in standard. Where historical holes were twinned by current drilling, the results confirm previous exploration.
Geology	• The deposit style targeted for exploration is a Heavy Mineral Sand concentration formed within an ancient Miocene sea shore strandline. • This style of mineralisation typically occurs as fine dark sand horizons within a beach sand sequence. • This style of deposit is often found in close proximity to geological features associated with ancient coastlines. • The deposits being targeted are all located within 50 metres of surface and located well above the current water table.
Drill hole information	• See Appendix 1: Exploration Data
Data aggregation methods	• Results for samples from historical data were split to a 1m basis where 3m sampling was undertaken.
Relationship between mineralisation widths and intercept lengths	• Mineralisation (deposit) geometry is accurately recorded and known and it has been deemed that the deposit with respect to the drill hole angle is optimal at 90 degrees. Down hole widths are considered as true widths.
Diagrams	• See Appendix 2: Diagrams
Balanced reporting	• No other exploration data that is considered meaningful and material has been omitted from this report
Other substantive exploration data	• No other exploration data that is considered meaningful and material has been omitted from this report
Further work	• Further air-core and sonic drilling is likely to be required in order to allow a higher component of any future resource estimate to an elevated category. • Under take surveying (LIDAR) to achieve better topographic control. • Determine recoverable VHM and saleable product. • In addition it is anticipated trial mining and the extraction of a bulk sample will be undertaken during any feasibility study undertaken at the Copi North deposit. • Exploration potential for extensions to current resource exists along strike in both directions (pending an exploration licence application approval to the north west). The Copi South strandline also represents a further exploration target.

12.2 Section 3: Estimation & Reporting of Mineral Resources

Database integrity	• Data stored in Microsoft SQL Server 2008 database • Data provided in a consistent format & imported using a software importer to minimise human errors. • Original laboratory files used to populate exploration database assay tables via an automatic software assay importer where available. Minimal human handling of assay data. • Database assay values have been subjected to random reconciliation with laboratory certified values to ensure agreement. • Historical assay results were acquired and incorporated into the database attribution of the data was derived from reports. • Records validated down-hole visually.
Site visits	• Site visit conducted by Alison Cole of Geos Mining February 2015: ▪ Drill sites inspected & locations verified ▪ Local geology witnessed at multiple locations ▪ Drilling and sampling procedures witnessed ▪ Discussions with field geologists about mineralisation structure, local & regional geology ▪ Advice provided on improvements to logging & sampling procedures to increase confidence.

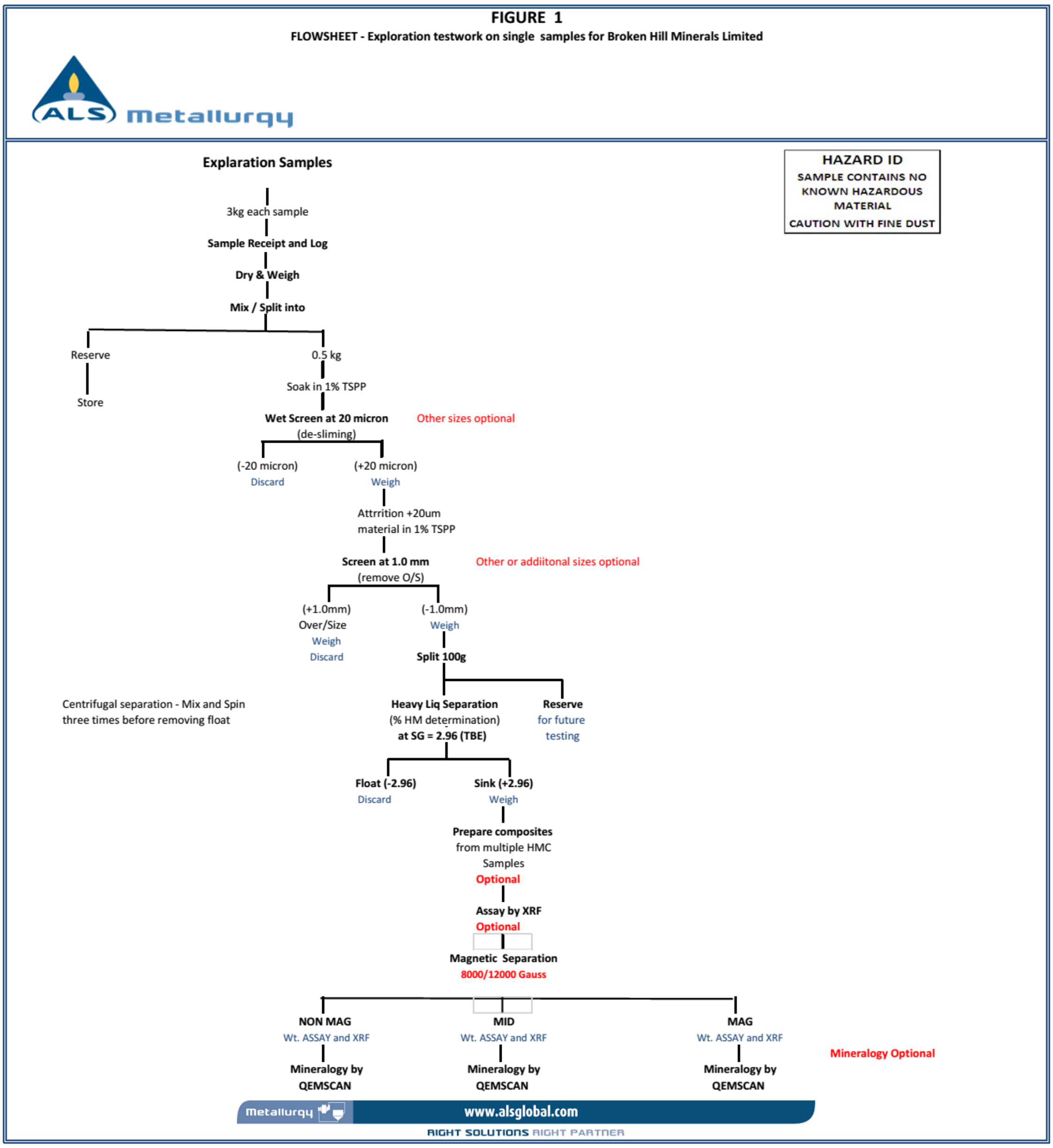
Geological interpretation	• The geological model constructed is robust. Stratigraphic solids were defined from drill logs that agree with the interpretation of a continuous strandline. Current data spacing & quality is sufficient to imply, but not verify grade continuity. The possibility of narrow washouts between drill lines exists, but are not considered likely. • Logged lithologies were used alongside assay results to establish & constrain mineralised working section
Dimensions	• The Copi North Strand line has been shown from drilling to extend for ~16km striking at 303° within the Loxton Parilla sands of the Murray Basin. The mineralised portion of the strand line varies across strike from 30m to 120m, ranging in thickness from 0.2m to 9.6m with an average of 2.54m true thickness.
Estimation & modelling techniques	• Leapfrog 3d was used to create a geological model and define the anomalous mineralisation envelope. The wireframe generated was through a combination of geological model and assay interpolations. The Loxton Parilla sand unit was used as a geological constraint in wireframe generation. • Wireframes were checked in cross section, long section and plan against the geological interpretation and assay results, then exported for use in Micromine. • Checks for economically-significant induration within the mineralisation were performed. No issues were located. • Samples were composited to 1m length in accordance with the dominant sample length. • Constraining wireframes and drill hole assay data were rotated 57°, aligning the deposit strike to north. The rotated wireframes were then populated with blocks: ▪ X: 5m Y:100m Z:1m ▪ Block RLs were then flattened to an interpreted mineralised surface. ▪ Variogram parameters are described below

	HM%			Slimes%			Oversize%		
Search	**Nugget**	**Sill**	**Range**	**Nugget**	**Sill**	**Range**	**Nugget**	**Sill**	**Range**
D1	1.5	44	900	0	1.65	750	0	20	1100
D2	1.5	37	120	0	2.05	75	0	23	60
D3	1.5	120	2.5	0	2.4	3.5	0	25	8

	▪ Using the flattened blocks, estimation of THM, Slimes and oversize was undertaken using ordinary kriging. The block model was then unflattened and rotated back the original strike with volumes checked against the un-rotated blank model. • A previous estimate in 2004 by Illuka is comparable to the current estimate. • THM assemblage work conducted in 1999 Westralian Sands Iluka across a single drill fence confirms THM assemblage work undertaken by Broken Hill Minerals. Oversize is as expected higher due to the lumping of +1mm (Broken Hill Mineral) and +2mm (Iluka) data to estimate the oversize percentage. • No top cut for THM, Slimes or oversize was used, the impact of outliers were examined and found negligible. • No significant correlation between high grade and oversize or slimes was observed. • The THM assemblage is assumed to be consistent along the Copi strand line. • The THM, slimes and oversize were visually checked against the ordinary kriged block grade in cross section, long section and plan. • The global ordinary kriged block grade was compared to an inverse distance squared and cubed estimate.
Moisture	• Tonnages reported are on a dry basis.
Cut-off parameters	• A cut of grade of 2.5% total THM content was applied.
Mining factors	• Mining methods would be via an open pit combined with a mobile processing plant suitable to the deposit scale and geometry. • Mining factors such as dilution and ore loss have not been applied. • Waste material would be used to back fill the mine void.
Metallurgical factors	• VHM are contained within a commonly beneficiated size fraction +53um/-1mm using existing spiral technologies. • Indications from composite HLS assays are that a VHM concentrate would **not** be classed as “radioactive ore” under the Radiation Control Regulation 2013 of NSW.

	• Deleterious slimes, oversize and induration are currently considered negligible within the current Resource from laboratory test work and drill logs.
Environmental factors	• There are no known significant environmental impediments to the projects viability from the currently available information.
Bulk Density	• Dry bulk densities were determined on a block by block basis. Individual block density was determined from block model THM percentages, weighted with mineral S.G. from composite point count data; remaining material had an assumed S.G. of 1.65. Point count samples were composited along strand strike. • Westralian Sands Limited THM point count data from samples composited across strand confirms the VHM point count data along strand and indicates the THM to be consistent within the Copi North strand line.
Classification	• The Mineral Resource comprises both Inferred & Indicated classifications, reflecting differences in resource confidence over the deposit. • Geological modelling, data density, data geometry and variography form the basis for classification. • The classification of the Mineral Resource considered qualitative and quantitative criteria. The criteria considered included the geological model, logging data, sampling techniques, data quality, data distribution, variography, deleterious materials with consideration of factors such as induration and overburden. • The result reflects the Competent Persons view of the deposit
Audits or Reviews	• The current Resource estimation has been internally peer reviewed by Geos Mining and found to meet the criteria for eventual economic extraction.
Relative accuracy/confidence	• At the current level of classification the relative accuracy and confidence in resource is high. • The estimate was based upon a realistic geological model and sectional reconciliation of block vs. sample grades was positive. • Statistically, block and composite grade probability plots of slimes, oversize and HM reconcile well. Geostatistical investigation has confirmed geological observations. • The exploration strategy has yielded a representative sample population. Additional definition of VHM distribution will further improve resource confidence.

13 Appendix 2: ALS test work flowsheet



14 Appendix 3: Exploration Data

14.1 DRILLING DATA

All co-ordinates are in MGA94: Zone 54, E/N: GDA94 | RL: AHD71

Hole_id	Hole_type	East	North	RL	Survey_method	Dip	Azimuth	Depth_EOH
CNA001	AC	529558.2	6282227	38.36	DGPS	-90	0	27
CNA002	AC	529577.9	6282248	38.26	DGPS	-90	0	27
CNA003	AC	529599.1	6282270	38.29	DGPS	-90	0	27
CNA004	AC	529598.3	6282269	38.31	DGPS	-90	0	27
CNA005	AC	529619.9	6282290	38.4	DGPS	-90	0	27

CNA006	AC	529641.8	6282311	38.48	DGPS	-90	0	27
CNA007	AC	529665.3	6282334	37.93	DGPS	-90	0	27
CNA008	AC	529690.5	6282353	37.43	DGPS	-90	0	27
CNA009	AC	530177.9	6281871	45.1	DGPS	-90	0	33
CNA010	AC	530679.1	6281492	52.17	DGPS	-90	0	39
CNA011	AC	530699.6	6281516	52.09	DGPS	-90	0	39
CNA012	AC	530714	6281543	52.33	DGPS	-90	0	39
CNA013	AC	530714.4	6281542	52.31	DGPS	-90	0	39
CNA014	AC	530732.5	6281566	52.45	DGPS	-90	0	39
CNA015	AC	530748.4	6281591	52.67	DGPS	-90	0	41
CNA016	AC	531277.8	6281164	54.06	DGPS	-90	0	42
CNA017	AC	531563.3	6280886	44.28	DGPS	-90	0	33
CNA018	AC	531580.4	6280910	45.12	DGPS	-90	0	33
CNA019	AC	531599.2	6280937	45.85	DGPS	-90	0	36
CNA020	AC	531597.8	6280935	45.86	DGPS	-90	0	39
CNA021	AC	531614.1	6280960	46.38	DGPS	-90	0	36
CNA022	AC	531631.7	6280983	47.18	DGPS	-90	0	37
CNA023	AC	531649	6281009	48.33	DGPS	-90	0	38
CNA024	AC	531660.7	6281030	49.15	DGPS	-90	0	40
CNA025	AC	531687.1	6281056	50.1	DGPS	-90	0	42
CNA026	AC	531701.4	6281077	51.04	DGPS	-90	0	42
CNA027	AC	531718.6	6281103	51.53	DGPS	-90	0	42
CNA028	AC	531953.6	6280745	37.24	DGPS	-90	0	28
CNA029	AC	531992.1	6280816	38.15	DGPS	-90	0	30
CNA030	AC	532322.8	6280649	31.5	DGPS	-90	0	24
CNA031	AC	532338.6	6280673	31.58	DGPS	-90	0	21
CNA032	AC	532352.1	6280701	31.65	DGPS	-90	0	21
CNA033	AC	532308.4	6280617	30.4	DGPS	-90	0	24
CNA034	AC	532293.5	6280591	31.66	DGPS	-90	0	21
CNA035	AC	532279.1	6280567	32.72	DGPS	-90	0	21
CNA036	AC	532279.1	6280565	32.68	DGPS	-90	0	21
CNA037	AC	532264.8	6280541	33.08	DGPS	-90	0	24
CNA038	AC	532250	6280516	32.68	DGPS	-90	0	21
CNA039	AC	532235.5	6280489	32.21	DGPS	-90	0	21
CNA040	AC	532224	6280463	31.76	DGPS	-90	0	21
CNA041	AC	532207.3	6280454	31.59	DGPS	-90	0	21
CNA042	AC	532194.1	6280410	31.99	DGPS	-90	0	21
CNA043	AC	532661.6	6280350	26.79	DGPS	-90	0	18
CNA044	AC	532620.1	6280323	26.49	DGPS	-90	0	18
CNA045	AC	532911.9	6280053	27.61	DGPS	-90	0	18
CNA046	AC	532894.6	6280023	27.62	DGPS	-90	0	18
CNA047	AC	532928.4	6280076	27.12	DGPS	-90	0	18
CNA048	AC	532945.6	6280102	26.29	DGPS	-90	0	18

CNA049	AC	532945.1	6280100	26.42	DGPS	-90	0	18
CNA050	AC	532962.7	6280127	26.23	DGPS	-90	0	18
CNA051	AC	532981.4	6280152	25.76	DGPS	-90	0	18
CNA052	AC	532970.6	6280190	26.48	DGPS	-90	0	18
CNA053	AC	532978.1	6280219	26.84	DGPS	-90	0	18
CNA054	AC	532984.6	6280250	25.77	DGPS	-90	0	15
CNA055	AC	532997.8	6280279	26.75	DGPS	-90	0	18
CNA056	AC	533277.7	6279874	26.74	DGPS	-90	0	18
CNA057	AC	533298	6279902	26.53	DGPS	-90	0	18
CNA058	AC	533317.8	6279925	26.49	DGPS	-90	0	18
CNA059	AC	533641.8	6279594	33.52	DGPS	-90	0	27
CNA060	AC	533649.6	6279609	32.38	DGPS	-90	0	24
CNA061	AC	533655	6279628	31.44	DGPS	-90	0	24
CNA062	AC	533653.7	6279626	31.54	DGPS	-90	0	24
CNA063	AC	533667.6	6279644	30.83	DGPS	-90	0	24
CNA064	AC	533677.2	6279660	30	DGPS	-90	0	24
CNA065	AC	533682.2	6279676	29.31	DGPS	-90	0	21
CNA066	AC	533692.9	6279691	28.58	DGPS	-90	0	21
CNA067	AC	533706.8	6279709	28.1	DGPS	-90	0	18
CNA068	AC	533718.5	6279729	27.81	DGPS	-90	0	21
CNA069	AC	533729.6	6279744	27.88	DGPS	-90	0	21
CNA070	AC	533738.9	6279760	27.88	DGPS	-90	0	18
CNA071	AC	533628.5	6279583	34.14	DGPS	-90	0	21
CNA072	AC	533617.1	6279571	34.68	DGPS	-90	0	18
CNA073	AC	534025.8	6279373	34.74	DGPS	-90	0	24
CNA074	AC	534043.7	6279392	34.77	DGPS	-90	0	27
CNA075	AC	534051.2	6279403	34.79	DGPS	-90	0	27
CNA076	AC	534058.5	6279416	34.84	DGPS	-90	0	27
CNA077	AC	534070.5	6279437	35.15	DGPS	-90	0	28
CNA078	AC	534069.4	6279434	35.13	DGPS	-90	0	28
CNA079	AC	534349.5	6279142	33.29	DGPS	-90	0	24
CNA080	AC	534360.8	6279158	33.05	DGPS	-90	0	24
CNA081	AC	534372.1	6279175	33.06	DGPS	-90	0	24
CNA082	AC	534370.9	6279173	33.07	DGPS	-90	0	24
CNA083	AC	534386.2	6279191	33.09	DGPS	-90	0	24
CNA084	AC	534396.2	6279211	33.2	DGPS	-90	0	27
CNA085	AC	534409.8	6279226	33.22	DGPS	-90	0	24
CNA086	AC	534422.6	6279238	33.22	DGPS	-90	0	24
CNA087	AC	534434	6279249	33.21	DGPS	-90	0	24
CNA088	AC	534336.6	6279128	33.34	DGPS	-90	0	24
CNA089	AC	534317.6	6279113	33.63	DGPS	-90	0	24
CNA090	AC	534305.2	6279097	33.77	DGPS	-90	0	18
CNA091	AC	534764.2	6278964	32.75	DGPS	-90	0	25

CNA092	AC	534748.3	6278955	32.81	DGPS	-90	0	25
CNA093	AC	534728.5	6278946	32.64	DGPS	-90	0	24
CNA094	AC	534710.8	6278936	32.68	DGPS	-90	0	24
CNA095	AC	534695	6278926	32.63	DGPS	-90	0	24
CNA096	AC	535111.6	6278797	34.54	DGPS	-90	0	30
CNA097	AC	535094.2	6278775	34.24	DGPS	-90	0	27
CNA098	AC	535076.4	6278750	34.07	DGPS	-90	0	27
CNA099	AC	535078	6278752	34.11	DGPS	-90	0	27
CNA100	AC	535063.2	6278726	34.35	DGPS	-90	0	27
CNA101	AC	535040	6278704	34.06	DGPS	-90	0	27
CNA102	AC	535025.3	6278681	34.34	DGPS	-90	0	27
CNA103	AC	535004.2	6278656	34.33	DGPS	-90	0	24
CNA104	AC	535128.8	6278826	34.96	DGPS	-90	0	27
CNA105	AC	535150.9	6278851	34.83	DGPS	-90	0	27
CNA106	AC	535395.1	6278472	45.12	DGPS	-90	0	36
CNA107	AC	535410.7	6278498	45.27	DGPS	-90	0	39
CNA108	AC	535425.5	6278520	45.39	DGPS	-90	0	39
CNA109	AC	535880.2	6278168	52.91	DGPS	-90	0	49
CNA110	AC	535866.9	6278139	53.37	DGPS	-90	0	46
CNA111	AC	535851.9	6278109	53.63	DGPS	-90	0	45
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CNA113	AC	535893.3	6278197	52.44	DGPS	-90	0	48
CNA114	AC	535911	6278229	51.9	DGPS	-90	0	48
CNA115	AC	535927	6278258	51.35	DGPS	-90	0	48
CNA116	AC	535944	6278288	50.77	DGPS	-90	0	45
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CNA118	AC	536995.8	6277399	56.52	DGPS	-90	0	51
CNA119	AC	536976.5	6277369	56.13	DGPS	-90	0	51
CNA120	AC	537013.5	6277426	56.71	DGPS	-90	0	51
CNA121	AC	537012.6	6277425	56.68	DGPS	-90	0	51
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CNA125	AC	537688.5	6277002	57.84	DGPS	-90	0	51
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CO5-02	AC	530391.4	6281877	50	GPS	-90	0	39
CO5-03	AC	530360.4	6281876	49.5	GPS	-90	0	39
CO5-04	AC	530326.4	6281875	49	GPS	-90	0	39
CO5-05	AC	530261.4	6281873	48.5	GPS	-90	0	36

CO5-06	AC	530231.4	6281871	47.8	GPS	-90	0	36
CO5-07	AC	530201.4	6281870	47	GPS	-90	0	36
CO5-08	AC	530170.4	6281869	46.5	GPS	-90	0	36
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CO5-11	AC	530041.4	6281860	46	GPS	-90	0	33
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CO5-19	AC	530430.4	6281879	50	GPS	-90	0	39
CO5-20	AC	530484.4	6281880	51	GPS	-90	0	39
CO6-04	AC	529028.4	6282874	30	GPS	-90	0	21
CO6-05	AC	529017.4	6282779	33.5	GPS	-90	0	27
CO6-06	AC	529012.4	6282804	33	GPS	-90	0	24
CO6-07	AC	529022.4	6282828	32	GPS	-90	0	18
CO6-08	AC	529025.4	6282852	31	GPS	-90	0	18
CO6-09	AC	529017.4	6282754	34	GPS	-90	0	24
CO6-10	AC	529014.4	6282729	35	GPS	-90	0	24
CO6-11	AC	529010.4	6282706	36	GPS	-90	0	24
CO6-12	AC	529005.4	6282656	37	GPS	-90	0	27
CO6-13	AC	528999.4	6282603	37.5	GPS	-90	0	27
CO6-14	AC	528996.4	6282579	38	GPS	-90	0	27
CO6-15	AC	528994.4	6282556	38	GPS	-90	0	27
CO6-16	AC	529002.4	6282630	37	GPS	-90	0	27
CO6-17	AC	529008.4	6282680	38	GPS	-90	0	24
CO6-18	AC	528991.4	6282505	39	GPS	-90	0	30
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N0668	AC	533051.4	6281127	42	GPS	-90	0	24
N0669	AC	532880.4	6280991	41	GPS	-90	0	21
N5397	AC	532538.4	6280240	29	GPS	-90	0	27
N5398	AC	532518.4	6280232	29	GPS	-90	0	18
N5399	AC	532507.4	6280212	29	GPS	-90	0	18
N5400	AC	532458.4	6280193	30	GPS	-90	0	18
N5401	AC	532554.4	6280264	29	GPS	-90	0	18
N5402	AC	532572.4	6280277	29	GPS	-90	0	18
N5403	AC	532581.4	6280291	29	GPS	-90	0	21
N5404	AC	532603.4	6280305	29	GPS	-90	0	21

N5405	AC	532621.4	6280323	29	GPS	-90	0	21
N5406	AC	532642.4	6280336	29	GPS	-90	0	21
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N5412	AC	532804.4	6280461	30	GPS	-90	0	21
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N6337	AC	534064	6279426	35	DGPS	-90	0	27
N6338	AC	534050	6279404	34.9	CHAINED	-90	0	36
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N6345	AC	534119	6279503	36	DGPS	-90	0	30
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N6351	AC	534271	6279701	33	GPS	-90	0	24
N6352	AC	534331	6279780	33.5	GPS	-90	0	24
N6353	AC	534396	6279864	36	GPS	-90	0	27
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N6380	AC	535431	6278535	46	CHAINED	-90	0	39
N6381	AC	535417	6278511	46	DGPS	-90	0	39
N6382	AC	535402	6278488	45.7	CHAINED	-90	0	39
N6383	AC	535386	6278466	45.5	DGPS	-90	0	39
N6384	AC	535372	6278445	45	CHAINED	-90	0	39
N6385	AC	535358	6278424	44.5	DGPS	-90	0	36
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N6411	AC	533186	6279743	28	GPS	-90	0	15
N6412	AC	533162	6279712	28	GPS	-90	0	15
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N6417	AC	533379	6280012	27.5	GPS	-90	0	18
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N6471	AC	531896	6280680	37.5	GPS	-90	0	30
N6472	AC	531885	6280664	37.4	GPS	-90	0	30
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N6489	AC	531392	6281340	54.8	GPS	-90	0	48
N6490	AC	531416	6281375	55	GPS	-90	0	48
N6491	AC	531441	6281411	54.9	GPS	-90	0	48
N6492	AC	531319	6281214	54	GPS	-90	0	45
N6493	AC	531301	6281195	54	GPS	-90	0	45
N6494	AC	531286	6281180	54.1	GPS	-90	0	45
N6495	AC	531275	6281164	54.1	GPS	-90	0	45
N6496	AC	531263	6281146	54.2	GPS	-90	0	48
N6497	AC	531251	6281128	54.2	GPS	-90	0	48
N6498	AC	531239	6281110	54.2	GPS	-90	0	45
N6499	AC	531228	6281092	54.3	GPS	-90	0	45
N6500	AC	531206	6281057	54.7	GPS	-90	0	45
N6501	AC	531187	6281022	54.8	GPS	-90	0	51
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N6503	AC	536390	6277907	58	DGPS	-90	0	63
N6504	AC	536402	6277925	58	GPS	-90	0	45
N6505	AC	536406	6277923	58	GPS	-90	0	51
N6506	AC	536410	6277942	57.2	GPS	-90	0	51
N6507	AC	536423	6277957	57	GPS	-90	0	51
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N6513	AC	536350	6277857	58.5	GPS	-90	0	54
N6514	AC	536337	6277840	58	GPS	-90	0	51
N6515	AC	536325	6277824	57.6	GPS	-90	0	54
N6516	AC	536299	6277790	56.8	GPS	-90	0	54
N6530	AC	537724	6277057	60	DGPS	-90	0	60
N6531	AC	537699	6277020	59.1	GPS	-90	0	54
N6532	AC	537674	6276989	58.2	GPS	-90	0	51
N6533	AC	537650	6276958	57.7	GPS	-90	0	51
N6534	AC	537625	6276927	57.4	GPS	-90	0	51
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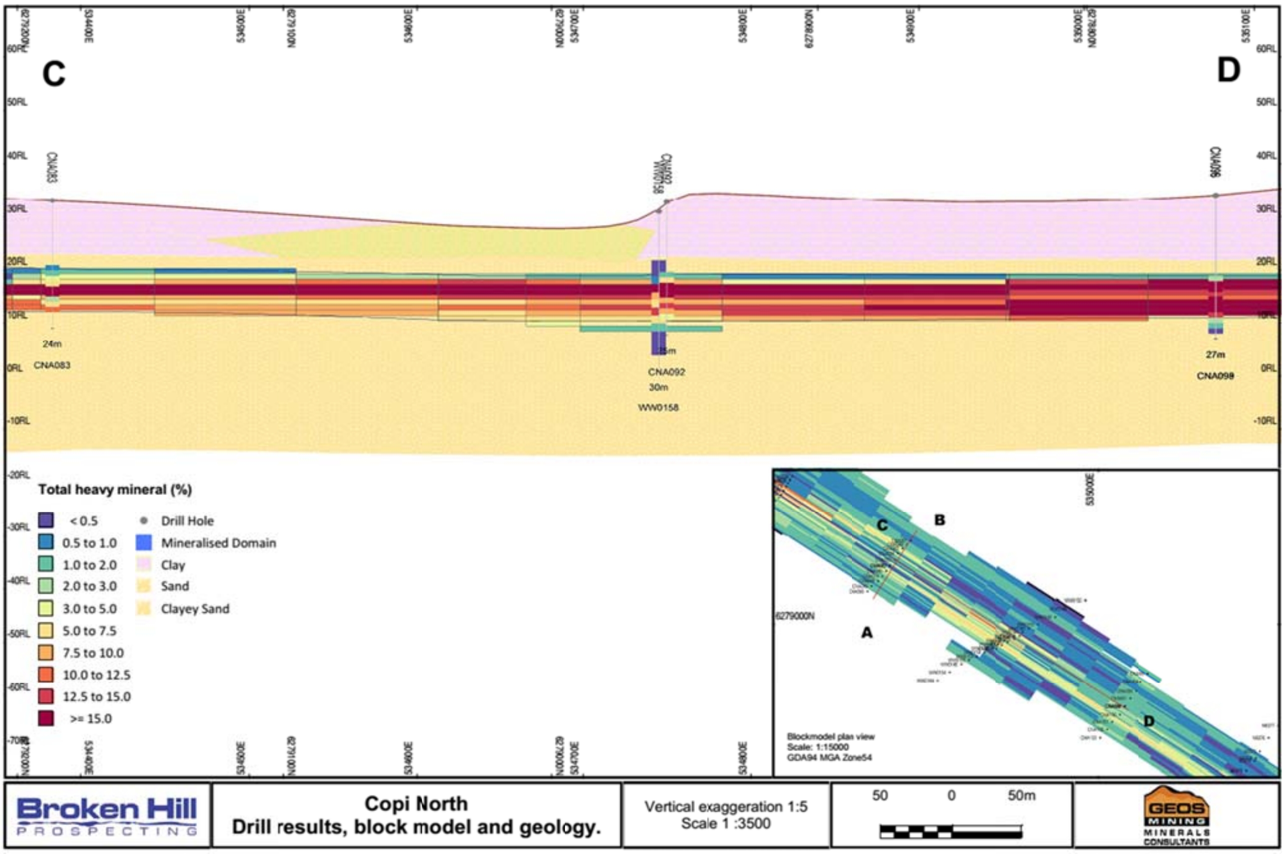
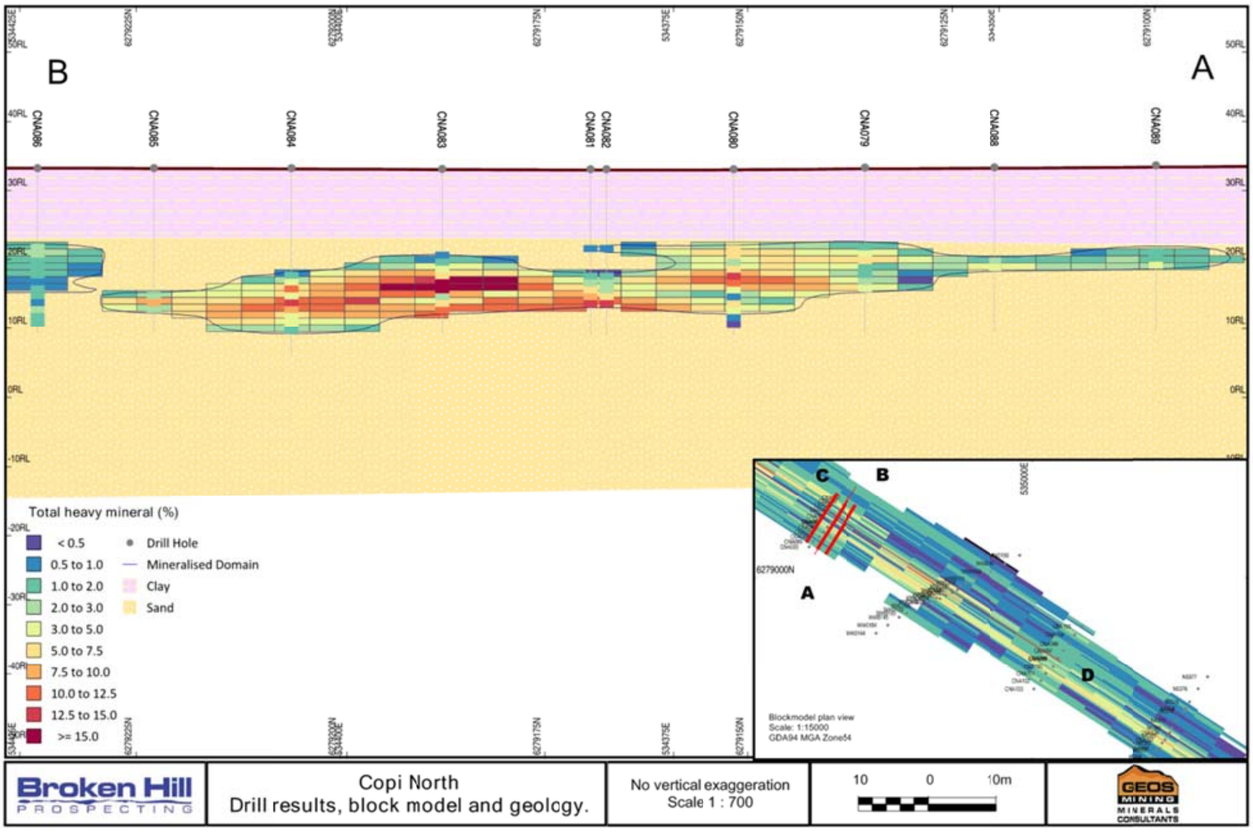
WW0145	AC	534585.4	6278879	32	GPS	-90	0	30
WW0146	AC	534677.4	6278927	31	GPS	-90	0	30
WW0147	AC	534773.4	6278976	30	GPS	-90	0	30
WW0148	AC	534870.4	6279021	29	GPS	-90	0	30
WW0149	AC	534915.4	6279046	28	GPS	-90	0	30
WW0150	AC	534960.4	6279071	28	GPS	-90	0	30
WW0151	AC	534819.4	6278999	29.5	GPS	-90	0	30
WW0152	AC	534720.4	6278951	30.5	GPS	-90	0	27
WW0153	AC	534631.4	6278903	31.5	GPS	-90	0	27

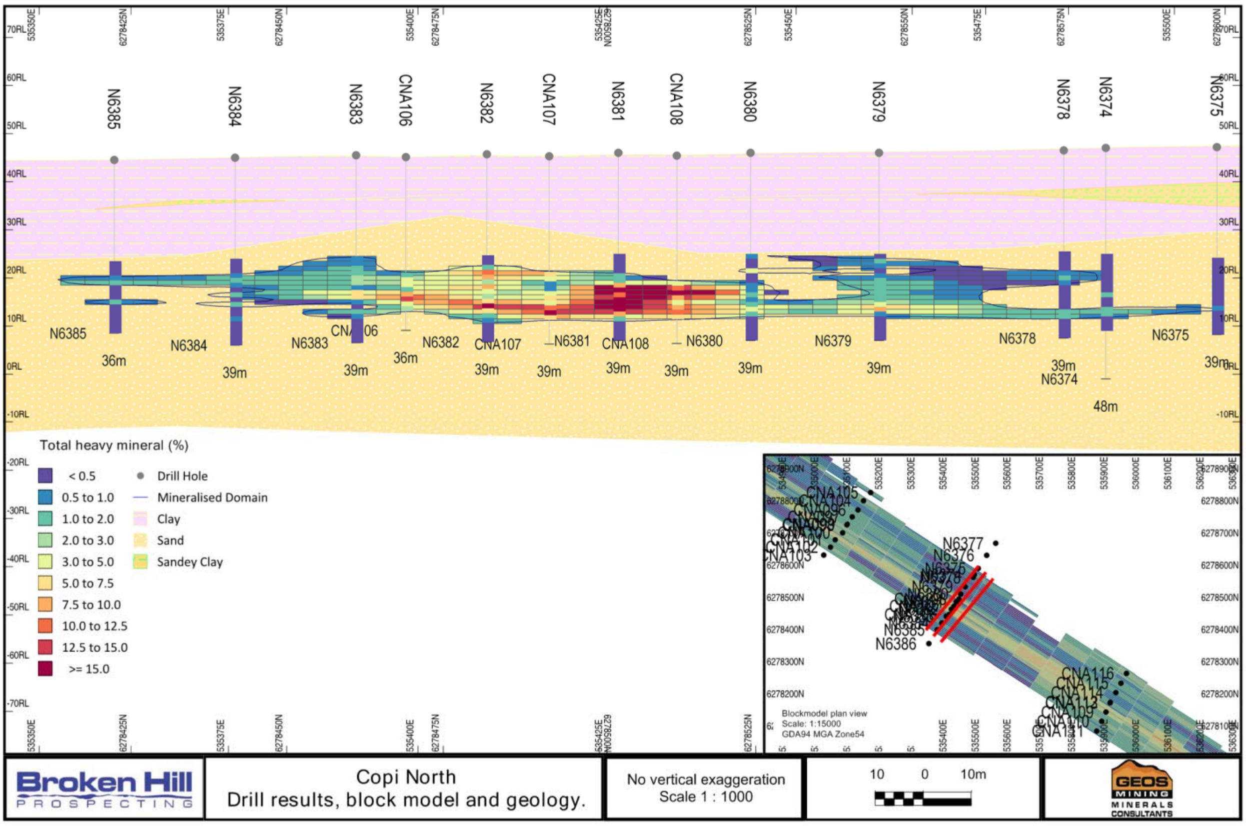
WW0154	AC	534550.4	6278855	32.5	GPS	-90	0	27
WW0155	AC	534608.4	6278892	32	GPS	-90	0	27
WW0156	AC	534654.4	6278915	32	GPS	-90	0	30
WW0157	AC	534700.4	6278939	31.5	GPS	-90	0	30
WW0158	AC	534746.4	6278963	31	GPS	-90	0	30
WW0159	AC	534792.4	6278987	30.5	GPS	-90	0	27

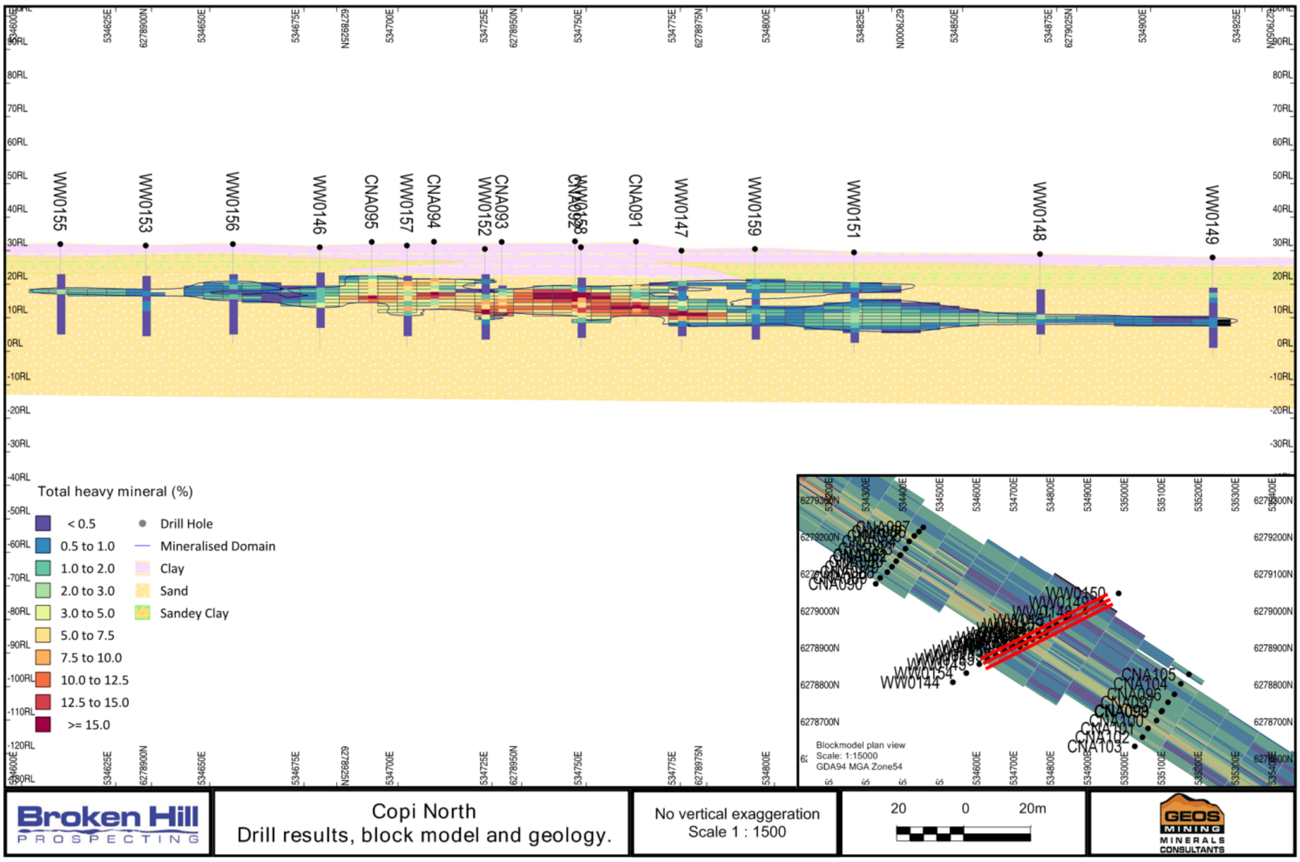
Table 8: Drill location data

15 Appendix 4: Sections




B
A
CNA086
CNA085
CNA084
CNA083
CNA081
CNA082
CNA080
CNA079
CNA088
CNA089
Total heavy mineral (%)
< 0.5
0.5 to 1.0
1.0 to 2.0
2.0 to 3.0
3.0 to 5.0
5.0 to 7.5
7.5 to 10.0
10.0 to 12.5
12.5 to 15.0
>= 15.0
Drill Hole
Mineralised Domain
Clay
Sand
Blockmodel plan view
Scale: 1:15000
GDA94 MGA Zone54
Broken Hill PROSPECTING
Copi North
Drill results, block model and geology.
No vertical exaggeration
Scale 1 : 700
10 0 10m
GEOS MINING MINERALS CONSULTANTS


N6385
N6384
N6383
CNA106
N6382
CNA107
N6381
CNA108
N6380
N6379
N6378
N6374
N6375
36m
39m
48m
Total heavy mineral (%)
< 0.5
0.5 to 1.0
1.0 to 2.0
2.0 to 3.0
3.0 to 5.0
5.0 to 7.5
7.5 to 10.0
10.0 to 12.5
12.5 to 15.0
>= 15.0
Drill Hole
Mineralised Domain
Clay
Sand
Sandey Clay
Blockmodel plan view
Scale: 1:15000
GDA94 MGA Zone54
Broken Hill PROSPECTING
Copi North
Drill results, block model and geology.
No vertical exaggeration
Scale 1 : 1000
10 0 10m
GEOS MINING MINERALS CONSULTANTS


Total heavy mineral (%)
< 0.5
0.5 to 1.0
1.0 to 2.0
2.0 to 3.0
3.0 to 5.0
5.0 to 7.5
7.5 to 10.0
10.0 to 12.5
12.5 to 15.0
>= 15.0
Drill Hole
Mineralised Domain
Clay
Sand
Sandey Clay
Blockmodel plan view
Scale: 1:15000
GDA94 MGA Zone54
Broken Hill PROSPECTING
Copi North
Drill results, block model and geology.
No vertical exaggeration
Scale 1 : 1500
20 0 20m
GEOS MINING MINERALS CONSULTANTS