



NI 43-101 TECHNICAL REPORT

BETA HUNT OPERATION EASTERN GOLDFIELDS, WESTERN AUSTRALIA

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1 SUMMARY

1.1 INTRODUCTION

This technical report (the “Technical Report”) titled Beta Hunt Operation Eastern Goldfields, Western Australia has been prepared by Karora Resources Inc. (“Karora”) following completion of the updated Mineral Resource and Mineral Reserve for Beta Hunt and supersedes the Beta Hunt Mineral Resources and Reserves reported in the Technical Report published by Karora on February 3, 2021.

This Technical Report dated March 30, 2023 can be found on Karora’s website at www.karoraresources.com and under Karora’s profile at www.sedar.com.

The Report was prepared in accordance with the requirements of National Instrument 43-101 (“NI 43-101”), “Standards of Disclosure for Mineral Projects”, of the Canadian Securities Administrators (“CSA”) for lodgement on CSA’s “System for Electronic Document Analysis and Retrieval” (“SEDAR”).

All amounts have been presented in Australian Dollars (\$) unless otherwise indicated.

1.2 PROPERTY DESCRIPTION AND OWNERSHIP

1.2.1 Beta Hunt Mine

The Beta Hunt Mine (“Beta Hunt”) is located 600 km east of Perth in Kambalda, Western Australia and hosts economic deposits of both nickel and gold. Beta Hunt is wholly owned by Karora.

Karora owns and operates Beta Hunt under a sub-lease agreement with St Ives Gold Mining Company Pty Ltd (“SIGMC”). SIGMC is a wholly owned subsidiary of Gold Fields Limited (“Gold Fields”). The mining tenements on which the Beta Hunt is located are held by SIGMC.

Originally developed and operated by Western Mining Corporation (“WMC”) in the 1970s, the mine was sold to Gold Fields in 2001. In 2003, Reliance Mining Limited (“RML”) acquired the nickel rights and resumed production. Consolidated Minerals Limited acquired RML in 2005 and invested in both increasing resources and expanding production. The mine operated continuously until the end of 2008, when it was placed on care and maintenance due to the financial crisis and associated collapse in metal prices. Transactions during 2001–2003 resulted in the separation of nickel rights from the gold rights. Salt Lake Mining Pty Ltd (“SLM”) acquired the property in 2013 and succeeded in recombining the nickel and gold rights. Nickel operations were restarted in 2014. Initial gold production occurred in June to July 2014 then ceased and recommenced at the end of 2015. The mine has been in continuous operation since then. Karora acquired 100% of SLM in 2016.

Gold mine production from Beta Hunt is processed at both the 100% owned Higginsville and Lakewood processing facilities. Nickel mine production is processed at BHP’s Kambalda Concentrator.

1.2.2 Higginsville Processing Facility

Karora acquired the Higginsville Processing Facility when it purchased the Higginsville Gold Operation (“HGO”) on June 10, 2019. The Processing Facility is located approximately 75 km south of the Beta Hunt Mine in Higginsville, Western Australia. HGO comprises the 1.6 Mtpa gold processing facility, 263 mining tenements (as of December 30, 2022) and includes open pit and underground gold deposits.

1.2.3 Lakewood Processing Facility

Karora acquired the 1.0 Mtpa Lakewood Processing Facility in July 2022. The Processing Facility is located approximately 56 km north of the Beta Hunt Mine in Kalgoorlie, Western Australia.

1.3 BETA HUNT - GEOLOGY AND MINERALIZATION

Beta Hunt is situated within the central portion of the Norseman-Wiluna greenstone belt in a sequence of mafic/ultramafic and felsic rocks on the southwest flank of the Kambalda Dome.

Gold mineralization occurs mainly in subvertical shear zones in the Lunnon Basalt and is characterized by shear and extensional quartz veining within a halo of biotite/pyrite alteration. Within these shear zones, coarse gold sometimes occurs where the shear zones intersect iron-rich sulphidic metasediments in the Lunnon Basalt or nickel sulphides at the base of the Kambalda Komatiite (ultramafics).

Nickel mineralization is hosted mainly by talc-carbonate and serpentine altered ultramafic rocks (Kambalda Komatiite) that overlie the Lunnon Basalt. The primary sulphide minerals are typically pyrrhotite > pentlandite > pyrite with trace chalcopyrite.

1.4 MINERAL RESOURCE ESTIMATES

The Beta Hunt Gold Mineral Resource estimate is presented in Table 1-1 and the Beta Hunt Nickel Mineral Resource is shown in Table 1-2.

Table 1-1 Beta Hunt Gold Mineral Resources at September 30, 2022 (Notes: 1, 2, 3, 4, 5, 7, 8, 9, 10, 11)

Sep 2022 Gold Mineral Resource	Measured			Indicated			Measured & Indicated			Inferred		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
Western Flanks	183	2.6	15	10,873	2.6	900	11,056	2.6	916	8,607	2.8	775
A Zone	86	2.4	7	4,028	2.3	298	4,114	2.3	305	2,832	2.2	203
Larkin	-	-	-	1,710	2.4	131	1,710	2.4	131	1,005	2.3	74
Total	269	2.5	22	16,611	2.5	1,329	16,880	2.5	1,351	12,444	2.6	1,052

Table 1-2 Beta Hunt Nickel Mineral Resources at September 30, 2022 (Notes: 1, 2, 3, 6, 7, 8, 9, 10, 11)

Sept-2022 Nickel Mineral Resource	Measured			Indicated			Measured & Indicated			Inferred		
	kt	%Ni	Ni t	kt	%Ni	Ni t	kt	%Ni	Ni t	kt	%Ni	Ni t
Beta Block	-	-	-	548	2.8	15,100	548	2.8	15,100	183	2.8	5,200
Gamma Block	-	-	-	197	3.0	6,000	197	3.0	6,000	317	2.6	8,200
Total	-	-	-	745	2.8	21,100	745	2.8	21,100	500	2.7	13,400

- 1) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
- 2) The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce Mineral Reserves.
- 3) The Mineral Resource estimates include Inferred Mineral Resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is also no certainty that Inferred Mineral Resources will be converted to Measured and Indicated categories through further drilling, or into Mineral Reserves once economic considerations are applied.

- 4) The Gold Mineral Resource is estimated using a long-term gold price of US\$1,675/oz with a US:AUD exchange rate of 0.70.
- 5) The Gold Mineral Resource is reported using a 1.4 g/t Au cut-off grade.
- 6) The Nickel Mineral Resource is reported above a 1% Ni cut-off grade.
- 7) Mineral Resources are depleted for mining as of September 30, 2022 with the exception of A Zone which is depleted as of July 31, 2022.
- 8) Beta Hunt is an underground mine and to best represent “reasonable prospects of eventual economic extraction” the Mineral Resource was reported taking into account areas considered sterilized by historical mining. These areas were depleted from the Mineral Resource.
- 9) Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add up due to rounding.
- 10) CIM Definition Standards (2014) were followed in the calculation of Mineral Resources
- 11) Gold and Nickel Mineral Resource estimates were prepared under the supervision of Qualified Person S. Devlin, FAusIMM (Group Geologist, Karora Resources).

1.5 MINERAL RESERVE ESTIMATES

Table 1-3 Beta Hunt Gold Mineral Reserves at September 30, 2022

Sep-2022 Mineral Reserve	Proven			Probable			Proven & Probable		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
Western Flanks	101	2.4	8	4,727	2.5	386	4,827	2.5	393
A Zone	14	3.2	1	1,200	2.2	85	1,214	2.2	87
Larkin	-	-	-	719	2.5	58	719	2.5	58
Total	115	2.5	9	6,646	2.5	529	6,761	2.5	538

- 1) The Mineral Reserve is reported at a 1.8g/t incremental cut-off grade
- 2) Key assumptions used in the economic evaluation include:
 - a) A metal price of US\$1,450 per oz gold and an exchange rate of 0.70 US\$:A\$
 - b) Metallurgical recovery of 94%
 - c) The cut-off grade takes into account Operating Mining, Processing/Haulage and G&A costs, excluding capital
- 3) The Mineral Reserve is depleted for all mining to September 30, 2022.
- 4) The tonnes and grades are stated to a number of significant digits reflecting the confidence of the estimate. Since each number is rounded individually, the table may show apparent inconsistencies between the sum of rounded components and the corresponding rounded total.
- 5) CIM Definition Standards (2014) were followed in the calculation of Mineral Reserves.
- 6) Gold Mineral Reserve estimates were prepared under the supervision of Qualified Person S. McLeay, FAusIMM (Entech).

1.6 OPERATIONS AND DEVELOPMENT

1.6.1 Beta Hunt

Karora has been mining gold at Beta Hunt continuously since Q4 2015. Gold is primarily mined by longhole stoping, while nickel is mined by airleg slot stoping.

In November 2018, Karora temporarily ramped-down bulk production of gold at Beta Hunt to provide drill rig access to drill-out the main shear zone hosted resources and complete an updated gold resource estimate while continuing to develop access to the resource.

Late in the first quarter of 2019, Karora announced the drilling program had sufficiently advanced to allow for commencement of a limited restart of bulk mining for gold in areas with mine development already in place. In August 2019, an updated Gold Mineral Resource was produced and was the basis of the maiden Gold Mineral Reserve completed in December 2019. This Gold Mineral Reserve was updated in December 2020 and has facilitated a full ramp-up in ore

production to approximately 90 kt/month. Karora is also mining remnant nickel resources on a small scale at Beta Hunt.

There is a limited requirement for site infrastructure as processing of both gold and nickel mineralization is conducted off-site. Gold mineralization is processed at Karora's 1.6 Mtpa Higginsville Gold Operation, located 80 km south by road and the recently acquired Lakewood Processing Facility located 56 km by road north of Beta Hunt. Nickel mineralization processing is bound by the terms of the Ore Tolling and Concentrate Purchase Agreement ("OTCPA") with BHP Billiton Nickel West Pty Ltd ("BHP"). Beta Hunt nickel ore is currently processed at their Kambalda Nickel Concentrator under the OTCPA Agreement.

1.6.2 Higginsville Processing Facility

The Higginsville Processing Facility has been in operation since July 2008, and local mill feed variability is well understood. Beta Hunt mineralisation has been received and milled at this facility since HGO was acquired by Karora on June 10, 2019.

The facility is a conventional carbon-in-leach ("CIL") processing plant built by GR Engineering and commissioned in 2008. Originally designed to treat 1 Mtpa, with subsequent upgrades and modifications, the plant now has the capacity to treat material up to 1.6 Mtpa.

Since acquiring the Higginsville Project in June 2019 to December 2022, the Higginsville Processing Facility has milled 2.7 Mt @ 2.7 g/t from the Beta Hunt Mine.

1.6.3 Lakewood Processing Facility

Lakewood Processing Facility has been through various iterations and owners in its life. Through ownership changes and upgrades, the facility is now a conventional CIL processing plant. Since acquisition in July 2022 to December 2022, the facility has milled 0.35 Mt @ 1.7 g/t from Beta Hunt.

1.7 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Beta Hunt is an operating mine and in possession of all required permits. As it is an underground operation with no processing plant or tailings impoundment facility on site, impact on the environment is limited. Beta Hunt benefits the local communities of Kambalda and Kalgoorlie by providing direct employment to 160 persons, most of whom reside in the two towns. The region hosts a number of operating mines and local communities are strongly supportive of the mining industry.

The Higginsville gold processing facility is in possession of all required permits. Environmental permitting and compliance requirements for mining and processing is the responsibility of Karora. The processing facility is part of the Higginsville Gold Operation which covers over 1,900 km² and has a significant disturbance footprint including tailings storage facilities, an operating processing facility, open pits, underground mines, and haul roads. All of the current workforce of approximately 132 persons is accommodated on site during their rostered-on periods. Most workers permanently reside in Perth and fly-in/fly-out ("FIFO") of Perth to attend site. The FIFO workers are supplemented by workers who reside in closer regional towns such as Norseman, Kambalda, Kalgoorlie and Esperance.

Lakewood is a gold processing facility and in possession of all required permits. Environmental permitting and compliance requirements for mining and processing is the responsibility of Karora. Of the current workforce of 20 personnel, most workers reside in either Kalgoorlie or Kambalda.

The region is located in the state of Western Australia, which was ranked as the second-best jurisdiction in the world for mining investment by the Fraser Institute in their 2018 survey.

1.8 CAPITAL AND OPERATING COSTS

Karora operations has a long history of cost information for capital and operating costs and to the extent possible, mining, processing and site administration costs were derived from actual performance data, in addition to recent supplier quotations. As such, these costs are well understood and allow enough detail for Mineral Reserves to be declared.

The following data was used to inform the cost estimate.

1.8.1 Underground

The costs are scheduled based on first principles unit costs and scheduled physicals. Fixed and variable costs have been included as appropriate. Personnel quantities (including mine management, supervision, underground personnel, and maintenance) have been calculated from the activity required in the scheduled physicals and used to calculate salaries, wages, on costs, flights, and accommodation.

Capital costs include non-sustaining capital for ventilation infrastructure upgrades and new equipment, and sustaining capital in the form of mine development extending the decline, ventilation and electrical network as the mine is developed deeper.

1.8.2 Processing and TSF

The costs are scheduled based on first principles unit costs and the scheduled physicals. Fixed and variable costs have been included as appropriate. Personnel quantities (including mill management, supervision, mill operators, and maintenance) have been calculated from the activity required in the scheduled physicals and used to calculate salaries, wages, on costs, flights, and accommodation.

Sustaining capital expenditure is allocated for tailings lifts, plant and process improvements including process optimisation, ongoing processing equipment costs (replacements, rebuilds and major overhauls), and other infrastructure replacement, including water security and electrical infrastructure.

1.8.3 General and Administration

The costs are scheduled based on first principles unit costs and scheduled physicals. Fixed and variable costs have been included as appropriate. Personnel quantities have been calculated from the activity required in the scheduled physicals and used to calculate salaries and wages.

1.8.4 Royalties

Gross Royalties are calculated as respective percentage of block revenue less all relevant deductions applicable to that royalty.

The Net Smelter Royalties calculation takes into account revenue factors, metallurgical recovery assumptions, transport costs and refining charges. The site operating costs vary between royalty and commodity and can include mining cost, processing cost, relevant site, transport, general and administration costs and relevant sustaining capital costs.

1.8.5 Closure Costs

Closure costs are based on detailed estimates prepared under the mine closure plan.

1.9 CONCLUSION AND RECOMMENDATIONS

Beta Hunt Mine is an established operation with a long history to support development of plans to exploit the available Mineral Resources. The updated Gold Mineral Reserves are sufficient for the medium term. A substantial effort combining direct underground exploration, underground drilling, and surface drilling will be necessary to sustain the mine and continually expand resources and reserves of gold and nickel.

Specific recommendations for Beta Hunt include:

- Using the security of the Gold Mineral Reserve to develop medium- to long-term improvements in operational performance and costs, and also to provide leverage for capital investment if required.
- Develop the recently discovered Gamma Block (50C) Nickel Mineral Resource
- Produce Nickel Mineral Reserves to support ongoing investment into nickel mining.
- Develop Mineral Resources for the Fletcher Zone and the newly discovered Mason Zone by supporting a resource definition drilling program to infill wide spaced drill intersections recorded in 2022.
- Continue to evaluate and test with drilling the gold and nickel exploration potential at Beta Hunt.

2 INTRODUCTION

Karora Resources Inc (Karora or the “Company”) is a Toronto headquartered mineral resource company focused on the exploration, development and acquisition of base and precious metals properties. The Company, previously called Royal Nickel Corporation, commenced trading under the new name of Karora Resources Inc on June 17, 2020. Karora acquired 100% of the underground Beta Hunt Mine through a staged acquisition process in 2016 and later acquired the Higginsville Gold Operations from Westgold in June 2019. The Company expanded HGO through the acquisition of the Spargos Reward Project on August 7, 2020. More recently, the Company acquired the Lakewood Gold Mill in July, 2022. The Company currently operates the Beta Hunt, HGO and Lakewood properties as an integrated operation with both mine properties feeding the Higginsville gold processing facility and Lakewood gold processing facility.

This Technical Report has been prepared by Karora following completion of updated Mineral Resources and Reserves for Beta Hunt effective September 30, 2022.

The Company has reported the Beta Hunt Mineral Resources and Reserve estimations under The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 Edition (the “JORC Code”). There are no material differences between the definitions of “Mineral Resource” and “Mineral Reserve” under the applicable definitions adopted by the Canadian Institute of Mining, Metallurgy and Petroleum (the “CIM Definition Standards”) and the corresponding equivalent definitions in the JORC Code.

This Technical Report supports the updated Beta Hunt Mineral Resource and Reserve estimations and has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 (“NI 43-101”), Companion Policy 43-101CP and Form 43-101F1.

2.1 REPORT CONTRIBUTORS AND QUALIFIED PERSON

The Technical Report was assembled by Qualified Person (“QP”) Stephen Devlin. The details of all QPs and contributors are summarised in Table 2-1, along with dates that each QP and contributor visited the Operation.

Table 2-1 Persons who prepared or contributed to this Technical Report

Name	Position	Employer	Independent	Operation Visit Date	Professional Designation	Contribution (section)
QUALIFIED PERSON RESPONSIBLE FOR THE PREPARATION AND SIGNING OF THIS TECHNICAL REPORT						
Stephen Devlin	Group Geologist, Exploration and Growth	Karora	No	Feb 2023	FAusIMM	All sections except 15, 16, 21
Shane McLeay	Principal Mining Engineer	Entech	Yes	Jun 2014	Eng Mining (Hons) FAusIMM AWASM	15, 16, 21.1, 21.2
OTHER PERSONS WHO ASSISTED THE QUALIFIED PERSON						
Paul Ellison	Principal Mine Geologist	Karora	No	Employed Beta Hunt	MAusIMM	14

Name	Position	Employer	Independent	Operation Visit Date	Professional Designation	Contribution (section)
Peter Litic	Database Manager	Karora	No	Numerous Last visit Feb 2023	Grad Dip (GIS)	10, 11
Glenn Reitsema	Principal Mining Engineer	Karora	No	Feb 2023	MAusIMM	15, 16, 21
Farai Chombo	Underground Manager	Karora	No	Full time at Beta Hunt	Mining Engineer	15, 16, 21
John Leddy	Senior Advisor, Legal & Strategic Matters	Karora	No	May, 2022	Lawyer – Member of Law Society of Ontario	4.3
Shannon Hudson	Processing Manager, Karora Operations	Karora	No	June 2022	Dip in Business	13,17
Ross Moger	Senior Mining Engineer	Entech	Yes	Nil	Mining Engineer	15, 16, 21
Alex Ruschmann	Manager - Environment	Karora	No	Employed Corporate	BSc (Hons) (Biological, Environmental & Marine)	4, 6, 18, 20
Rob Buchanan	Director, Investor Relations	Karora	No	Nil	BSc, CPIR, GCB.D	22
Ingvar Kirchner	Geology and Corporate Manager, Perth	AMC Consultants	Yes	Nil	FAusIMM, MAIG	14.3 (Beta Hunt Nickel)
Dmitry Pertel	Principal Geologist	AMC Consultants	Yes	Nil	MAIG	14.3 (Beta Hunt Nickel)

3 RELIANCE ON OTHER EXPERTS

The authors of this report have assumed and relied on the fact that all the information and technical documents listed in Chapter 27 titled References, are accurate and complete in all material aspects. While the authors have carefully reviewed, within the scope of their technical expertise, all the available information presented to them, they cannot guarantee its accuracy and completeness. The authors reserve the right, but will not be obligated to, revise the Technical Report and its conclusions if additional information becomes known to them subsequent to the effective date of this report.

The authors are not experts with respect to legal, socio-economic, land title, or political issues, and are therefore not qualified to comment on issues related to the status of permitting, legal agreements, and royalties.

Information related to these matters has been provided directly by Karora and include, without limitation, validity of mineral tenure, status of environmental and other liabilities, and permitting to allow completion of annual assessment work.

These matters were not independently verified by the QPs, but appear to be reasonable representations that are suitable for inclusion in this report. Furthermore, the authors have not attempted to verify the legal status of the property; however, the Department of Mines, Industry Regulation and Safety (“DMIRS”) reports that Karora’s mineral claims are active and in good standing at the effective date of this report.

Information sources and other parties relied upon to provide technical content and review are shown in Table 3.1.

Table 3-1 Other parties relied upon to provide technical content to this Technical Report

Information supplied	Other parties	Section
Ownership, title, social and environmental studies and information	Karora	1, 2, 4, 6, 7, 9, 10, 20
Infrastructure capital and operating estimates	Karora	1, 18, 21, 22
Market studies & contracts	Karora	1, 4, 19

4 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

4.1.1 Beta Hunt

Beta Hunt is an underground mine located 2 km southeast of Kambalda and 60 km south of Kalgoorlie in Western Australia (Figure 4-1).

The original mine portal is located on the northern edge of Lake Lefroy at latitude 31°13'6"S and longitude 121°40'50"E. Kambalda has been a nickel mining centre since the discovery of nickel sulphides by WMC in 1966. The second portal, completed in 2022, is located just 400 m to the west to make use of a central run of mine ("ROM") pad.

The Project consists of the underground mine and related surface facilities to support underground operations. There are no processing facilities on site. Run of mine gold production is processed at Karora's 1.6 Mtpa gold processing facility located 80 km south by road from Beta Hunt and at the recently acquired 1.0 Mtpa Lakewood Gold Processing Facility located 56 km north by road from Beta Hunt. Nickel mineralisation is sold to BHP under an ore tolling and purchase agreement.

4.1.2 Higginsville Gold Processing Facility

The Higginsville Gold Processing Facility comprises a 1.6 Mtpa mill and is located 57 km south of Beta Hunt and 107 km south of the regional mining centre of Kalgoorlie-Boulder. The processing facility is accessed via the Coolgardie-Esperance Highway, which is located 1.2 km southwest of HGO.

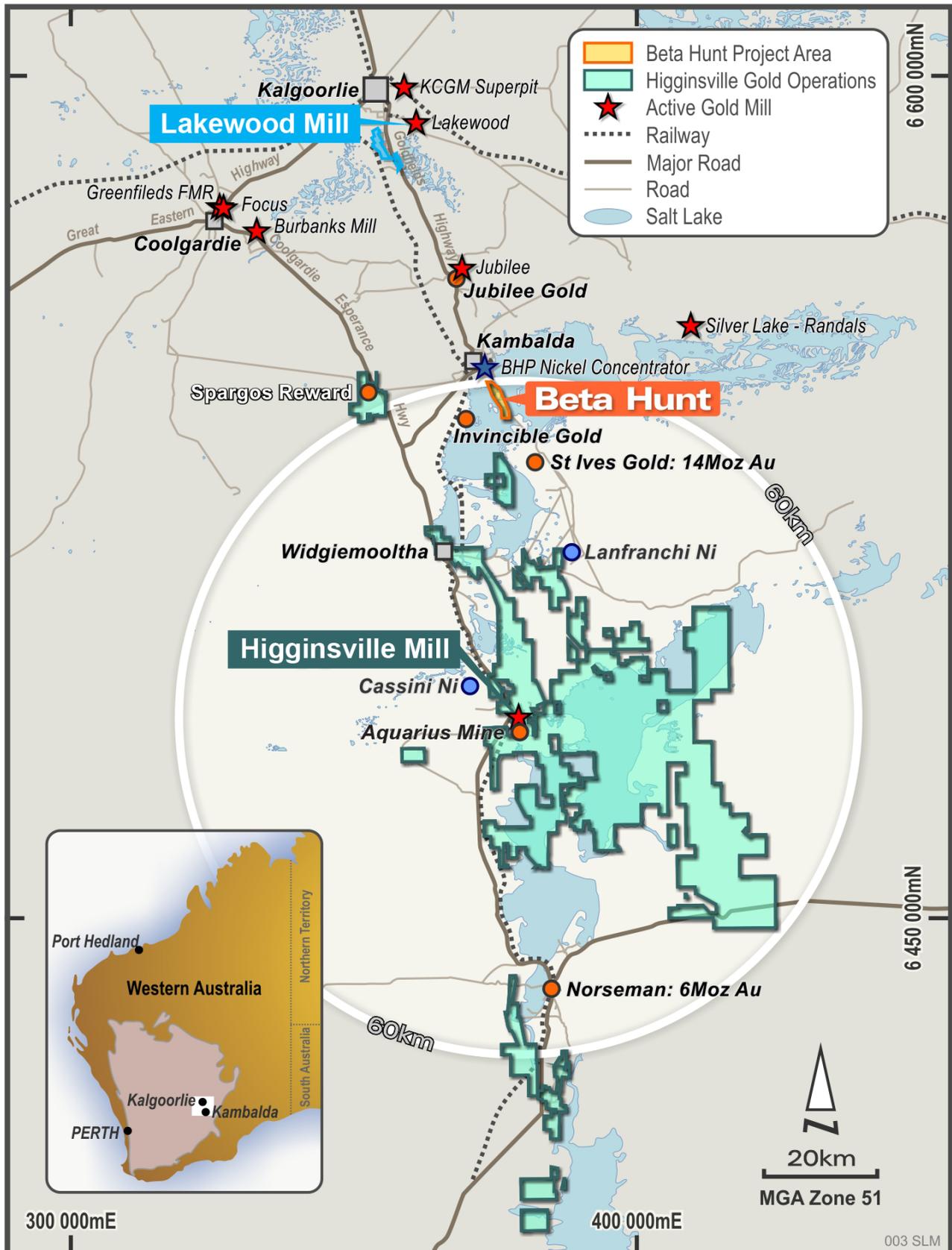
4.1.3 Lakewood Gold Processing Facility

Lakewood is approximately 4 km southeast of the City of Kalgoorlie-Boulder which is the nearest occupied townsite.

The Lakewood Gold Processing Facility ("GPF") is located within a historical gold treatment area adjacent to the famous "Golden Mile". The site and its immediate surrounds have been subject to extensive historic disturbance from the early 1900s including timber cutting, town site development, mining, and tailings stockpiling. The main access to the Lakewood GPF is from the Goldfields Highway via the public Mt Monger Road and gazetted Lakewood Gold Processing Facility Access Road.

Figure 4-1 Beta Hunt location map

Source: Karora



4.2 MINERAL TENURE

4.2.1 Beta Hunt

Karora owns the mining rights for the Beta Hunt Mine through a sub-lease agreement with SIGMC, which gives Karora the right to explore for and mine nickel and gold within the Beta Hunt sub-lease area (Figure 4-2). Mineral tenure information is provided in Table 4-1 and Table 4-2. The Beta Hunt sub-lease covers partial mining leases for a total area of 960.4 ha. Karora's rights within the sub-lease boundary only extend below a given elevation (the "Exploitable Area"). These elevations are given in Table 4-3.

Figure 4-2 Land tenure map

Source: Karora

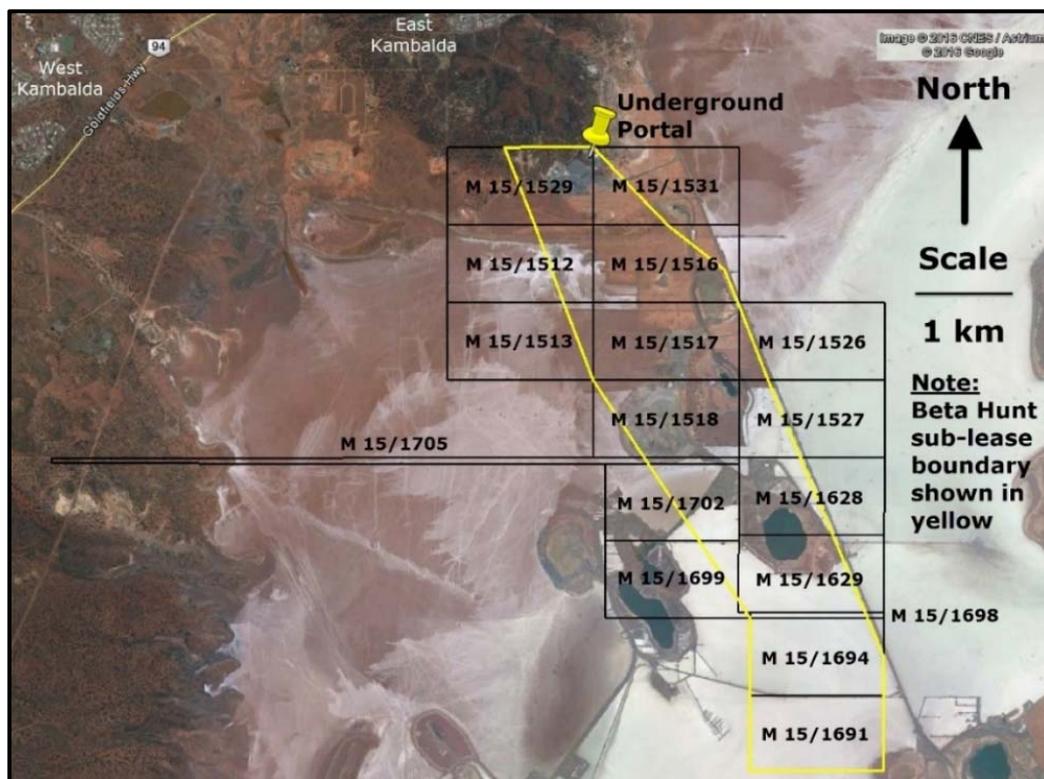


Table 4-1 Beta Hunt mineral tenure information

Mineral Lease	Holder	Area	Unit	Rent ⁽¹⁾	Commitment ⁽¹⁾	Grant Date	Expiry Date
M15/1512	SIGMC	121.35	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1513	SIGMC	121.20	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1516	SIGMC	121.35	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1517	SIGMC	121.45	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1518	SIGMC	121.35	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1526	SIGMC	121.45	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1527	SIGMC	121.35	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025

Mineral Lease	Holder	Area	Unit	Rent ⁽¹⁾	Commitment ⁽¹⁾	Grant Date	Expiry Date
M15/1529	SIGMC	121.40	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1531	SIGMC	121.35	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1628	SIGMC	121.35	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1629	SIGMC	121.35	ha	\$2,928	\$12,200	Dec 24, 2004	Dec 23, 2025
M15/1691	SIGMC	108.15	ha	\$2,616	\$10,900	Dec 24, 2004	Dec 23, 2025
M15/1694	SIGMC	110.85	ha	\$2,664	\$11,100	Dec 24, 2004	Dec 23, 2025
M15/1698	SIGMC	7.74	ha	\$192	\$10,000	Dec 24, 2004	Dec 23, 2025
M15/1699	SIGMC	110.95	ha	\$2,664	\$11,100	Dec 24, 2004	Dec 23, 2025
M15/1702	SIGMC	110.40	ha	\$2,664	\$11,100	Dec 24, 2004	Dec 23, 2025
M15/1705	SIGMC	42.39	ha	\$1032	\$10,000	Dec 24, 2004	Dec 23, 2025

1) Rent and commitment are for 2020/2021 and are given on 100% basis. Karora share of rent is 20%.

Table 4-2 Beta Hunt sub-lease boundary coordinates

Point	MGA ¹ Easting	MGA ⁽¹⁾ Northing	Description
1	373444.00	6545542.58	Northwest corner of the Beta Hunt tenements
2	374362.31	6545554.50	Proceeding clockwise
3	375140.42	6544759.86	
4	375140.42	6544759.86	
5	375734.91	6544302.81	
6	375878.32	6543963.21	
7	376198.45	6543164.84	
8	376198.45	6543164.84	
9	377430.80	6540304.10	
10	377444.19	6539128.98	
11	376062.00	6539112.39	
12	376043.00	6540694.35	
13	374389.63	6543141.00	
14	374389.63	6543141.00	
15	374073.73	6543941.59	
16	373767.27	6544742.02	
17	373767.27	6544742.02	
18	373444.00	6545542.58	Northwest corner of the Beta Hunt tenements

1) Map Grid of Australia, Zone 51, GDA94 Datum

Table 4-3 Beta Hunt sub-lease exploitable area

Mineral Lease	Exploitable Area (begins below elevation Australian Height Datum metres)
M 15/1512	Linear decrease from northern limit of the tenement to southern limit of the tenement, being from 200 to zero
M 15/1513	0
M 15/1516	Linear decrease from northern limit of the tenement to southern limit of the tenement, being from 200 to zero
M 15/1517	0
M 15/1518	-100
M 15/1526	0
M 15/1527	-100
M 15/1529	At and below surface
M 15/1531	At and below surface
M 15/1628	-100
M 15/1629	-100
M 15/1691	-100
M 15/1694	-100
M 15/1698	-100
M 15/1699	-100
M 15/1702	-100
M 15/1705	-100

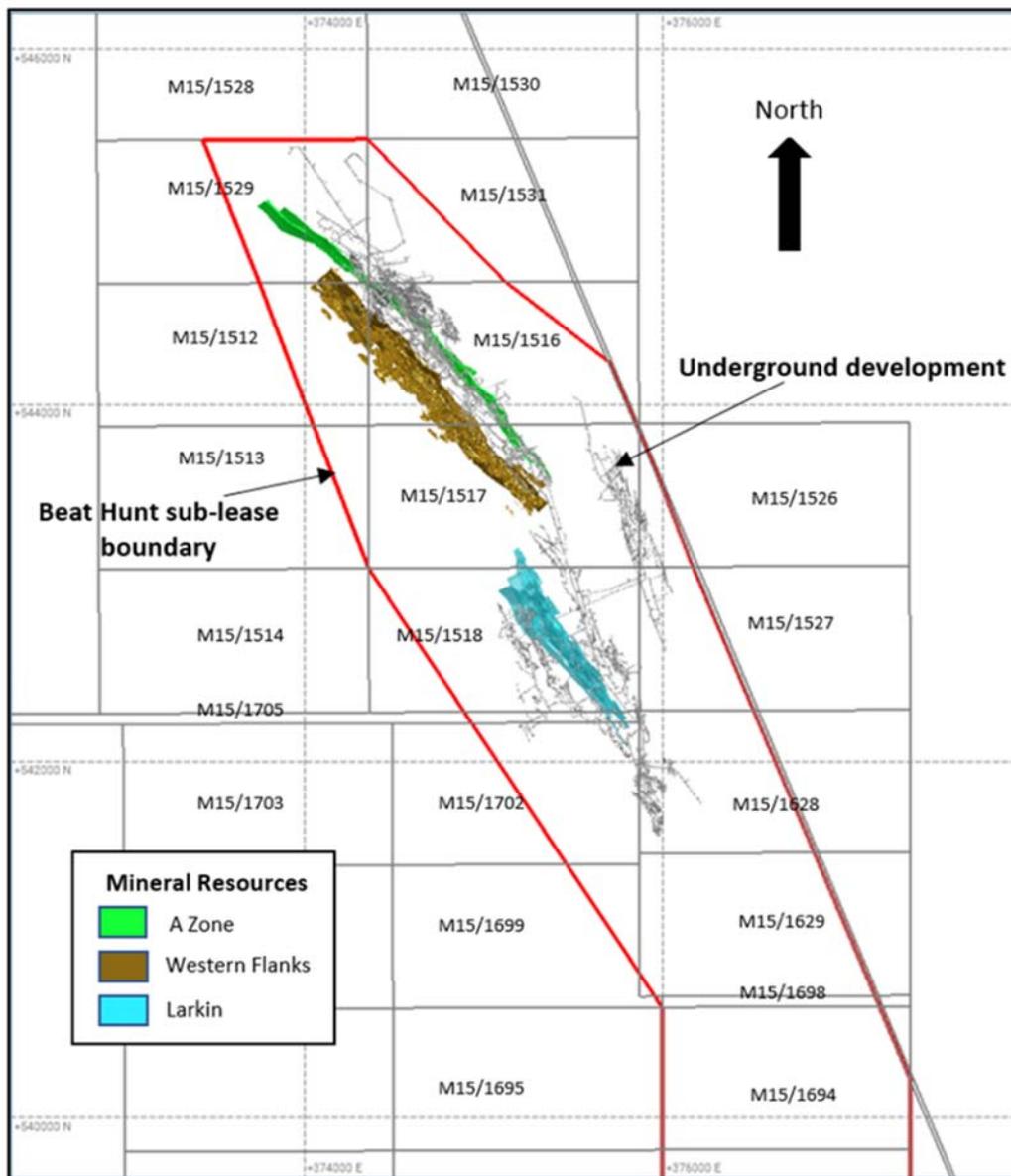
SIGMC is the registered holder of the mineral leases that are all situated on unallocated Crown Land.

The main components of the existing surface infrastructure are situated on mining leases M15/1529 and M15/1531. The existing underground infrastructure at Beta Hunt is located within mineral leases M15/1529, M15/1531, M15/1512, M15/1516, M15/1517, M15/1526, M15/1518, M15/1527, M15/1705, M15/1702 and M15/1628.

The Gold Mineral Resource is located on mineral leases M15/1529, M15/1531, M15/1512, M15/1516, M15/1517 and M15/1518 (Figure 4-3).

Figure 4-3 Beta Hunt sub-lease boundary, mineral leases and gold Mineral Resources

Source: Karora



4.2.2 Higginsville Processing Facility

The Higginsville Processing Facility and associated infrastructure is located on four leases owned by Karora (Table 4-4, Figure 4-4). The Processing Facility is part of the Higginsville Gold Operation comprising 263 tenements for a total area of approximately 1,900 km² (live and pending leases).

There is an expenditure commitment for tenements as well as rent payable to the DMIRS and local rates. There is also an annual reporting requirement for each tenement or group of tenements, as set out in the *Mining Act 1978 (WA)* ("Mining Act").

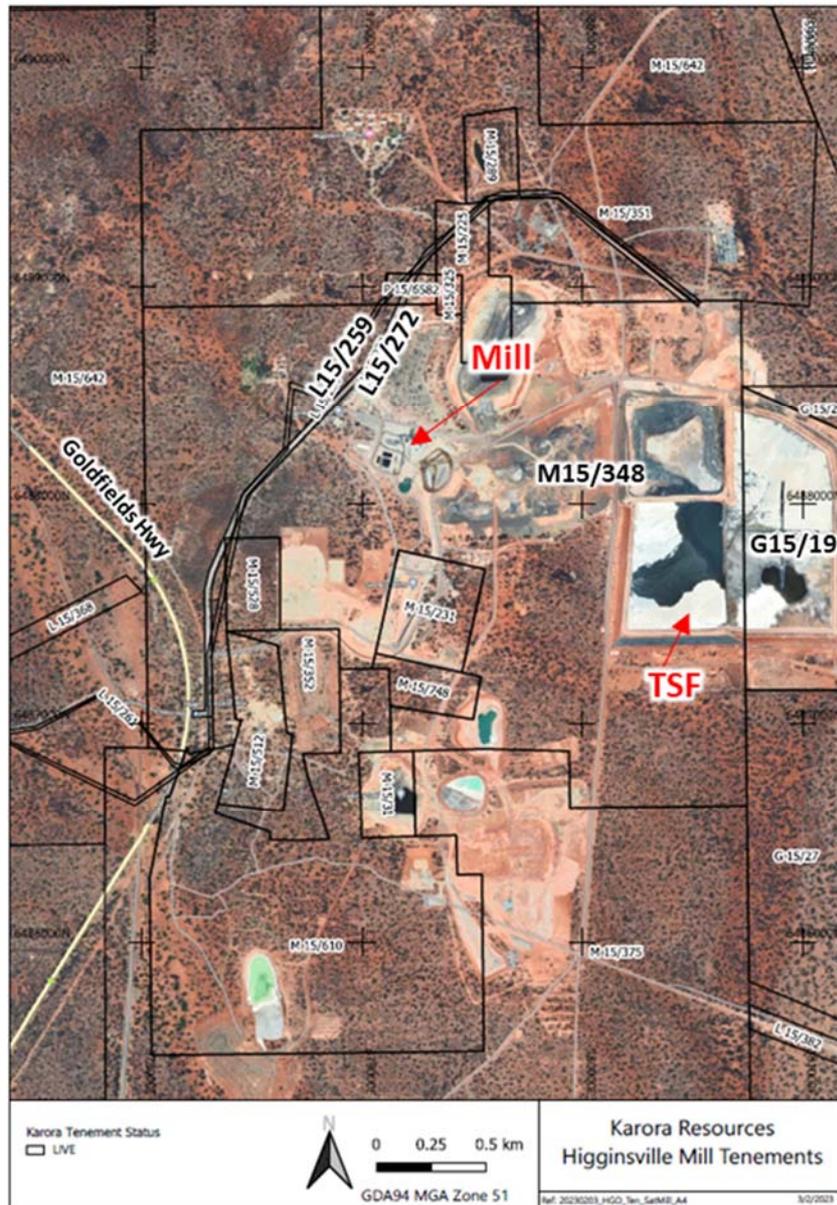
The tenements at Higginsville are currently in good standing supported by Karora's strong compliance with regulatory reporting requirements and relevant operating conditions of licences and permits.

Table 4-4 HGO tenements associated with Higginsville Processing Facility

Mineral Lease	Status	Holder	Area ha (approx.)	Rent	Commitment	Grant Date	Expiry Date
M15/348	Live	Avoca Mining Pty Ltd	495	11,880	49,500	25 Mar 1988	24 Mar 2030
G15/19	Live	Avoca Mining Pty Ltd	66	1452	-	3 Oct 2007	2 Oct 2028
L15/272	Live	Avoca Mining Pty Ltd	12	264	-	9 Aug 2006	8 Aug 2027
L15/259	Live	Avoca Mining Pty Ltd	28	552	-	2 June, 2006	1 June 2027

Figure 4-4 Higginsville Processing Facility tenure map highlighting associated leases M15/348, G15/19, L15/259 and L15/272.

Source: Karora



4.2.3 Lakewood Gold Processing Facility

The Lakewood GPF and associated infrastructure is located on four leases owned by Karora (Table 4-5, Figure 4-5). The processing facility was acquired from Golden Mile Milling Pty Ltd (“GMM”) in July 2022.

There is an expenditure commitment for tenements as well as rent payable to the DMIRS and local rates. There is also an annual reporting requirement for each tenement or group of tenements, as set out in the Mining Act.

The tenements at Lakewood are currently in good standing. DMIRS recently approved the mining proposal for the expansion of the Lakewood GPF to construct a new TSF 2 for tailings impoundment and to increase the total production rate.

Table 4-5 Mineral tenure information for Lakewood Processing Facility

Mineral Lease	Status	Holder ¹ .	Area ha (approx.)	Rent	Commitment	Grant Date	Expiry Date	Royalties
M 26/242	Live	Golden Mile Milling Pty Ltd	142	\$3,408	\$14,200	18 Oct 1988	17 Oct 2030	Nil
M 26/367	Live	Golden Mile Milling Pty Ltd	2	\$72	\$5,000	12 May 1993	11 May 2035	Nil
L26/293	Live	Golden Mile Milling Pty Ltd	3.6	\$88	N/A	25 Jul 2022	24 Jul 2043	Nil
L26/234	Live	Golden Mile Milling Pty Ltd	33	\$726	N/A	03 Apr 2008	02 Apr 2029	Nil

- 1) Karora has lodged the application to transfer the tenement holder from GMM to Lakewood Mining Pty Ltd.

Figure 4-5 Lakewood Processing Facility tenure map

Source: Karora



4.3 UNDERLYING AGREEMENTS

4.3.1 Beta Hunt

4.3.1.1 Sub-Lease

Karora operates the Beta Hunt Mine through a sub-lease agreement with SIGMC. The sub-lease grants Karora, via its wholly owned subsidiary SLM, the right to exploit gold and nickel mineralisation on the sub-lease property free from encumbrances other than the royalties discussed below and certain other permitted encumbrances.

SLM purchased the Beta Hunt sub-lease nickel rights from Consolidated Nickel Kambalda Operations (“CNKO”) in 2013. The gold rights to the sub-lease were acquired separately from SIGMC in 2014.

On an annual basis Karora must pay to SIGMC 20% of:

- All rent payable by SIGMC in respect of each sub-lease tenement;
- All local government rates; and
- All land or property taxes.

4.3.1.2 Royalties

Karora pays the following royalties on nickel production to:

- The state government equal to 2.5% of recovered nickel; and
- Third parties equal to 4.5% of payable nickel when prices are less than \$17,500/t nickel and 6.5% when prices are greater than or equal to \$17,500/t (capped at \$16,000,000).

Karora pays the following royalties on gold production to:

- The state government equal to 2.5% of recovered gold; and
- Third parties equal to 4.75% of recovered gold less allowable deductions.

4.3.2 Higginsville Processing Facility

No third-party agreements are in place covering the processing of Beta Hunt mineralisation.

4.3.3 Lakewood Gold Processing Facility

No third-party agreements are in place covering processing of Beta Hunt mineralisation.

4.4 ENVIRONMENTAL CONSIDERATIONS

4.4.1 Beta Hunt

Karora is responsible for satisfying all rehabilitation obligations arising on or after July 25, 2013 on the Beta Hunt sub-lease that have arisen as a result of the activities of Karora and CNKO. However, Karora is not required to restore or rehabilitate the area to a condition that is better than that existing on July 25, 2003 as determined by the environmental audit conducted at that time. SIGMC is responsible for all other rehabilitation obligations. An independent audit and mine closure estimate prepared in 2018 by consultant MBS Environmental estimated the current rehabilitation liability accruing to Karora for the Beta Hunt sub-lease at \$881,000. In 2022, the disturbance area at Beta Hunt increased due to construction activities to raise underground

production rates. The new estimate rehabilitation liability at Beta Hunt for the end of 2022 was \$1,270,560.

Karora advises that there are no other outstanding significant environmental issues.

Additional detail on environmental considerations is provided in Section 20.

4.4.2 Higginsville

Karora is responsible for satisfying all rehabilitation obligations arising post the acquisition date of June 10, 2019. Karora is required to report annually the estimated rehabilitation liability for Higginsville. At the end of 2022, the estimate rehabilitation liability for Higginsville was \$26,769,885. The Higginsville rehabilitation liability estimate also includes mining activities for the extraction of ore, and the liability associated with the mill and tailings impoundment structures is significantly less.

Additional detail on environmental considerations is provided in Section 20.

4.4.3 Lakewood

Karora is responsible for satisfying all rehabilitation obligations at the Lakewood GPF since the site has been operational. Karora completed a new rehabilitation liability estimate for Lakewood GPF for the end of 2022. The review incorporated all known disturbance that has occurred on the associated tenure. The estimate rehabilitation liability for Lakewood was \$3,989,469 at the end of 2022.

4.5 PERMITS AND AUTHORISATION

4.5.1 Beta Hunt

All permits required to operate at Beta Hunt have been granted as follows:

- Government of Western Australia, Department of Mines, Industrial Regulation and Safety, approval under the *Mining Act 1978* – Mining Proposal for Beta Hunt (Reg ID: 101317);
- Government of Western Australia, Department of Water and Environmental Regulation, license under Part V of the *Environmental Protection Act 1986* – Licence for Prescribed Premises – License No. L8893/2015/2;
- Government of Western Australia, Department of Mines, Industry Regulation and Safety – Explosives Storage License ETS002668;
- Government of Western Australia, Department of Mines, Industry Regulation and Safety – In House Electrical Installing Work License No. IH050755; and
- Australian Government, Australian Communications and Media Authority Communications Licenses, No. 1622564/1, No.1143363/1, No.1189842, No. 162256/1 and No. 162256/1.

4.5.2 Higginsville Processing Facility

All permits required to operate the processing facility at Higginsville have been granted as follows:

- Government of Western Australia, Department of Mines, Industrial Regulation and Safety, approval under the *Mining Act 1978* – Mining Proposal for TSF2-4 Stage Lift (Reg ID: 89038);
- Government of Western Australia, Department of Mines, Industrial Regulation and Safety, approval under the *Mining Act 1978* – Higginsville Mine Closure Plan (Reg ID: 88901);

- Government of Western Australia, Department of Water and Environmental Regulation, license under Part V of the *Environmental Protection Act 1986* – Licence for Prescribed Premises – Licence No. L9155/2018/1; and
- Government of Western Australia, Department of Water and Environmental Regulation, license under section 5C of the *Rights in Water and Irrigation Act 1914* - Licence to Take Water GWL160795(8).

4.5.3 Lakewood Gold Processing Facility

All environmental permits required to operate the processing facility at Lakewood have been granted as follows:

- Government of Western Australia, Department of Mines, Industrial Regulation and Safety, approval under the *Mining Act 1978* – Mining Proposal for Lakewood Gold Processing Facility (Reg ID: 111925);
- Government of Western Australia, Department of Mines, Industrial Regulation and Safety, approval under the *Mining Act 1978* – Lakewood GPF Closure Plan (Reg ID: 111925);
- Government of Western Australia, Department of Water and Environmental Regulation, license under Part V of the *Environmental Protection Act 1986* – Licence for Prescribed Premises – Licence No. L9124/2018/1; and
- Government of Western Australia, Department of Water and Environmental Regulation, license under section 5C of the *Rights in Water and Irrigation Act 1914* - Licences to Take Water GWL203328(2) and GWL203329(2).

4.6 MINING RIGHTS IN WESTERN AUSTRALIA

4.6.1 Mining Tenements

Under section 9 of the Mining Act, all gold, silver, other precious metals, and other minerals are generally the property of the Crown. In Western Australia, a Mining Lease is considered to be the primary approval required for major mineral development projects as it authorises the holder to mine for, and dispose of, minerals on the land over which the lease is granted.

The mining tenements subject to the Beta Hunt sub-lease (Table 4-1) and the mining tenements underlying the processing facilities at Higgsinsville and Lakewood are in good standing as of the date of this Technical Report.

The term of a Mining Lease is 21 years and may be renewed for further terms.

The lessee of a Mining Lease may work and mine the land, take and remove minerals and undertake all things necessary to effectually carry out mining operations in, on or under the land, subject to conditions of the Mining Lease and certain other exceptions under the Mining Act.

4.6.2 Native Title Act 1993

In 1992, the High Court of Australia determined in *Mabo v Queensland (No. 2)* that the common law of Australia recognised certain proprietary rights and interests of Aboriginal and Torres Strait Islander people in relation to their traditional lands and waters. In response to the Mabo decision, the *Native Title Act 1993* (Cth) (“NTA”) was enacted. “Native title” is recognised where persons claiming to hold that title can establish they have maintained a continuous connection with the land in accordance with traditional laws and customs since settlement and where those rights have not been lawfully extinguished.

The NTA codifies much of the common law in relation to native title. The doing of acts after January 1, 1994 that may affect native title (known as “future acts”), including the grant of mining tenements, are validated subject to certain procedural rights (including the “right to negotiate”) afforded to persons claiming to hold native title and whose claim has passed a “registration test” administered by the National Native Title Tribunal (which assesses the claim against certain baseline requirements).

4.6.2.1 Beta Hunt

The Beta Hunt sub-lease tenements are subject to the Marlinyu Ghoorlie claim (WC2017/007) and the Ngadju Part B claim (WCD2017/002). The claims border each other and do not overlap.

4.6.2.2 Higginsville

The HGO tenements are subject to native title determinations and claims.

As of the date of this Technical Report, the status of Native Title determinations with respect to those leases that contain the Higginsville Mill, access roads and TSF is as follows:

- Ngadju Claim (WCD2014/004, WAD6020/1998) and Ngadju B Claim (WCD2017/002, WAD6020/1998): the Federal Court of Australia has determined that the Ngadju people have native title rights and interests in relation to an area of land that includes a large number of the HGO tenements.
- Marlinyu Ghoorlie Claim (WC2017/007, WAD647/2017): the Federal Court has accepted for registration a claim by the Marlinyu Ghoorlie people over an area of land that includes a number of HGO tenements. This claim has not yet been determined.

The existence of a native title determination or a claim does not impact directly on the validity of mining tenements, nor does it impact on existing operations.

The relevant mining legislation in Western Australia contains provisions that may make a tenement holder liable for the payment of compensation for the effect of mining and exploration activities on any native title rights and interests that may still exist in the area covered by a tenement.

Karora have inherited three active mining agreements with native title groups for the grant of tenements:

- 2002 Mining Agreement: with the Ngadju People dated May 20, 2002;
- 2013 Mining Agreement: with the Ngadju People a dated June 1, 2013; and
- 2018 Mining Agreement: with Ngadju Native Title Aboriginal Corporation RNTBC, dated June 12, 2018.

4.6.3 Aboriginal Heritage Act 1972

The *Aboriginal Heritage Act 1972* (WA) (“AHA”) protects places and objects that are of significance to Aboriginal and Torres Strait Islander people in accordance with their traditional laws and customs (“Aboriginal Sites”). The AHA provides that it is an offence, for a person to damage or in any way alter an Aboriginal Site. Aboriginal heritage legislation in Western Australia is about to change. The AHA is still the overarching legislation to protect Aboriginal sites within WA, but with the introduction of the *Aboriginal Cultural Heritage Act 2021*, the AHA will be repealed after a transitional phase of at least 12 months while regulations are drafted and consultations held.

Compliance with the AHA is an express condition of all mining tenements in Western Australia. Accordingly, commission of an offence under the AHA may mean that the mining tenement is vulnerable to an order for forfeiture.

The Department of Planning Lands and Heritage (“DPLH”) Aboriginal Heritage Inquiry System (“AHIS”) provides details about Aboriginal Heritage places including:

- The location and extent of each place;
- The assessment status of each place under the AHA;
 - Aboriginal Site: The place has been assessed as meeting section 5 of the Act;
 - Other Heritage Place which includes:
 - Lodged: Information has been received, but an assessment has not been completed to determine if it meets section 5 of the Act.
 - Stored Data/Not a Site: The place has been assessed as not meeting section 5 of the Act.
- Any access restrictions to additional information the DPLH holds in relation to the place; and
- Any gender restrictions.

4.6.3.1 Beta Hunt

A search of the AHIS conducted on March 28, 2023 shows no registered sites on the four tenements (M15/1512, M15/1516, M15/1529 and M15/1531) where Karora is likely to conduct any surface disturbance.

4.6.3.2 Higginsville Processing Facility

A search of the AHIS conducted on January 23, 2023 shows there are a number of Aboriginal Sites within the HGO tenements. Based on records held by HGO, prior to the area being developed and mined, ethnographic and archaeological surveys were commissioned over HGO tenements. No sites of ethnographic or archaeological significance were recorded that would be impacted by mining operations.

Karora is a party to a number of heritage protection agreements with the Ngadju Native Title Aboriginal Corporation across HGO’s tenements.

4.6.3.3 Lakewood Gold Processing Facility

A desktop search of the AHIS for the Lakewood GPF tenements was undertaken and listed Aboriginal Sites and Other Heritage Places located within the tenements. According to the AHIS, there have been two recorded ethnographic surveys and one archaeological survey which covered the mining lease areas. The buffer areas of two registered Aboriginal Sites intersect with L26/234. No disturbance to these Aboriginal Sites is planned.

5 ACCESSIBILITY, LOCAL RESOURCES, INFRASTRUCTURE, CLIMATE AND PHYSIOGRAPHY

5.1 ACCESSIBILITY

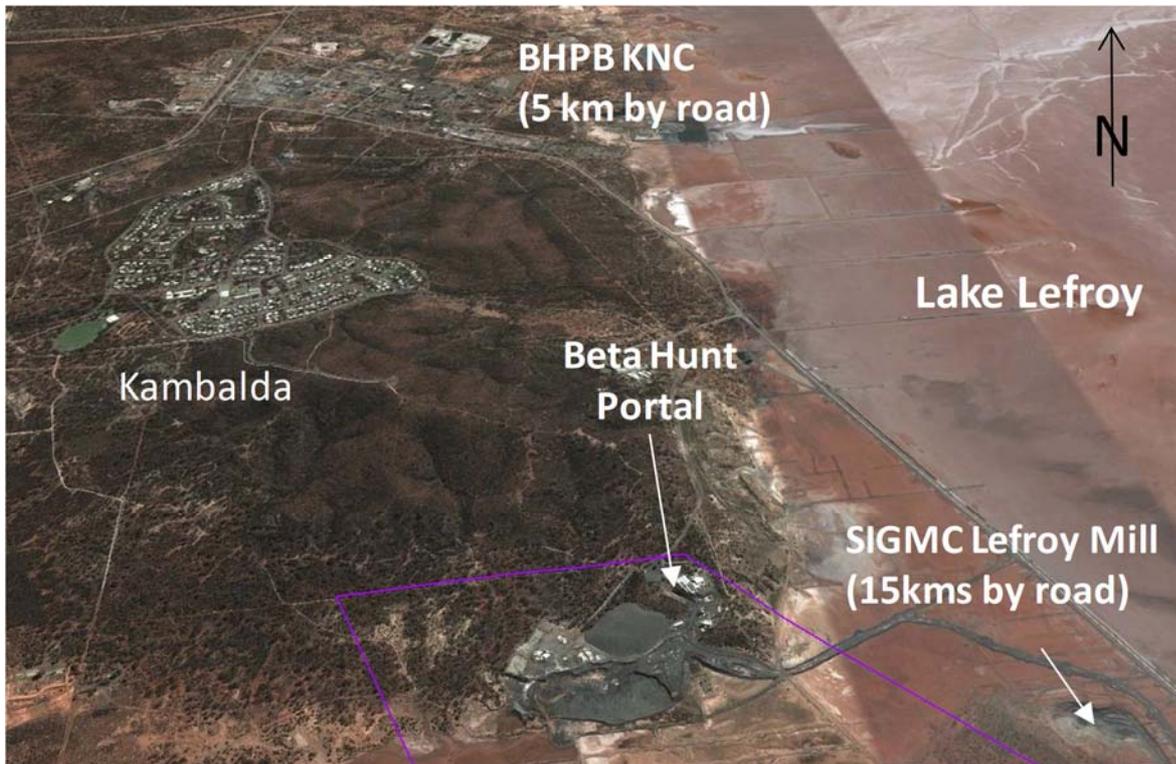
5.1.1 Beta Hunt

Beta Hunt is located 2 km south of the town centre of Kambalda East at the northern end of the Lake Lefroy Causeway. Kambalda is readily accessible from Kalgoorlie-Boulder along the sealed Goldfields Highway (60 km) and from Perth along the sealed Great Eastern Highway (630 km).

Figure 5-1 shows the road connecting the Beta Hunt mine site to the BHP Kambalda Concentrator to the north (5 km). This same road provides trucking access to the Goldfields Highway and the Coolgardie-Esperance Highway leading to the Higginsville and Lakewood Processing Facilities.

Figure 5-1 Beta Hunt Mine access - oblique aerial view

Source: Karora



5.1.2 Higginsville Processing Facility

The processing facility is adjacent to a major highway connecting the Goldfields towns of Coolgardie and Norseman. Higginsville is located in the Coolgardie Mineral Field in the Shire of Coolgardie, approximately 55 km north of Norseman and 50 km south of Kambalda.

Access to the Higginsville Processing Facility and offices is via a constructed all-weather access road (0.8 km) from the Goldfields Highway.

Figure 5-2 Higginsville Processing Facility access - oblique aerial view

Source: Karora



5.1.3 Lakewood Processing Facility

The Project is located approximately 4 km southeast of the City of Kalgoorlie-Boulder which is the nearest occupied townsite (Figure 4-1) and 65 km north by sealed road from Beta Hunt.

The Lakewood GPF is located within a historical gold treatment area adjacent to the famous “Golden Mile”. The site and its immediate surrounds have been subject to extensive historic disturbance from the early 1900s including timber cutting, town site development, mining, and tailings stockpiling.

The main access to the Lakewood GPF is from the Goldfields Highway via the public Mt Monger Road and gazetted Lakewood Gold Processing Facility Access Road. The Mt Monger Road (and Road Reserve) is located within tenements L26/234 and M26/242. Part (61.42%) of tenement L26/234 is located on the Woollibar Pastoral Station (Pastoral Lease N050022) and the Woollibar Pastoral Station Homestead is more than 25 km south of the Project.

5.2 LOCAL RESOURCES AND INFRASTRUCTURE

Kambalda has been a major nickel mining centre since the discovery of nickel sulphides by WMC in 1966. Kambalda (East and West) has a population of 2,465 (2021 Census) and is serviced from the regional hub of Kalgoorlie-Boulder, which has a population of 29,306 (2021 Census). Norseman has a population of 562 (2021 Census).

Gold was first discovered at Norseman in 1894 and was once the second-richest goldfield in Western Australia after the Golden Mile of Kalgoorlie.

There is a long history of mining in the district with a large pool of experienced mining personnel living and working in the region. The majority of the current Beta Hunt workforce of approximately

160 persons reside locally. The entire Higginsville workforce of 132 persons are FIFO workers from Perth who arrive at site by bus from Kambalda Airport. Karora runs charter flights from Perth to the Kambalda Airport on Tuesdays and Thursdays, with capacity for the entire FIFO workforce.

The Kambalda Airport provides daily chartered flights, five days a week, to the state capital of Perth. Perth is a major centre with a population in excess of 2 million and an international airport.

The Lakewood Processing Facility maintains a residential workforce of 20 persons and is located on the edge of Kalgoorlie-Boulder.

5.3 CLIMATE

The Kambalda, Higginsville and Lakewood areas experience a semi-arid climate with hot dry summers and cool winters. All three locations fall within the Kalgoorlie Province bioclimate which is described as mainly Sub-Eremaean. This is mostly a semi-desert Mediterranean climate with 9–11 dry months each year. Temperatures in the peak of summer typically range from a mean minimum temperature of 15°C to a mean maximum of 34°C. Temperatures during winter range from a mean minimum temperature of 6°C to a mean maximum of only 17°C, with occasional frosts.

Kambalda and Higginsville receive a mean annual rainfall of approximately 260 mm, although this is highly variable with records indicating “dry” years receiving only half that rainfall and “wet” years receiving up to twice the mean annual rainfall. The region experiences its driest period of the year from spring to early summer, and the wettest period of the year in autumn and winter.

The region experiences a very high annual evaporation rate, of 2,700 mm in Kalgoorlie and 1,780 mm in Norseman.

5.4 PHYSIOGRAPHY

5.4.1 Beta Hunt

The Project is situated within the Salina Physiographic Division. The most prominent geomorphological feature in the region is Lake Lefroy, a medium size salt lake lying within the Lefroy Palaeodrainage. The surface area of Lake Lefroy is approximately 55,400 ha, with an estimated catchment area of 452,800 ha. The lake is typically dry (Figure 5-3) though subject to occasional and variable levels of inundation from rainfall and surface runoff.

The northern and western shoreline of Lake Lefroy is flanked by differentially weathered greenstone units which has resulted in the development of low stony ridges with a local relief of up to 80 m and slopes ranging between 17°–48°. Erosional processes dominate the northern and western shorelines of the lake system. Narrow colluvial flats occur in between the rises, which broaden out to form low relief plains.

The Project location is near the northwestern lakeshore fringe on the lower slopes of Red Hill, several metres above the level of the surface of Lake Lefroy. The Red Hill land system is characterised by basalt hills and ridges with open acacia shrub lands and patchy eucalyptus woodland, as shown in Figure 5-4.

Figure 5-3 Typical view of Lake Lefroy

Source: Karora



Figure 5-4 Local physiography and the 1966 WMC Discovery Hole Monument Source: Karora



5.4.2 Higginsville

The Processing Facility lies within the Great Western Woodland, an area of great biological richness that extends over 16 Mha. It is regarded as the largest remaining area of intact Mediterranean climate woodland left on earth and contains about 3,000 species of flowering plants, one fifth of the known flora in Australia (SRK, 2010). Although still essentially intact, the Great Western Woodlands is under increasing pressure from feral animals, weeds, and wildfires and if not effectively managed, these influences could seriously degrade or even destroy natural and cultural values in the area. In 2013, the Department of Biodiversity, Conservation and Attractions (“DBCA”, then the Department of Environment and Conservation) released the *Great Western Woodlands Draft Strategic Weed and Feral Animal Management Plan* to identify and map priority weed and pest animal populations in the woodlands and determine the most cost-effective means of control.

5.4.3 Lakewood

The Lakewood GPF is within the Eastern Goldfields (COO03) sub-bioregion as defined by the IBRA classification system, and also lies within the Great Western Woodlands. Information below is based on a report prepared by Botanica Consulting for Karora Resources (Botanica, 2023).

5.4.3.1 Landscape

Lakewood GPF is located within the Kambalda soil-landscape Zone (265). This zone is characterised by flat to undulating plains (with hills, ranges and some salt lakes and stony plains) on greenstone and granitic rocks of the Yilgarn Craton. Soils comprise Calcareous loamy earths and red loamy earths with salt lake soils and some red-brown hardpan shallow loams and red sandy duplexes (Tille, 2006). The Lakewood GPF soil landscape is dominated by gentle undulating valley plains and pediments and some outcrop of basic rock. Around 0.4 ha of the northwest corner of tenement M40/242 extends into rocky ranges and hills of greenstones-basic igneous rocks. Part of the borefield tenement (L26/234) also extends into salt lakes and their associated areas.

5.4.3.2 Vegetation

The surrounding vegetation consists of Mallees, Acacia thickets and shrub-heaths on sandplains. Diverse Eucalyptus woodlands occur around salt lakes, on ranges, and in valleys. Salt lakes support dwarf shrublands of samphire. Woodlands and Dodonaea shrubland occur on basic granulites of the Fraser Range. The area is rich in endemic Acacias (Cowan, 2001).

6 HISTORY

6.1 BETA HUNT

6.1.1 Kambalda Nickel Camp

WMC first intersected nickel sulphide mineralisation at Red Hill in January 1966 after drilling to test a gossan outcrop grading 1% Ni and 0.3% Cu. This discovery led to delineation of the Kambalda Nickel Field where WMC identified 24 deposits hosted in structures that include the Kambalda Dome, Widgiemooltha Dome and Golden Ridge Greenstone Belt. The deposits extend 90 km from Blair in the north to Redross in the south and over an east-west distance of 30 km from Helmut to Wannaway. A single concentrator to treat ore from the various mines is centrally located, in Kambalda (now owned by BHP).

6.1.2 Beta Hunt Nickel Discovery

The Hunt nickel deposit was discovered by WMC in March 1970, during routine traverse drilling over the south end of the Kambalda Dome. The discovery hole, KD 262, intersected 2.0 m grading 6.98% Ni. Portal excavation for a decline access began in June 1973. While the decline was being developed, the Hunt orebody was accessed from the neighbouring Silver Lake mine, via a 1.15 km cross-cut on 700 level. The 700 level access is now used to provide service water to Beta Hunt. The first ore was hauled up the decline in October 1974.

6.1.3 1974–1998 WMC Operation

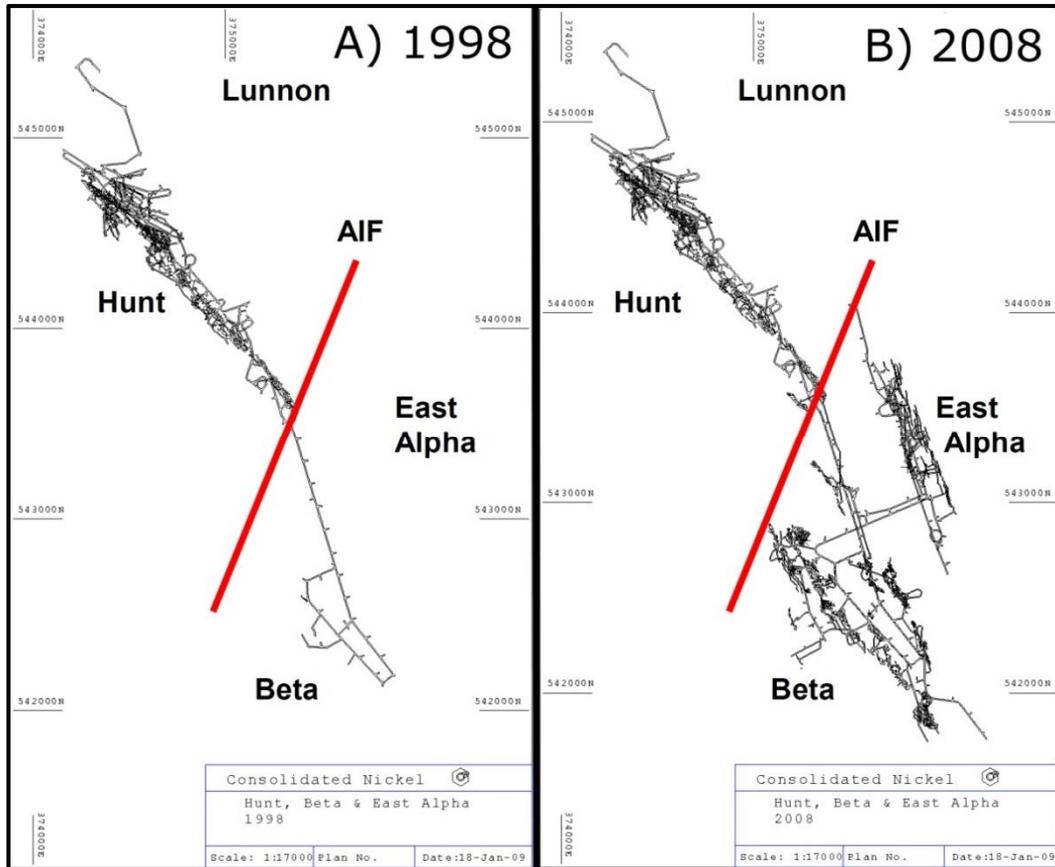
The first ore production from the decline occurred in October 1974. Over the following 14 years, WMC operated the mine periodically and extended the decline south through the Alpha Island Fault (“AIF”) to access the Beta nickel deposit. By the time production was halted in 1998 due to the Asian crisis and associated collapse in nickel prices, the Beta decline and return airway had been established. Figure 6-1A shows the mine development at the completion of the WMC operation in 1998.

Although patches of gold have been found at Hunt since nickel mining began, it was not until 1978–1979, when decline development reached the 10 and 11 levels of A Zone and the 9 and 10 levels of D Zone deeps that the presence of a major gold mineralised system was confirmed in the footwall basalt. From 1979 to 1984, development and mining of the A Zone gold orebody took place on four levels using both airlegs and jumbos, with longhole stopes being mined. Between 1979 and 1984, gold was also mined as specimen stone or in conjunction with nickel stoping operations.

As part of the divestment of non-core assets by WMC in late 2001, the tenements covering the current Beta Hunt sub-lease and all surface and underground infrastructure became the property of SIGMC, which is now part of Gold Fields Limited. SIGMC did not operate the Beta Hunt Mine.

Figure 6-1 Plan view of the Hunt, Beta and East Alpha mine development (1998 and 2008)

Source: Consolidated Nickel Kambalda Operations (2008a)



6.1.4 2003–2008 Reliance Mining/Consolidated Nickel Kambalda Operations

Reliance Mining Limited acquired rights to mine nickel on the Beta Hunt sub-lease from SIGMC in 2003 and began production in November of that year. In 2005, RML was taken over by Consolidated Minerals, and the operating company was renamed Consolidated Nickel Kambalda Operations. The new owners invested heavily in infrastructure to access the deeper mineralisation and increase the production rate, spending \$15M on the return air pass (“RAP”) and associated fans.

It is important to note that the Beta Hunt sub-lease did not include gold rights, which SIGMC retained. Consequently, no effort was made by CNKO to delineate gold resources, and there was no follow-up of gold mineralisation intersected while drilling for nickel.

CNKO conducted significant drilling to expand the resource base, resulting in discovery of the East Alpha nickel deposit. The first ore containing nickel was mined from East Alpha in March 2006. Major exploration drilling programs were undertaken at Beta and East Alpha to extend the life of these mines. Despite the success of these programs, the financial crisis and associated collapse in nickel price resulted in CNKO placing the Beta Hunt mine on care and maintenance on November 13, 2008.

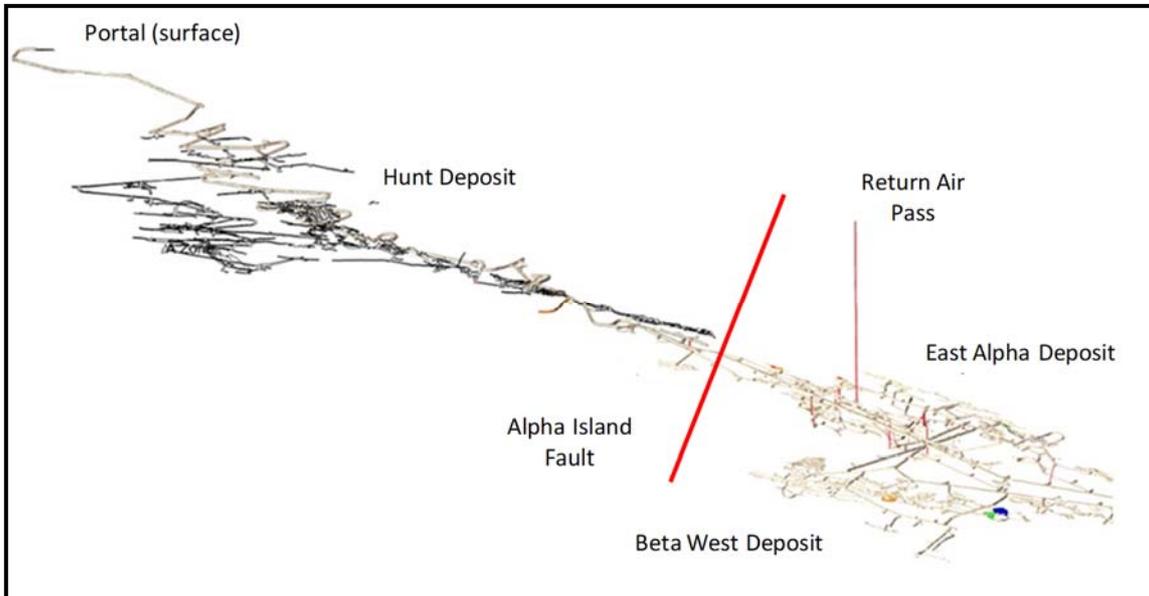
Total reconciled production for Beta and East Alpha for the period 2003 to 2008 is 652 kt grading 2.43% Ni for approximately 16 kt nickel contained in ore.

Plan views of the Hunt, Beta and East Alpha mine at the time the mine was placed on care and maintenance in 2008 are shown in Figure 6-1B.

Figure 6-2 shows an isometric schematic of the decline system and various historic zones of activity. At its deepest point, the existing decline is approximately 800 m below the portal elevation.

Figure 6-2 Isometric view of historical workings

Source: Karora



At the time that CNKO suspended mining activities in 2008, resources were updated using all available drilling results. This historical resource estimate is prepared by CNKO (2008) as presented in Table 6-1.

Table 6-1 Historical Beta Hunt Nickel Mineral Resources as at 31 December 2008

Category (1)	December 2008		
	Tonnes ('000)	% Ni	Ni Tonnes ('000)
Measured	123	4.9	6.0
Indicated	328	4.5	14.8
Inferred	416	3.7	15.4
Total	867	4.2	36.2

1) Mineral Resources reported above 1% Ni cut-off.

The discussions related to the resource in this section refer to historical estimates. The historical estimates may have been prepared according to the accepted standards for the mining industry for the period to which they refer; however, they do not comply with the current CIM standards and definitions for estimating resources and reserves as required by NI 43-101 guidelines. A qualified person has not done sufficient work to classify the historical estimates as a current resource estimate, and the issuer is not treating the historical estimates as a current resource estimate. As a result, historical estimates should not be relied upon unless they have been validated and restated to comply with the latest CIM standards and definitions.

6.1.5 2013–2016 Salt Lake Mining Operation

The Beta Hunt sub-lease was taken over from CNKO by SLM in 2013. Gold mining rights for the sub-lease were also secured by SLM from Gold Fields Limited in 2013. This consolidation of gold and nickel rights put SLM in a position to exploit the synergies of adjacent but separate nickel and gold deposits that are accessible from common mine infrastructure. The mine began producing nickel and gold in the second quarter of 2014, with gold production being temporarily halted in the third quarter before restarting in the fourth quarter of 2015.

From March 2014 to February 2016, SLM produced 221 kt of nickel ore at an average grade of 3.5% Ni (7.7 kt contained nickel) and 62 kt of gold ore at average grade of 2.8 g/t Au (5.5 koz contained gold).

Karora acquired 100% of SLM through a staged acquisition process that was completed on May 31, 2016.

6.1.6 2016 Preliminary Economic Assessment

In March 2016, Karora completed a preliminary economic assessment (“PEA”) for Beta Hunt, which is contained in a Technical Report: “NI 43-101 Technical Report Preliminary Economic Assessment – The Beta Hunt Mine, Kambalda, Western Australia” dated March 4, 2016 authored by D. Penswick and E. Haren.

The 2016 PEA nickel Mineral Resource estimate for Beta Hunt is presented in Table 6-2, and the historical gold Mineral Resource estimate is in Table 6-3.

Table 6-2 Beta Hunt Nickel Mineral Resources as at February 1, 2016

Source: 2016 PEA

Nickel (1)	Classification	Inventory (kt)	Grade (%Ni)	Contained Metal Nickel Tonnes (Ni t)
>=1% Ni	Measured	96	4.6	4,460
	Indicated	283	4.0	11,380
	Total	379	4.2	15,840
	Inferred	216	3.4	7,400

1) Nickel Mineral Resources are reported using a 1% Ni cut-off grade.

Table 6-3 Historical Beta Hunt Gold Mineral Resources as at February 1, 2016

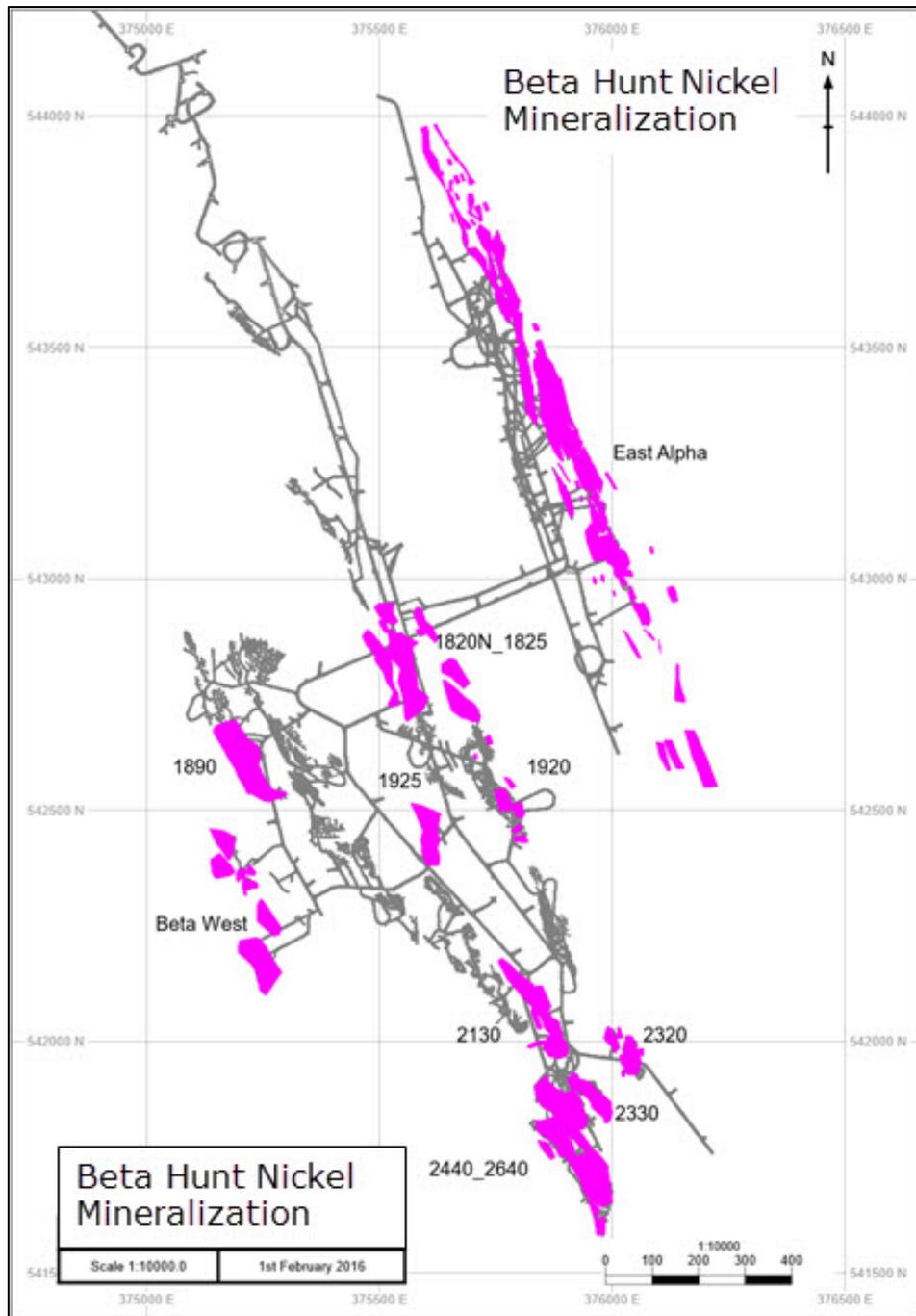
Source: 2016 PEA

Gold	Classification	Inventory (kt)	Grade (Au g/t)	Contained Metal (oz)
>=1.8 g/t Au	Measured	0	0.0	0
	Indicated	815	3.5	92,000
	Total	815	3.5	92,000
	Inferred	2,910	3.4	321,000

There are ten estimation areas that make up the 2016 Beta Hunt nickel Mineral Resource which are illustrated in the plan view location plot in Figure 6-3: 1820N_1825, 1890, 1920, 1925, 2130, 2320, 2330, 2440-2640, Beta West, and East Alpha.

Figure 6-3 Beta Hunt Nickel Mineral Resource Locations (2016)

Source: Karora (2016)



6.1.6.1 2018 Gold Mineral Resource Update

On April 26, 2018, Karora published a gold Mineral Resource estimation update for Western Flanks and A Zone effective December 31, 2017.

This historical Mineral Resource is presented in Table 6-4.

Table 6-4 Historical Beta Hunt Gold Mineral Resources as at December 31, 2017

Source: Karora

Resource (1)	Indicated			Inferred		
	kt	g/t	koz	kt	g/t	koz
A Zone	672	3.4	75	997	3.1	97
Western Flanks	1,513	3.0	145	812	3.3	85
Western Flanks East (A Zone Sth)	136	3.7	16	84	3.3	9
Beta	32	3.3	3	147	3.4	16
Total	2,353	3.2	239	2,040	3.2	207

1) Gold Mineral Resources are reported using a 1.8 g/t Au cut-off grade.

6.1.6.2 2019 Gold Resource

On August 12, 2019, Karora filed a Technical Report titled “Technical Report on The Beta Hunt Mine Kambalda, Western Australia” containing a gold Mineral Resource estimation update for Western Flanks effective June 28, 2019 and for A Zone effective August 9, 2019.

In September 2019, Karora refiled the Technical Report for Beta Hunt titled “Technical Report Western Australia Operations – Eastern Goldfields: Beta Hunt Mine (Kambalda) and Higginsville Gold Operations (Higginsville)” dated September 17, 2019 to include disclosure related to HGO as part of Operations. There were no changes to any material conclusions or recommendations outlined in the original report with respect to Beta Hunt with an effective date of August 12, 2019.

Table 6-5 Historical Beta Hunt Gold Mineral Resources as reported August 12, 2019.

Source: Karora

Resource	Measured			Indicated			Measured & Indicated			Inferred		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
Western Flanks	447	2.8	40	7,001	3.0	670	7,448	3.0	710	2481	3.1	250
A Zone	254	2.7	22	2,403	2.7	212	2,657	2.7	234	1,628	3.0	156
Total	701	2.8	62	9,404	2.9	882	10,105	2.9	944	4,109	3.1	406

6.1.6.3 2020 Gold and Nickel Mineral Resource

On December 16, 2020, Karora announced updated Mineral Resources and Reserves for Beta Hunt and Higginsville. On February 3, 2021 (amended), Karora filed the Technical Report titled “Higginsville-Beta Hunt Operation, Eastern Goldfields, Western Australia” with an effective date of September 30, 2020.

Table 6-6 Historical Beta Hunt Gold Mineral Resources as reported December 16, 2020

Sept-2020 Mineral Resource	Measured			Indicated			Measured & Indicated			Inferred		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
Western Flanks	451	2.4	35	8,816	2.8	800	9,267	2.8	835	4,133	2.7	360
A Zone	180	2.4	14	2,553	2.5	206	2,733	2.5	220	2,013	2.7	177
Total	630	2.4	49	11,369	2.8	1,006	11,999	2.7	1,055	6,146	2.7	537

Table 6-7 Historical Beta Hunt Nickel Mineral Resources as reported December 16, 2020

Sept-2020 Mineral Resource	Measured			Indicated			Measured & Indicated			Inferred		
	kt	% Ni	Ni t	kt	% Ni	Ni t	kt	% Ni	Ni t	kt	% Ni	Ni t
Beta	-	-	-	286	2.6%	7,480	286	2.6%	7,480	216	2.7%	5,830
East Alpha	-	-	-	276	3.1%	8,620	276	3.1%	8,620	98	2.9%	2,850
Total	-	-	-	561	0	16,100	561	0	16,100	314	0	8,680

Table 6-8 Historical Beta Hunt Gold Mineral Reserves as reported December 16, 2020

Sept-2020 Mineral Reserve	Proven			Probable			Proven & Probable		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
Western Flanks	245	2.4	19	4,411	2.7	381	4,657	2.7	400
A Zone	84	2.5	7	1,039	2.3	75	1,123	2.3	82
Total	329	2.4	25	5,451	2.6	456	5,780	2.6	482

6.1.6.4 Updated Gold and Nickel Mineral Resources – April and May, 2022

On December 16, 2020, Karora announced updated Gold Mineral Resources for Beta Hunt (and Higginsville) with an effective date of January 31, 2022.

Table 6-9 Beta Hunt Gold Mineral Resources as reported April 7, 2022

Jan 2022 Gold Mineral Resource	Measured			Indicated			Measured & Indicated			Inferred		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
Western Flanks	315	2.4	25	8,446	2.8	747	8,762	2.7	772	4,959	2.7	437
A Zone	312	2.1	21	2,696	2.5	212	3,008	2.4	233	2,297	2.5	187
Larkin Zone	0	0	0	1,441	2.6	119	1,441	2.6	119	2,170	2.3	162
Total	628	2.3	46	12,583	2.7	1,079	13,210	2.6	1,124	9,426	2.6	786

Table 6-10 Beta Hunt Nickel Mineral Resources as reported May 11, 2022

January-2022 Nickel Mineral Resource	Measured			Indicated			Measured & Indicated			Inferred		
	kt	%Ni	Ni t	kt	%Ni	Ni t	kt	%Ni	Ni t	kt	%Ni	Ni t
Beta Block	-	-	-	494	2.8%	13,600	494	0	13,600	175	2.8%	5,000
Gamma Block	-	-	-	197	3.0%	6,000	197	0	6,000	317	2.6%	8,200
Total	-	-	-	692	2.8%	19,600	692	2.8%	19,600	492	2.7%	13,200

From January 1, 2017 to September 30, 2022, Beta Hunt has mined 3,949 kt of gold mineralisation at average grade of 2.9 g/t Au (370 koz contained gold) and has delivered 109 kt of nickel mineralisation for processing at an average grade of 2.4% Ni (2.6 kt contained nickel).

Gold production at Beta Hunt was primarily from the Western Flanks and A Zone and includes an estimated 25 koz mined from the 15 level of the A Zone lode ("Father's Day Vein") in September and October 2018.

Nickel was produced primarily from East Alpha and Beta areas.

6.2 HIGGINSVILLE

6.2.1 Project

A detailed summary with respect to the Higginsville Project area which contains the Higginsville Processing Facility can be found in Technical Report “Higginsville-Beta Hunt Operation Eastern Goldfields, Western Australia” under Karora Resources on the Canadian securities regulatory document system SEDAR (www.sedar.com).

6.2.2 Processing Facility

The procurement and construction of a new 1 Mtpa CIL processing plant at Higginsville commenced in late 2007. The plant was commissioned in the first half of 2008 with the first official gold pour on July 1, 2008. The plant was designed to treat 1.3 Mtpa. The Trident mine was the base load of the operation, supplemented by feed coming from paleochannels and open pits. A paste plant delivering paste to the underground was completed in October 2009.

Karora acquired the plant, along with the Higginsville Project, in June 2019. Modifications to the plant under Karora ownership include crusher product size optimization, larger cyclone feed and tails pumps, introduction of larger gravity screen, and improved cyclone classification. The plant is now designed to treat up to 1.6 Mtpa.

Figure 6-4 Higginsville Processing Facility (2008)

Source: Westgold



6.3 LAKEWOOD

The Lakewood area has been used for tailings storage since the early 1900s with most of the tailings derived from the processing of gold bearing ore from the Golden Mile. These tailings dumps (historically called slime dumps) were a significant source of dust in the Kalgoorlie-Boulder community. In the late 1980s, the retreatment of the residual gold bearing tailings was planned as part of the Fimtails and Kaltails Projects.

The Lakewood (Fimtails) Treatment Plant and associated tailings storage facility (“TSF”) was initially constructed in 1989 (approved via Notice of Intent (“NOI”) 213) and operated on a periodic basis throughout the 1990s. Historic tailings from the Kalgoorlie-Boulder area were retreated using the CIL process, between 1989 and 1991. The Lakewood Plant was placed into care and maintenance from August 1991 until 1995.

Roehampton Resources NL purchased the Lakewood Plant in 1995 and upgraded the facility by installing a second ball mill, a crushing circuit, cyclones, gravity concentrator, and a regeneration kiln. Around 71,000 t of ore from the Gordon Sirdar Project was processed prior to the cessation of mining.

Processing ceased in March 1996, and the site was again placed into care and maintenance with several items removed including the primary jaw crusher, and secondary cone and screen. Mining recommenced at Gordon Sirdar in December 1996, and around 31,000 t ore was processed at the Lakewood Plant, with a contract crushing plant replacing the removed equipment. Around 39,000 t was also treated from the Red Hill and Sabminco Mines (near Kanowna). Operations ceased in February 1997, and the plant was placed into care and maintenance in March 1997. Total throughput through the Lakewood Plant from 1995 to 1997 was 141,089 t of ore for 7,866 oz of gold and 33,574 oz of silver.

Refurbishment of the Lakewood Plant was undertaken in 2000 by Lakewood Mill Pty Ltd (approved via NOI 3589), allowing for the recommencement of processing operations in 2001 until 2007. The plant was operated on a campaign basis until November 2007, including the retreatment of residual tailings on agreement with Normandy Kaltails. This included a height increase of TSF1 by 2 m from RL337.5 m to RL339.5 m.

In 2007, the Lakewood Plant was purchased by Silver Lake Resources, and a refurbishment of the Plant was undertaken. In 2007, an application was approved to increase the height of TSF1 (MP 5927) by a further 6 m to 10 m to a maximum embankment height of RL345.0 m to RL349.0 m. This was planned to provide 7–10 years additional storage based on a production rate of 0.2 Mtpa.

Silver Lake Resources proposed to extend the existing TSF in 2009 with the addition of two paddock cells abutting TSF1 to a maximum embankment height of RL349.0 m. The estimated storage capacity was 3,200,000 t of tailings based on a nominal production rate of 0.3 Mtpa increasing up to 0.6 Mtpa (if required). This TSF extension was approved via MP Reg ID 22201.

The Lakewood Plant was further refurbished by Silver Lake Resources in 2011 including the installation of a new CIL tank, larger ball mill and associated conveyor and basic infrastructure. In November 2011, the Plant was licensed for a throughput of up to 0.7 Mtpa.

In 2013, the “Lakewood Gold Processing Facility Tailings Storage Facility 2 and Process Water Pond Mining Proposal” (MP Reg ID 39295) was submitted by Silver Lake Resources. Additional tailings storage capacity was required at the current throughput rate of 0.9 Mtpa. It was proposed to construct a new above ground, paddock style TSF (TSF2) and process water pond.

Silver Lake Resources was also investigating the feasibility of a potential increase in throughput to 1.2 Mtpa. TSF2 would provide an additional 7.2 years of storage at the increased throughput rate. The construction of TSF2 was approved via Works Approval W5487/2013/1 in September 2013. The new TSF2 and process water pond were approved by DMIRS in April 2014, but construction was not undertaken.

GMM acquired the Lakewood GPF in 2015 from Silver Lake Resources. GMM steadily increased the throughput since the acquisition, reaching a throughput of around 0.7 Mtpa to 0.9 Mtpa. In 2019, GMM installed a carbon stripping circuit. In October 2020, the Lakewood GPF was licensed for a throughput of up to 0.9 Mtpa. Lakewood Mining Pty Ltd (a fully owned subsidiary of Karora Resources) acquired the Lakewood GPF on July 27, 2022 (Figure 6-5).

Figure 6-5 Lakewood Processing Facility (2022)

Source: Karora

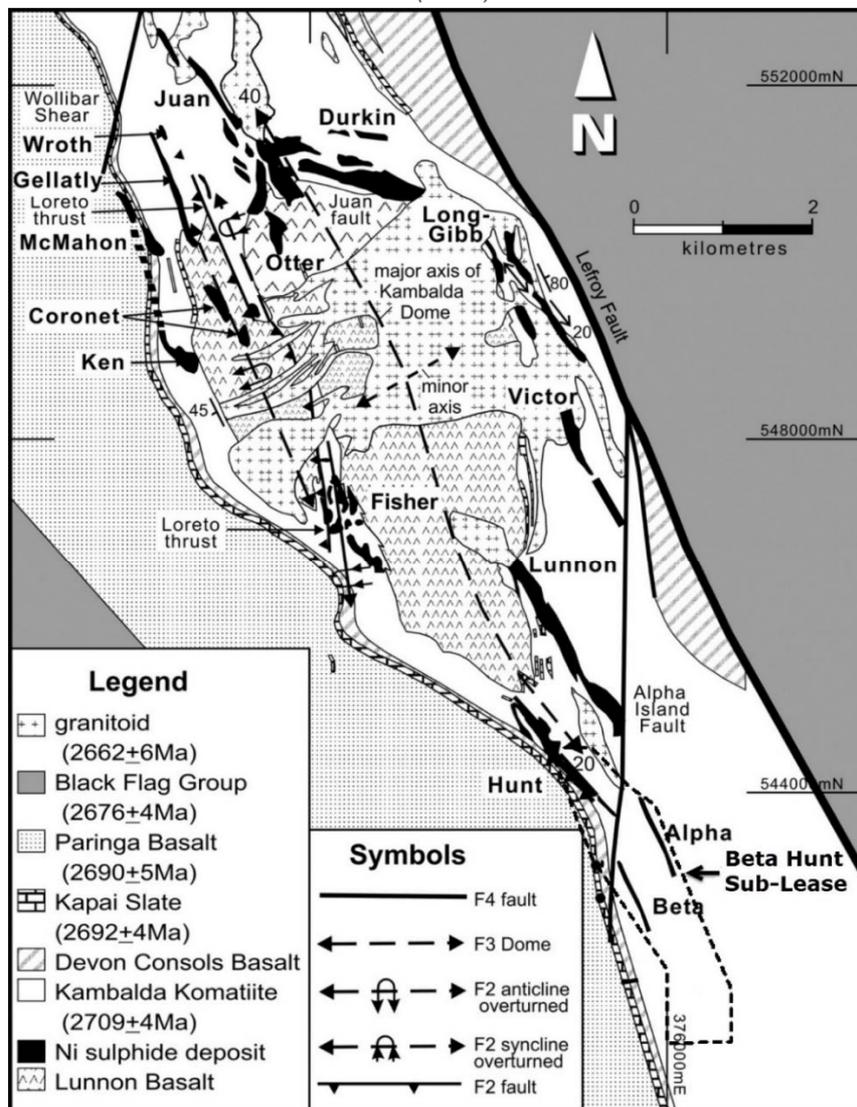


7 BETA HUNT GEOLOGICAL SETTING AND MINERALISATION

7.1 REGIONAL GEOLOGY

The Kambalda–St Ives region forms part of the Norseman–Wiluna greenstone belt which comprises regionally extensive volcano-sedimentary packages. These were extruded and deposited in an extensional environment at about 2,700–2,660 Ma. The mining district is underlain by a north-northwest trending corridor of basalt and komatiite rocks termed the Kambalda Dome (Figure 7-1). The iron-nickel mineralisation is normally accumulated within the thick Silver Lake Member of the Kambalda Komatiite Formation above, or on the contact with the dome structured Lunnon Basalt.

Figure 7-1 Regional geological map of the Kambalda Dome showing nickel sulphide deposits
Source: Karora modified from Stone and Archibald (2004)



The following geological descriptions are summarised from Phillips and Groves (1982), Banasik (2006) and Squire et al. (1998). The local stratigraphy is summarised in Figure 7-2, and the location of regional gold mineralisation is shown on Figure 7-3.

Figure 7-2 Stratigraphic relationships in the St Ives area, based on the Kambalda-Tramways stratigraphy
Source: Modified from SIGMC (2012)

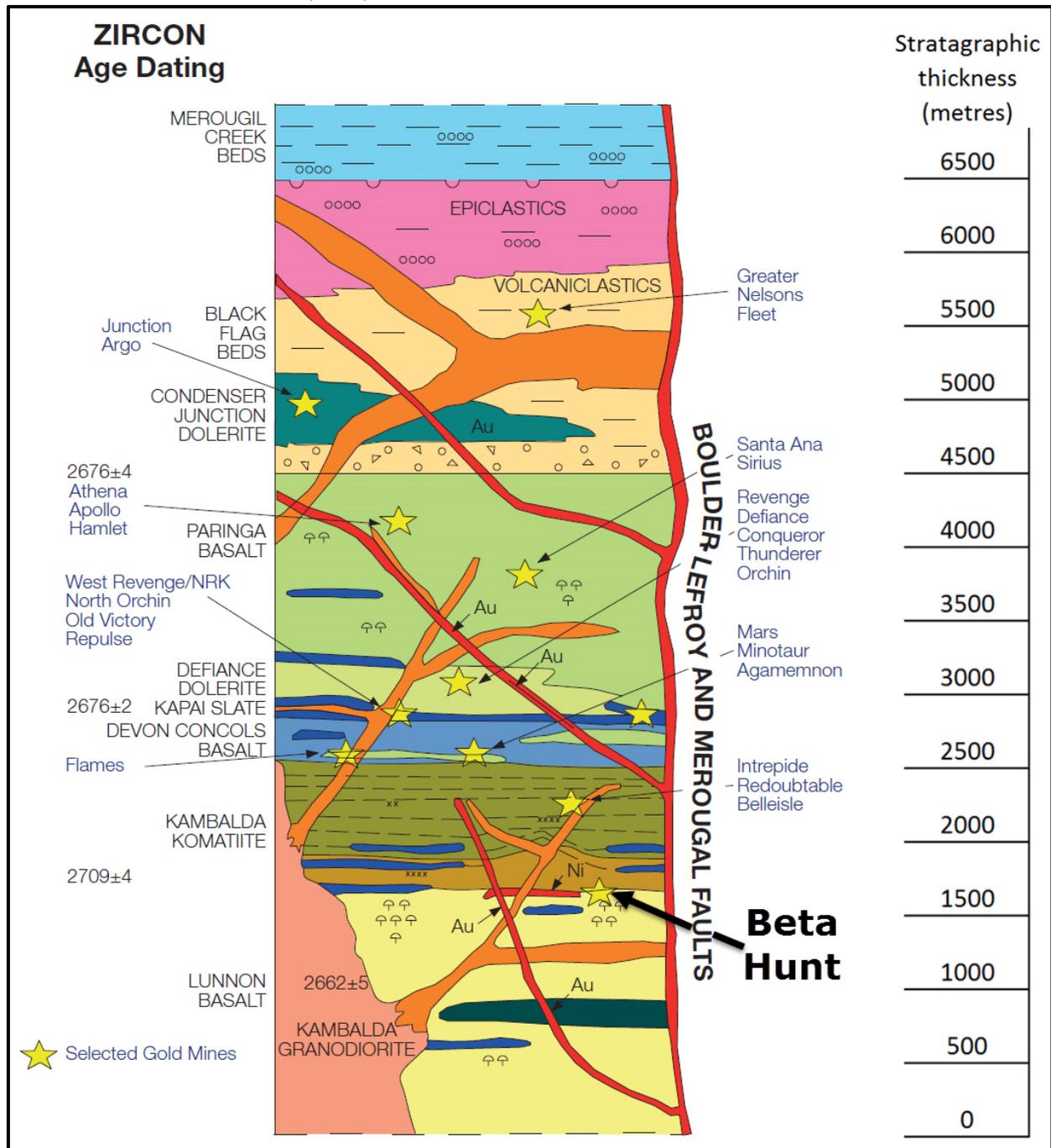
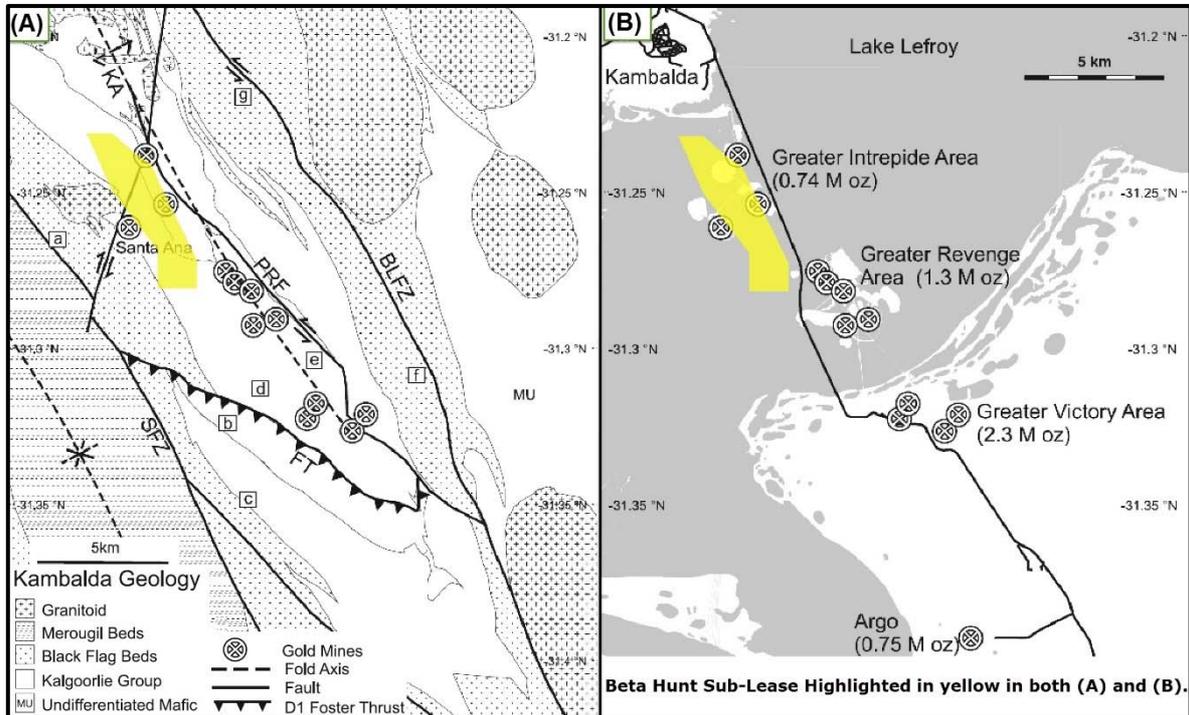


Figure 7-3 Regional geological map of the Kambalda Dome showing gold deposits

Source: Karora modified from Prendergrast (2007); St Ives production numbers to August 2005.



7.1.1 Lunnon Basalt

The footwall Lunnon Basalt is the lowermost unit in the stratigraphy at Hunt and is the host to the majority of gold mineralisation. The Lunnon Basalt has a minimum inferred thickness of 1,750 m and comprises tholeiitic basaltic flows with persistent pillowed layers, flow top breccias and sediment bands.

Stratigraphically, the basalt can be subdivided into a lower MgO-rich member and an upper less MgO-rich member separated by an iron-rich (pyrite and/or pyrrhotite) sedimentary horizon. The interflow sediment comprises one, sometimes two, narrow (<1 m), carbonaceous, finely banded sulphide-rich units conformably located approximately 150 m below the top of the basalt. The sulphide banding is typically 2 mm to 10 mm thick. Drill intersections indicate the sulphide content to be variable across the strike of the sediment. The sediment represents a period of quiescence between volcanic eruptions.

Compositionally the Lunnon Basalt at Beta Hunt is similar to many of the other gold bearing mafic rocks of the Eastern Goldfields. The Lunnon Basalt is composed of hornblende, actinolite, chlorite, andesine, magnetite, ilmenite, calcite and quartz with minor biotite and epidote. The amphibole occurs as small grains 0.2 mm to 0.4 mm that vary in colour from pale yellow to blue green and make up approximately 50% of the basalt. Chlorite forms usually less than 10% of the assemblage in the form of fine green grains intermixed with the amphibole. Calcite forms discrete grains and combined with narrow 1 mm to 5 mm carbonate stringers accounts for 5% of the groundmass.

Generally, the gold occurs in a broad steeply dipping north-northwest striking quartz vein systems within sheared and biotite-albite-pyrite altered basalt. Patches of coarse, specimen gold can occasionally be found where the mineralised shears intersect the interflow sediment horizon and the overlying nickel-bearing basalt/ultramafic contact.

7.1.2 Kambalda Komatiite

The Kambalda Komatiite is a sequence of high-MgO ultramafic flows between 50 m to 1,000 m thick. It is divided into two members: the lower Silver Lake Member and the upper Tripod Hill Member. The Silver Lake Member comprises one or more komatiite flows (10–100 m thick) that are subdivided into a lower cumulate zone and an upper spinifex textured zone. The Tripod Hill Member consists of numerous thin (<0.5–10 m) komatiite flows. Lateral and vertical variations in composition of each flow as well as distribution of interflow sulphidic sediments define channel flow and sheet flow facies. In the nearby nickel resources, the stratigraphic contact is highly irregular and structurally disturbed. Numerous mafic, felsic and intermediate intrusions intersect the sequence. The nickel sulphide resources occur at the base of the Silver Lake Member on the contact with the Lunnon Basalt.

7.1.3 Interflow sediments

Thin (<5 m) interflow sedimentary rocks are common on the contact between the Lunnon Basalt and Kambalda Komatiite and within the komatiite lavas, particularly in the less differentiated Silver Lake Member. Sediments are dominated by pale cherty and dark carbonaceous varieties, which comprise quartz + albite with minor tremolite, chlorite, calcite and talc and sulphidic bands of pyrrhotite, pyrite, and minor sphalerite and chalcopyrite. Chloritic or amphibole-rich varieties are less common.

7.1.4 Intrusions

The units that host the nickel sulphide mineralisation are intruded by granitoids, dykes and sills of mafic, intermediate and felsic composition. Felsic intrusives of sodic rhyolite composition are coarse grained, porphyritic and quartz-rich, and commonly occur throughout the sequence as dykes and sills. Intermediate intrusives (typically dacitic composition) are more variable in texture and composition, but porphyritic types are common and contain feldspar phenocrysts in a biotite-amphibole matrix. Mafic intrusives of basaltic composition are less common but are known to occur in the Lunnon Shoot. The Kambalda Granodiorite in the core of the Kambalda Dome is trondhjemitic in composition and has associated felsic dykes.

These dykes vary in size and composition but are all thought to have been emplaced post-D2 deformation and pre-D4 gold mineralisation. As a result, gold mineralisation is not greatly disrupted by the presence of the porphyry intrusives and mineralisation is often enhanced at their contacts with the contrasting lithologies acting as a preferred zone of deposition.

7.1.5 Property Geology

The sub-lease covers the lower stratigraphy of the Kambalda Dome sequence comprising the footwall Lunnon Basalt, overlain by the Silver Lake and Tripod Hill members of the Kambalda Komatiite. The stratigraphy is intruded by quartz-feldspar and intermediate porphyry sills and dykes.

7.1.6 Nickel Mineralisation

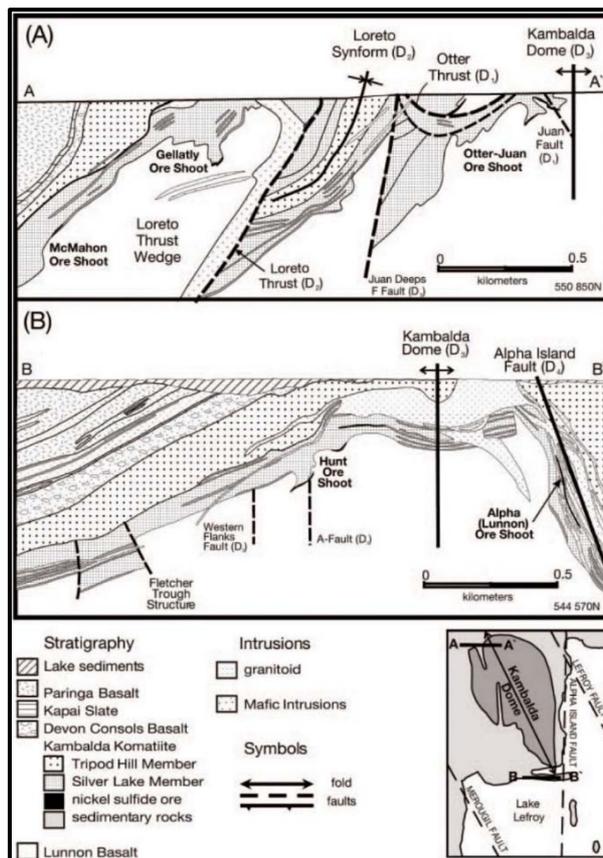
Nickel mineralisation is hosted by talc-carbonate and serpentine altered ultramafic rocks. The deposits are ribbon-like bodies of massive, matrix and disseminated sulphides varying from 0.5 m to 4.0 m in true thickness but averaging between 1.0 m and 2.0 m. Down dip widths range from 40 m to 100 m, and the grade of nickel ranges from below 1% to 20%. Major minerals in the massive and disseminated ores are pyrrhotite, pentlandite, pyrite, chalcopyrite, magnetite, and chromite, with rare millerite and heazlewoodite generally confined to disseminated mineralisation. The hangingwall mineralisation tends to be higher tenor than the contact material. The range of

massive ore grades in the hangingwall is between 10% Ni and 20% Ni while the range for contact ore is between 9% Ni and 12% Ni. The hangingwall mineralogy varies between an antigorite/chlorite to a talc/magnesite assemblage. The basalt mineralogy appears to conform to the amphibole, chlorite, plagioclase plus or minus biotite.

Unlike other nickel deposits on the Kambalda Dome, the Beta Hunt system displays complex contact morphologies, which leads to irregular ore positions. The overall plunge of the deposits is shallow in a southeast direction, with an overall plunge length in excess of 1 km. The individual lode positions have a strike length averaging 40 m and a dip extent averaging 10 m. The geometry of these lode positions vary in dip from 10° to the west to 80° to the east. The mineralisation within these lode positions is highly variable ranging from a completely barren contact to zones where the mineralisation is in excess of 10 m in true thickness.

The Hunt and Lunnion shoots are separated from the Beta and East Alpha deposits by the Alpha Island Fault (AIF) (Figure 7-4). Hunt and Beta both occur on the moderately dipping western limb of the Kambalda Dome and are thought to be analogous. Similarly, Lunnion and East Alpha occur on the steeply dipping eastern limb of the dome and also have similar characteristics.

Figure 7-4 Schematic cross-section through the Kambalda Dome looking north Source: Stone et al. (2005)



- 1) Cross-sections of the Kambalda Dome. (A) Cross-section of the northwest flank of the dome at 550 850 N (mine grid) across the McMahon, Gellatly, and Otter-Juan nickel shoots. West-dipping reverse faults have formed a series of wedges of the Lunnion Basalt footwall. (B) Cross-section of the south part of the dome at across the Hunt and East Alpha nickel shoots on opposing flanks of the dome. The Alpha shoot is the Lunnion nickel shoot offset on the east side of the Alpha Island fault. The thickness of the ore shoots, sedimentary units, and felsic intrusions is exaggerated for clarity.

7.1.7 Gold Mineralisation

Gold mineralisation is focussed about the Kambalda Anticline and controlled by northwest trending, steep, west dipping shear zones associated with re-activated normal faults that previously controlled the komatiitic channel flow and associated nickel sulphide deposition (Figure 7-4B). Gold mineralisation is interpreted as a D3 extensional event associated with porphyry intrusives, the source of magmatic hydrothermal fluids carrying the gold.

Mineralisation is hosted dominantly in Lunnon Basalt (below the ultramafic contact) with minor amounts associated with specific porphyry intrusives. Not all porphyries are mineralised - some are intruded post-mineralisation. The basalt (and porphyries) are preferred mineralisation hosts as a result of their susceptibility to hydraulic fracturing to form quartz veining, with the migrating ore fluids causing wall-rock alteration. The migrating ore fluids associated with the shearing are interpreted to pass through the overlying ultramafic (because of its ductile nature), developing as mineralisation only where the shear zone passes through more competent rock, e.g. porphyry and basalt (Figure 7-5 and Figure 7-6).

Figure 7-5 Plan view of 2020 gold resources and interpreted gold shear zone targets Source: Karora

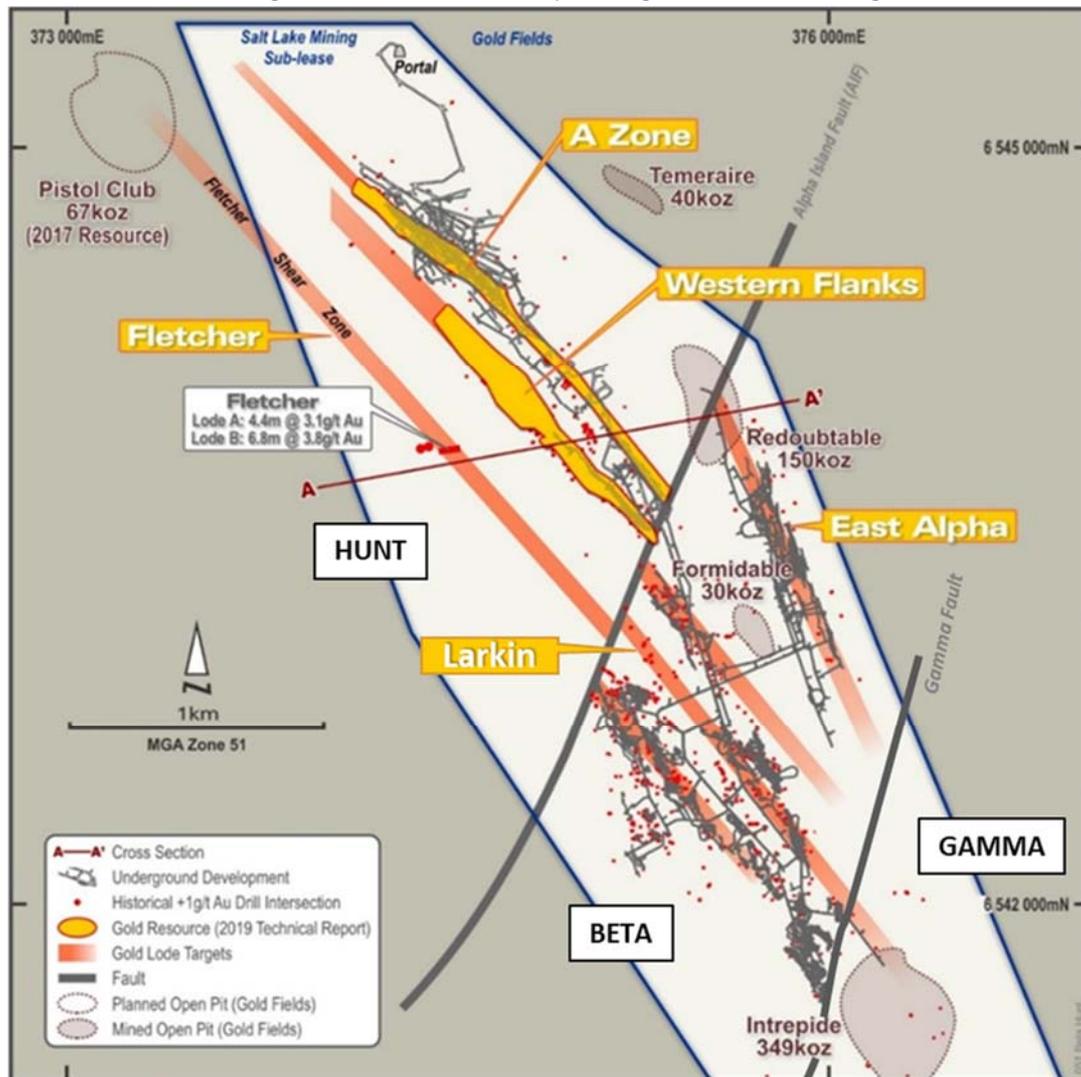
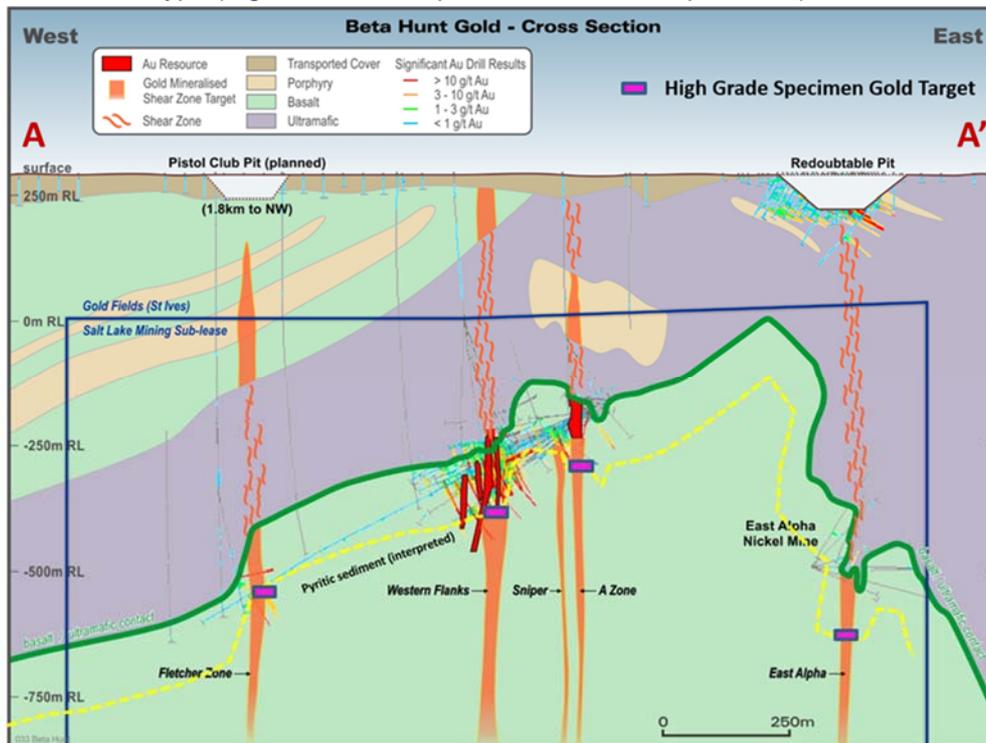


Figure 7-6 Composite cross-section looking north showing interpreted shear zone related gold mineralisation and rock type (Figure 7-5 shows position of section in plan view) Source: Karora



Gold mineralisation occurs in three broad, steeply dipping, north-northwest striking quartz vein systems within biotite-albite-pyrite altered shear zones hosted by the Lunnon Basalt (Figure 7-5, Figure 7-6). Veining is dominated by shear parallel and extensional vein styles. A Zone and the Western Flanks both occur to the north of the AIF, a major north-northeast trending structure, and is represented by Beta mineralisation to the south of the fault. The Fletcher Shear Zone was discovered by drilling in 2016 and is the third mineralised gold zone at Beta Hunt.

A fourth zone, East Alpha, is inferred by analogy to the known mineralised quartz vein systems; however, further drill testing is required to confirm its existence.

Coarse, specimen quality occurrences of gold can occasionally be found where the mineralised shears intersect the interflow sediment horizon and the overlying nickel-bearing basalt/ultramafic contact.

7.1.7.1 A Zone

Gold mineralisation in A Zone is located below the A Zone nickel surface and is composed of a large brecciated quartz vein that has a near vertical dip striking at 320°. A Zone varies in thickness from 2 m to 20 m wide with a low to medium grade distribution. The A Zone shear is mineralised over approximately 1.5 km of strike length with the northern portion containing the higher grade and greater thickness. Subparallel mineralised structures are found in both the hangingwall and footwall to the main A Zone shear. These structures appear to be of a similar nature to the main mineralised zone and are considered to be splays within a major anastomosing shear system.

7.1.7.2 Western Flanks

Mineralisation comprises a main, northwest striking (320°), steep southwest dipping shear zone up to 20 m in width, over 1.2 km in strike length with a 500 m down-dip extent and remains open to the north and down-dip. Coarse “stockwork” mineralisation dominated by shallow, east-dipping extensional quartz veins occur in the hangingwall of the main shear. The combined main shear and hangingwall mineralisation can, in places, be up to 50 m thick. The main shear zone consists of both shear and extensional veining associated with biotite-albite-pyrite alteration. Mineralisation within the hangingwall is characterised by a lack of shearing and shear veins. Extensional veins in the hangingwall frequently contain specks of visible gold. The shear zone is dextrally offset to the south by the Alpha Island Fault. Felsic porphyries strike oblique to mineralisation and zones of high grade are found along the margins where they are adjacent to or host mineralised structures. Figure 7-7 provides an example from an underground development face of the quartz vein mineralisation found in the main Western Flanks shear.

Figure 7-7 Face assays – Western Flanks Central 325NOD1-57 collected (gold grades g/t in yellow, assay interval in green)

Source: Karora



Coarse, specimen quality gold similar to that found with the A Zone deposit is also found associated with the Lunnon interflow sediment within the main Western Flanks shear zone. Two diamond holes drilled in 2019—WFN-063 (2,210 g/t Au over 0.85 m) and WFN-029 (7,621 g/t Au over 0.28 m)—both intersected coarse gold in quartz veining adjacent to pyritic sediment.

7.1.7.3 Coarse, Specimen Gold

Mining by Karora has intersected and recovered significant coarse, specimen grade gold mineralisation (>1% Au) associated with the basalt/ultramafic contact and, more recently, with an interflow sediment within the Lunnon Basalt where it intersects the A Zone shear.

This style of mineralisation is intermittently found associated with the A Zone, Western Flanks and Beta mineralisation zones, where the mineralised shears intersect iron sulphide-rich contacts represented by the main basalt/ultramafic contact and pyritic interflow sediment (A Zone).

In September 2018, RNC Minerals (“RNC”) intersected the single largest occurrence of this style of mineralisation, known as the Father’s Day Vein discovery. An estimated 25,000 oz of gold was recovered from a single 60m³ development drive cut on the 15L in A Zone Q3 2018.

Spectacular coarse specimen gold was mined from Beta Hunt in the past at the top of the A Zone lode near the basalt-ultramafic contact. Historical records show 3,295 oz gold was mined from specimen stone by WMC, which represents 11.4% of total gold mined by WMC. Records from this period of mining indicate an average grade of 20,000 g/t Au (2%, 643 oz/t Au) for the specimen stone (WMC, 1985).

Figure 7-8 Father’s Day Vein – 15L, A Zone. Note association with pyritic interflow sediment

Source: Karora

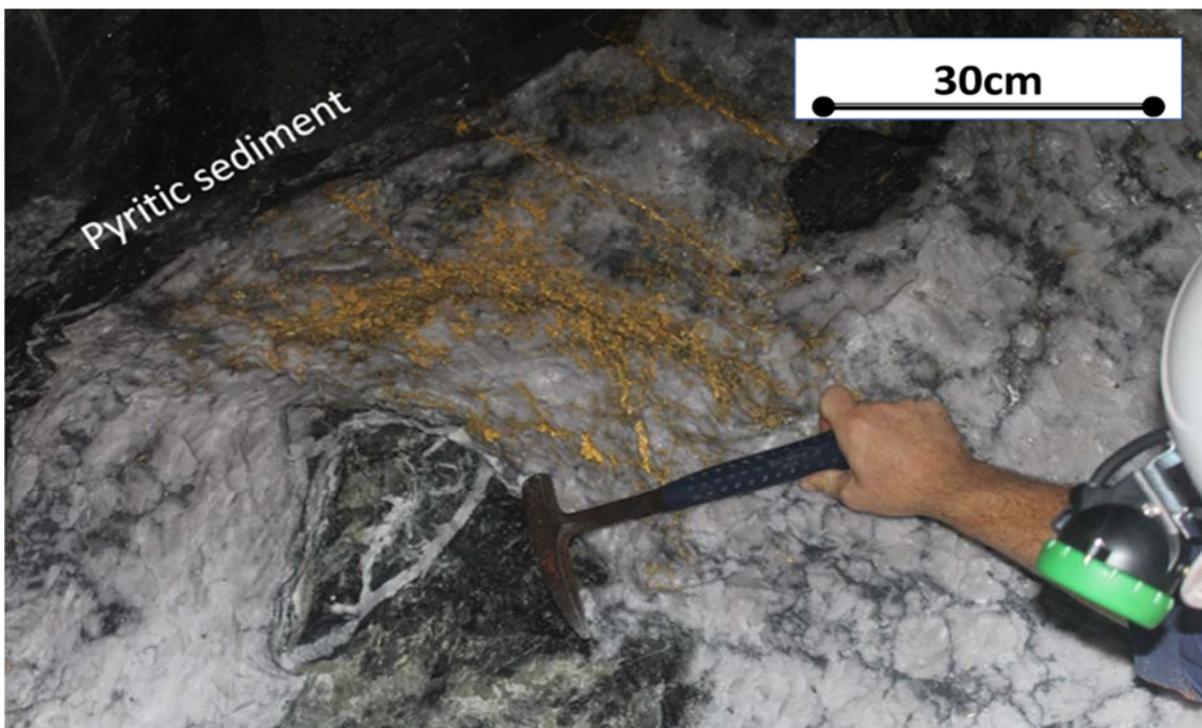
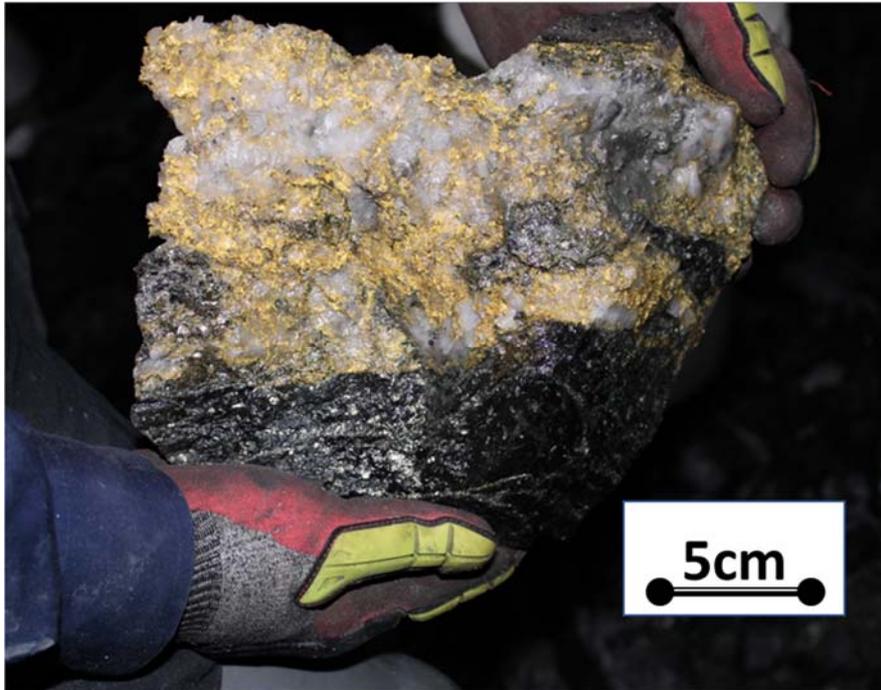


Figure 7-9 Father's Day Vein – 15L, A Zone. Example of the specimen stone recovered from mining
Source: Karora



7.1.7.4 Beta Block

Mineralisation in the Beta Block, which includes the new Larkin deposit, is interpreted to be an offset extension to the Western Flanks and A Zone mineralisation, with a dextral offset of between 100 m and 150 m (Figure 7-10). Beta is again characterised by a series of subvertical quartz veins within a sheared basalt. Mineralisation at Beta has a more disjointed and erratic form, with narrow discontinuous lodes that have a strike extent of 20 m to 100 m. Lodes vary in thickness from 1 m to 5 m, commonly with high grades being present on the contacts of porphyries and ultramafic.

7.1.7.5 Fletcher Trend – Beta North

The Fletcher Shear Zone (Figure 7-10) is a parallel structural analogue to the Western Flanks and A Zone gold deposits occurring approximately 500 m west of the Western Flanks vein system. The Fletcher Shear Zone is interpreted to represent the offset continuation of the Beta nickel and gold mineralisation across the Alpha Island Fault.

The Fletcher Shear Zone was successfully targeted by a government co-funded drill hole in 2016 and intersected two distinct lodes containing over 24 m of gold mineralisation in excess of 2 g/t.

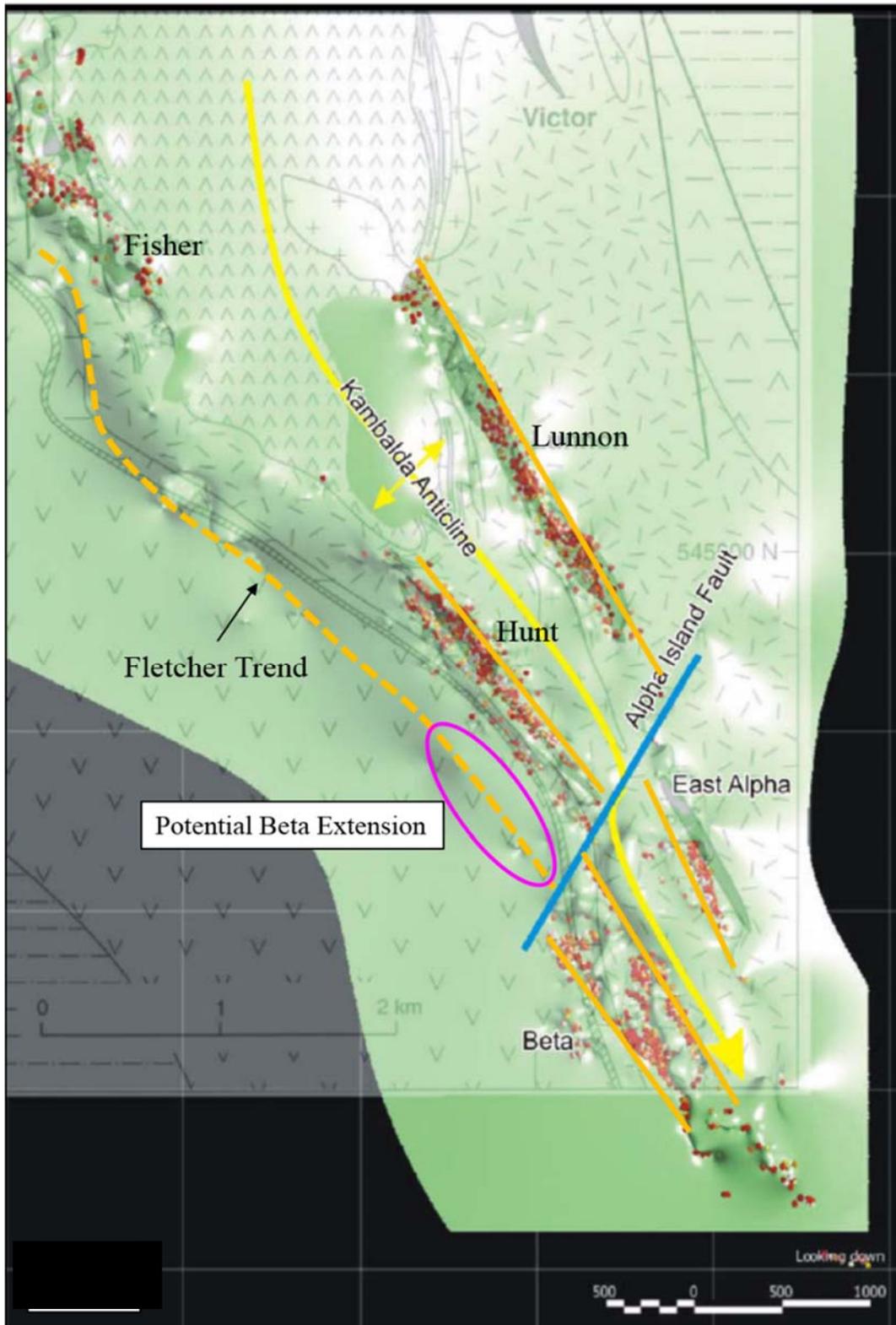
Lode A returned results of 8.9 m of 2.67 g/t from 716.6 m including:

- 3.1 m @ 3.1 g/t from 716.6 m, including 1.0 m @ 6.5 g/t from 718.0 m; and
- 4.4 m @ 3.1 g/t from 722.4 m.

Lode B returned results of 15.8 m of 2.32 g/t from 736.5 m including:

- 6.8 m @ 3.8 g/t from 739.1 m, including 1.1 m of 7.4 g/t from 744.8 m.

Figure 7-10 Offset relationship of deposits across Alpha Island Fault (gold intersections >1 g/t Au) Source: Karora



7.2 STRUCTURAL CONTROLS ON MINERALISATION

7.2.1 Structural Framework

The structural controls on mineralisation at the Beta Hunt deposit are related to the complex polyphase deformation exhibited throughout the Kambalda Dome (Figure 7-4). There are four recognised regional deformation events. The events are described in greater detail below where there is supportive evidence at Beta Hunt (Banasik and Crameri, 2006).

7.2.1.1 D1

The D1 deformation event was a widespread, broadly layer-parallel compressional event that resulted in imbricate stacking of the stratigraphy during south to north thrusting. Evidence of the D1 deformation event at Beta Hunt is the development of a S1 fabric in some massive nickel mineralisation and adjacent host rocks. S1 fabrics in massive mineralisation occur as pyrrhotite-pentlandite banding, which is parallel or subparallel to the ore contacts.

7.2.1.2 D2

The D2 deformation event produced shallow to moderate dipping north-northwest striking faults, resulting in a thrust stacking from south-southwest to north-northeast. This event occurs throughout the contact nickel deposits forming the mineralisation constraining/trough defining pinch outs, as well as intra-trough folds. The north-northwest strike of the faults is parallel to the strike of the 40C trough. The result of the D2 deformation at Beta is the formation of “sawtooths” over the width of the trough, especially in the 40C trough.

7.2.1.3 D3

The D3 deformation event formed the Kambalda Dome with open, upright domal folds. Associated with D3 are oblique north-northwest striking normal faults, which not only disrupt the basalt/ultramafic contact, but are the main gold bearing structures at Beta Hunt.

7.2.1.4 D4

The final deformation event is characterised by oblique north-northwest faulting and north-northeast strike slip faults. Evidence of D4 deformation at Beta Hunt is the Alpha Island Fault, which separates the Hunt shoot from the Beta Shoot. The Alpha Island Fault is a dextral D4 regional strike slip fault, with some vertical normal displacement that strikes 025° and dips at 65° to the north, observed from exposures in the Beta decline and Beta return airway.

7.2.2 Controls on Gold Mineralisation

The following structural summary on the controls of gold mineralisation is based on a structural study undertaken by AMC Consultants in May 2019 (AMC, 2019).

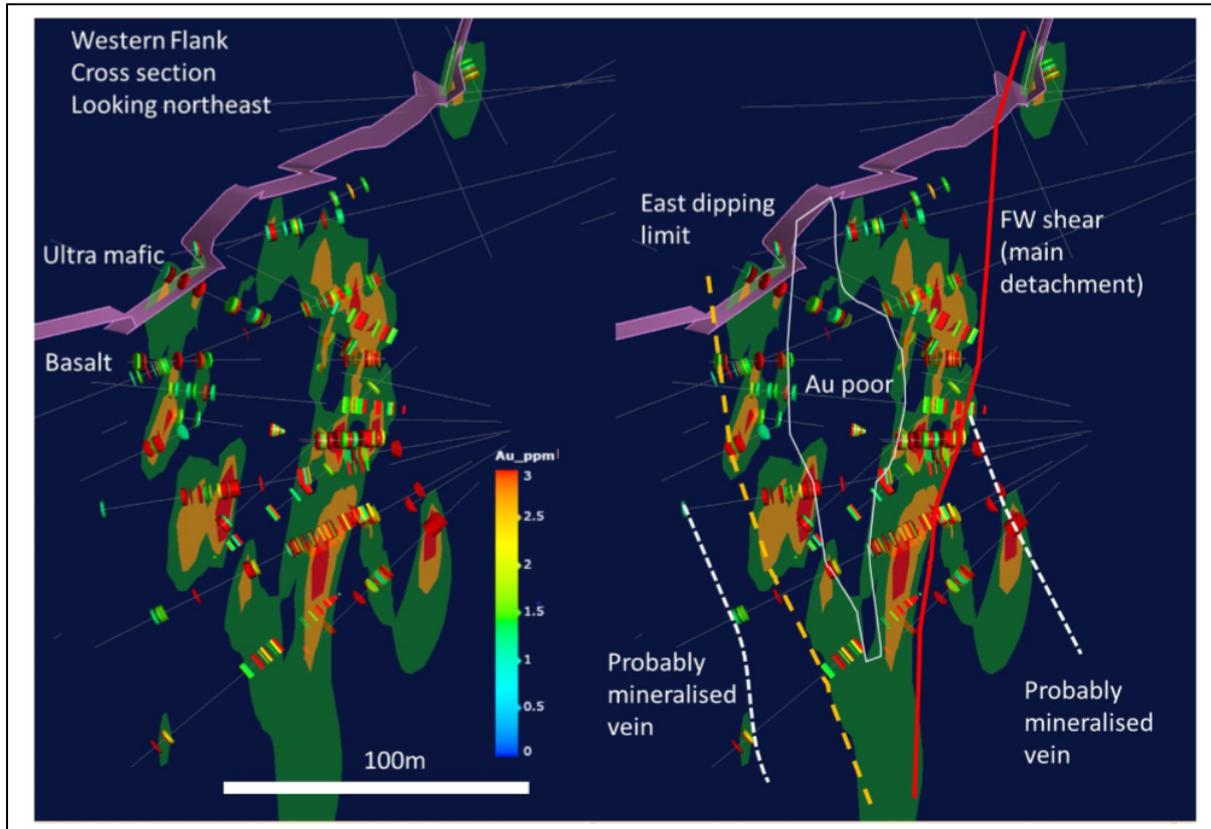
A Zone mineralisation is dominantly controlled by the major northwest shear orientation. Mineralisation within the shear zone is present as both sulphide and quartz shear hosted, as well as hosted in internal (late or coeval) cross-cutting quartz veins. Outside of the main shear zone, minor mineralised veins that dip both east and west are evident.

The Western Flanks mineralisation is different to the A Zone mineralisation; as well as shear hosted mineralisation, there is a significant volume of mineralisation that occurs in the hangingwall of the “shear-hosted” mineralisation. That is, there are additional controls on mineralisation beyond a dominant A Zone-style shear hosted mineralisation.

The dominant Western Flanks shear hosted mineralisation is now interpreted to be juxtaposed with vein-hosted mineralisation, dominantly in the basalt hangingwall to the Western Flanks shear zone (Figure 7-11). The majority of vein-hosted mineralisation appears to be northeast dipping. The study noted that defining consistent boundaries of coherent and continuous mineralisation as separate domains would be problematic with mineralisation a function of both relatively high-grade veins and general vein density.

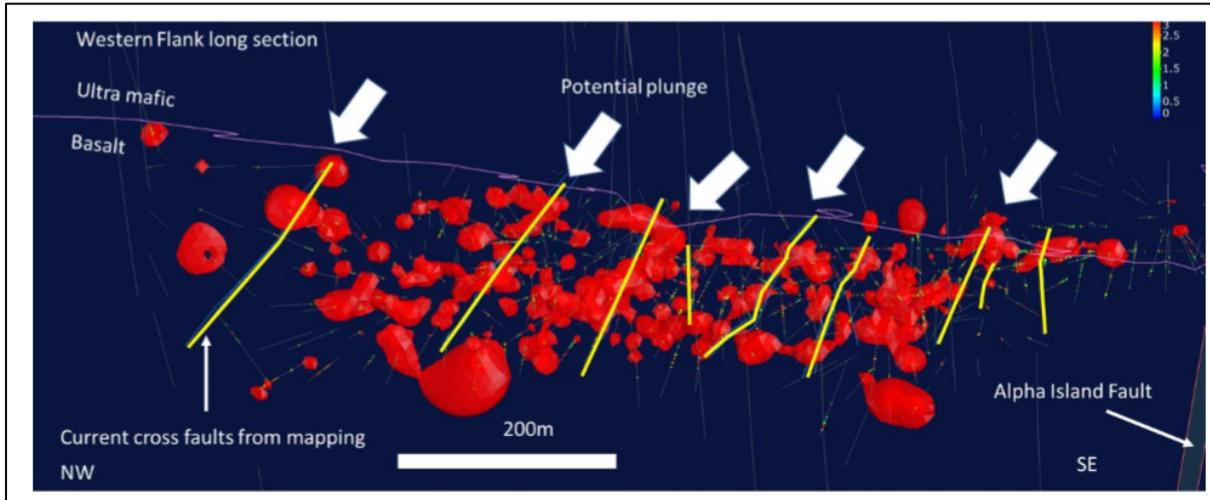
Figure 7-11 Cross-section of mineralisation synthesis at Western Flanks

Source: Karora



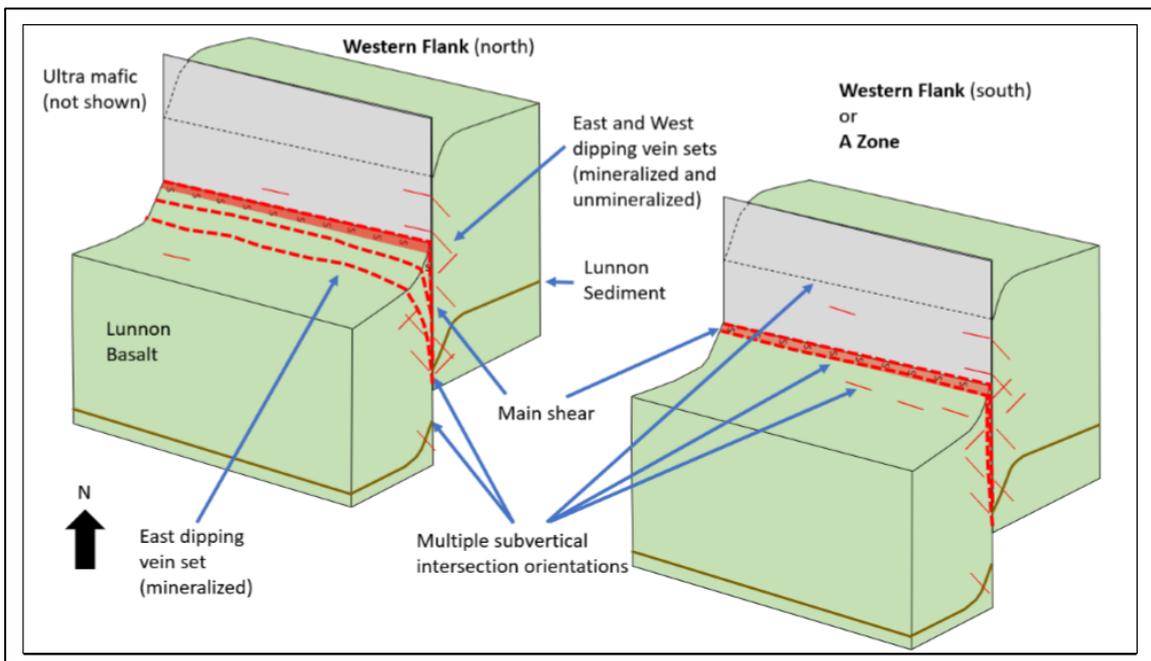
Using isosurfaces from a Leapfrog model, the study identified an apparent steep plunge orientation to the northwest (Figure 7-12). This interpretation is supported by structural measurements on a major cross-cutting fault which showed the dominant movement was steep from the northwest.

Figure 7-12 Western Flank long section looking northeast – potential ore shoot geometry Source: Karora



A summary of the differences in style between Western Flanks and A Zone are illustrated in Figure 7-13.

Figure 7-13 Mineralisation styles A Zone compared to Western Flanks Source: Karora



With respect to very high-grade mineralisation, concepts around intersections and plunge orientations are likely to play a part in the development of an exploration model. This model would need to take into account the intersection of the Lunnon interflow sediment with the main shear zones.

8 DEPOSIT TYPES

The nickel deposits on the Beta Hunt sub-lease are type examples of the Kambalda style komatiite-hosted nickel sulphide deposits. The characteristics of the Western Flanks and A Zone gold lodes at Beta Hunt are consistent with the greenstone-hosted quartz-carbonate vein (mesothermal) gold deposit model. Exploration for extensions of these deposits and new deposits within the Beta Hunt sub-lease are therefore based on these models as described below.

8.1 KAMBALDA STYLE KOMATIITE-HOSTED NICKEL SULPHIDE DEPOSITS

Kambalda style nickel sulphide deposits are typical of the greenstone belt hosted komatiitic volcanic flow- and sill-associated subtype of magmatic Ni-Cu-Pt group elements deposits (Eckstrand and Hulbert, 2007).

8.1.1 Komatiitic Volcanic Flow- and Sill-associated Subtype of Magmatic Ni-Cu-Pt group elements

Komatiitic Ni-Cu deposits are widely distributed in the world, mainly in Neoproterozoic and Paleoproterozoic terranes. Major Ni-Cu producing camps and other prominent deposits are found in Australia, Canada, Brazil, Zimbabwe, and Finland. The komatiitic subtype of Ni-Cu sulphide deposits occurs for the most part in two different settings. One setting is as komatiitic volcanic flows and sills in mostly Neoproterozoic greenstone belts. Greenstone belts are typical terranes found in many Archean cratons and may represent intracratonic rift zones. They are generally composed of strongly folded, basaltic/andesitic volcanics and related sills, siliciclastic sediments, and granitoid intrusions. They have been metamorphosed to greenschist and amphibolite facies, and typically adjoin tonalitic gneiss terranes. Komatiitic rocks form an integral part of some of these greenstone belts. Examples are the Kambalda camp and the Mt. Keith deposit, respectively, from two greenstone belts in Western Australia.

The second setting is as Paleoproterozoic komatiitic sills associated with rifting at cratonic margins. Prime examples are the Raglan horizon in the Cape Smith-Wakeham Bay belt of Ungava, Quebec, and the Thompson camp of the Thompson nickel belt, northern Manitoba. The komatiitic rocks are set in a sequence of volcano-sedimentary strata unconformably resting on Archean basement, and moderately (Raglan) to intensely (Thompson) folded and deformed.

Ultramafic komatiitic rocks are magnesium-rich (18–32% MgO), and therefore, the precursor magmas are very hot and fluid. Because of their primitive (high Mg, Ni) composition, the Ni:Cu ratio of the associated sulphide ores is high, in many cases 10:1 or more. The sulphur in the sulphide ores has been derived in significant proportion by contamination from sulphidic wallrocks. The commonly observed close spatial association of these deposits and their hosts with sulphidic sedimentary footwall rocks, and the similarity of sulphur isotopes and other chemical parameters of the magmatic and sedimentary sulphides strongly suggest that the sulphur in these deposits was derived locally from the sediments. This contrasts to some degree with deposits like Noril'sk and Voisey's Bay where, while it is clear that sulphur came from an extraneous source, that source was not likely so near at hand.

Two types of Ni-Cu sulphide ores characterize these deposits. Sulphide-rich ores comprising massive, breccia and matrix-textured ores consisting of pyrrhotite, pentlandite and chalcopyrite occur at the basal contact of the hosting ultramafic flows and sills. These deposits are generally

small, in the order of a few million tonnes, and the grades are in the 1.5% to 4% range. The second type, sulphide-poor disseminated ore forms internal lens-like zones of sparsely dispersed sulphide blebs, which consist mainly of pentlandite. Deposits of this type also occur in both sills and flows but the largest deposits are in sills, with ore tonnages of tens to hundreds of millions, though grades are a modest 0.6% Ni to 0.9% Ni.

8.1.2 Komatiitic Ores in Greenstone Belt Setting – Kambalda Camp

Nickel sulphide ores of the Kambalda camp are typical of the basal contact deposits associated with ultramafic flows in greenstone belts. They occur in the Kambalda Komatiite, which is a package of ultramafic flows (2,710 Ma) that has been folded into an elongate doubly plunging anticlinal dome structure about 8 km by 3 km (Figure 7-1). The underlying member of this succession is the Lunnon Basalt, and the overlying units are a sequence of basalts, slates and greywackes (2,710–2,670 Ma). The core of the dome is intruded by a granitoid stock (2,662 Ma) whose dykes cross-cut the komatiitic hosts and ores.

The Kambalda Komatiite is made up of a pile of thinner, more extensive sheet flows and thicker channel flows which have created channels by thermal erosion of the underlying substrate. The flows that contain ore are channel flows, which may be up to 15 km long and 100 m thick, and occupy channels in the underlying basalt. Flows in the pile are commonly interspersed with interflow sediment, typically sulphidic.

Most of the orebodies are at the basal contact of the lowermost channel flows (accounting for 80% of reserves), though some do occur in overlying flows in the lower part of the flow sequence. The orebodies typically form long tabular or lenticular bodies up to 3 km long and 5 m thick. The ores generally consist of massive and breccia sulphides at the base, overlain successively by matrix-textured sulphides, and disseminated sulphides. The sediment that underlies the flow sequence is generally absent beneath the lowermost ore-bearing channel flow, due to thermal erosion by the flow.

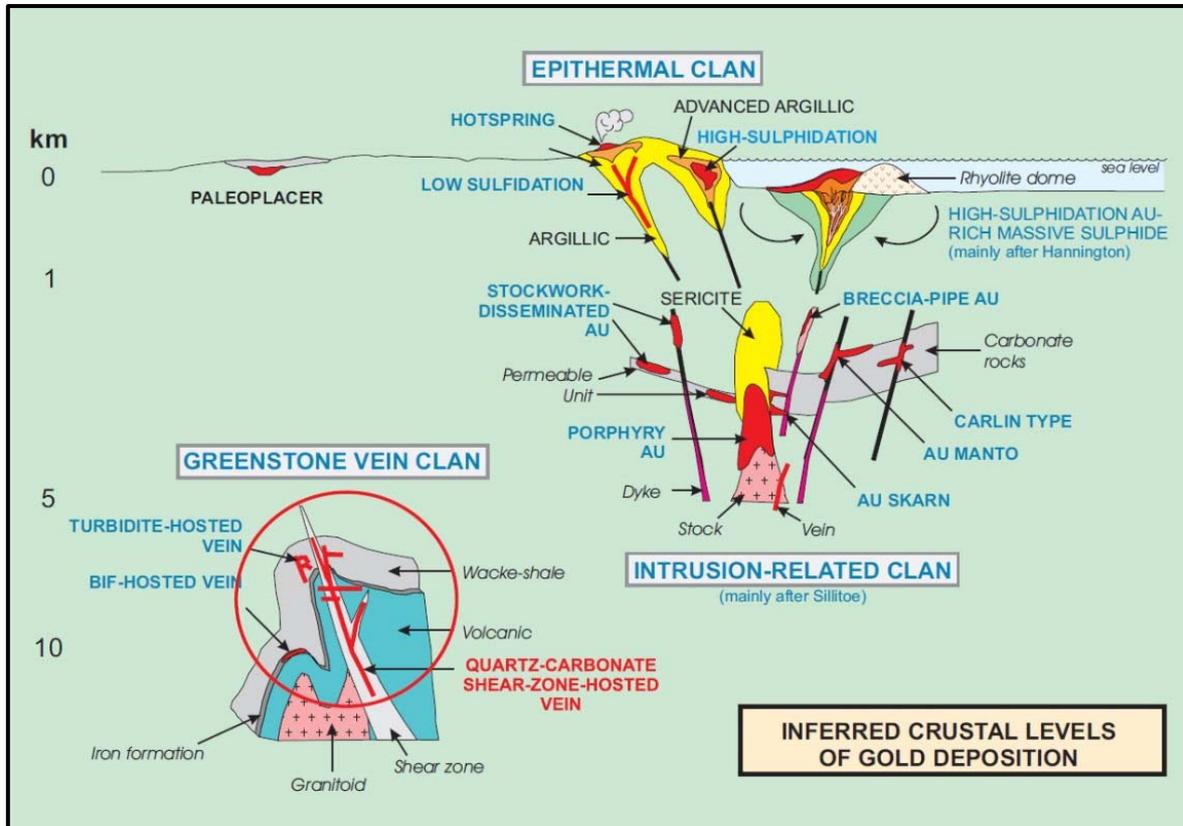
Structural deformation renders the shape and continuity of ores more complicated in many instances. Because of their weaker competency compared to their wallrocks, sulphide zones are in many cases strung out along, or cut off by, faults and shear zones.

8.2 GREENSTONE-HOSTED QUARTZ-CARBONATE VEIN GOLD DEPOSITS

Greenstone-hosted quartz-carbonate vein deposits (“GQC”) are a sub-type of lode gold deposits (Poulsen et al., 2000) (Figure 8-1). They are also known as mesothermal, orogenic, lode gold, shear-zone-related quartz-carbonate or gold-only deposits (Dubé and Gosselin, 2007).

Figure 8-1 Inferred crustal levels of gold deposition showing the different types of gold deposits and the inferred deposit clan

Source: Dubé and Gosselin 2007, modified after Poulsen et al., 2000



They correspond to structurally controlled complex epigenetic deposits hosted in deformed metamorphosed terranes. They consist of simple to complex networks of gold bearing, laminated quartz-carbonate fault-fill veins in moderately to steeply dipping, compressional brittle-ductile shear zones and faults with locally associated shallow-dipping extensional veins and hydrothermal breccias. They are hosted by greenschist to locally amphibolite facies metamorphic rocks of dominantly mafic composition and formed at intermediate depth in the crust (5–10km).

They are typically associated with iron-carbonate alteration. The mineralization is syn- to late-deformation and typically post-peak greenschist facies or syn-peak amphibolite facies metamorphism. They are genetically associated with a low salinity, CO₂- H₂O-rich hydrothermal fluid thought to also contain methane, nitrogen, potassium and sulphur. Gold is largely confined to the quartz-carbonate vein network but may also be present in significant amounts within iron-rich sulphidized wallrock selvages or silicified and arsenopyrite-rich replacement zones. They are distributed along major compressional to transtensional crustal-scale fault zones in deformed greenstone terranes of all ages, but are more abundant and significant, in terms of total gold content, in Archean terranes.

However, a significant number of world-class deposits are also found in Proterozoic and Paleozoic terranes. International examples of this sub-type of gold-deposits include Mother Lode-Grass Valley (U.S.A.), Mt. Charlotte, Norseman and Victory (Australia), and Dome, Kerr Addison and Giant (Canada).

8.2.1 Diagnostic Features

The diagnostic features of the greenstone-hosted quartz-carbonate vein type gold deposits are arrays and networks of fault- and shear-zone-related quartz-carbonate laminated fault-fill and extensional veins in associated carbonatized metamorphosed greenstone rocks. The deposits are typically associated with largescale (crustal) compressional faults. They have a very significant vertical extent (≤ 2 km), with a very limited metallic zonation.

8.2.2 Grade and Tonnage Characteristics

The greenstone-hosted quartz-carbonate vein deposits are one of the most significant sources of gold and account for 13.1% of all the world gold content (production and reserves). They are second only to the Witwatersrand paleoplacers of South Africa. The largest GQC deposit in terms of total gold content is the Golden Mile complex in Kalgoorlie, Australia with 1,821 t Au. The Hollinger-McIntyre deposit in Timmins, Ontario, is the second largest deposit ever found with 987 t Au. The average grade of the deposits varies from 5 g/t Au to 15 g/t Au, whereas the tonnage is highly variable from a few thousand to tens of millions tonnes of ore, although more typically there are only a few million tonnes of ore.

9 EXPLORATION

9.1 SUMMARY

Exploration on the Beta Hunt sub-lease by Karora has been completed primarily by drilling which is described in detail in Sections 10 and 11. Since the sale of the asset by WMC in 2001, limited non-drilling exploration has been completed on the property. The non-drilling exploration post-WMC was conducted by RML and Consolidated Minerals to 2008 and focused on nickel mineralisation using a three dimensional seismic survey and downhole electromagnetic (“EM”) surveys. Karora’s non-drilling activity has focused on the re-sampling of historical drill core for gold, reviewing historical documents and reassessing the historical seismic study to provide new nickel targets for drill testing.

The current exploration programs are focused both on gold and nickel targets. Drilling is aimed at extending and upgrading known zones of mineralisation plus testing for new discoveries. Significantly in 2020, exploration drilling expanded to target testing for both nickel and gold mineralisation south of the Alpha Island Fault resulting in the discovery of the 30C Nickel Trough, Larkin Gold Zone in the Beta Block, and more recently the 50C Nickel Trough in the Gamma Block.

9.2 GOLD

Non-drilling activity was focused on re-sampling historical drill core where previous owners targeted nickel mineralisation leaving potential gold mineralisation unsampled for gold analysis.

Between October 1, 2020 and September 30, 2022, a total of 19 holes have been resampled with significant results highlighted in Table 9-1.

Table 9-1 Significant results received from historical drill core not previously assayed for gold

Hole	From	To	Intercept	Comment
BE17-140RL	22	25.82	3.82m @ 3.23 g/t Au	
BE17-140RL	40	45.5	5.50m @ 2.25 g/t Au	
BE19-285	59	66	7.00m @ 1.33 g/t Au	
BE19-285	270.5	283	12.50m @ 1.46 g/t Au	Extended
BE19-296	179	182	3.00m @ 6.72 g/t Au	
BE19-296	185	188.8	3.80m @ 2.49 g/t Au	Extended
BE20-163RL	31.75	38.3	6.55m @ 1.13 g/t Au	
BE21-148RL	23.1	25.9	2.80m @ 1.83 g/t Au	
BE21-148RL	33.8	37.5	3.70m @ 3.26 g/t Au	
BE23-046	228	229	1.00m @ 8.33 g/t Au	
BE23-046	254	256	2.00m @ 4.32 g/t Au	

These results are incorporated into the current Gold Mineral Resource and also assist in providing future drill targets. The resampling program is ongoing.

9.3 NICKEL

Designing targets for Exploration drilling is based on understanding the geology of the Kambalda-style nickel sulphide deposits at Beta Hunt, which occur at the base of ultramafic (peridotitic komatiite) flows. Programs relevant to exploration work are described below.

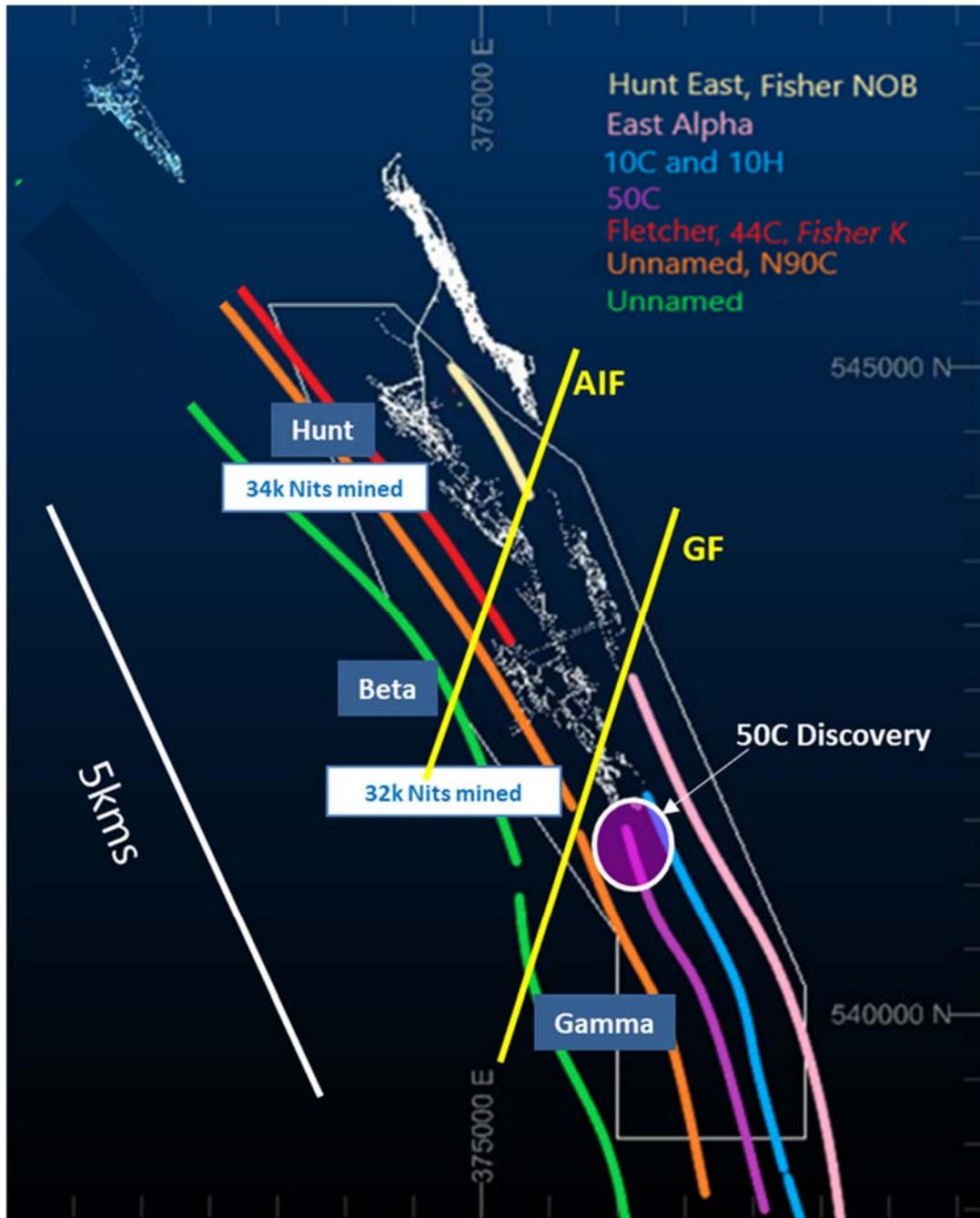
9.3.1 Geological Model

In 2020, a geological targeting exercise was undertaken at Beta Hunt to outline potential new nickel troughs hosting nickel sulphide mineralisation. Guiding principles that underpinned the recently completed drilling programs and continue to influence ongoing drill programs are as follows:

- Mineralisation occurs as corridors over 1 km wide, occurring as parallel troughs that extend for several kilometres down-plunge.
- The nickel troughs are offset by late-stage, dextral faults: Alpha Island Fault and the Gamma Fault.
- At Beta Hunt, the nickel corridor comprises an Eastern and Western Belt, which are interpreted as being continuous throughout the Beta Hunt nickel mineralised system.

It was the recognition that the Western Belt mineralisation was not tested on the south-side of the Gamma Fault that produced the drill program that led to the discovery of the 50C Nickel Trough and confirmation that the Western Belt continues south of the Gamma Fault (Figure 9-1).

Figure 9-1 Beta Hunt Mineralised Nickel Corridor highlighting potential nickel troughs as Exploration Targets
Source: Karora



9.3.2 Structural Mapping

In 2008, Consolidated Minerals produced a structural geology report based on the mapping and underground observation of nickel mineralisation at Beta Hunt (Jones, 2008).

This work showed distinct fault geometries and kinematics can be used to predict the offset pattern of mineralised lenses. Importantly, domains with little/no faulting need to be separated from strongly faulted zones.

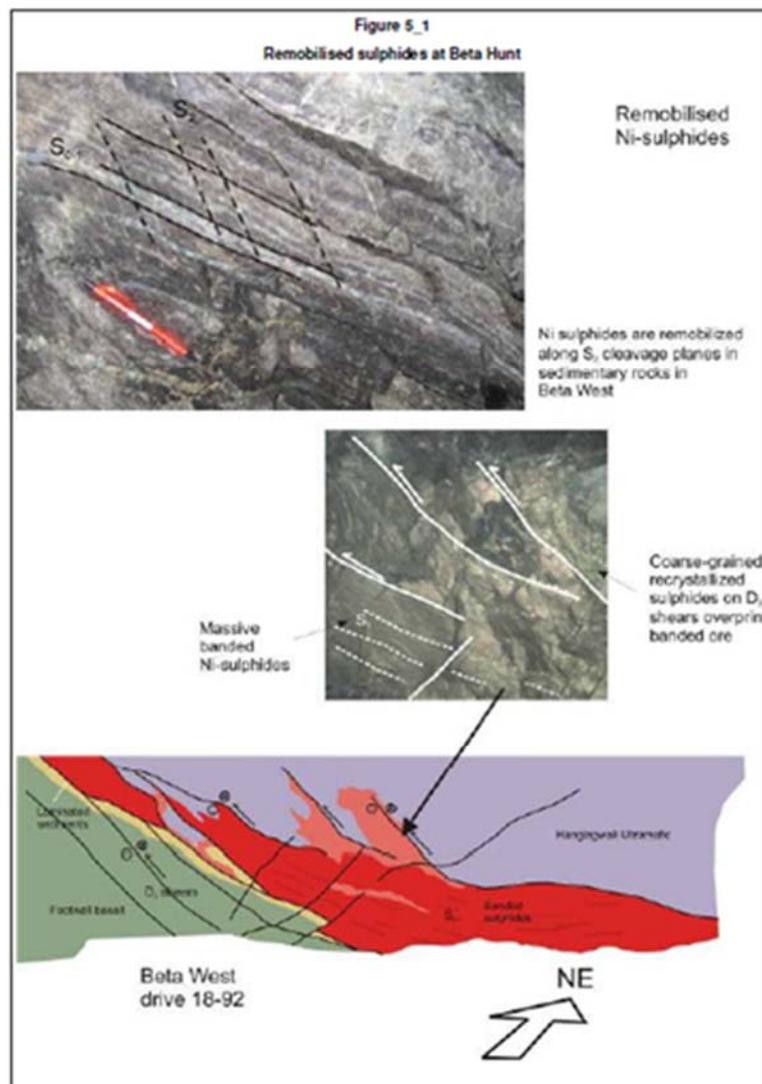
A significant finding from this work was the recognition that some nickel sulphides were remobilised during D_1 and D_3 deformation events which can redistribute nickel sulphides up to 30 m away from the footwall contact (Figure 9-2).

Recommendations from the study included:

- Routine mapping of the major structures to build up a picture of the dominant kinematics and fault geometries.
- Ongoing studies on the tenor and thickness of mineralised zones to assist in identifying the primary lineations, i.e., the original lava channels.

Results from this study are used to assist in interpreting the results from geological logging of drill core and subsequent drill hole planning/design.

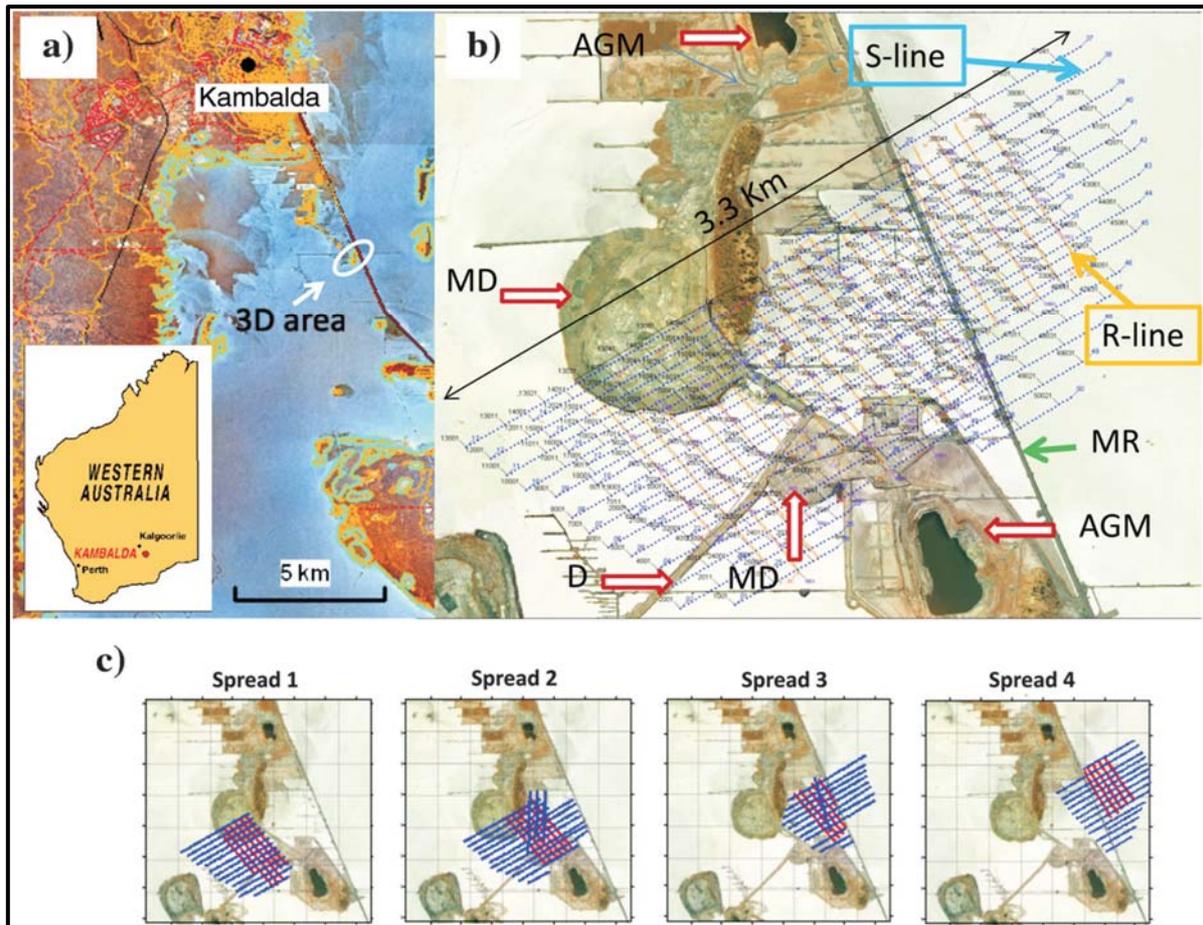
Figure 9-2 Example of re-mobilised nickel sulphides at Beta Hunt (Jones, 2008)



9.3.3 Geophysics Seismic Survey

A three-dimensional seismic survey was conducted in 2007 by Geoforce Pty Ltd during CNKO tenure. Three-dimensional design and logistics were provided by the Department of Exploration Geophysics, Curtin University. Data was acquired above Beta Hunt nickel mine on Lake Lefroy as shown in Figure 9-3. The survey methodology, processing and interpretation are detailed in Urosovich et al. (2012).

Figure 9-3 3D seismic experimental survey carried out over Beta Hunt



Notes: Aerial photo shown in (a). Salt lake is shown in blue (flooded at the time). Brown is the elevated regolith surface. Most of the 3D area was located on the salt lake (Lake Lefroy) and as shown in (b) it is surrounded by: Abandoned gold mines (AGM), Mine dumps (MD), dikes (D), main causeway, or mine road (MR). Receiver and source lines are labelled as R-line and S-line, respectively. Four overlapping patches were used for this survey, as shown in (c). Source: Urosovich et al. (2012)

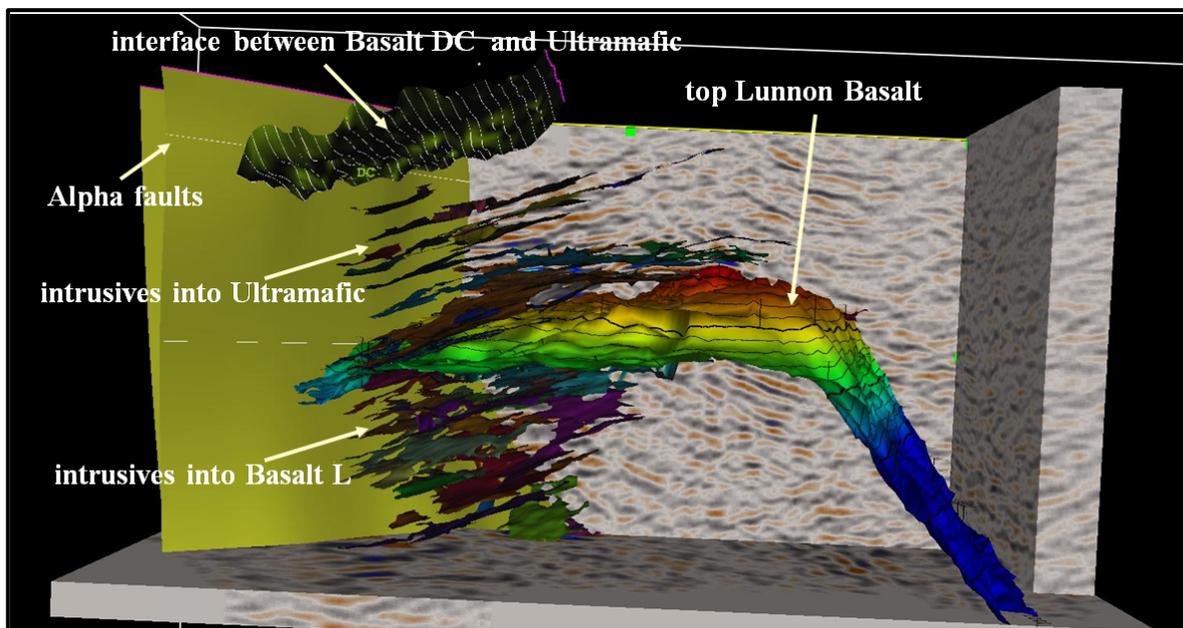
The total area covered by the shot/receiver lines was approximately 3.5 km². The shot-line separation varied from a nominal separation of 100 m to 50 m, and less (down to 10 m) where patches overlapped. Receiver line separation was kept to around 90 m. Four patches, each consisting of six receiver lines with a variable number of channels (up to 500), were used to cover the 3D area (Figure 9-3c). Nominal receiver separation was 10 m, and shot separation was 20 m. Small explosive charges (110 g) were deployed in 1.2 m to 1.5 m deep holes. On the hard ground, away from the salt lake, a free fall weight drop (375 kg) was used to generate seismic energy.

Processing focused on computation of accurate static and dynamic corrections, whereas imaging was helped by the existing geologic model. Advanced volumetric interpretation supported by seismic forward modeling was used to guide mapping of the main lithological interfaces and structures.

A combination of several factors, such as high data density, very good source/receiver coupling, deployment of small explosive charges, and high precision data processing produced a high-resolution, high-quality seismic data cube. The 3D volumetric seismic interpretation project was successful in achieving the primary objectives of mapping the main rock units as well as the Alpha Island Fault system down to 2-km depth (Figure 9-4). The knowledge gained from these structural models will be useful for future mine infrastructure design and development.

Figure 9-4 3D seismic interpretation showing interpreted geological features

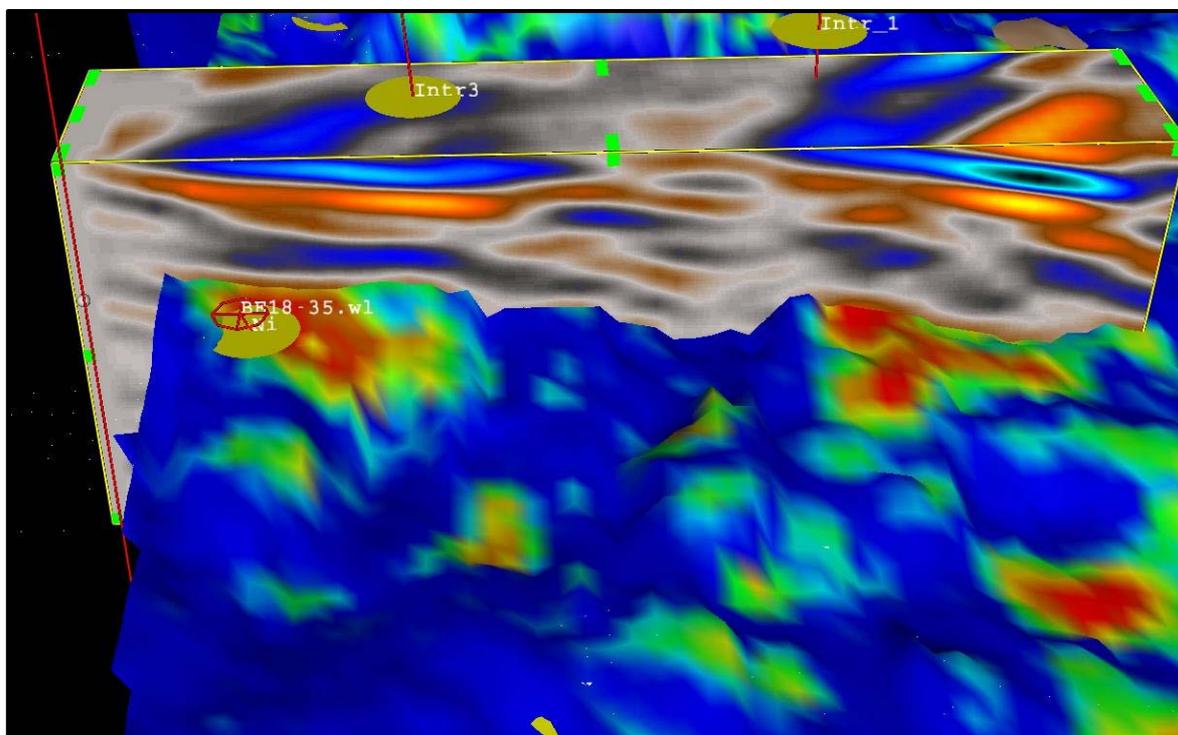
Source: Karora



Forward modeling was carried out using rock properties obtained from ultrasonic measurements and one borehole, drilled in the proximity of the 3D seismic volume (Figure 9-5). Using this information, geometric constraints based on the typical size of ore bodies found in this mine and a simple window-based seismic attribute, several new targets were proposed.

Figure 9-5 3D seismic interpretation showing high amplitude features extracted in a window above (10 m) and below (4 m) of the basalt contact

Source: Karora



The survey demonstrates that high-quality, high-resolution, 3D seismic data combined with volumetric seismic interpretation could become a primary methodology for exploration of deep, small, massive sulfide deposits distributed across the Kambalda area.

9.3.4 Results For New Nickel Discovery: Gamma Zone 50C

Based on the Karora geological model, a five hole, 1,381 m underground diamond drill program aimed to test for an offset continuation of the Western Beta nickel belt at the very southern end of the Beta Hunt mine and was completed in late 2020. The offsetting structure is known as the Gamma Fault and is interpreted to up-throw the southern block up to 200 m. The drill program was co-funded by the Western Australian Government as part of its co-funded Exploration Incentive Scheme (“EIS”).

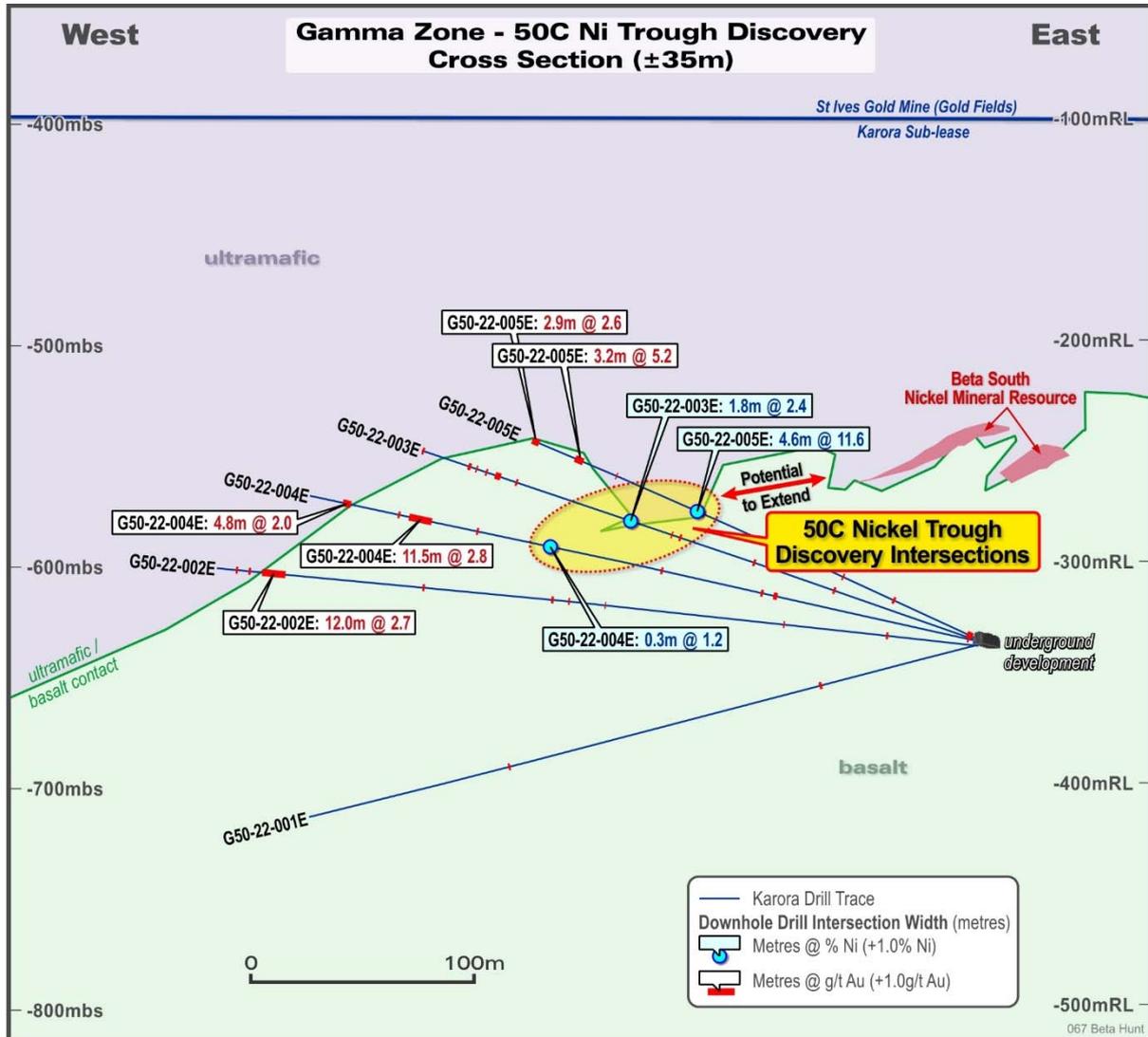
The targeted basalt/ultramafic contact was intersected in four of the five holes (Figure 9-6), with nickel mineralisation intersected in three holes—G50-22-005E, G50-22-003E and G50-22-002—in the targeted nickel contact position (see Karora news release April 6, 2021). Two holes, G50-22-005E and G50-22-003E, encountered strong nickel mineralization logged as massive and disseminated nickel sulphide, with hole G50-22-005E intersecting 2.2 m (downhole) of massive nickel sulphide. Assay results^(Note) support the visual observation of high tenor mineralisation in this hole:

- G50-22-005E: 11.6% Ni over 4.6 m, including 18.4% Ni over 2.2 m;
- G50-22-002E: 1.2% Ni over 0.3 m; and
- G50-22-003E: 2.4% Ni over 1.8 m.

Note: Downhole intervals. Estimated true widths could not be determined with available information.

These results are 140 m from existing mine development and reinforce the potential for a repeat of the Beta mineralization south of the Gamma Fault, representing a significant growth opportunity for by-product nickel production at Beta Hunt.

Figure 9-6 50C Nickel Discovery cross section looking north



10 DRILLING

10.1 DRILLING SUMMARY

Drilling has been completed at Beta Hunt by numerous owners including WMC, RML, CNKO, and Karora. The earliest drilling contained within the Karora database was completed in 1970 by WMC targeting primarily nickel. Subsequent owners completed drill programs to delineate gold resources in addition to the nickel targets.

As of September 30, 2022, the Karora database contains records for 5,352 drill holes within the sub-lease boundary, for approximately 760,000 m. Various drill methods have been completed at Beta Hunt, and these are summarised in Table 10-1.

Table 10-1 Beta Hunt drill database summary – September 2022

Drill Type	Number	Metres
Aircore (AC)	88	2,672
Diamond	5,205	750,562
Percussion	13	886
Rotary air blast (RAB)	5	266
Reverse circulation (RC)	33	2,803
Reverse circulation/diamond (RCD)	8	2,076
Total	5,352	759,265

Between the previous Technical Report published by Karora on February 3, 2021 for drilling to September 30, 2020 Karora has completed a further 581 drill holes for approximately 107,000 m to September 30, 2022. Drilling was undertaken to define additional gold and nickel resources and to upgrade the Mineral Resource classification to support ongoing production and define mineable material. A summary of this drilling is shown in Table 10-2.

Table 10-2 Beta Hunt drill database summary – October 2020 to September 2022

Drill Type	Number	Metres
Aircore (AC)		
Diamond	570	104,137
Percussion		
Rotary air blast (RAB)		
Reverse circulation (RC)	3	320
Reverse circulation/diamond (RCD)	8	2,076
Total	581	106,533

The Karora Mineral Resources and Mineral Reserves are based on diamond drill data.

Current Gold Indicated Mineral Resource estimates at Beta Hunt are based on a 40 m by 40 m resource definition drill pattern. Estimates of Inferred Mineral Resources along strike and beneath the existing resource used nominal 80 m by 80 m drill pattern up to 100 m by 100 m. Underground diamond drill core at Beta Hunt is drilled as NQ2 (50.7 mm diameter).

Drill collars are surveyed by the mine survey department using electronic total station equipment. Single shot downhole survey measurements are taken at 15 m and 30 m, then every 30 m thereafter. Multi-shot surveys are conducted at the completion of each hole at 3 m intervals. All core drilled is oriented with oriented core measuring devices.

HMR Drilling Services has carried out underground diamond drilling at Beta Hunt since 2016 and are currently utilising a fleet of Erebus M90 mobile underground diamond core rigs.

Diamond drill core is logged on site by geologists for lithology, alteration, mineralisation, and structures. Structural measurements, alpha and beta angles are taken on major lithological contacts, foliations, veins, and major fault zones. Multiple specific gravity (“SG”) measurements are taken per hole in both ore and waste zones. Field geotechnicians record the Rock Quality Designation (“RQD”) measure for every second drill hole. All drill holes are digitally photographed.

NQ2 drill holes designated as resource definition or exploration are cut in half with the top half of the core sent to the laboratory for analysis and the other half placed back in the core tray. This is then transferred onto pallets and moved to the core yard library. All grade control drilling is sampled as whole core samples with a maximum 1 m interval.

The structural complexity of nickel mineralisation at Beta Hunt is reflected by closer spaced drill patterns. Nickel Mineral Resources are based on an initial 30 m by 30 m down to 10 m x 10 m spaced drill hole pattern. Subsequent drilling focuses on stepping out from a significant intercept to define any attenuated pinch out, basalt roll-over or fault offsetting the nickel mineralisation.

As per gold targeted drilling, the core is prepared, oriented, logged, photographed, and cut for sampling by site geologists and geotechnicians.

10.2 DRILLING MAPS

Figure 10-1 and Figure 10-2 are representative plan maps showing drilling distribution for Beta Hunt. Figure 10-1 shows the distribution of historical and current drilling at Beta Hunt.

Figure 10-1 Plan showing drilling to September 2020 and to September 2022 at Beta Hunt

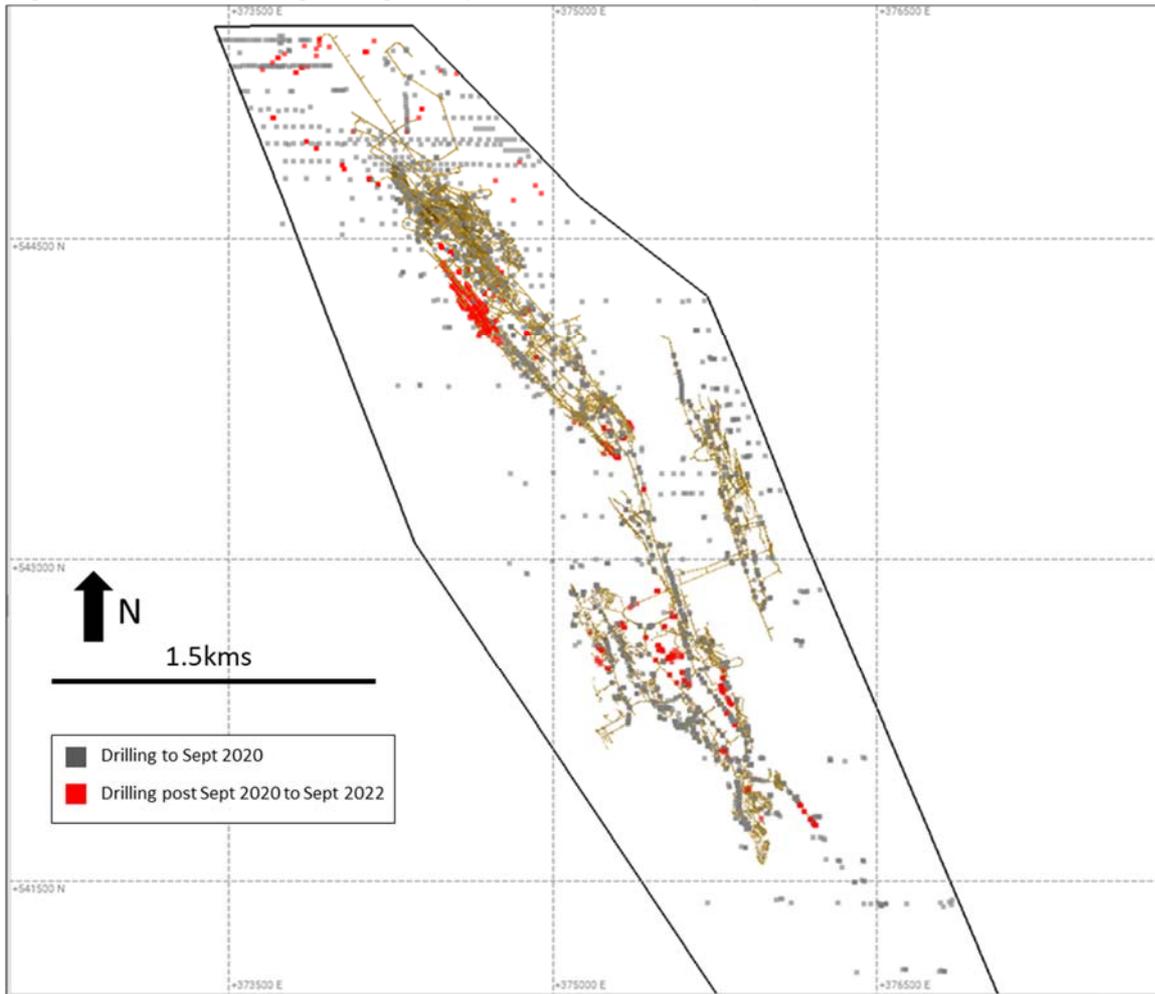
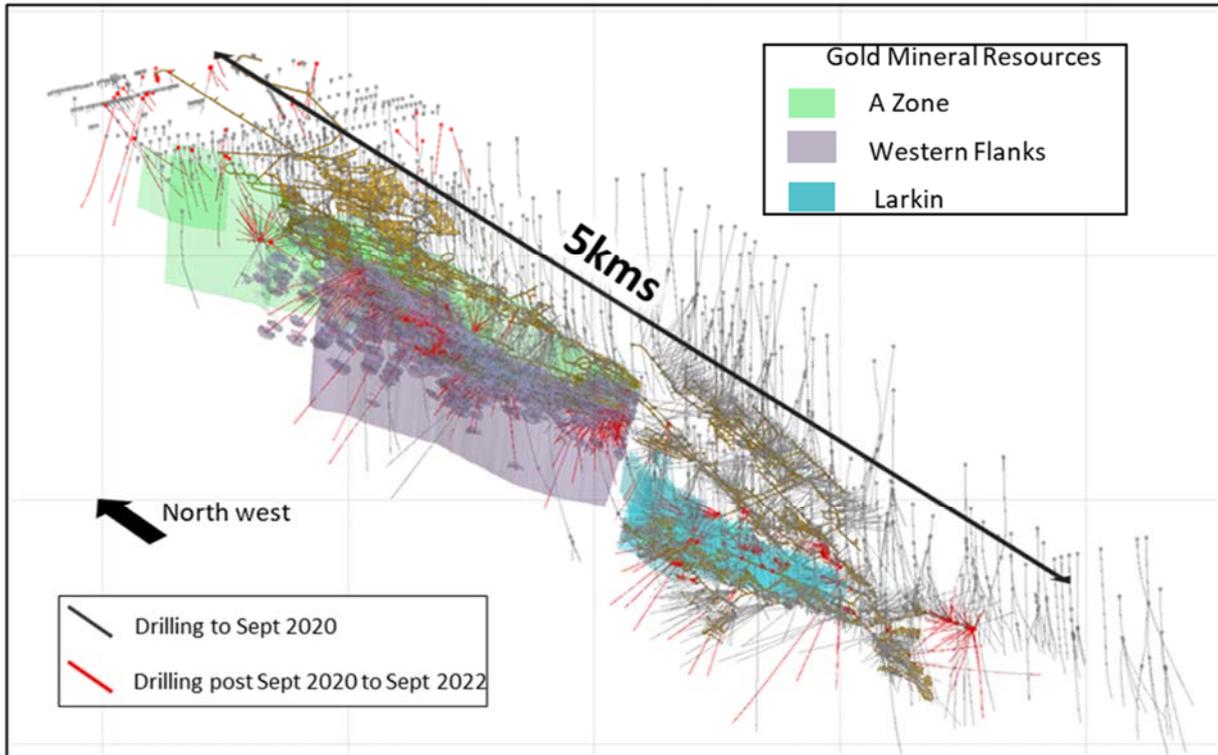


Figure 10-2 Beta Hunt oblique view looking northeast showing post-September 30, 2020 drilling



10.3 RESULTS

10.3.1 Gold

10.3.1.1 Resource Definition

Drilling at Beta Hunt has provided key information to support Mineral Resource estimations for gold and nickel as detailed in Section 14.

10.3.1.2 Exploration

A significant number of nickel and gold occurrences were intersected outside the previous (2020) Mineral Resource testing. Drilling for gold in 2021 and 2022 was focused on northern and down-dip extensions of the A Zone and Western Flanks Mineral Resources, testing for mineralized off-set extensions south of the Alpha Island Fault and reconnaissance testing of the Fletcher Zone target. This drilling resulted in:

- Extending the Western Flanks gold mineralisation to the north and down-dip (Figure 10-3 and Figure 10-4).
- Extending A Zone to the north (Figure 10-3).
- Defining a new Mineral Resource south of the Alpha Island Fault named the Larkin Zone and a new zone parallel and west of Larkin, known as the Mason Zone (Figure 10-5).
- Confirmation of over 500 m strike potential for the Fletcher Zone (Figure 10-6).

Figure 10-3 Beta Hunt plan view highlighting recent gold results received for period May–July 2022 (Karora news release August 2, 2022)

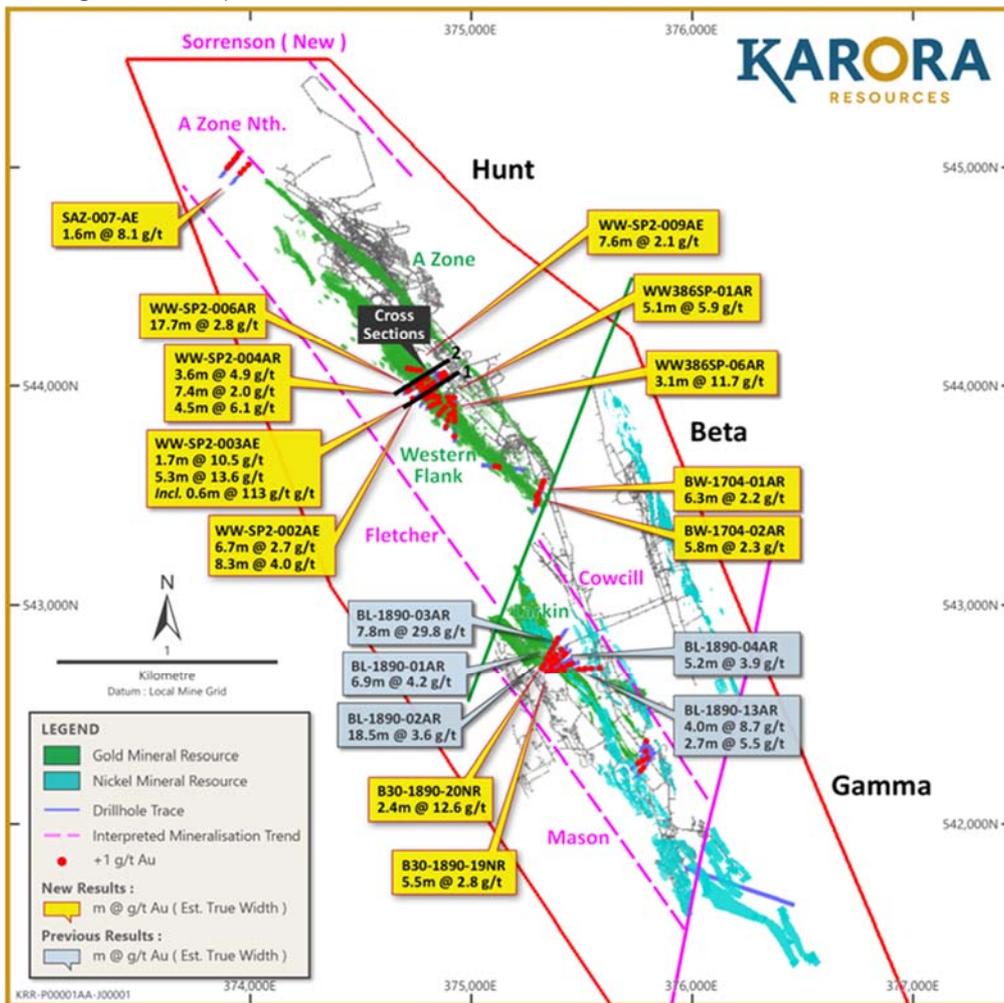


Figure 10-4 Western Flanks Deeps X sections looking north. Sections are 80 m apart in plane of Main Shear. Refer Figure 10-3 for location. (Karora news release, August 2, 2022)

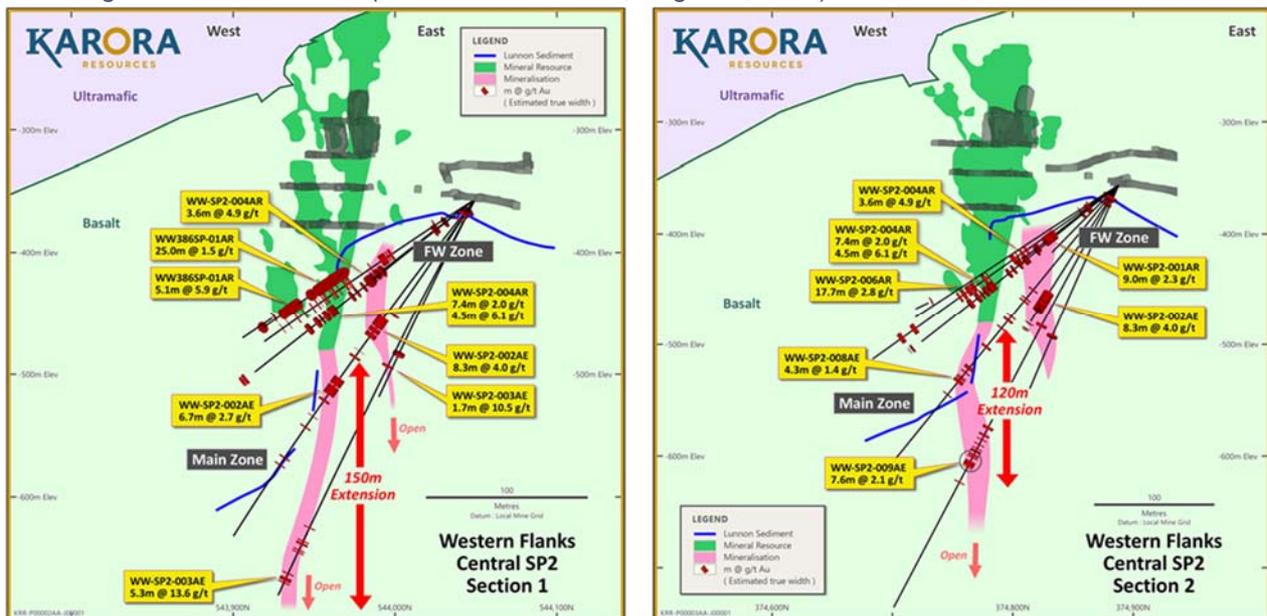


Figure 10-5 Beta Hunt plan view highlighting recent significant gold results from Mason and Cowcill drilling (Karora news release August 23, 2022)

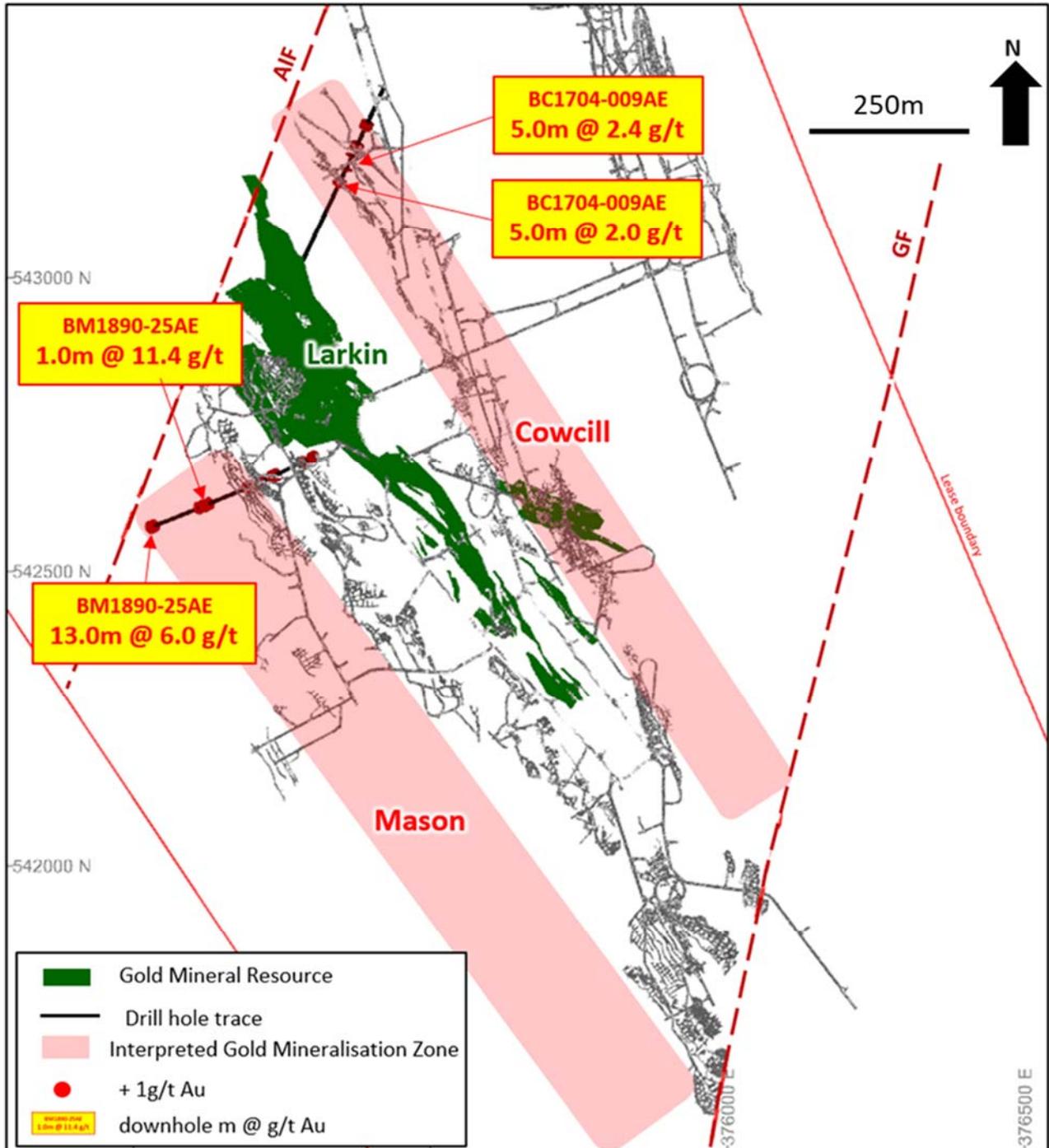
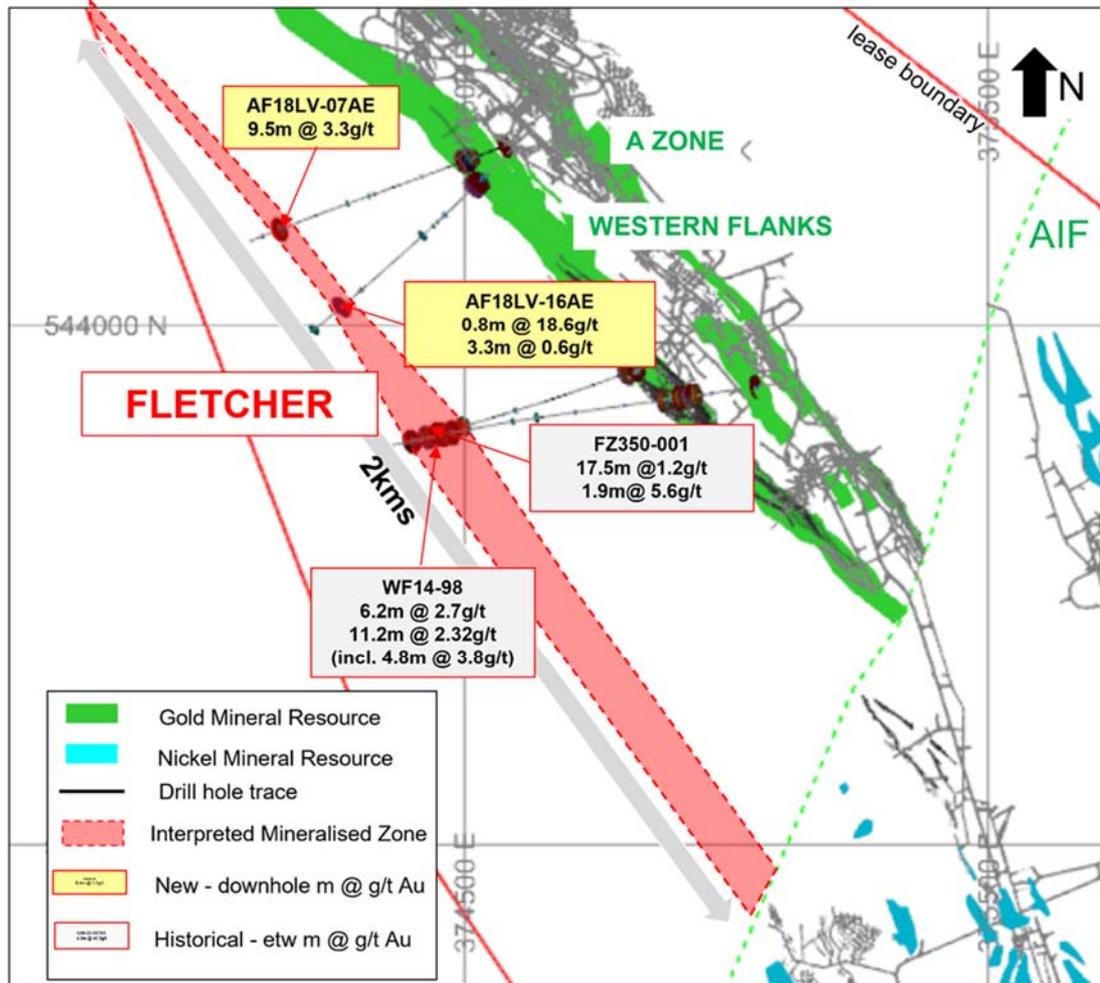


Figure 10-6 Plan view of Interpreted strike extent of Fletcher Shear Zone highlighting recent drill results (Karora news release January 24, 2022)



The above discoveries, including drill results, plus additional targets highlighting the exploration potential at Beta Hunt are summarized in Section 24.

10.3.2 Nickel

10.3.2.1 Resource Definition

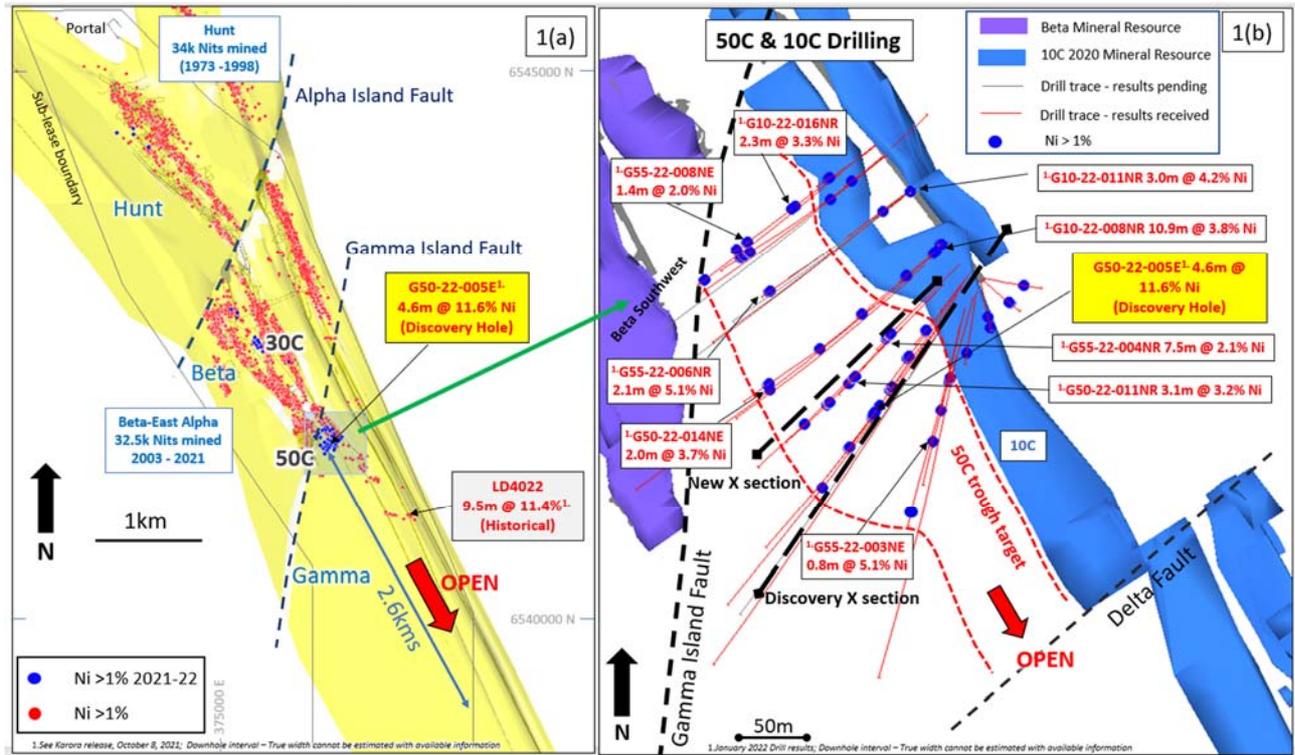
Resource Definition Drilling at Beta Hunt over the period October 2020 to January 31, 2022 aimed to extend and upgrade nickel mineralisation in the Beta and Gamma Blocks to support updated Mineral Resource estimations for nickel as detailed in Section 14.

10.3.2.2 Exploration

Exploration drilling for nickel over the period October 2020 to January 2022 was focused on the discovery of new nickel troughs south of the Gamma Fault. Drilling targeted the Western Nickel Belt, west of the previously defined 10C nickel Mineral Resource.

The drilling was successful in discovering the 50C Nickel Trend (refer Section 9.4). This discovery was followed up with both extensional and infill drilling which defined continuous nickel sulphide mineralization over 200 m in strike length (Figure 10-7). The 50C Nickel Trend is now a significant contributor to Karora’s nickel Mineral Resources as detailed in Section 14.

Figure 10-7 Beta Hunt drilling intersections



Notes: a) Plan view of nickel assays greater than 1% Ni pre 2021 and post 2021 overlaid on 3D surface of basalt/ultramafic contact; b) Beta Hunt nickel Mineral Resources (as at Sept 30, 2021) highlighting location of 50C Drilling and recent drill results and cross section locations. (Refer Karora News Release: March 1, 2022)

11 SAMPLE PREPARATION, ANALYSIS AND SECURITY

11.1 SAMPLE PREPARATION

11.1.1 Pre-2016

Since 1966, drill hole data for the Beta Hunt gold and nickel mineralisation has been collected by SLM (acquired by Karora in 2016), CNKO and WMC. Drill hole programs by SLM and CNKO were conducted under written protocols which were very similar and generally derived from the original operator, WMC. The operator's geologists performed geological (and geotechnical where required) logging and marked the core for sampling. The core was either cut on site or delivered to the laboratory where all further sample preparation was completed prior to assay analysis.

All diamond core has been 100% logged by a geologist. Core after 2007 has also been geotechnically logged. All core after 2007 has been photographed wet, and the photos are stored on the network.

Over the first decades of operation, drilling targeted nickel mineralization. Sampling was highly selective according to the visual nickel mineralization observed by the geologist. Generally, sampling was between 0.1 m or 0.3 m to 1.2 m intervals, though some historical sample intervals were noted to 0.06 m. Sampling for gold was somewhat less selective as the gold mineralization does not have clear visual indicators.

SLM gold sampling was less selective to ensure gold assays were received to cover the full extent of gold related alteration. SLM sampling for nickel was selective, and sample intervals correspond with the footwall contact of the Kambalda Komatiite and any areas with visual indicators of nickel-bearing sulphides.

Sample handling and submission to the laboratory protocols were documented for SLM and CNKO. No historic documentation is available for WMC drill holes.

11.1.2 Karora 2016–2022

Diamond drilling carried out by Karora at Beta Hunt is logged, sampled and analysed according to written procedures.

Logging was entered into drill hole logging software on field laptop computers and checked into Karora's geological database.

Gold and/or nickel mineralization was targeted using NQ2 diamond drill holes generally sampled as half core, except for grade control holes, which were sampled as whole core. Sample intervals were based on geology, with a minimum 0.2 m to maximum 1.2 m sample size. Whole core samples were taken with a maximum length approximately 1.0 m to reduce excessive sample weight.

Grade control holes in 2018–2020 were drilled in core size LTK60 and sampled as whole core. All grade control completed in 2020–2022 were drilled with NQ2 core and sampled as whole core.

Before sampling, diamond core was photographed wet, and the generated files stored electronically on the Karora server.

Sampling was performed by a technician in line with sample intervals marked up on the core by a geologist. Core was cut at the sample line, and either full or ½ core was taken according to the

geologist's instructions and placed into numerically marked calico sample bags ready for dispatch to the laboratory, and QA/QC standards and blanks were inserted in the series.

All diamond core was oriented, as far as possible, and oriented structures logged with alpha and beta angles.

Sample security protocols in place aim to maintain the chain of custody of samples to prevent inadvertent contamination or mixing of samples, and to render active tampering as difficult as possible. Sampling is conducted by Karora staff or contract employees under the supervision of site geologists. The work area and sample storage areas are covered by general site security video surveillance. Samples bagged in plastic sacks are collected by the laboratory transport contractor and driven to the SGS Kalgoorlie laboratory.

11.2 LABORATORY SAMPLE PREPARATION, ASSAYING AND ANALYTICAL PROCEDURES

Since March 2016, all Beta Hunt samples have been processed at the independent commercial laboratories listed in Table 11-1.

Table 11-1 Independent commercial laboratories

Laboratory	Address	Comment
SGS Australia (SGS Kalgoorlie)	17 Stockyard Way Kalgoorlie WA 6430	Accreditation Status: ISO 9001. Accrediting Body: BSI
SGS Australia (SGS Perth)	28 Reid Road Perth Airport WA 6105	Accreditation Status: ISO 9001 /IEC 17025. Accrediting Body: NATA
Australian Laboratory Services (ALS Perth Malaga)	31 Denninyup Way Malaga WA 6090	Accreditation Status: ISO 17025. ALS Perth is a NATA Accredited Testing Laboratory. Corporate Accreditation No: 825, Corporate Site No: 23001
Australian Laboratory Services (ALS Perth Wangara)	79 Distinction Road Wangara WA 6065	Sample Preparation Facility
Australian Laboratory Services (ALS Kalgoorlie)	5 Keogh Way Kalgoorlie WA 6430	Accreditation Status: ISO 9001.

11.2.1 Laboratory Sample Preparation

Since March 2016, the majority of Beta Hunt samples were processed for gold at SGS Kalgoorlie and nickel at SGS Perth. The laboratory sample preparation process was carried out at SGS Kalgoorlie and SGS Perth at different periods due to SGS resource management, but the process is as follows at both SGS laboratories:

- Samples are dried if necessary;
- Samples are crushed to 3 mm and split; most samples weigh from 1 kg to 2.8 kg:
 - One split is forwarded to milling;
 - Second split is kept as retained crushed sample;
 - Second split is also analysed at intervals generated by the laboratory computer;

- Sample splits are pulverised to 85% passing 75 µm; this is done in a cycle through a row of four mills, so a sample numbered four higher than the previous will be processed through the same mill.

The pulverised material is treated as follows:

- Sampled by scoop (300 g);
- Subsampled, taking 25 g to check screening (one sample in 20); and
- Excess retained.

During 2021, samples were also processed for gold at ALS Kalgoorlie and ALS Perth as listed in Table 11-2.

Table 11-2 ALS Sample Preparation

ALS Code	Description
SAMPLE PREPARATION	
LEV-01	Waste Levy for disposal of toxic waste including lead, solvents, etc.
LOG-22	Log sample in tracking system - Samples received without bar code labels attached
WEI-21	Weight of material received from client
SAMPLE PREPARATION – CORE PROCESSING	
CRU-21	Coarse crushing of rock chip and drill samples. Used as a preliminary step before fine crushing of larger sample sizes or when the entire sample will be pulverized but the material is too large for introduction to the pulverizing equipment. No QC reported.
CRU-31	Fine crushing of rock chip and drill sample to better than 70% -2mm. Standard prep for samples where a representative split will be pulverized
SPL-22Y	Rotary Split using Boyd Rotary Splitter
PUL-31h	Pulverize a 750 g split to better than 85% passing minus 75 µm
SAMPLE PREPARATION – CORE PROCESSING – OPTIONAL TASKS	
BAG-21	Raw Samples are re-bagged in a new bag prior to processing, usually applied to damaged bags upon receipt
WSH-21	“Wash” crushers with barren material after every sample. The standard no charge procedure uses barren material between every batch. This procedure is selected as required – assumes flush is immediately discarded
WSH-22	Wash pulverizers with barren material after every sample. The standard no charge procedure uses barren material between every batch. This procedure is selected as required – assumes flush is immediately discarded

11.2.2 Gold Assaying and Analytical Procedures

In March 2016, SLM changed from Bureau Veritas (Kalassay) to SGS Kalgoorlie for analysis.

SGS fire assay procedure for gold (Figure 11-1) is as follows:

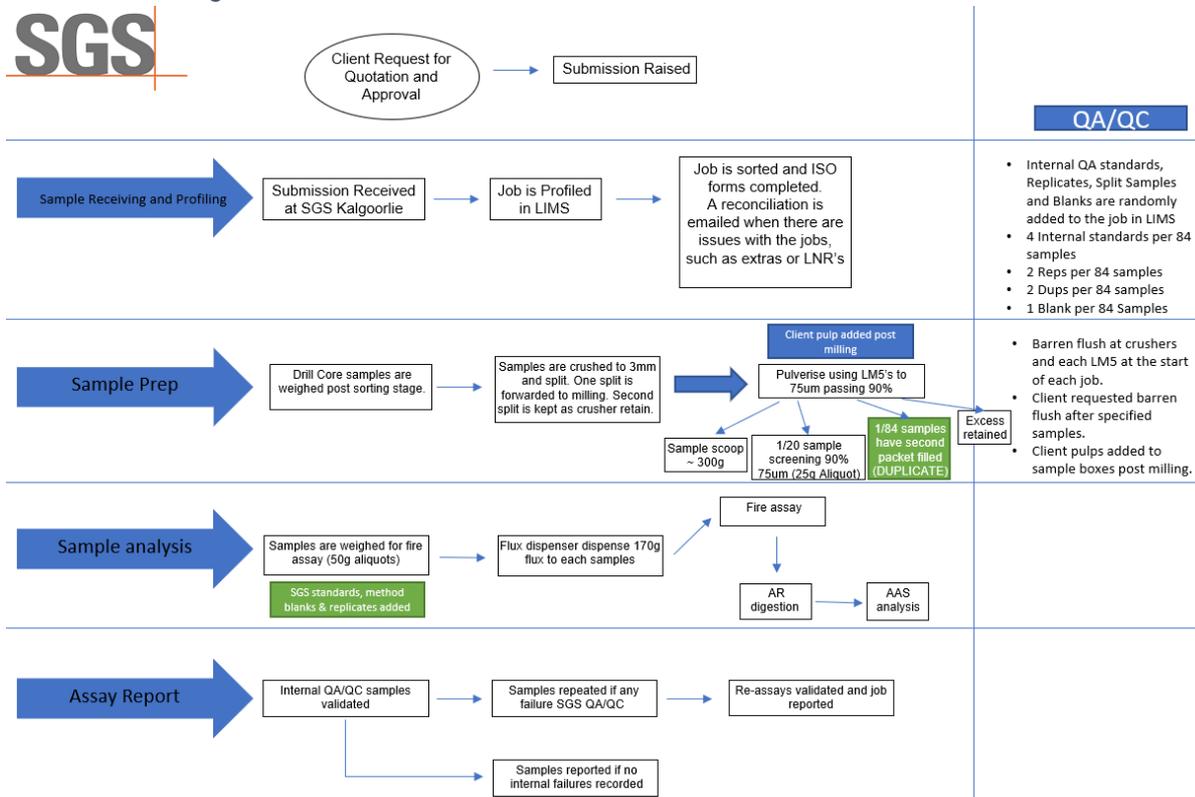
- Sample preparation crushing and splitting as described in Section 11.2.1;
- 50 g subsample of pulverised material taken for fire assay in disposable container;
- Flux dispenser adds 170 g of flux to 50 g charge in racked disposable container;
- Pour the racked charges into racked fire assay crucibles;
- Fire the charges in their racks;
- Remove from furnace and pour racks into cooling moulds;

- Recover the fused button from the glass slag;
- Cupellation – the button is fired in a cupel which absorbs the base metals and leaves a prill of precious metal (Au and if present Pt and Pd) only;
- Acid digest – the prill is dissolved in nitric acid, hydrochloric acid (aqua regia); and
- AAS finish – the solution is made up to volume and analysed by Atomic Absorption Spectroscopy (“AAS”).

QA/QC is completed by the laboratory using internally supplied blanks, duplicates, replicates, and standards in every submitted batch. After completion of the sample analyses, either AAS or inductively coupled plasma (“ICP”), the laboratory staff follow internal procedure (QP21) to identify any outliers and conduct required repeats. Only after all QA/QC samples pass will a report be issued to the client.

Figure 11-1 Flowchart of laboratory sample management

Source: SGS Kalgoorlie



During 2021, samples were also processed for gold at ALS Kalgoorlie and ALS Perth as listed in Table 11-3.

Table 11-3 ALS Fire Assay Procedure

ALS Code	Description
ANALYTICAL METHODS	
Au-AA26	Ore grade Au by fire assay and AAS, 50 g nominal sample weight
OVERLIMIT METHODS	
Au-GRA22	Au by fire assay and gravimetric finish, 50 g nominal sample weight

11.2.3 Nickel Assaying and Analytical Procedures

Before March 2016, Beta Hunt nickel samples were analysed at Bureau Veritas (Kalassay). The analytical method for nickel was by multi-element analysis by mixed acid digest/ICP-AES or ICP-MS (MA200, MA201, MA202). The sampling method entailed collecting a 200 mg subsample and the sample was weighed. The subsample was digested using a mixed acid before ICP analysis.

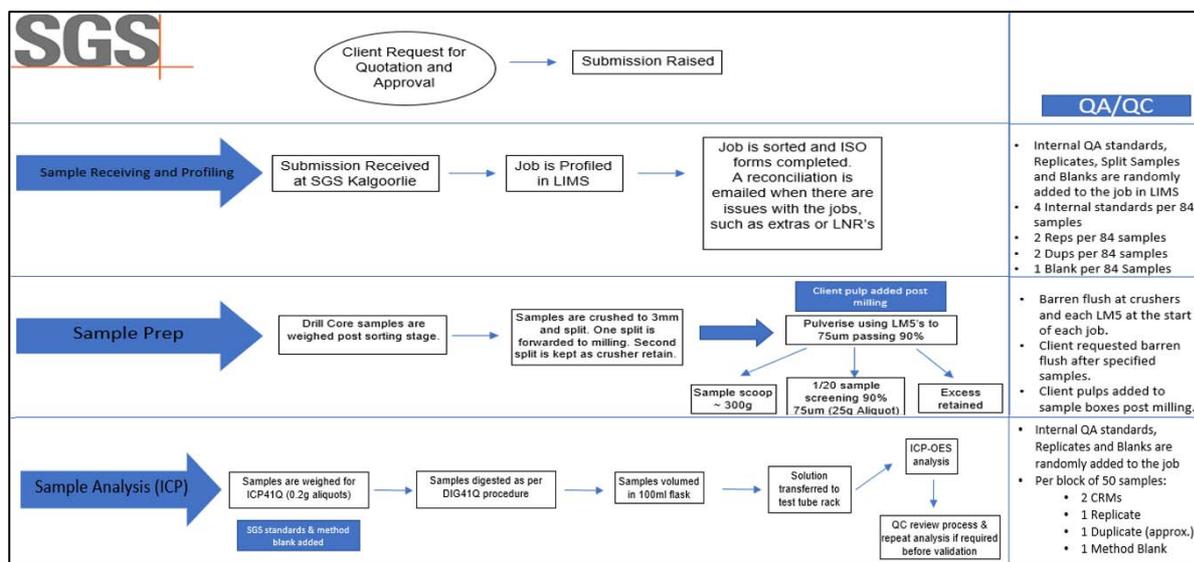
Since March 2016, all analyses for Beta Hunt nickel samples have been carried out by SGS Perth (by multi-element ICP).

The ICP assay procedure for nickel multi-element used at SGS is as follows (Figure 11-2):

- 300 g subsample of pulverised material taken for ICP analysis in disposable container;
- Subsample is weighed for ICP 4 acid digest (0.2 g aliquots);
- Sample solution is added to flask and volume measured; and
- Sample transferred to test tube and analysed using ICP-OES.

Figure 11-2 Flowchart of laboratory sample management

Source: SGS Perth



11.3 QUALITY CONTROL PROCEDURES AND QUALITY ASSURANCE

11.3.1 Quality Control Procedures Pre-2016

Drill hole programs by SLM, CNKO and RML were conducted under written protocols which were very similar and generally derived from the previous operator. Certified standards, blanks and duplicates were part of the protocols. No umpire laboratories have been used.

QA/QC data is available for certified standards and blanks which were routinely inserted into sample batches after 2007.

The standards and blanks analysed suggest the quality of nickel sample preparation and assaying work conducted by Kalassay during 2008 was not to a high standard with some jobs requiring re-assay. The analysis did not demonstrate any clear bias in the data. Reconciliation of nickel mining

by SLM has generally been very good. This outcome indicates that the quality of laboratory work during this time has not impacted materially on the estimation of nickel Mineral Resources.

Documentation for WMC QA/QC data is not available. Reconciliation of nickel mining by SLM has generally been very good. WMC was considered to be a leader in the mining industry and had a reputation as a company with high standards. Therefore, it is assumed that the WMC data is reliable.

Karora's QA/QC programs are outlined below. QA/QC programs prior to Karora's involvement at Beta Hunt are detailed in Karora's Technical Report, February 6, 2020 (see Karora's profile on www.sedar.com).

11.3.2 Quality Control Procedures Post-2016

All drill hole programs completed by Karora are controlled by written procedures. Relevant changes since the February 2016 PEA (Karora, 2016) are outlined below.

Certified Standards for gold and nickel were provided by Ore Research & Exploration Pty Ltd ("OREAS") between 2014 and June 2016. From June 2016 on, Geostats standards were procured for Au, and by November 2016 were used exclusively for Au assay batches. Geostats Ni purpose reference standard samples were introduced in June 2020 and effectively replaced the OREAS reference samples. Refer to Table 11-5 and Table 11-6 for Karora-inserted standards and blanks.

Coarse Blank used by SLM is Bunbury Basalt sourced from Gannet Holdings Pty Ltd via Westernex Pty Ltd.

From March to December 2017, Karora made their own blank material for to reduce costs. This was made up from crushed sample reject, by selecting samples with analyses of <0.01 g/t Au.

The Karora procedure for insertion of quality control samples is as follows:

- Insert at least one blank and one certified reference material ("CRM") per batch, however small the batch of drill hole samples, plus one CRM or blank every 20 samples.
- One blank and one standard inserted within a recognised ore zone and one CRM or blank every 20 samples.

In samples with observed visible gold, a coarse blank is inserted as the fourth sample after the visible gold. This serves both as a coarse flush to prevent contamination of subsequent samples and a test for gold smearing from one sample to the next due to inadequate cleaning of the crusher and pulveriser.

Visible gold sample numbers are recorded on the laboratory dispatch sheet. The laboratory has added feldspar flush and additional cleaning after those samples. To demonstrate the effectiveness of their cleaning, SGS would also analyse the feldspar flush (coded FF). The majority of these FF assays showed no contamination.

When assays are imported into Karora's geological database, the standards and blanks are automatically checked and pass/fail criteria applied. If a batch fails, it is assessed for possible reasons and the procedure specifies appropriate actions.

- A single failure with no apparent cause, in a length of waste, may be accepted by the Authorised Person (geologist or database administrator).
- A failure near or in a length of mineralisation, will result in a request to the laboratory for re-assay of relevant samples. The Authorised Person changes the status from Failed to DH

Reassay in the database. The re-assayed results will be re-loaded and checked against QA/QC again.

If the quality control standard(s) and/or blanks fail, the batch may be wholly or partly re-assayed at the discretion of the geologist. Where re-assaying has occurred, the quality control standards and blanks are checked.

Table 11-4 Trend issue condition and action

Problem identified	Response
Fortnightly date-pattern increase in failures	Laboratory corrected training issues for one shift
Series of high failures of blanks	Lab increased cleaning between samples, added feldspar flush after visible gold or high grades noted in submissions, and now reports analysis of feldspar flushes.
Substantial number of failed standards that were incorrect relating to substitution of incorrect CRM.	Identified a training problem in contract sampling team. Training and supervision were improved and process corrected. Affected batches were queued at the laboratory and the issue continued until the backlog was cleared.
Low bias on standards creating some failures. Lab observed low bias on their own standards, but they were within tolerance.	Laboratory later identified a relationship with a batch of test tubes and moved to replace them.

Table 11-5 Karora-inserted certified reference material and blank standards for gold post-2016

Standard	Element	Unit	Expected Value	Standard Deviation	Au -3SD	Au +3SD
G300-9	Au	ppm	1.53	0.06	1.35	1.71
G310-9	Au	ppm	3.29	0.14	2.87	3.71
G314-2	Au	ppm	0.99	0.04	0.87	1.11
G314-6	Au	ppm	1.98	0.07	1.77	2.19
G315-3	Au	ppm	1.97	0.06	1.79	2.15
G316-7	Au	ppm	5.85	0.19	5.28	6.42
G319-4	Au	ppm	0.5	0.03	0.41	0.59
G909-5	Au	ppm	2.63	0.1	2.33	2.93
G910-1	Au	ppm	1.43	0.06	1.25	1.61
G911-10	Au	ppm	1.3	0.05	1.15	1.45
G912-3	Au	ppm	2.09	0.08	1.85	2.33
G914-2	Au	ppm	2.48	0.08	2.24	2.72
G914-6	Au	ppm	3.21	0.12	2.85	3.57
G915-2	Au	ppm	4.98	0.19	4.41	5.55
G915-3	Au	ppm	9.39	0.49	7.92	10.86
G915-4	Au	ppm	9.16	0.35	8.11	10.21
G916-10	Au	ppm	2.81	0.14	2.39	3.23
G916-8	Au	ppm	3.2	0.12	2.84	3.56
OREAS-14P	Au	ppm	0.051	0.006	0.033	0.069
OREAS-17Pb	Au	ppm	2.56	0.06	2.38	2.74

Standard	Element	Unit	Expected Value	Standard Deviation	Au -3SD	Au +3SD
OREAS-205	Au	ppm	1.244	0.053	1.085	1.403
OREAS-206	Au	ppm	2.197	0.081	1.954	2.44
OREAS-208	Au	ppm	9.248	0.438	7.934	10.562
OREAS-216	Au	ppm	6.66	0.155	6.195	7.125
OREAS-73a	Au	ppm	0.014	0.003	0.005	0.023
OREAS-76a	Au	ppm	0.041	0.005	0.026	0.056
BLANK_SAMP_REJECT	Au	ppm	0.005	0.015	0	0.05
DH_BLANK_BB	Au	ppm	0.005	0.015	0	0.05
FACE_BLANK_BB	Au	ppm	0.005	0.015	0	0.05

Table 11-6 Karora-inserted certified reference material and blank standards for nickel post-2016

Standard	Element	Unit	Expected Value	Standard Deviation	Ni -3SD	Ni +3SD
GBM317-13	Ni	ppm	39436	1512	34900	43972
GBM907-11	Ni	ppm	45163	2252	38407	51919
GBM907-12	Ni	ppm	18694	774	16372	21016
GBM910-13	Ni	ppm	26969	1181	23426	30512
GBM912-16	Ni	ppm	37560	1563	32871	42249
GBM917-16	Ni	ppm	47437	2259	40660	54214
GBM917-3	Ni	ppm	5	2	0	11
OREAS-14P	Ni	ppm	20900	700	18800	23000
OREAS-22P	Ni	ppm	-	-	-	-
OREAS-24P	Ni	ppm	141	4	129	153
OREAS-72a	Ni	ppm	6930	250	6180	7680
OREAS-73a	Ni	ppm	14100	200	13500	14700
OREAS-74a	Ni	ppm	31400	1750	26150	36650
OREAS-75a	Ni	ppm	51100	2100	44800	57400
OREAS-76a	Ni	ppm	72900	2300	66000	79800
OREAS-77a	Ni	ppm	105900	3650	94950	116850
DH_BLANK_BB	Ni	ppm	150	50	0	300
FACE_BLANK_BB	Ni	ppm	150	50	0	300

11.3.3 Gold Quality Control Analysis 2020–2022

11.3.3.1 Laboratory Summary

During the reporting period from September 2020 to September 2022, a total of 873 sample batches were submitted to four laboratories as summarised in Table 11-7. These represented 94,504 diamond drill hole core samples. A total of 23 QC samples (field re-samples) were submitted to SGS in Kalgoorlie, shown in Table 11-8. A total of 8,042 company certified standards and blanks were submitted to ALS (Perth or Kalgoorlie) and SGS (Perth or Kalgoorlie). Results are summarised in the following charts. No major issues were noted other than the occasional

outlier which were individually investigated and resolved. Additionally, there were re-assays of coarse rejects for a number of sample batches taken in early 2020, and the results of these re-assays were reported in the Company's 2020 Technical Report. The chart for these coarse reject results is shown in Figure 11-18.

Table 11-7 QAQC summary by laboratory

Laboratories	ALS_Kalgoorlie	ALS_Perth	SGS_Kalgoorlie	SGS_Perth
No. of Batches	2	72	746	53
No. of DH Samples	32	14104	78763	1605

Table 11-8 QC category ratios

QC_Category	DH Sample Count	QC Sample Count	Ratio of QC Samples to DH Samples
Field Resample	80579	23	1:3503

Table 11-9 Standard type ratios

Standard Type	DH Sample Count	Standard Type Count	Standard Sample Count	Ratio of QC Standard to DH Samples
SLM_BLANK	1	3735	1:25	2
SLM_CRM	20	4307	1:22	20

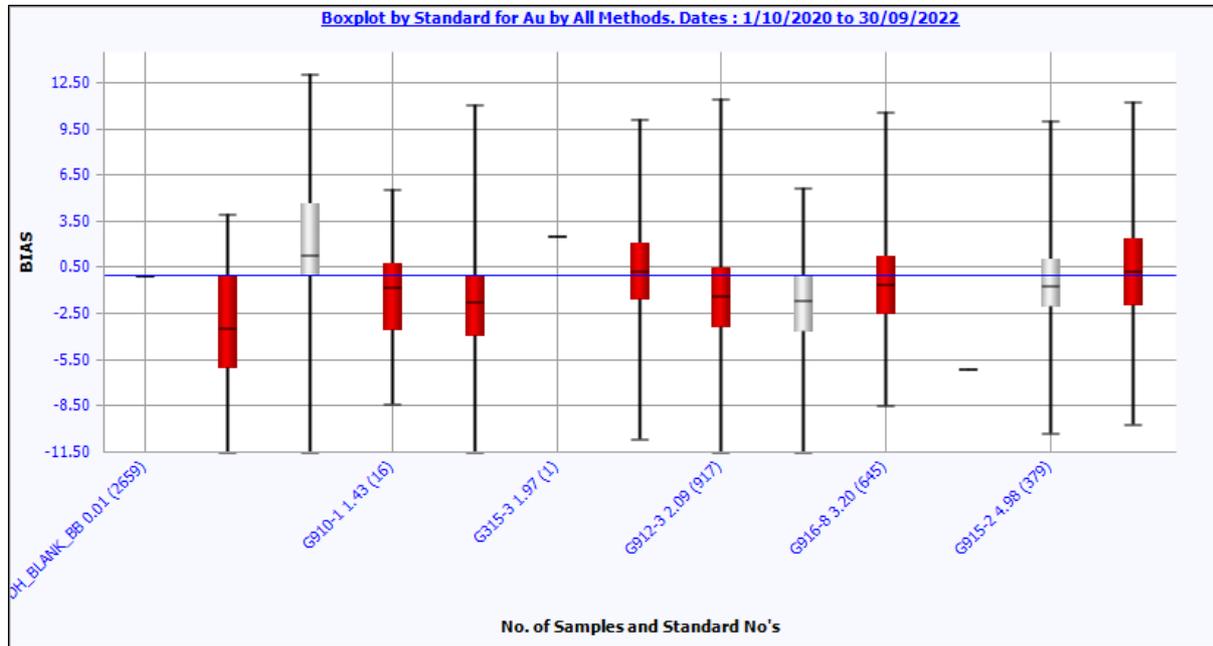
11.3.3.2 Karora Au Standards Submitted Standards

Table 11-10 Karora Au standards submitted standards: outliers excluded

Au Standard(s)					No. of Samples	Calculated Values			
Std Code	Method	Exp Method	Exp Value	Exp SD		Mean Au	SD	CV	Mean Bias
DH_BLA NK_BB	FAOG_AAS	FAOG_AAS	0.0050	0.0150	2659	0.0050	0.0000	0.0000	0.00%
G300-9	FAOG_AAS	FAOG_AAS	1.53	0.06	1367	1.5038	0.0479	0.0319	-1.72%
G310-9	FAOG_AAS	FAOG_AAS	3.29	0.14	1	3.09	0	0	-6.08%
G314-6	FAOG_AAS	FAOG_AAS	1.98	0.07	371	1.9859	0.0586	0.0295	0.30%
G315-3	FAOG_AAS	FAOG_AAS	1.97	0.06	1	2.02	0	0	2.54%
G319-4	FAOG_AAS	FAOG_AAS	0.5	0.03	20	0.481	0.0225	0.0467	-3.80%
G910-1	FAOG_AAS	FAOG_AAS	1.43	0.06	16	1.4188	0.0593	0.0418	-0.79%
G911-10	FAOG_AAS	FAOG_AAS	1.3	0.05	22	1.3164	0.0747	0.0567	1.26%
G912-3	FAOG_AAS	FAOG_AAS	2.09	0.08	917	2.0622	0.0703	0.0341	-1.33%
G914-2	FAOG_AAS	FAOG_AAS	2.48	0.08	16	2.4475	0.1106	0.0452	-1.31%

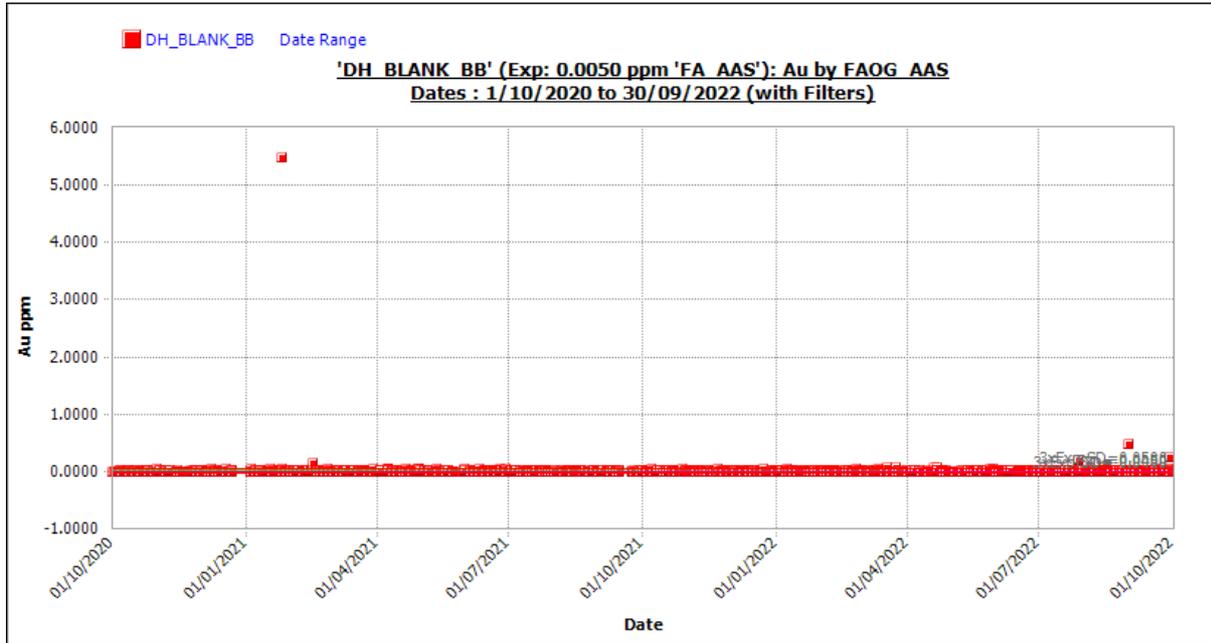
Au Standard(s)					No. of Samples	Calculated Values			
Std Code	Method	Exp Method	Exp Value	Exp SD		Mean Au	SD	CV	Mean Bias
G915-2	FAOG_AAS	FAOG_AAS	4.98	0.19	379	4.9471	0.1389	0.0281	-0.66%
G915-3	FAOG_AAS	FAOG_AAS	9.39	0.49	218	9.4124	0.3262	0.0347	0.24%
G916-8	FAOG_AAS	FAOG_AAS	3.2	0.12	645	3.1807	0.0982	0.0309	-0.60%

Figure 11-3 Standards - sRPD box and whisker plot



11.3.3.3 Karora Au Standards Submitted Blanks

Figure 11-4 Standard DH_BLANK_BB: outliers included



11.3.3.4 Karora Au Standards Submitted CRMs

Table 11-11 Karora Au standards submitted CRMs

Au Standard(s)					No. of Samples	Calculated Values			
Std Code	Method	Exp Method	Exp Value	Exp SD		Mean Au	SD	CV	Mean Bias
G300-9	FAOG_AAS	FAOG_AAS	1.5300	0.0600	1371	1.5040	0.0537	0.0357	- 1.70%
G310-9	FAOG_AAS	FAOG_AAS	3.2900	0.1400	1	3.0900	0.0000	0.0000	- 6.08%
G314-6	FAOG_AAS	FAOG_AAS	1.9800	0.0700	374	1.9820	0.0733	0.0370	0.10%
G315-3	FAOG_AAS	FAOG_AAS	1.9700	0.0600	1	2.0200	0.0000	0.0000	2.54%
G319-4	FAOG_AAS	FAOG_AAS	0.5000	0.0300	22	0.5145	0.1367	0.2656	2.91%
G910-1	FAOG_AAS	FAOG_AAS	1.4300	0.0600	16	1.4188	0.0593	0.0418	- 0.79%
G911-10	FAOG_AAS	FAOG_AAS	1.3000	0.0500	22	1.3164	0.0747	0.0567	1.26%
G912-3	FAOG_AAS	FAOG_AAS	2.0900	0.0800	920	2.0609	0.0737	0.0358	- 1.39%
G914-2	FAOG_AAS	FAOG_AAS	2.4800	0.0800	18	2.5083	0.2053	0.0818	1.14%
G915-2	FAOG_AAS	FAOG_AAS	4.9800	0.1900	379	4.9471	0.1389	0.0281	- 0.66%

Au Standard(s)					No. of Samples	Calculated Values			
Std Code	Method	Exp Method	Exp Value	Exp SD		Mean Au	SD	CV	Mean Bias
G915-3	FAOG_AAS	FAOG_AAS	9.3900	0.4900	219	9.4058	0.3397	0.0361	0.17%
G916-8	FAOG_AAS	FAOG_AAS	3.2000	0.1200	645	3.1807	0.0982	0.0309	-0.60%

Figure 11-5 Standard G300-9: outliers included

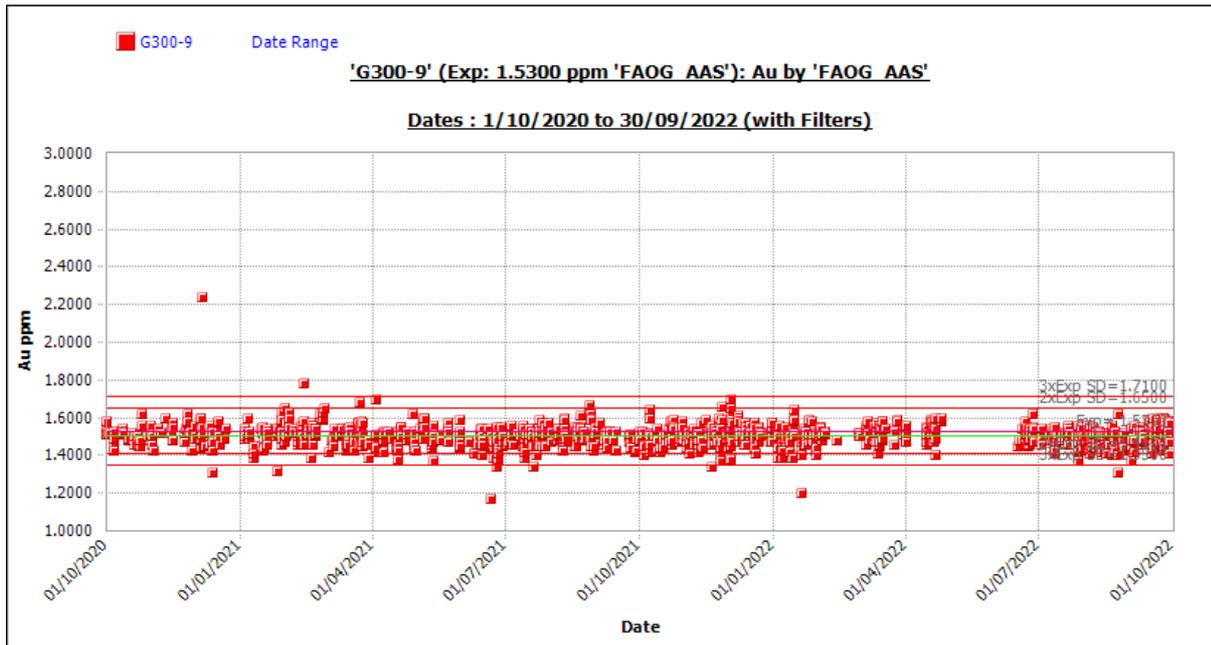


Figure 11-6 Standard G310-9: outliers included

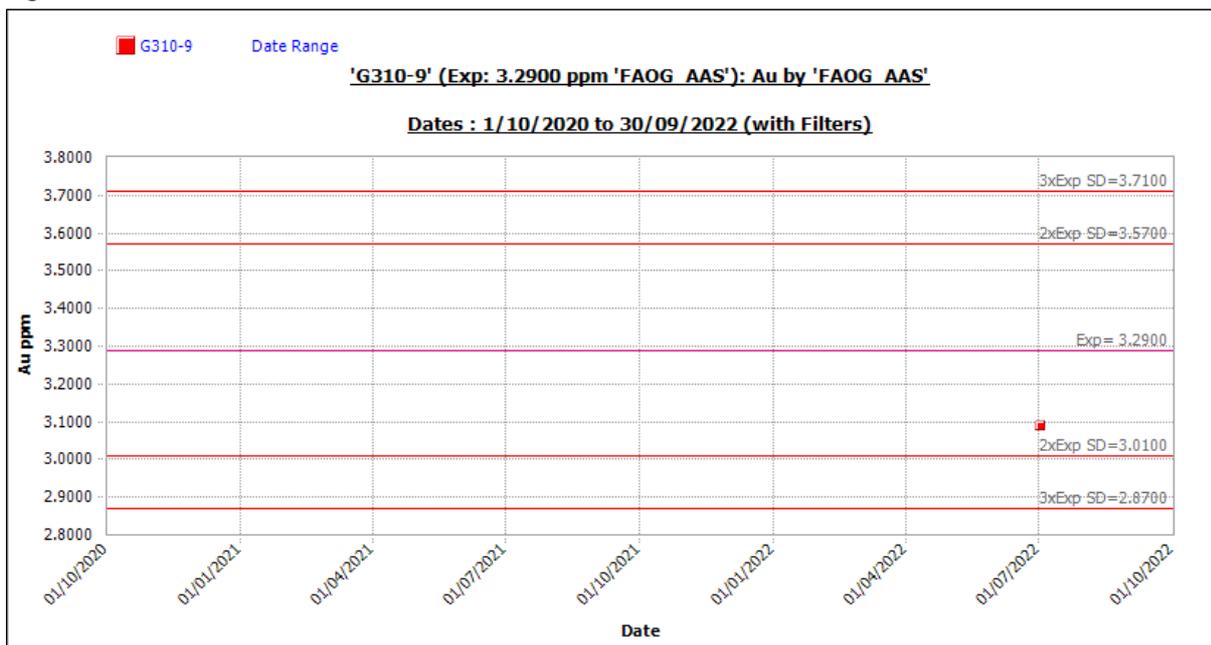


Figure 11-7 Standard G314-6: outliers included

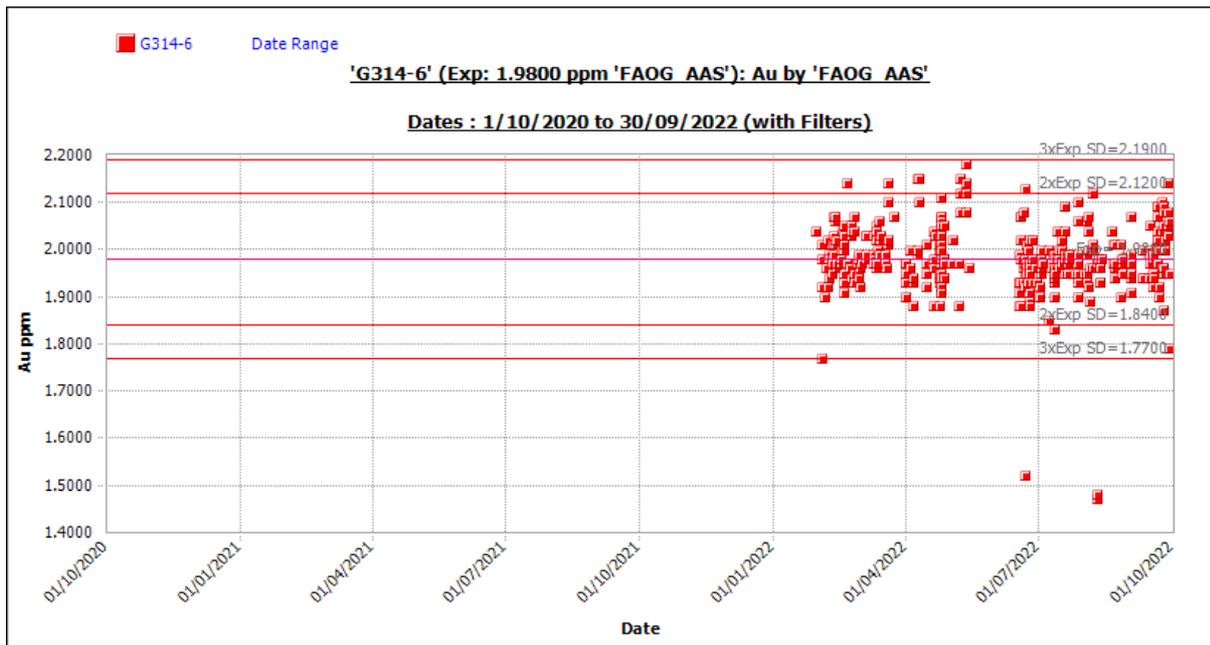


Figure 11-8 Standard G315-3: outliers included

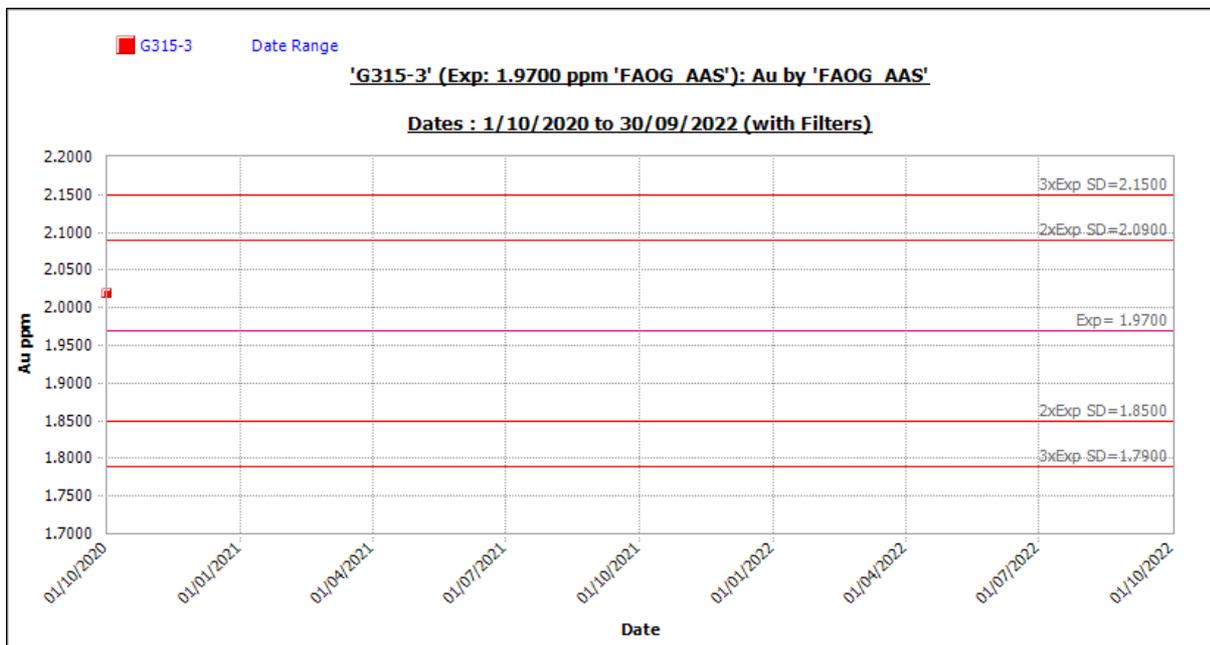


Figure 11-9 Standard G319-4: outliers included

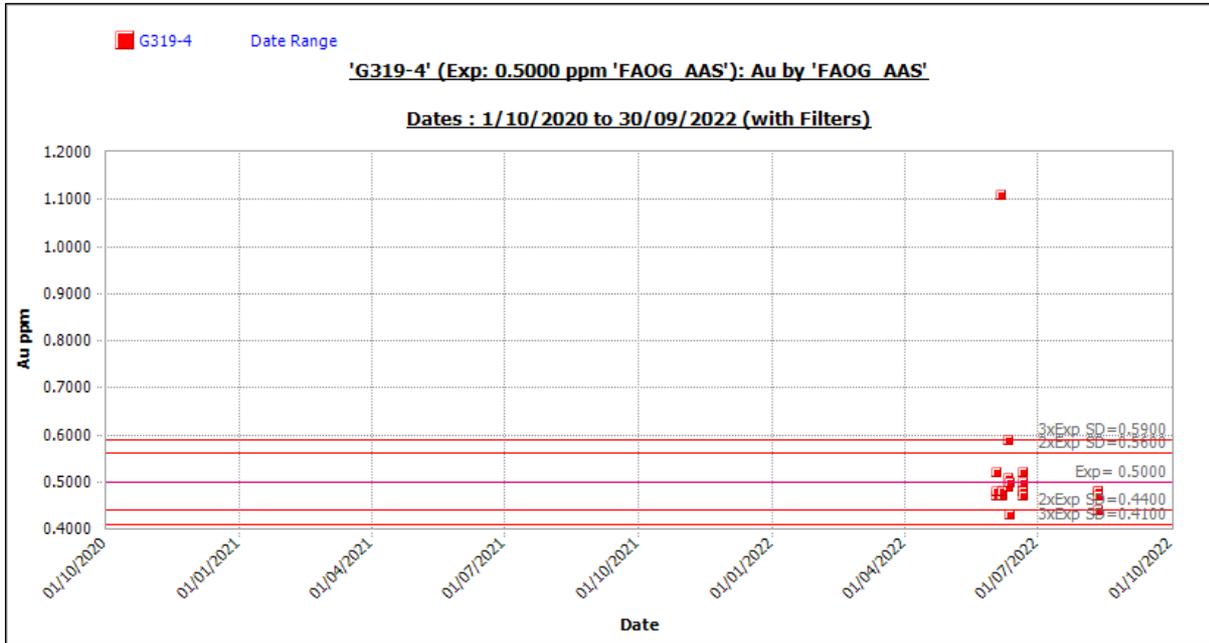


Figure 11-10 Standard G910-1: outliers included

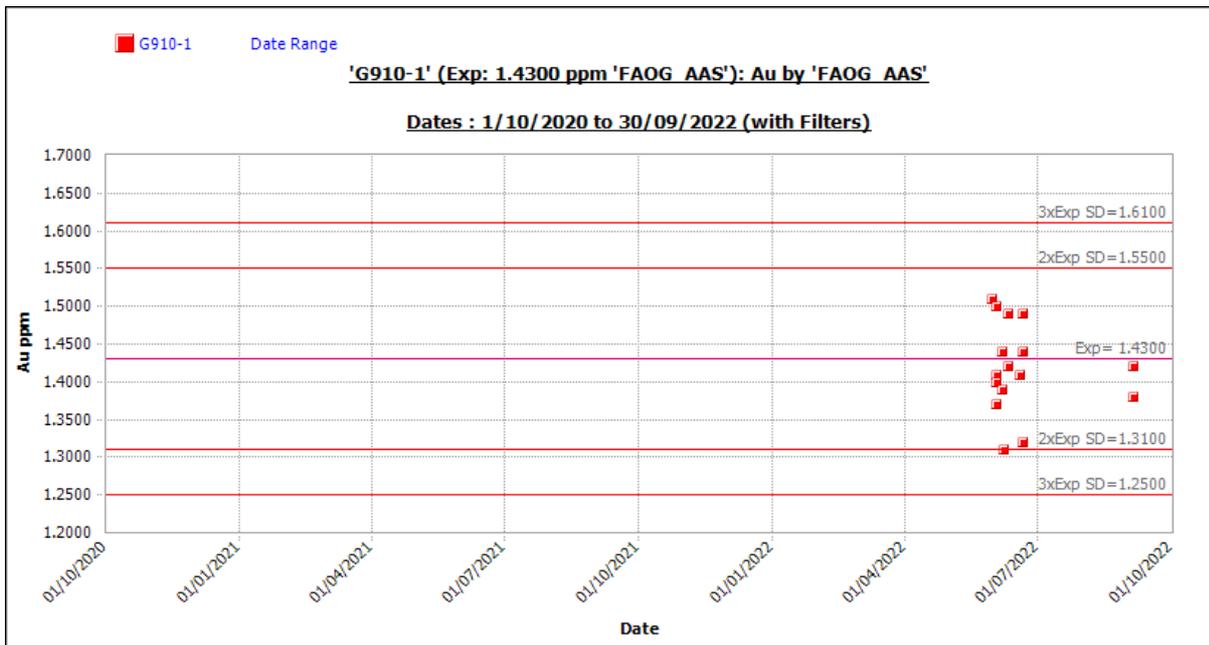


Figure 11-11 Standard G911-10: outliers included

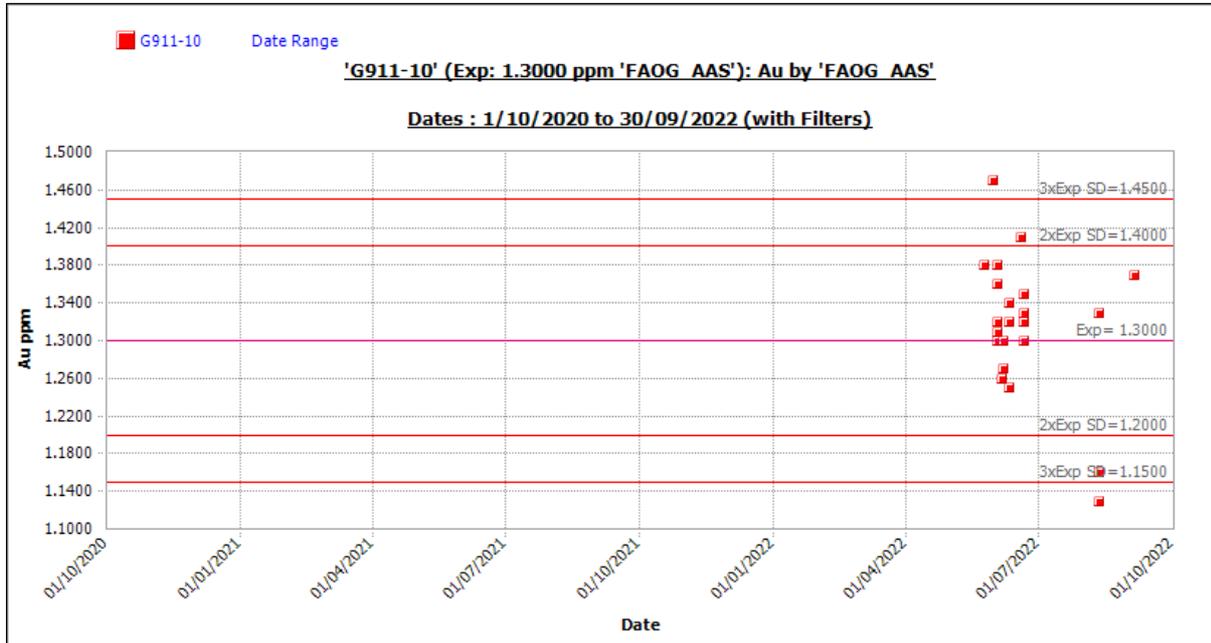


Figure 11-12 Standard G912-3: outliers included

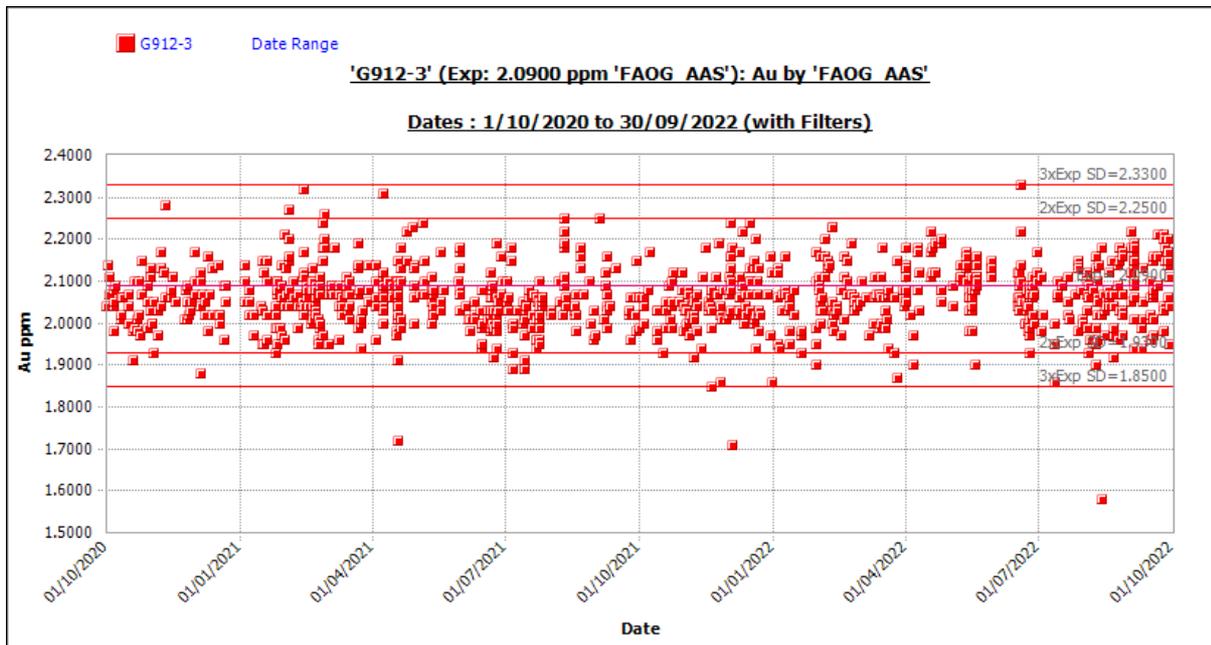


Figure 11-13 Standard G914-2: outliers included

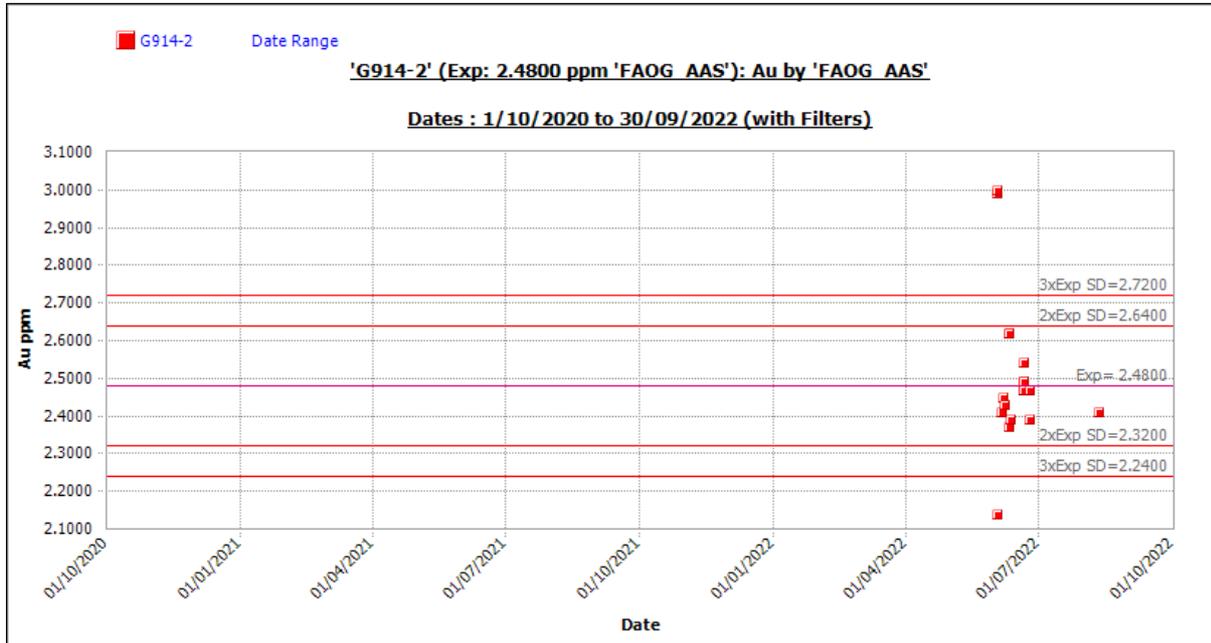


Figure 11-14 Standard G915-2: outliers included

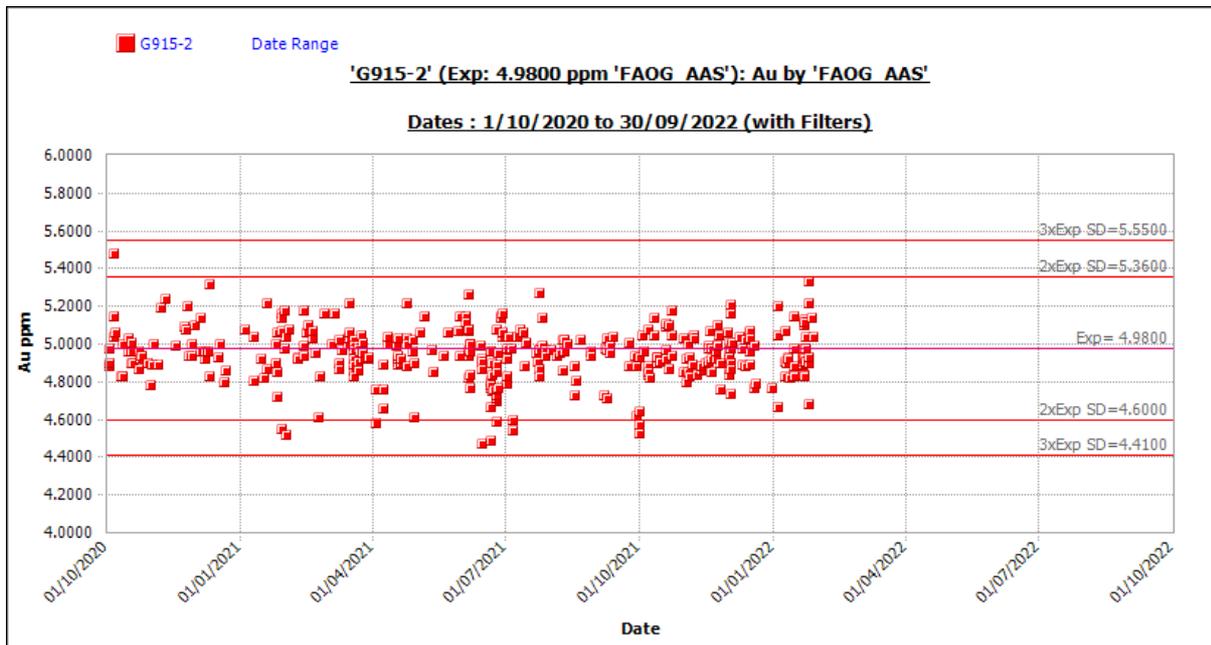


Figure 11-15 Standard G915-3: outliers included

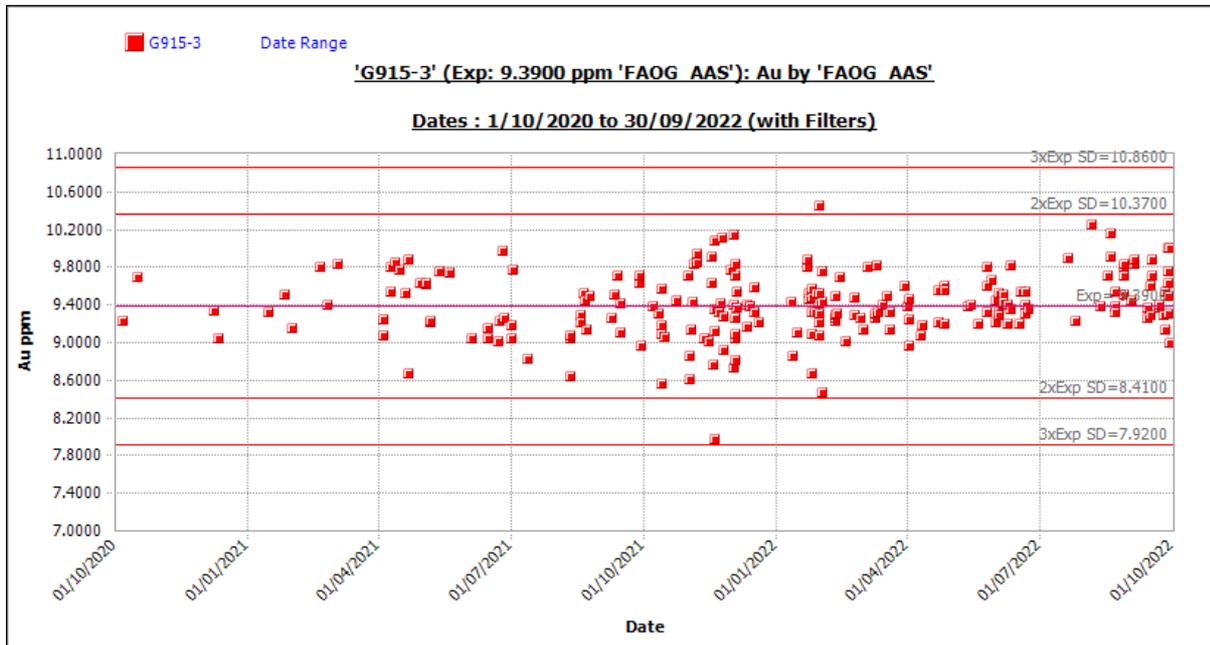


Figure 11-16 Standard G916-8: outliers included

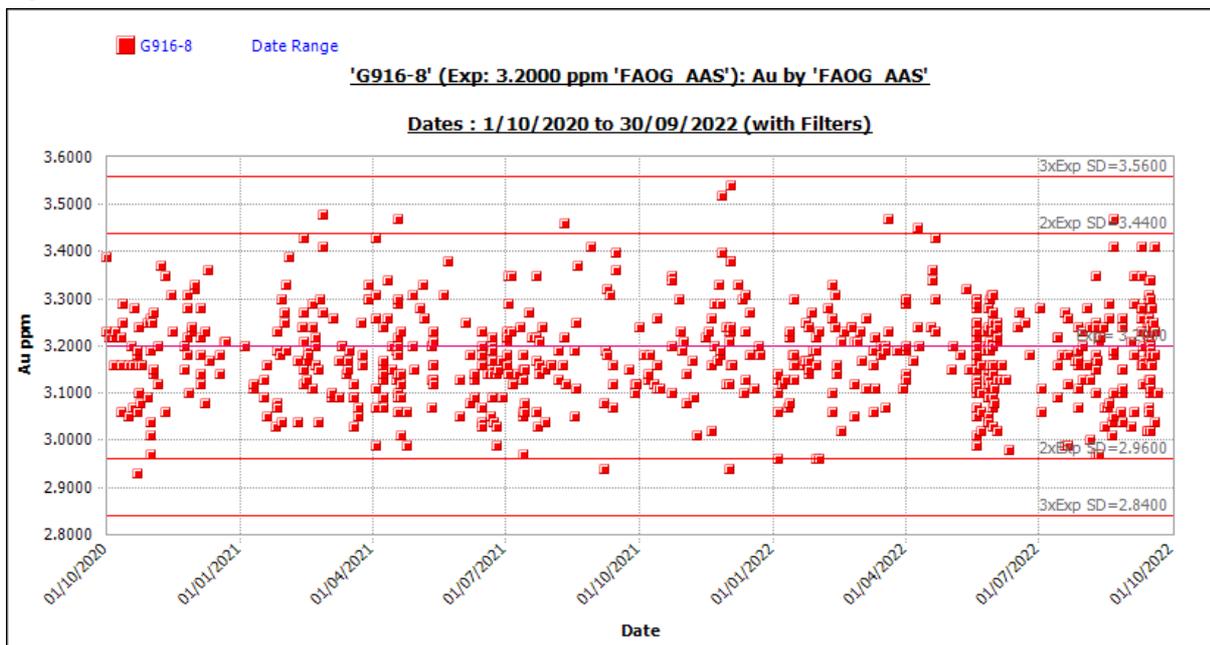


Figure 11-17 Field resample Au ppm

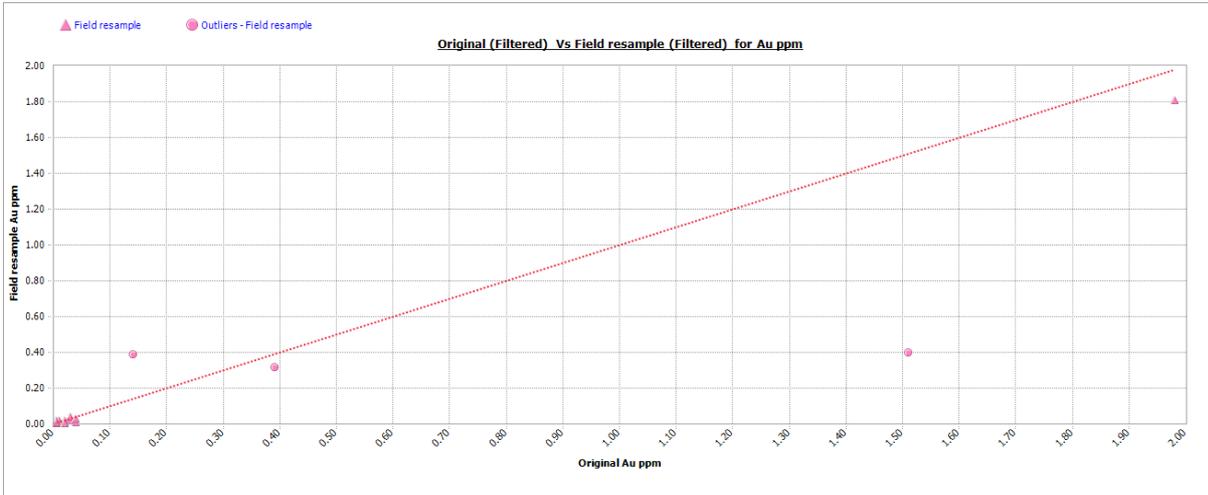


Figure 11-18 Coarse reject re-assay Au ppm

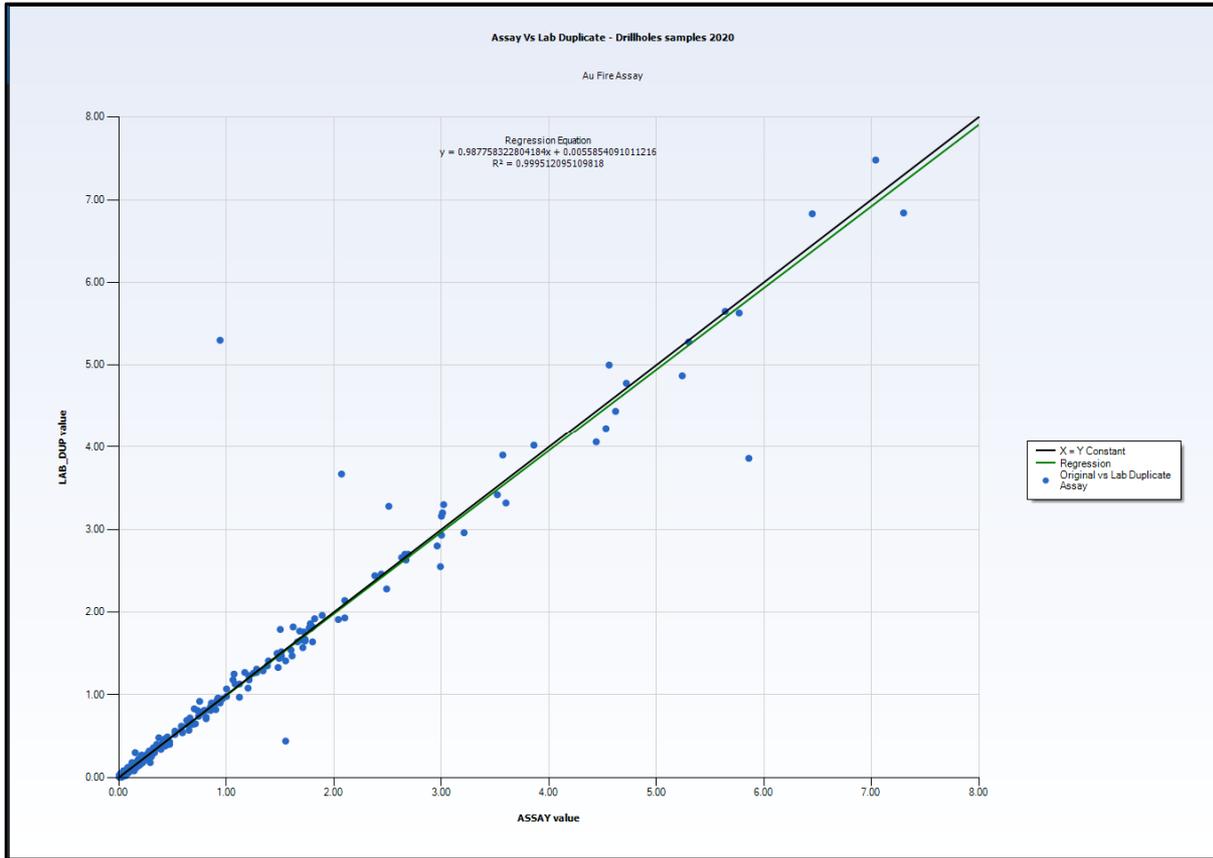
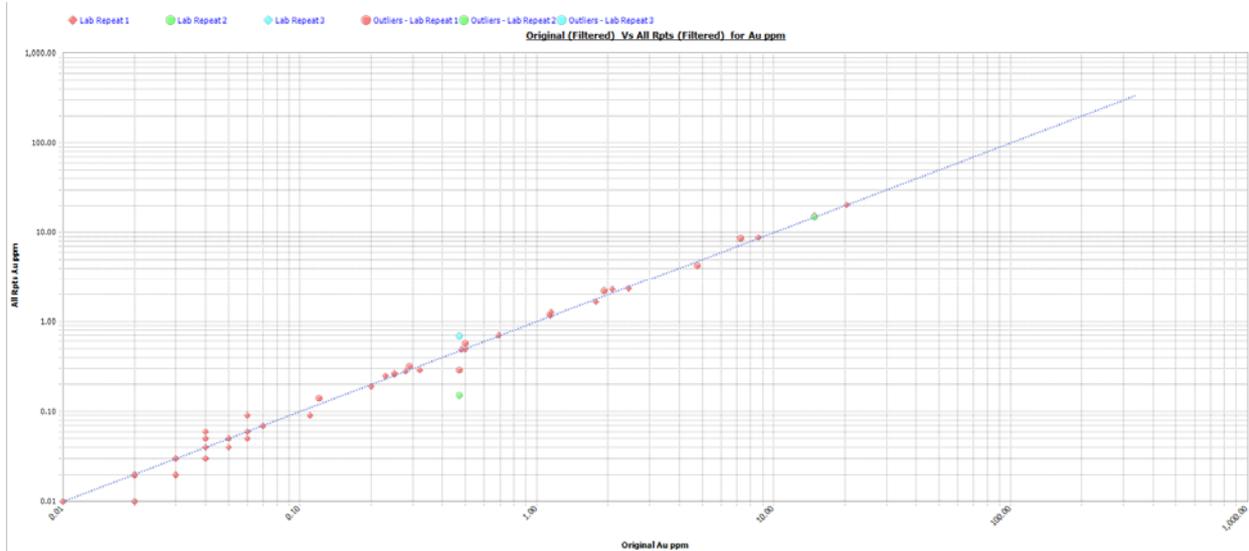


Figure 11-19 Laboratory repeats Au ppm



11.3.4 Nickel Quality Control Analysis 2020–2022

11.3.4.1 Laboratory Summary

Nickel purpose samples that were collected after September 2020 were processed at the SGS Kalgoorlie laboratory and analysed at the SGS Perth laboratory. There were 78 batches processed that included 2,668 samples (Table 11-12).

Table 11-12 Quality control sample summary for Ni, 2021–2022

Laboratories	SGS_Kalgoorlie
No. of Batches	78
No. of DH Samples	2668
No. of QC Samples	0
No. of Standard Samples	245

11.3.4.2 Standard Type Ratios

All submitted batches included certified blank material (Bunbury Basalt) and nickel reference standards. Blank samples were inserted at a rate of one in every 29 samples, and nickel reference standards were inserted one in every 18 samples (Table 11-13, Table 11-14). Results for GBM10-13 are shown in Figure 11-20 and Table 11-15.

Table 11-13 Quality control sample frequency for Ni, 2021–2022

Standard Type	DH Sample Count	Standard Type Count	Standard Sample Count	Ratio of QC Standard to DH Samples
SLM_BLANK	2668	1	93	1:29
SLM_CRM	2668	7	152	1:18

Table 11-14 Ni reference sample types and frequency, 2021–2022

Ni Standard(s)					No. of Samples	Calculated Values			
Std Code	Method	Exp Method	Exp Value	Exp SD		Mean Ni	SD	CV	Mean Bias
GBM910-13_	4A_ICPES	4A_ICPES	26969	1181	6	26467	792	0.03	-1.86%
GBM910-13_	4AOG_UN	4AOG_UN	26969	1181	3	26100	1389	0.05	-3.22%
GBM907-12	4A_ICPES	4A_ICPES	18694	774	55	17698	606	0.03	-5.33%
GBM317-13_	4A_ICPES	4A_ICPES	39436	1512	24	39000	1002	0.03	-1.11%
GBM317-13_	4AOG_UN	4AOG_UN	39436	1512	8	39337	2190	0.06	-0.25%
GBM910-13	4A_ICPES	4A_ICPES	26969	1181	1	28200	0.0	0.00	4.56%
GBM910-13	4AOG_UN	4AOG_UN	26969	1181	21	27780	1219	0.04	3.01%
DH_BLANK_BB_	4A_ICPES	4A_ICPES	150	50	1	145	0.0	0.00	-3.33%
GBM317-13	4A_ICPES	4A_ICPES	39436	1512	5	39160	1579	0.04	-0.70%
GBM317-13	4AOG_UN	4AOG_UN	39436	1512	28	38892	1721	0.04	-1.38%

Figure 11-20 Box and whisker plot GBM910-13, 2021–2022

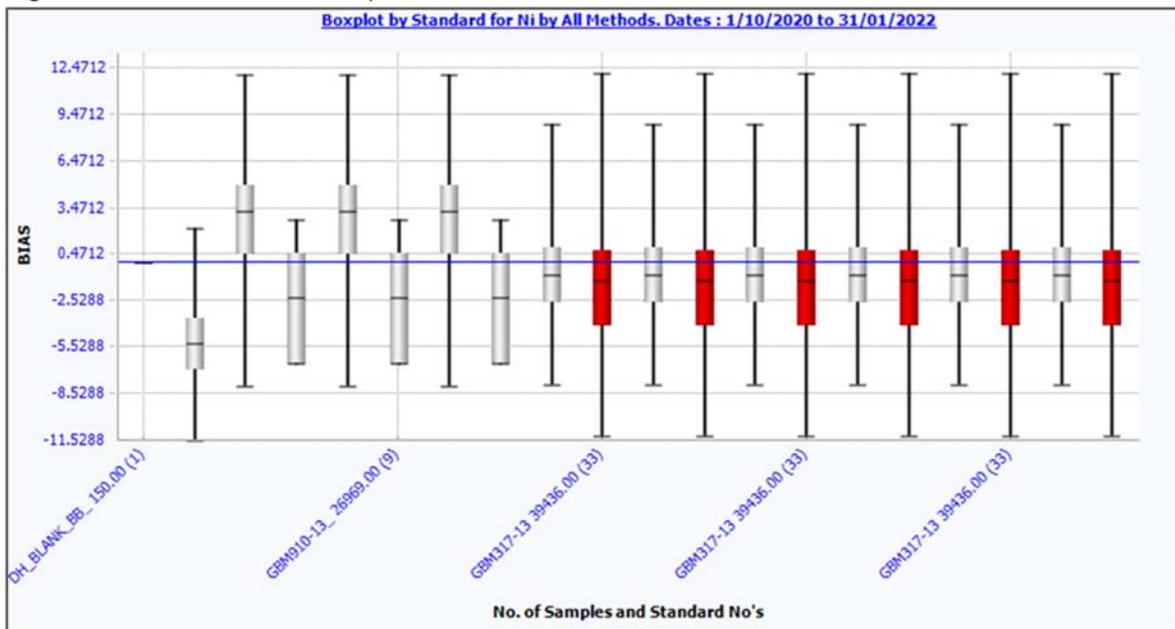


Table 11-15 Box and whisker plot GBM910-13, 2021–2022

Ni Standard(s)					No. of Samples	Calculated Values			
Std Code	Method	Exp Method	Exp Value	Exp SD		Mean Ni	SD	CV	Mean Bias
DH_BLANK_BB_	4A_ICPES	4A_ICPES	150	50	92	75	87	1.2	-50%

The timeline for assay results for inserted blanks indicate two outlier results were received during the 2021–2022 period (Figure 11-21, Table 11-16).

Figure 11-21 Timeline for blank samples, 2021–2022

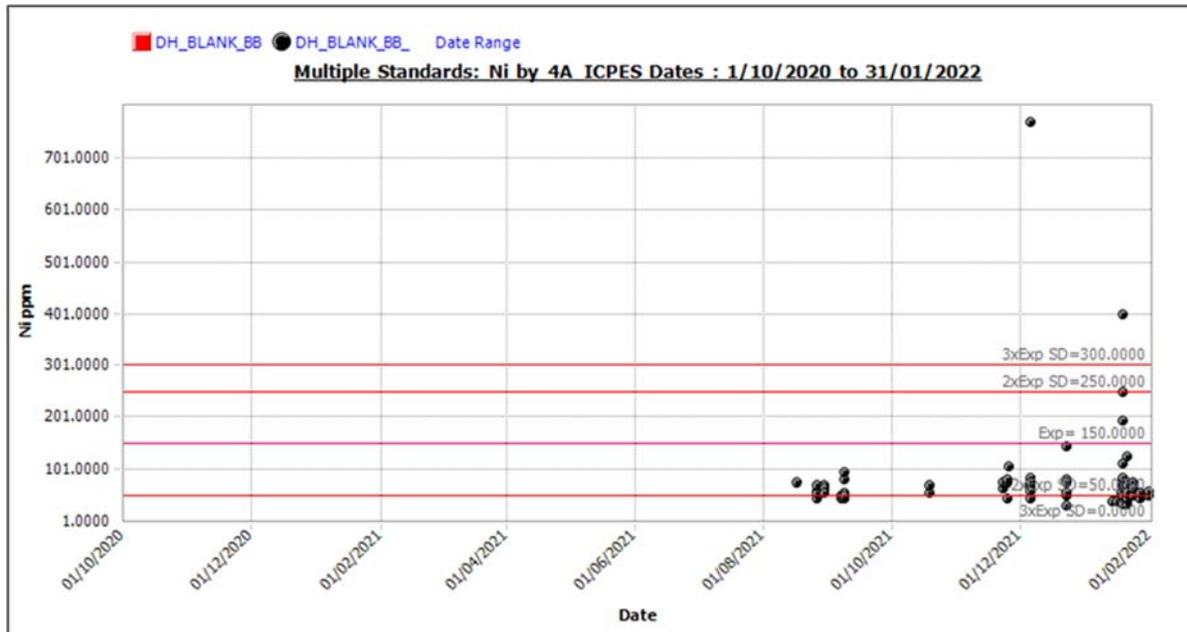


Table 11-16 Failed blank samples, 2021–2022

Standard	Lab	Batch	Data Set	Sample Id	Method	Element	Value	Difference
DH_BLANK_BB_	SGS_Kalgoorlie	WM209684	BETA_HUNT	ZZ176562	4A_ICPES	Ni	770	413
DH_BLANK_BB_	SGS_Kalgoorlie	WM210533	BETA_HUNT	ZZ183477	4A_ICPES	Ni	400	167

11.3.4.3 Karora-Inserted Ni CRMs

The type and frequency of nickel reference samples used in 2021–2022 are listed in Table 11-17. Note that standards GBM910-13 and GBM317-13 were subject to periodic incorrect sample classification during submission, and the standards associated with the submission errors are separated from the correctly submitted standard samples. Example plots for Karora-inserted standards over the period, 2021 and 2022 are shown in Figure 11-22, Figure 11-23 and Figure 11-24.

Table 11-17 Nickel reference sample types and frequency, 2021–2022

Ni Standard(s)					No. of Samples	Calculated Values			
Std Code	Method	Exp Method	Exp Value	Exp SD		Mean Ni	SD	CV	Mean Bias
GBM907-12	4A_ICPES	4A_ICPES	18694	774	55	17698	606	0.03	-5.33%
GBM910-13	4A_ICPES	4A_ICPES	26969	1181	2	14100	19940	1.41	-47.72%
GBM910-13_	4A_ICPES	4A_ICPES	26969	1181	6	26467	792	0.03	-1.86%
GBM317-13	4A_ICPES	4A_ICPES	39436	1512	6	32633	16049	0.49	-17.25%
GBM317-13_	4A_ICPES	4A_ICPES	39436	1512	24	39000	1002	0.03	-1.11%

Figure 11-22 Timeline for reference sample GBM907-12, 2021–2022

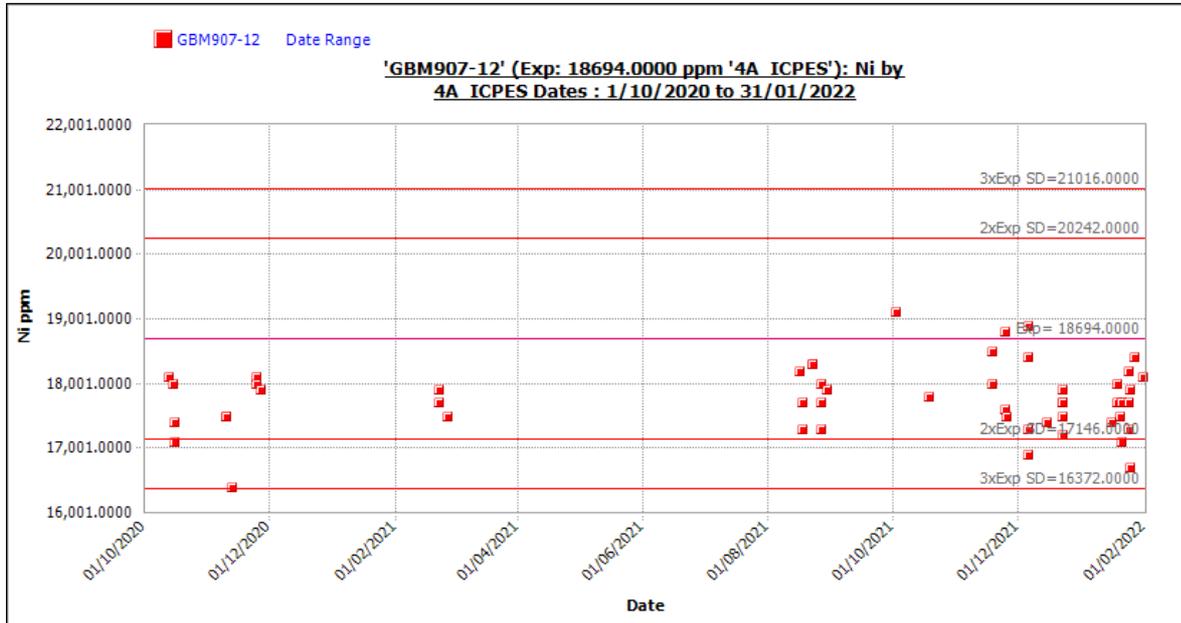


Figure 11-23 Timeline for reference sample GBM910-13, 2021–2022

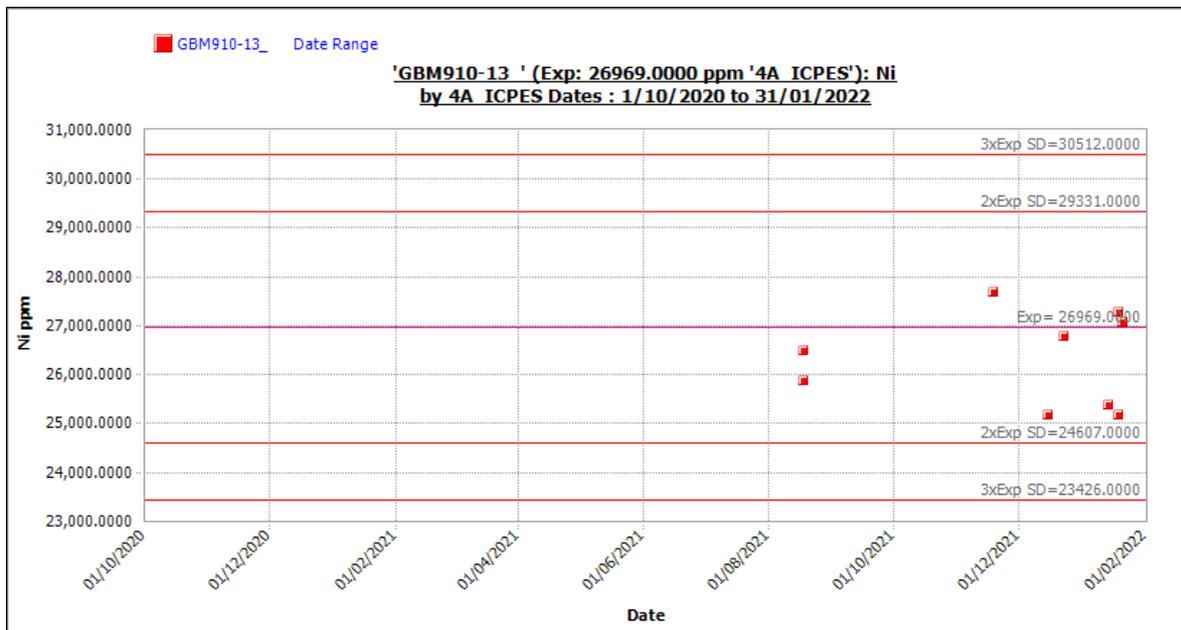
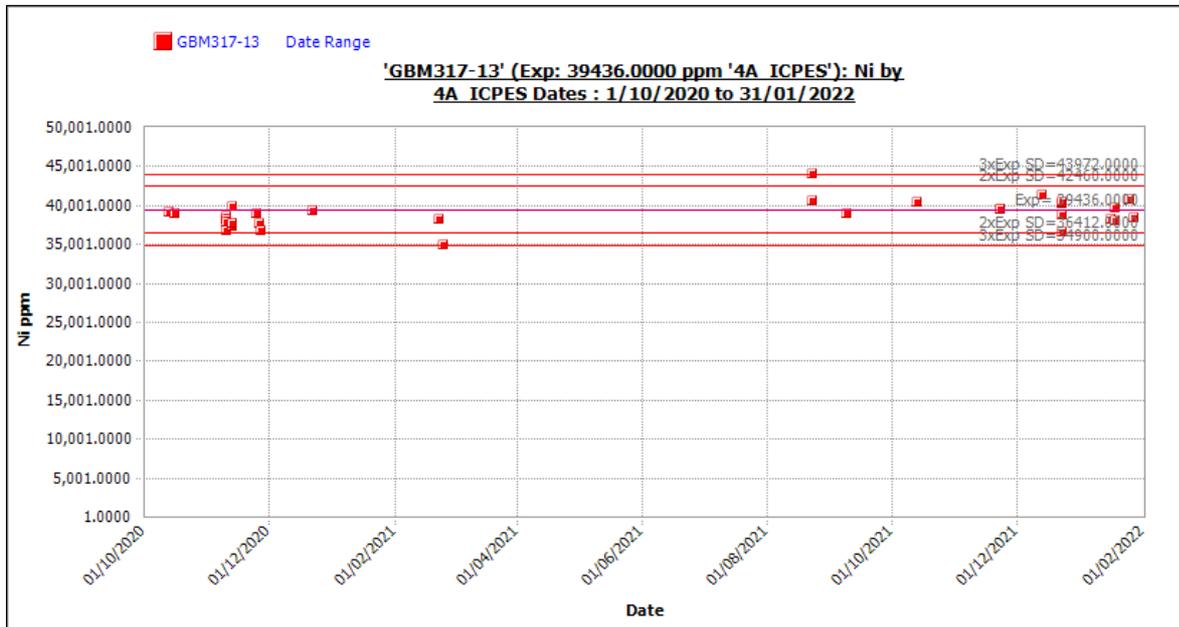


Figure 11-24 Timeline for reference sample GBM917-13, 2021–2022



11.3.5 Database Integrity

The Karora corporate geological database is located on a dedicated Microsoft SQL 2016 SP4 server. The database itself utilises the Maxwell Geoservices “DataShed” architecture, and is a fully relational system, with strong validation, triggers and stored procedures, as well as a normalised system to store analysis data. The database itself is accessed and managed in house using the DataShed front end, whilst routine data capture and upload is managed using Maxwell’s LogChief data capture software. This provides a data entry environment which applies most of the validation rules as they are directly within the master database, ensuring only correct and valid data can be input in the field. Data are synced to the master database directly from this software, and once data have been included, it can no longer be edited or removed by LogChief users except geological logging. Only the company database manager and authorised senior geologists have permissions allowing for modification or deletion.

In February 2022, the company implemented DataShed GDMS. All drilling data were migrated from the site-based Fusion GDMS into DataShed. Data validation checks were performed to ensure data migration integrity, namely drill collars and coordinates, downhole direction surveys, geology, sampling, assays and QA/QC.

Prior to October 2016, all SLM data were stored in a Microsoft Access database with validation checks described in the 2016 PEA (Karora, 2016).

Historical data within the database have not all been validated to the same level as post-2008 data. A validation process within the database runs automatically for all new data as described above. A very small number of drill holes with major errors that cannot be rectified are recorded in a file named badholes.csv and not used in any estimation.

11.4 SAMPLE PREPARATION, SECURITY AND ANALYTICAL PROCEDURES SUMMARY

The Qualified Person considers the sample preparation, security and analytical procedures to be adequate. Any data with errors have either been corrected or excluded to ensure data used for Mineral Resource estimation are reliable.

During the site visits, and working on site, the Qualified Person has inspected the core logging yard and directly observed how core was sampled and transferred to the care of the laboratory. In the opinion of the Qualified Person, the procedures in place ensure samples remained in the custody of appropriately qualified staff. The sampled trays of cut core are stacked on pallets and placed in the onsite core yard.

A laboratory audit of SGS Kalgoorlie was conducted on October 24, 2022 by Karora's database Manager. The Qualified Person conducted an audit of the SGS laboratory, Kalgoorlie on June 17, 2022 and confirmed the processes and equipment met industry standards.

Pulps returned from laboratory sample preparation are stored in the core yard on pallets. These remain available for later rechecking of assay programs.

During the site visits, and working on site, the Qualified Person found no evidence of active tampering. Procedures to prevent inadvertent contamination of assay samples have been followed, including daily hosing out of the core saw and sampling area.

12 DATA VERIFICATION

The Qualified Person has, through examination of internal Karora documents including monthly QA/QC site reporting, the implementation of routine, control checks and personal inspections on site, the SGS assay laboratory and discussions with other Karora personnel, verified the data in this Report and satisfied himself that the data is adequate for the purpose of this Report.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

Beta Hunt is an operating mine that processes its gold mineralization through Karora's Higginsville and Lakewood Gold Processing Facilities. The processing of nickel is covered by the OTCPA Agreement with BHP. Details on both gold and nickel processing and relevant testwork that relate to the metallurgical performance of Beta Hunt mineralization are summarized below. Further details on processing is outlined in Section 17.

13.1 GOLD PROCESSING

The current Higginsville Processing Facility has been in operation since July 2008, and local mill feed variability is well understood. Various testwork programs dating back to 2008 have been used to understand potential impacts during crushing and milling as new production sources come online. As new production sources are delineated, testing is conducted to assess whether the metallurgy will vary significantly for the anticipated responses.

For both the Higginsville and Lakewood processing Facilities, Mill feed characterisation, classification, and recovery test work is conducted on new production sources as required. Typical metallurgical testwork is comprised of the following:

- Head assays determination;
- Ball mill work index determination and Abrasion index testing;
- Grind establishment to 75 µm;
- Gravity recovery;
- Leach test on the gravity tail with the following set points;
 - pH 8.5;
 - CN at 200 ppm;
 - 40% solids with site water; and
 - 48 hours leach time.

In addition to the above, extended leach testwork is sometimes required using lead nitrate additives. Diagnostic leach testwork may also be carried out if the standard leach test shows lower than expected recoveries.

At Higginsville Beta Hunt mineralization is processed in either batches or mixed with other mineralisation sources from Higginsville. At the Lakewood Gold Processing Facility Beta Hunt mineralization is batch treated and not blended with other material.

13.2 NICKEL PROCESSING

Since ownership by WMC and until June 2018, nickel mineralization from Beta Hunt was processed at the nearby Kambalda Nickel Concentrator ("KNC"), currently owned by BHP. As a result, the quality, variability, and metallurgical response for this material is well understood. The mineralisation is considered to be typical for the area and was blended with mineralization from other mines. As it would not be possible to measure the metallurgical recovery of Beta Hunt material within the blend, recovery was credited based on the grade of material treated as per the contractual agreement between BHP and Karora.

In July 2018, KNC was put on care and maintenance due to declining nickel production in the area. From May 2018 till June 2022, nickel mineralisation was being campaigned through BHP's Leinster Nickel Concentrator, while KNC remained on care and maintenance. KNC resumed treatment in July 2022.

The nickel mineralisation also contains limited quantities of both copper and cobalt.

The nickel mineralisation is considered "clean", as it has low levels of deleterious elements, specifically:

- Arsenic (As) levels currently average <20 ppm, compared to the penalty threshold of 400 ppm; and
- Fe: MgO ratio is well above the threshold level of 0.8, below which penalties are charged.

The low levels of deleterious elements make Beta Hunt mineralisation attractive to BHP, as it is blended with their own production containing much higher concentrations of As, in order to produce an acceptable feed to the Kalgoorlie Nickel Smelter.

14 MINERAL RESOURCE ESTIMATES

14.1 SUMMARY

The Mineral Resource Statement presented herein sets out the Gold and Nickel Mineral Resource estimates prepared in accordance with the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F.

The Consolidated Gold Mineral Resource estimates for Beta Hunt, as summarised in Table 14-1, are effective as of September 30, 2022. Gold Mineral Resources at Beta Hunt comprise the Western Flanks, A Zone and Larkin deposits.

The Consolidated Nickel Mineral Resource estimate at Beta Hunt is summarised in Table 14-2, effective as of September 30, 2022. The Nickel Mineral Resource is associated with the Beta and Gamma Blocks.

Table 14-1 Beta Hunt Consolidated Gold Mineral Resource as at September 30, 2022

GOLD MINERAL RESOURCE AS AT SEPTEMBER 30, 2022 1, 2, 3, 4, 5, 7, 8, 9, 10, 11												
Location	Measured			Indicated			Measured & Indicated			Inferred		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
Beta Hunt	269	2.5	22	16,611	2.5	1,329	16,880	2.5	1,351	12,444	2.6	1,052

Table 14-2 Karora Consolidated Gold Mineral Resources as at September 30, 2022

NICKEL MINERAL RESOURCE AS AT SEPTEMBER 30, 2022 1, 2, 3, 6, 7, 8, 9, 10, 11												
Location	Measured			Indicated			Measured & Indicated			Inferred		
	kt	Ni %	Ni Metal t	kt	Ni %	Ni Metal t	kt	Ni %	Ni Metal t	kt	Ni %	Ni Metal t
Beta Hunt	-	-	-	745	2.80	21,100	745	2.80	21,100	500	2.70	13,400

- 1) Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
- 2) The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce Mineral Reserves.
- 3) The Mineral Resource estimates include Inferred Mineral Resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is also no certainty that Inferred Mineral Resources will be converted to Measured and Indicated categories through further drilling, or into Mineral Reserves once economic considerations are applied.
- 4) The Gold Mineral Resource is estimated using a long term gold price of US\$1,675/oz with a US:AUD exchange rate of 0.70.
- 5) The Gold Mineral Resource is reported using a 1.4 g/t Au cut-off grade.
- 6) The Nickel Mineral Resource is reported above a 1% Ni cut-off grade.
- 7) Mineral Resources are depleted for mining as of September 30, 2022 with the exception of A Zone which is depleted as of July 31, 2022.
- 8) Beta Hunt is an underground mine and to best represent "reasonable prospects of eventual economic extraction" the Mineral Resource was reported taking into account areas considered sterilized by historical mining. These areas were depleted from the Mineral Resource.
- 9) Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add up due to rounding.
- 10) CIM Definition Standards (2014) were followed in the calculation of Mineral Resources.

- 11) Gold and Nickel Mineral Resource estimates were prepared under the supervision of Qualified Person S. Devlin, FAusIMM (Group Geologist, Karora Resources).

This section describes the preparation and estimation of Mineral Resources for Beta Hunt. The Mineral Resource estimates reported herein were prepared under the supervision of Mr Stephen Devlin, FAusIMM, in accordance with the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F. Mr. Devlin is Group Geologist - Exploration and Growth at Karora and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code, 2012 Edition and fulfils the requirements to be a "Qualified Person" for the purposes of NI 43-101.

There are no material differences between the definitions of Mineral Resources under the applicable definitions adopted by the Canadian Institute of Mining, Metallurgy and Petroleum (CIM Definition Standards, 2014) and the corresponding equivalent definitions in the JORC Code for Mineral Resources.

In the opinion of Mr Devlin, the Mineral Resource estimation reported herein is a reasonable representation of the consolidated gold and nickel Mineral Resources found at Beta Hunt at the current level of sampling.

Mineral Resource estimates for Beta Hunt were previously reported by Karora in a Technical Report dated February 3, 2021 as filed on SEDAR and updated to January 31, 2022 as reported in Karora news releases on April 7, 2022 and May 11, 2022. The Mineral Resource estimates reported in this chapter supersede those previously reported. The changes to the previously reported Mineral Resource are a result of:

- Additional exploration data;
- Revised technical understanding;
- Depletion for mining; and
- Changed economic thresholds impacting reasonable prospects for eventual economic extraction ("RPEEE").

14.2 GOLD

14.2.1 Mineral Resource Estimation Process

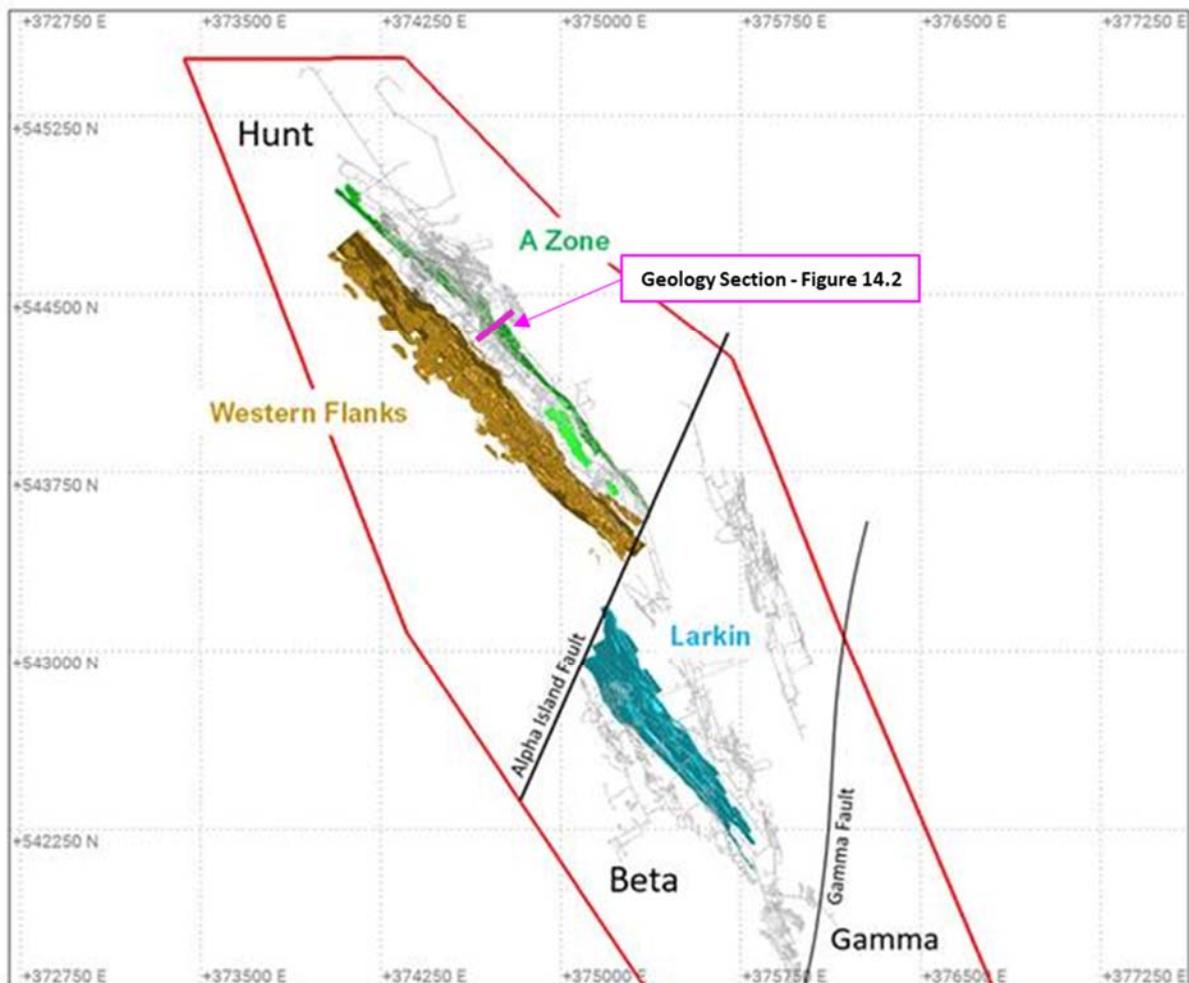
The September 30, 2022 Mineral Resource estimation process involved updating the previously released January 31, 2022 Western Flanks, A Zone and Larkin models (see Karora news release April 7, 2022) to take into account significant additional drilling to September 2022. The Western Flanks and A Zone estimates were completed in-house by Karora personnel. The Larkin estimate was completed by AMC Consultants using mineralisation interpretations completed by Karora personnel. Gold resource estimation methodology involved the following procedures for the latest updates:

- Database compilation and verification of drill hole survey data and collar locations.
- Construction of wireframe models for cross-cutting faults, host rock types and mineralization domains. Interpreted shapes for faults were modelled prior to the host lithologies due to the faults disrupting stratigraphy and mineralisation. Modelling host lithologies prior to modelling mineralized domains assisted interpretation of the architecture of the mineralisation with Beta Hunt gold bearing structures frequently located along/within the margins of different host lithologies.

- Data conditioning (compositing assays to 1 m intervals and capping of extreme grades) for geostatistical analysis and variography.
- Block modelling and grade interpolation. All domains have been estimated directly using ordinary kriging; however, the hangingwall and footwall domains of Western Flanks were coded with indicator values (mineralisation or waste determined by a grade cut-off) prior to estimating.
- Resource classification and validation.
- Depletion of the Mineral Resource using triangulations of development and stope voids supplied by Beta Hunt mine surveyors.
- The Mineral Resources have been reported at a gold cut-off grade of 1.4 g/t based on the grade calculations in Section 15. Areas considered sterilised by historical mining have not been reported.
- Preparation of the Mineral Resource Statement.

There are three resource areas that make up the Beta Hunt Gold Mineral Resource which are illustrated in Figure 14-1. Nickel Resources are contained in the Beta and Gamma Blocks.

Figure 14-1 Beta Hunt Gold Mineral Resource location

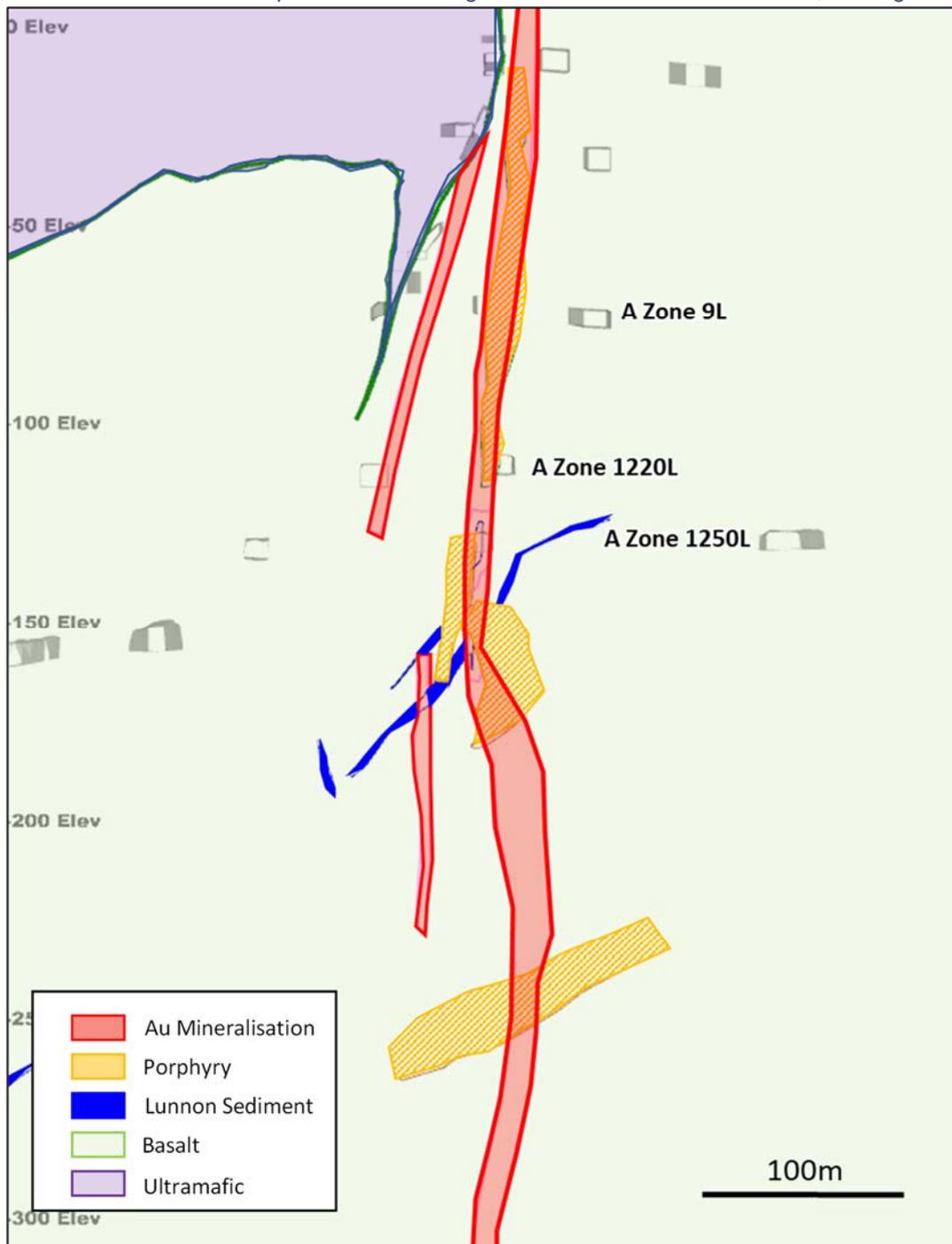


14.2.2 Solid Body Modelling Geology

Gold mineralisation at Beta Hunt is predominantly hosted in basalt within shears. These shears are orientated subparallel/oblique to porphyritic intrusives that are more competent than the

surrounding basalts and, where present, meta-sediments. Fault zones offset rock strata small distances (5 m offsets are common, but 10 m to 20 m offsets do occur) and post-date mineralisation. Modelling of mineralized domains in Western Flanks, A Zone and Larkin was accomplished after modelling cross-cutting faults (first) and host rock types (second) due to the combined effect of variable rock strength and cross-cutting faults contributing to overall architecture of the mineralisation. Lenses of sedimentary rock types were modelled to identify areas of potential Father’s Day Vein style mineralisation. An example of the modelled geology is shown in Figure 14-2.

Figure 14-2 Cross-section of interpreted host lithologies and mineralization at A Zone, looking north



14.2.3 Solid Body Modelling Mineralization

For the construction of the gold mineralization domains, drill hole cross-sections were evaluated at intervals matching drill hole spacing. Drill density at Western Flanks, A Zone, and Larkin is variable, and sections were spaced between 5 m and 40 m. All available assay, lithology, and structural data from the drill hole logs and geological mapping of underground exposures were examined to define mineralized zones. Rock chip logs collected from lateral development exposures were used for interpreting mineralisation; however, associated assay grades were not used for the estimation process. Margins of logged intervals that include mineralized shears/penetrative foliation in drill core logs were used to delineate the margins of mineralized shear domains. A geological approach for determining the margins of mineralized shear domains often captures intervals of low grade or waste within the interpreted domains.

Mineralisation domains were identified using geological characteristics (shear intensity, biotite and/or pyrite alteration and logged veining intensity and style), orientation of logged structures and assay grades. There are three principal styles of gold mineralisation in the Beta Hunt Mineral Resource:

- 1) Shear related envelopes with variable grades related to plunging mineralized shoots that dip steeply to the west.
- 2) Vein swarms that consist of east dipping extensional quartz veins with minimal to no associated west dipping shear fabric (this style is common in the hangingwall and footwall areas of Western Flanks, but insignificant in Larkin and A Zone).
- 3) Father's Day Vein style mineralisation where mineralized patches of extensional veins host coarse gold in areas where structures transect areas including intrusive intermediate porphyries and sulfidic meta-sediments.

The sectional mineralisation outlines were manually triangulated to form three-dimensional wireframes in all domains except for the hangingwall of Western Flanks (Domain 8). Mineralized intervals selected for the purposes of modelling were validated against the logging and core photographs, with the hangingwall and footwall contacts generally defined by the presence/absence of biotite+pyrite alteration. Mineralisation at Larkin occasionally includes zones with very strong albite+pyrite alteration with minimal biotite alteration. Triangulations of shear hosted mineralisation were defined by mineralized shearing and presence of biotite+pyrite alteration.

Validations of the wireframes were carried out in section and plan view, and all wireframes were verified as coherent solids. Mineralized domains were subject to internal peer review.

The mineralisation wireframes were used to code the drill holes with a numeric domain value, and these were manually validated to ensure correct interval selection.

14.2.4 Compositing

For the estimation of gold, the mineralisation wireframes were used to code the diamond drill samples with a unique domain code for each discrete lode. The samples were composited to a standard 1 m length with a maximum length of 1.5 m used to minimise bias associated with composite lengths less than 1 m. The composites were validated visually against the wireframes and geological mapping of lateral development.

14.2.5 Statistical Analysis

Statistics for the composited gold values were examined to determine if top-cuts (assay capping) were required. If the coefficient of variation ("CV") is higher than 2, then the distribution is

considered to have extreme skew with the effect being a bias to any statistical analysis and the potential to over-estimate grades when interpolation is performed. High CVs were observed in some domains; therefore, top-cuts were applied in those instances. Log probability plots and log scale histograms were used to determine top-cuts for composited grades and were further refined where extreme grades contributed to apparent over-estimation (due to lack of drilling or clustering of drill data).

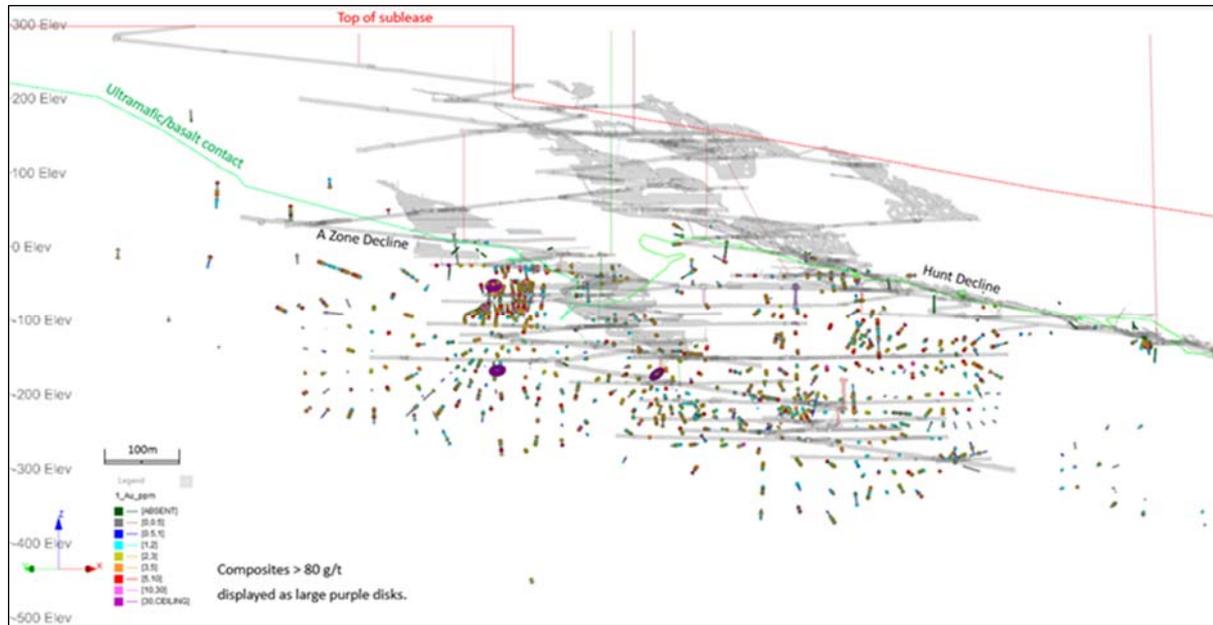
Statistics for composited drill assays in A Zone are listed in Table 14-3. Data from three domains (20, 21 and 23) were conditioned with a top cut to minimise the influence of extreme outliers. Domain 18 represents the intersection of the A Zone Main Shear with the Lunnon Interflow Sediment, and extreme grades were not capped due to the coarse gold-bearing potential of the domain.

Table 14-3 A Zone composite data statistical summary by domain

Resource Area	Domain	Count	Min grade	Mean	Median	CV	Max	Top cut applied	Mean with top cut	No. of composites top cut
A Zone	18	1030	0.005	2.24	0.59	7.72	386	-	-	-
	19	364	0.005	0.96	0.33	1.77	12.7	-	-	-
	20	4893	0.005	1.86	1.07	2.7	286	80	1.81	1
	21	2274	0.005	2.57	1.14	2.25	141.58	80	2.52	2
	22	481	0.005	1.72	0.88	1.39	16.45	-	-	-
	23	274	0.005	3.17	1.56	2.14	90	30	2.92	2
	24	181	0.005	1.79	0.97	1.57	20.06	-	-	-
	25	66	0.005	0.57	0.47	0.98	2.77	-	-	-
	26	67	0.005	0.8	0.38	1.64	8.45	-	-	-
	27	619	0.005	0.84	0.35	1.76	19.71	-	-	-
	28	123	0.005	1.97	0.88	1.3	15.08	-	-	-
	29	247	0.005	2.6	1.5	1.3	18.25	-	-	-
	30	101	0.005	0.71	0.2	1.63	7.32	-	-	-
	31	117	0.005	1.11	0.49	1.58	11.2	-	-	-
	32	50	0.05	2	1.31	1.17	13.6	-	-	-
	33	78	0.005	1.36	0.48	1.49	8.9	-	-	-
	34	74	0.005	0.43	0.05	1.93	4.22	-	-	-
35	9	0.02	2.79	0.64	1.31	11.88	-	-	-	
36	103	0.005	2.27	0.51	2.2	39.5	-	-	-	

The composite data from Domains 20 and 21 are displayed in Figure 14-3. Composites that were conditioned with top cuts indicate grades are higher in the northern half of these domains.

Figure 14-3 A Zone (Domains 20 and 21) composite data distribution, long section looking east



Statistics for Western Flanks composite data are listed in Table 14-4. Top cuts were applied to grades in seven domains (1, 2, 3, 6, 8, 14, 19), and the most significant domains (Domain 1 and Domain 8) were conditioned with a 60 g/t top cut. Figure 14-4 is a long section with composite data from Western Flanks Domain 1 and Domain 19, and Figure 14-5 is a long section of Domain 8 composite data.

Table 14-4 Western Flanks composite data statistics

Resource Area	Domain	Count	Min grade	Mean	Median	CV	Max	Top cut applied	Mean with top cut	No. of composites top cut
Western Flanks	1	10283	0.05	2.04	0.89	3.76	387.74	60	1.91	10
	2	228	0.01	12.26	0.76	9.96	1759	80	2.71	2
	3	402	0.01	2.51	1	2.02	64.97	60	2.39	1
	4	106	0.005	2.03	0.82	1.51	20.6	-	-	-
	5	186	0.005	1.83	0.81	1.81	23.73	-	-	-
	6	193	0.01	2.98	1.11	3.07	118.32	30	2.68	1
	7	62	0.005	1.89	1.07	1.15	8.12	-	-	-
	8	15270	0.05	1.28	0.27	2.74	152.34	60	1.27	8
	9	178	0.01	0.9	0.45	1.26	6.17	-	-	-
	10	27	0.005	1.4	0.95	1.14	6.84	-	-	-
	11	177	0.005	1.02	0.42	1.57	12.52	-	-	-
	12	40	0.01	1.74	1.04	1.16	8.74	-	-	-
	13	127	0.005	0.6	0.25	1.94	10.6	-	-	-
	14	33	0.01	1.8	0.15	3.03	30.8	15	1.29	1
	15	127	0.005	1.15	0.15	2.11	13.65	-	-	-
	16	38	0.01	1.74	1.14	1.01	6.44	-	-	-
	17	113	0.005	0.56	0.05	2.65	13.1	-	-	-

Resource Area	Domain	Count	Min grade	Mean	Median	CV	Max	Top cut applied	Mean with top cut	No. of composites top cut
	18	42	0.005	0.7	0.28	1.06	2.6	-	-	-
	19	87	0.005	11.62	0.05	9	987	15	0.444	1

Figure 14-4 Western Flanks (Domains 1 and 19) composite data, long section looking east

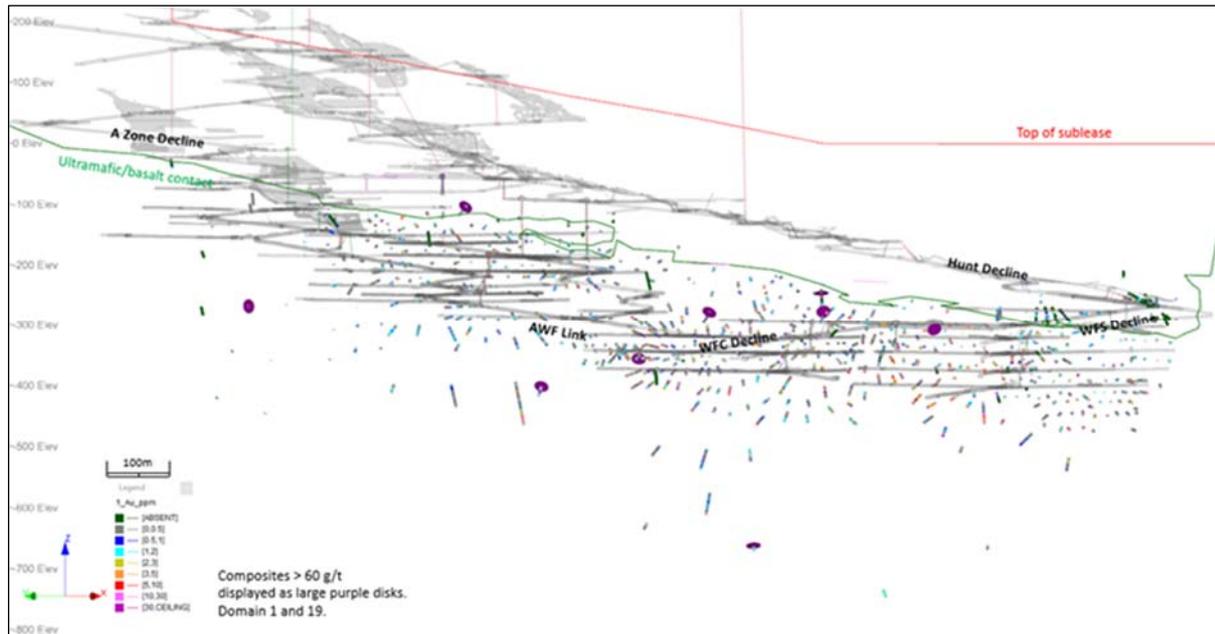
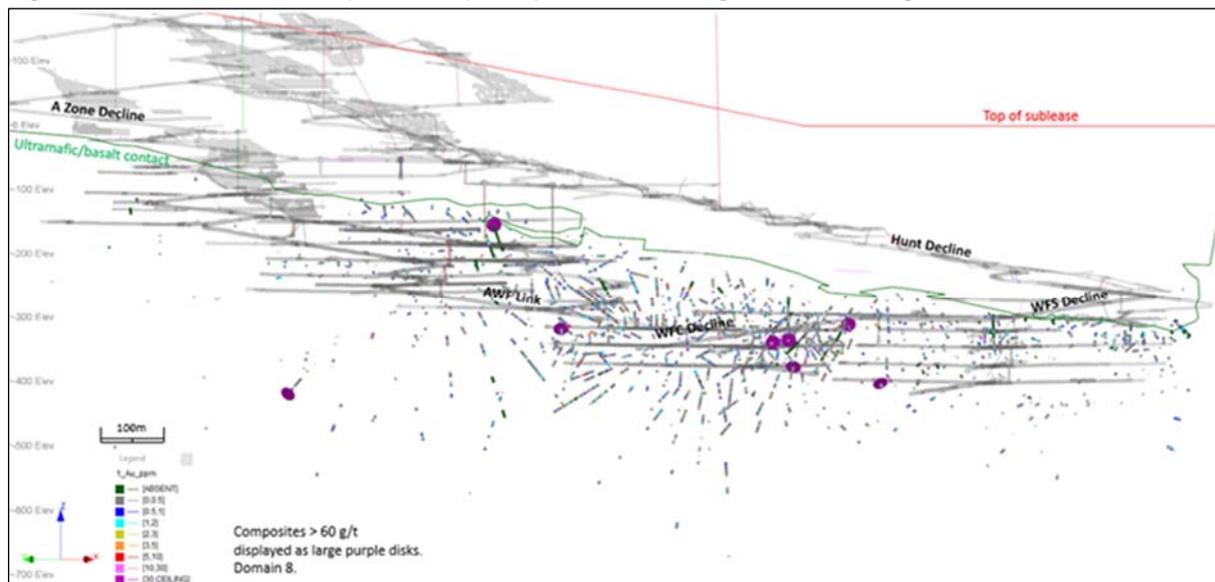


Figure 14-5 Western Flanks (Domain 8) composite data, long section looking east



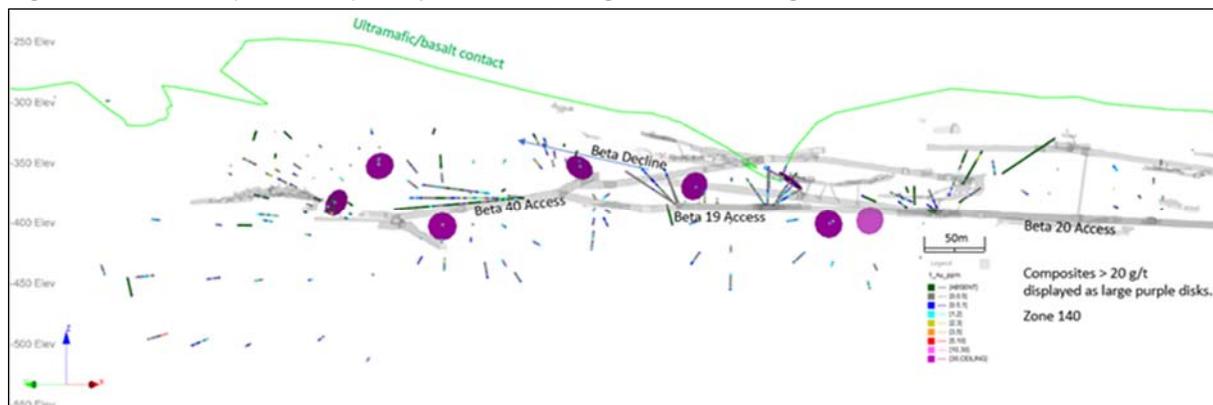
Composite grades for Larkin are detailed in Table 14-5. Figure 14-6 is a long section of gold grades from Zone 140. The Larkin dataset consists of 16 interpreted domains, five of the domains (Domains 500 to 540) represent an area called Cowcill that is located east of the main part of

Larkin. The Larkin mineral system is located beneath the 30C nickel resource that sits at the base of the overlying komatiite.

Table 14-5 Larkin composite data statistics

Resource Area	Zone code	Count	Min grade	Mean	Median	CV	Max	Top cut applied	Mean with top cut	No. of composites top cut
Larkin	100	968	0.005	1.3	0.36	7.78	280.84	20	0.89	3
	110	146	0.005	0.85	0.50	1.19	5.91	-	-	-
	120	226	0.005	1.06	0.33	2.17	22.02	20	1.05	1
	130	121	0.005	0.65	0.03	0.65	5.87	-	-	-
	140	1780	0.005	1.14	0.41	3.48	82.75	20	1	9
	150	1050	0.005	1.38	0.37	3.07	104.00	20	1.28	2
	160	1145	0.005	0.72	0.09	2.92	51.13	20	0.69	1
	170	496	0.005	2.66	0.37	4.80	192.36	20	1.63	9
	180	253	0.005	1.23	0.33	2.25	28.50	20	1.17	2
	190	77	0.01	0.65	0.20	1.83	7.06	-	-	-
	200	35	0.01	2.42	0.91	1.25	11.60	-	-	-
	500	204	0.005	2.07	1.60	0.95	14.09	-	-	-
	510	137	0.05	2.33	1.95	0.83	13.44	-	-	-
	520	193	0.005	1.87	1.40	0.99	10.30	-	-	-
	530	9	0.138	1.64	1.52	0.56	2.57	-	-	-
	540	33	0.243	2.7	2.26	0.65	6.90	-	-	-
550	220	0.02	2.12	1.58	1.04	16.76	-	-	-	

Figure 14-6 Larkin (Zone 140) composite data, long section looking east



14.2.6 Variography

Understanding the grade continuity and determining its extent and orientation is achieved through interpreting and modelling the experimental variogram. The experimental variogram requires sufficient sample data to provide a reliable measure of the grade continuity. Relevant lodes at A Zone and Western Flanks were modelled using Supervisor™ software using a normal scores transformation.

Variograms for each domain were developed to produce search ellipsoids for grade estimation. Variogram parameters were applied to the minor lodes where there were insufficient samples to model.

The interpolation parameters for A Zone domains are listed in Table 14-6. The variogram models for Domains 20 and 21 are displayed in Figure 14-7. The variogram models for Domains 1 and 8 at Western Flanks are shown in Figure 14-8, and the interpolation parameters are summarised in Table 14-7.

Table 14-6 A Zone variogram models

Resource Area	Domain	Angle 1	Angle 2	Angle 3	Axis 1	Axis 2	Axis 3	Nugget	ST1 range 1	ST1 range 2	ST1 range 3	Variance proportion ST1	ST2 range 1	ST2 range 2	ST2 range 3	Variance proportion
A Zone	18	-50	-105	60	3	2	3	0.75	23	14	4	0.22	50	22	5	0.03
	19	-30	-95	-35	3	2	3	0.35	36	9	2	0.48	82	43	9	0.18
	20	135	-85	-140	3	2	3	0.61	9	6	5	0.28	36	18	6	0.11
	21	-50	-100	-50	3	2	3	0.41	5	13	3	0.37	57	25	6	0.22
	22	-50	-95	-55	3	2	3	0.41	47	2	2	0.36	106	79	10	0.23
	23	-40	-95	175	3	2	3	0.60	9	14	2	0.29	29	53	7	0.11
	24	-50	-90	-80	3	2	3	0.50	36	30	3	0.28	55	46	4	0.23
	25	-55	-95	-105	3	2	3	0.24	14	20	2	0.06	159	96	14	0.71
	27	-45	-90	-40	3	2	3	0.27	49	20	1	0.42	78	40	8	0.32
	28	-35	-95	-50	3	2	3	0.22	28	20	1	0.32	57	31	6	0.46
	29	-40	-95	-70	3	2	3	0.39	74	20	4	0.37	93	52	7	0.24
	30	-40	-85	20	3	2	3	0.30	34	2	1	0.31	49	27	6	0.39
	31	-15	-105	-60	3	2	3	0.40	37	19	3	0.38	49	67	6	0.23
	32	-15	-105	40	3	2	3	0.40	37	19	3	0.38	49	67	6	0.23
	33	-45	-70	-170	3	2	3	0.34	5	15	5	0.26	36	23	8	0.41
	34	-35	-80	-40	3	2	3	0.20	28	20	3	0.40	40	26	11	0.40
	35	-45	-25	180	3	2	3	0.38	15	32	2	0.32	37	72	7	0.31
36	-45	-95	-45	3	2	3	0.31	28	14	3	0.42	46	32	4	0.28	

Figure 14-7 Variogram models For A Zone Domain 20 And Domain 21

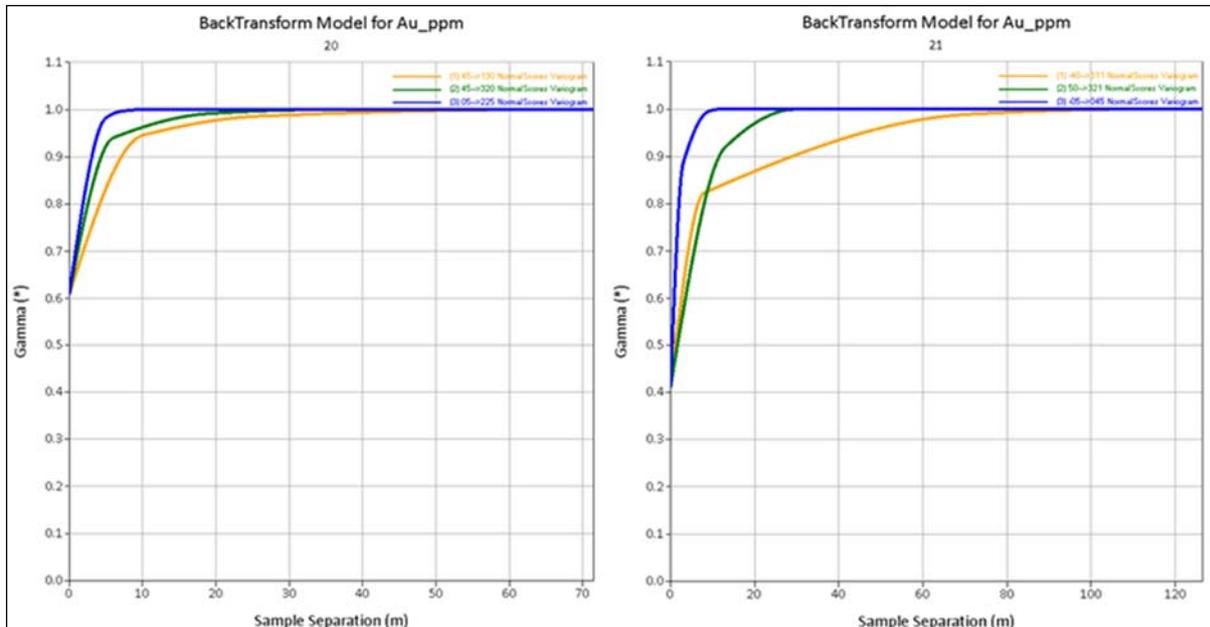
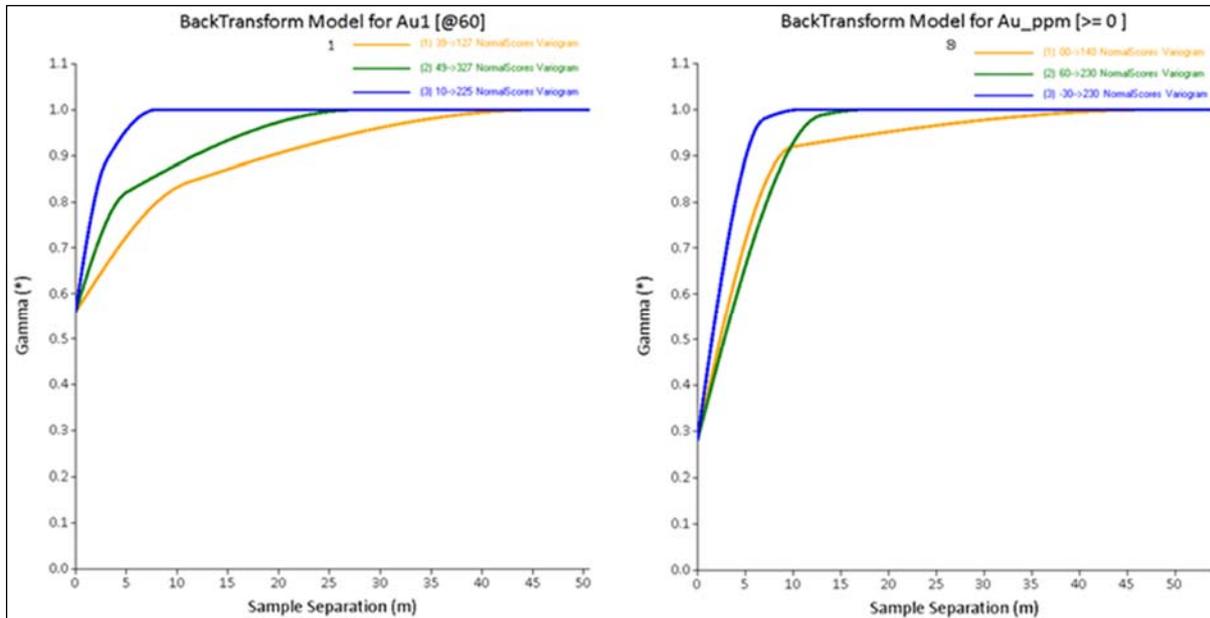


Table 14-7 Western Flanks variogram models

Mine Area	Domain	Angle 1	Angle 2	Angle 3	Axis 1	Axis 2	Axis 3	Nugget	ST1 range 1	ST1 range 2	ST1 range 3	Variance proportion	ST2 range 1	ST2 range 2	ST2 range 3	Variance proportion
Western Flanks	1	135	-80	-130	3	2	3	0.56	11	5	3	0.20	46	28	8	0.24
	2	-45	-85	-10	3	2	3	0.82	40	18	1	0.16	50	26	4	0.02
	3	-35	-101	50	3	2	3	0.44	9	13	5	0.33	35	23	6	0.23
	4	135	-106	149	3	2	3	0.31	10	9	4	0.37	23	15	6	0.32
	5	135	-105	-101	3	2	3	0.50	39	11	1	0.31	66	24	4	0.19
	6	-38	-69	-54	3	2	3	0.79	53	20	3	0.14	72	28	5	0.08
	7	-45	-95	-40	3	2	3	0.28	17	20	5	0.23	65	29	6	0.49
	9	-54	-56	122	3	2	3	0.37	9	11	3	0.33	17	13	5	0.30
	15	-40	-100	-50	3	2	3	0.24	38	20	5	0.51	50	29	8	0.26
	17	-30	-95	175	3	2	3	0.19	24	20	1	0.42	117	114	7	0.38
	18	-50	-75	-160	3	2	3	0.36	13	18	8	0.28	29	58	9	0.36
	19	-35	-100	-45	3	2	3	0.28	10	20	3	0.40	72	40	7	0.32

Figure 14-8 Variogram models for Western Flanks Domain 1 and Domain 8

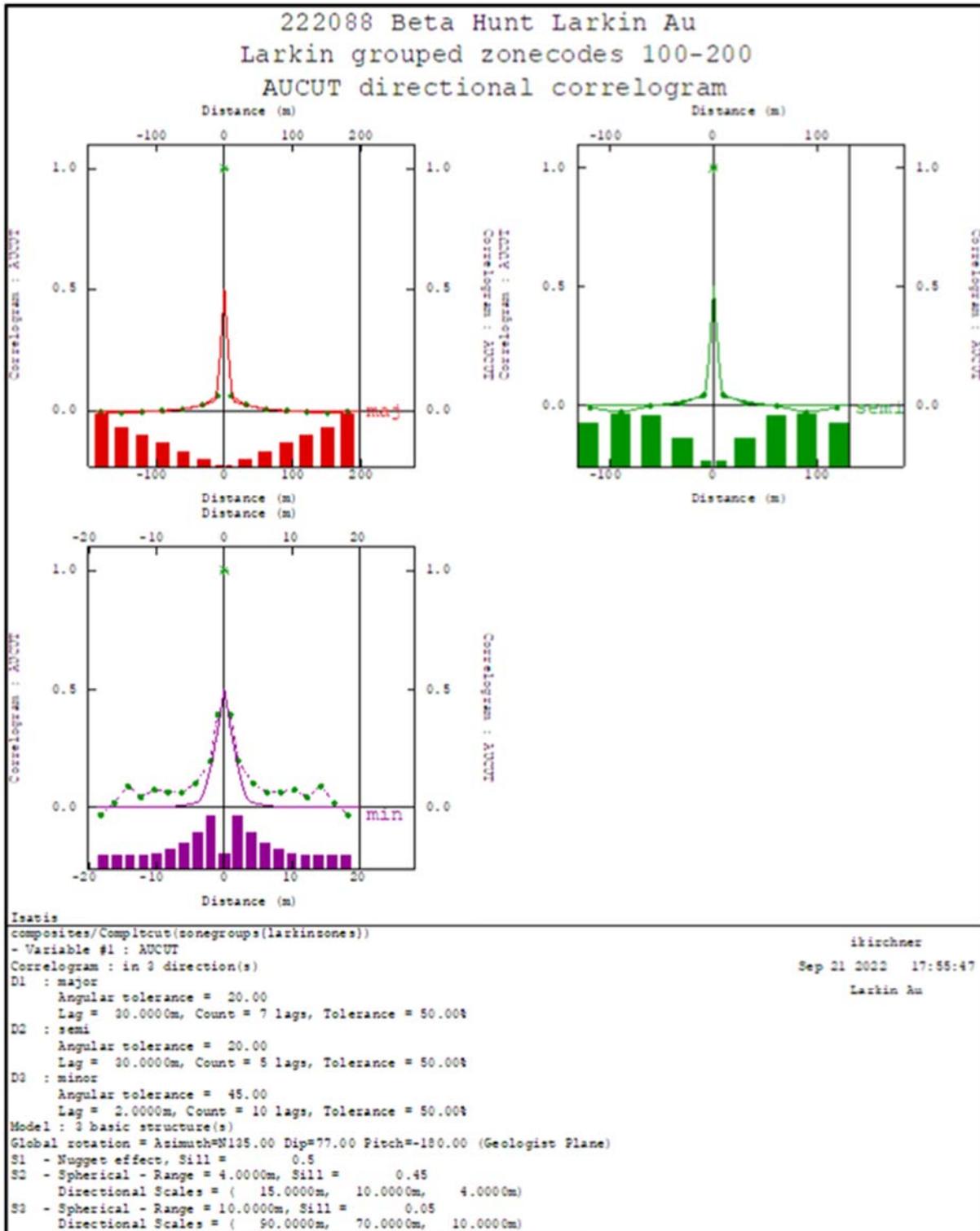


Spatial continuity for the Larkin dataset was assessed using Isatis software, and correlograms were modelled for the grades from Larkin and Cowcill areas separately. The AMC Technical Report for the Larkin estimate describes the spacing of drill holes and assay data at the deposit as follows; “all the mineralized zones have a high degree of clustering near the upper portions of the zones and proximal to the underground drilling sites. The zones have consistently limited data at depth.” Details for variogram models for Larkin and Cowcill are listed in Table 14-8, and correlograms for Larkin and Cowcill gold grades are shown in Figure 14-9 and Figure 14-10.

Table 14-8 Larkin variogram models

Deposit	Zone Code	Major Axis		Semi Major Axis		Minor Axis		Nug	ST1 range 1	ST1 range 2	ST1 range 3	Variance proportion ST1	ST2 range 1	ST2 range 2	ST2 range 3	Variance proportion ST2
		Dip	Azi	Dip	Azi	Dip	Azi									
Larkin	100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200	0	315	-77	225	13	225	0.5	15	10	4	0.45	90	70	10	0.05
Cowcill (Larkin East)	500, 510, 520, 530, 540, 550	0	295	-64	25	26	25	0.45	22	8	2	0.4	45	20	5	0.15

Figure 14-9 Modeled correlograms for Larkin

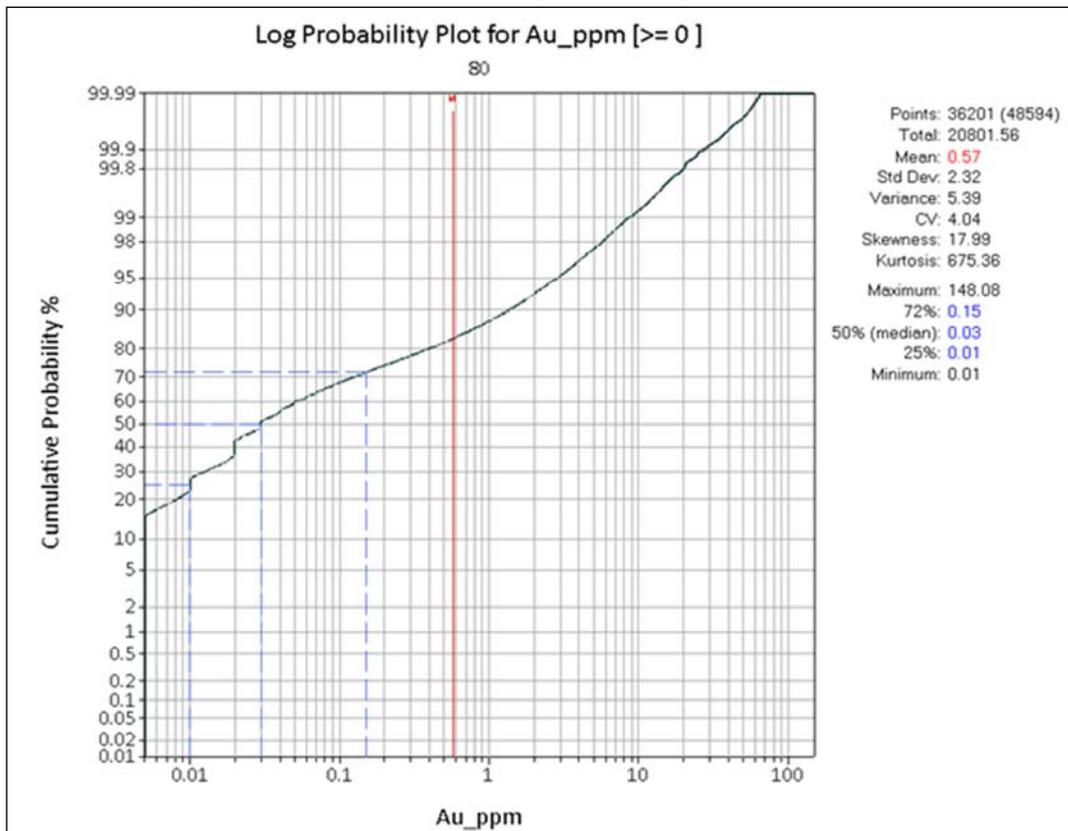


14.2.7 Western Flanks Domain 8 Categorical Indicator Modelling

The structure and style of mineralisation in the area located above the hangingwall of the main Western Flanks Shear (Domain 1) is associated with a range of structural orientations that dip predominantly to the east. Extensional veins with limited continuity exist in swarms, and high grade mineralisation is less extensive than shear hosted mineralisation. Drill data has been coded using a categorical indicator method before the estimation domain solid was produced using a probability method as follows:

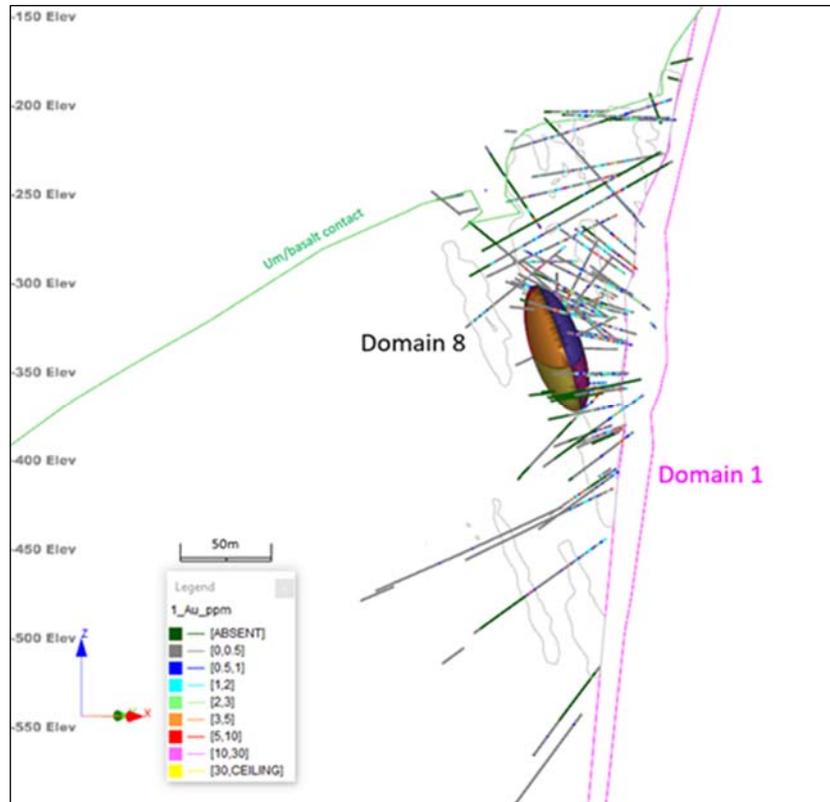
- All drill assays in the area located outside the Western Flanks Shear (excluding drill data from Domains 2, 3 and 4) composited to 1 m lengths and statistics reviewed.
- The grade of 0.15 g/t was selected to segregate the population into “mineralized” composites and “unmineralized” composites. This grade corresponds with the 72nd percentile (Figure 14-11). The mineralized composites were coded “1”, and waste was coded “0”.

Figure 14-11 Domain 8 grade cumulative probability graph, 0.15 g/t represents 72nd percentile



The indicator coded composites were the basis for an indicator estimate. The indicator model was built using a rotated block framework that strikes 315° and dips 55° towards the east. Parent blocks dimensions were 5 m x 5 m x 5 m. The variogram model used for this indicator estimation was orientated with weak anisotropy plunging steep northeast (Figure 14-12). The indicator 0s and 1s were estimated using direct ordinary kriging and grade shells generated. Indicator threshold values between 0.1 and 0.4 were used to create iso-shells and the 0.25 indicator threshold was selected. The 0.25 indicator shell represents a 25% probability of grade exceeding 0.15 g/t Au. The 0.25 indicator shell was modified with wireframe boolean operations, and the Domain 8 mineralisation solid was subsequently created. The Domain 8 triangulation was used for a second phase of selecting drill data, compositing and modelling.

Figure 14-12 Domain 8 indicator variogram model with Domain 8 and Domain 1, cross-section looking north



14.2.8 Block Model and Grade Estimation

Mineralized domains in Western Flanks and A Zone have been estimated into 5 m x 5 m x 5 m XYZ block models, and the Larkin estimate was estimated onto a 5 m x 10 m x 10 m XYZ framework. All three block models are rotated 45° west of north. The block model framework details are listed in Table 14-9.

Table 14-9 Block model parameters

	A Zone	Western Flanks	Larkin
file name	AZ_2209_res_Au-m	wf_Au_221025-m	LARK_202210_Au-m
Origin X	375315	375190	375800
Origin Y	543454	543275	542000
Origin Z	-600	-830	-610
rotation angle 1	-45	-45	-45
rotation axis 1	3	3	3
rotation angle 2	0	0	0
rotation axis 2	1	1	1
rotation angle 3	0	0	0
rotation axis 3	3	3	3
X axis extent	315	450	575
Y axis extent	2330	1830	1550
Z axis extent	880	900	450
X parent	5	5	5
Y parent	5	5	10
Z parent	5	5	10
X count	63	90	115

	A Zone	Western Flanks	Larkin
Y count	466	366	155
Z count	176	180	45
X sub-cell length	1	1	0.3125
Y sub-cell length	1	1	0.625
Z sub-cell length	2.5	1	0.625
Discretisation (XYZ)	2,2,2	2,2,2	2,3,3

Mineralized domains in Larkin were subject to dynamic anisotropy prior to the estimation of gold grades. Dynamic anisotropy is a technique that accounts for local variations in strike and dip within an estimation domain and allows changes in orientation of the estimation search ellipsoid to suit the local orientation of the neighboring margins of the domain. Mineralized domains in A Zone and Western Flanks (Figure 14-13) were not subject to dynamic anisotropy. All gold grades have been estimated using direct ordinary kriging, and hard boundaries were imposed on each mineralized domain so that only data from within each domain was used for estimating.

Search neighborhood parameters for A Zone, Western Flanks and Larkin are listed in Table 14-10, Table 14-11, and Table 14-12, respectively. Search neighborhood distances were multiplied by expansion factors to facilitate estimation of areas subject to broad drill hole spacing (beyond 40 m x 40 m spaced drill centers) and un-tested ground along strike or down dip from resource definition drilling.

Table 14-10 A Zone search neighbourhood parameters

Area and Domain		Estimation Pass 1					Estimation Pass 2					Estimation Pass 3					Max samples per hole
		Search (m)			Composites		Search (m)			Composites		Search (m)			Composites		
		1	2	3	Min	Max	1	2	3	Min	Max	1	2	3	Min	Max	
AZ	18	50	22	5	12	24	63	28	6	12	24	400	176	40	6	24	4
AZ	19	82	43	9	12	24	103	54	11	12	24	328	172	36	4	12	4
AZ	20	36	18	6	14	24	45	23	8	12	24	180	90	30	4	12	4
AZ	21	57	25	6	12	24	71	31	8	12	24	285	125	30	4	12	4
AZ	22	106	79	10	8	18	133	99	13	8	18	424	316	40	4	12	4
AZ	23	29	53	7	12	24	36	66	9	12	24	44	80	11	4	12	4
AZ	24	55	46	4	12	24	69	58	5	12	24	110	92	8	4	12	4
AZ	25	159	96	14	12	24	199	120	18	12	24	477	288	42	4	12	4
AZ	26	55	46	4	12	24	69	58	5	12	24	110	92	8	4	12	4
AZ	27	78	40	8	6	12	98	50	10	6	12	234	120	24	4	12	4
AZ	28	57	31	6	12	24	71	39	8	12	24	171	93	18	4	12	4
AZ	29	93	52	7	12	24	116	65	9	12	24	279	156	21	4	12	4
AZ	30	42	18	6	12	24	53	23	8	12	24	126	54	18	4	12	4
AZ	31	49	67	6	12	24	61	84	8	12	24	74	101	9	4	12	4
AZ	32	49	67	6	12	24	61	84	8	12	24	196	268	24	4	12	4
AZ	33	36	23	8	10	18	45	29	10	10	18	54	35	12	4	12	4
AZ	34	40	26	11	6	16	50	33	14	6	16	120	78	33	4	12	4
AZ	35	37	72	7	6	16	46	90	9	6	16	222	432	42	4	12	4
AZ	36	46	32	4	10	18	58	40	5	10	18	92	64	8	4	12	4

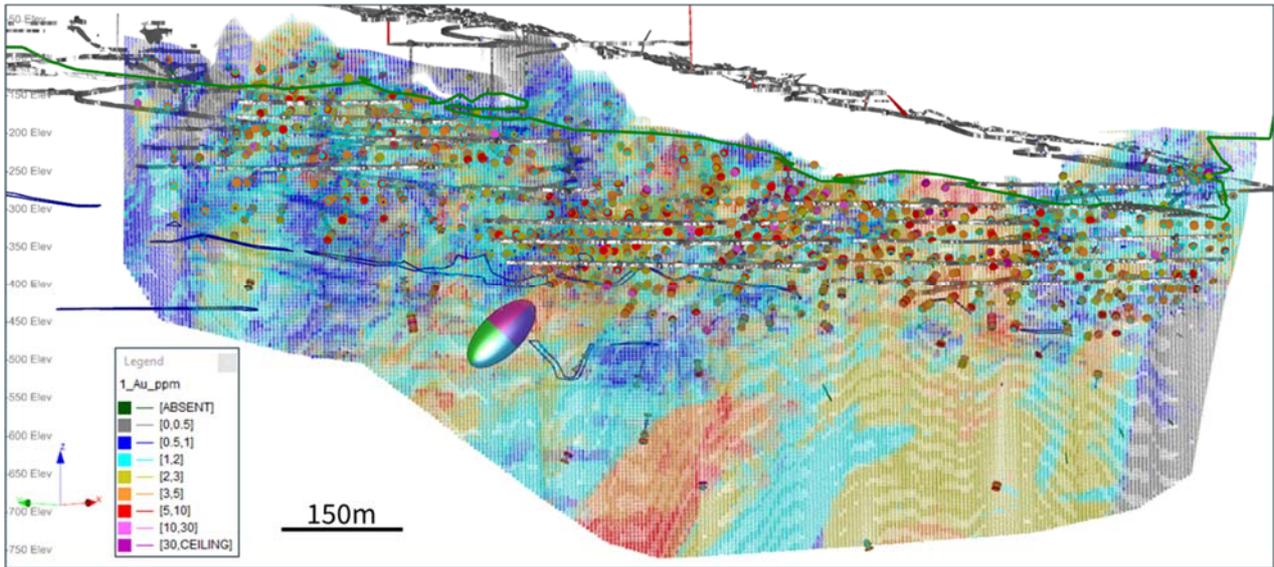
Table 14-11 Western Flanks search neighbourhood parameters

Area and Domain		Estimation Pass 1					Estimation Pass 2					Estimation Pass 3					Max samples per hole
		Search (m)			Composites		Search (m)			Composites		Search (m)			Composites		
		1	2	3	Min	Max	1	2	3	Min	Max	1	2	3	Min	Max	
WF	1	46	28	8	8	22	58	35	10	8	22	276	168	48	4	20	4
WF	2	50	26	8	6	18	63	33	10	6	18	300	156	48	6	18	4
WF	3	35	23	8	8	20	44	29	10	8	20	210	138	48	8	16	4
WF	4	23	15	6	6	16	29	19	8	4	16	138	90	36	4	16	4
WF	5	66	24	6	8	22	83	30	8	8	22	396	144	36	4	22	4
WF	6	72	28	5	8	22	90	35	6	8	22	432	168	30	4	22	4
WF	7	65	29	6	6	16	81	36	8	4	16	390	174	36	4	16	4
WF	8	49	18	11	6	18	61	23	14	6	16	172	63	39	6	12	4
WF	8 ind	31	39	14	6	16	39	49	18	6	16	-	-	-	-	-	4
WF	9	17	13	5	8	20	21	16	6	8	20	136	104	40	8	20	4
WF	10	66	24	6	8	22	83	30	8	8	22	396	144	36	4	22	4
WF	11	66	24	6	8	22	83	30	8	8	22	396	144	36	4	22	4
WF	12	66	24	6	8	22	83	30	8	8	22	396	144	36	4	22	4
WF	13	23	15	6	6	16	29	19	8	4	16	138	90	36	4	16	4
WF	14	66	24	6	6	16	83	30	8	6	16	198	72	18	6	16	4
WF	15	50	29	8	8	22	63	36	10	8	22	150	87	24	8	22	4
WF	16	23	15	6	8	18	29	19	8	8	18	92	60	24	6	18	4
WF	17	117	114	7	6	14	146	143	9	5	14	468	456	28	4	14	4
WF	18	29	58	9	8	16	36	73	11	8	16	116	232	36	8	16	4
WF	19	72	40	7	8	16	90	50	9	8	16	288	160	28	4	16	4

Table 14-12 Larkin search neighbourhood parameters

Area and Domain		Estimation Pass 1					Estimation Pass 2					Estimation Pass 3					Max samples per hole
		Search (m)			Composites		Search (m)			Composites		Search (m)			Composites		
		1	2	3	Min	Max	1	2	3	Min	Max	1	2	3	Min	Max	
LARK	100 through 550	75	50	12	12	15	150	100	24	5	15	-	-	-	-	-	999

Figure 14-13 Western Flanks Domain 1 estimated grades with variogram mode3l. Shoots of high grade within the shear zone plunge to the north. Long section looking north



14.2.9 Density

Rock types within the stratigraphy of the Lunnon Basalt were modelled and coded for density values as detailed in Table 14-13.

Table 14-13 Density values by resource area and rock type

Rock type	A Zone (g/cm ³)	Western Flanks (g/cm ³)	Larkin (g/cm ³)
Felsic porphyry	2.7	2.76	-
Intermediate porphyry	2.7	2.76	-
Meta-sediment	3.1	3.0	-
Basalt	2.84	2.88	2.85

14.2.10 Model Validation and Sensitivity

Each estimation is accompanied by a standard set of validation procedures to ensure a reasonable estimate and to allow fine-tuning of estimation parameters. The estimates for gold were validated by:

- Visually assessing the grade composite data for each domain model with cross-sections, plan slices and long sections to ensure reasonable grades and continuity has been produced and the estimate reflects the input composites. Figure 14-14, Figure 14-15, Figure 14-16 and Figure 14-17 include the location plan and example cross-sections with block grades plotted with composite grades.
- Generating swath plots of composite grades vs block grades.
- Global comparison of composite and block populations by domain, summarised in Table 14-14 to Table 14-16.

Swath plots are a tool for assessing local differences between block grades and composite grades. Apparent errors in estimated grades shown in the swath plots are due to either poor drill coverage or isolated extreme grades in the composited drill assays.

Figure 14-14 Locations of cross-sections at Beta Hunt, plan view

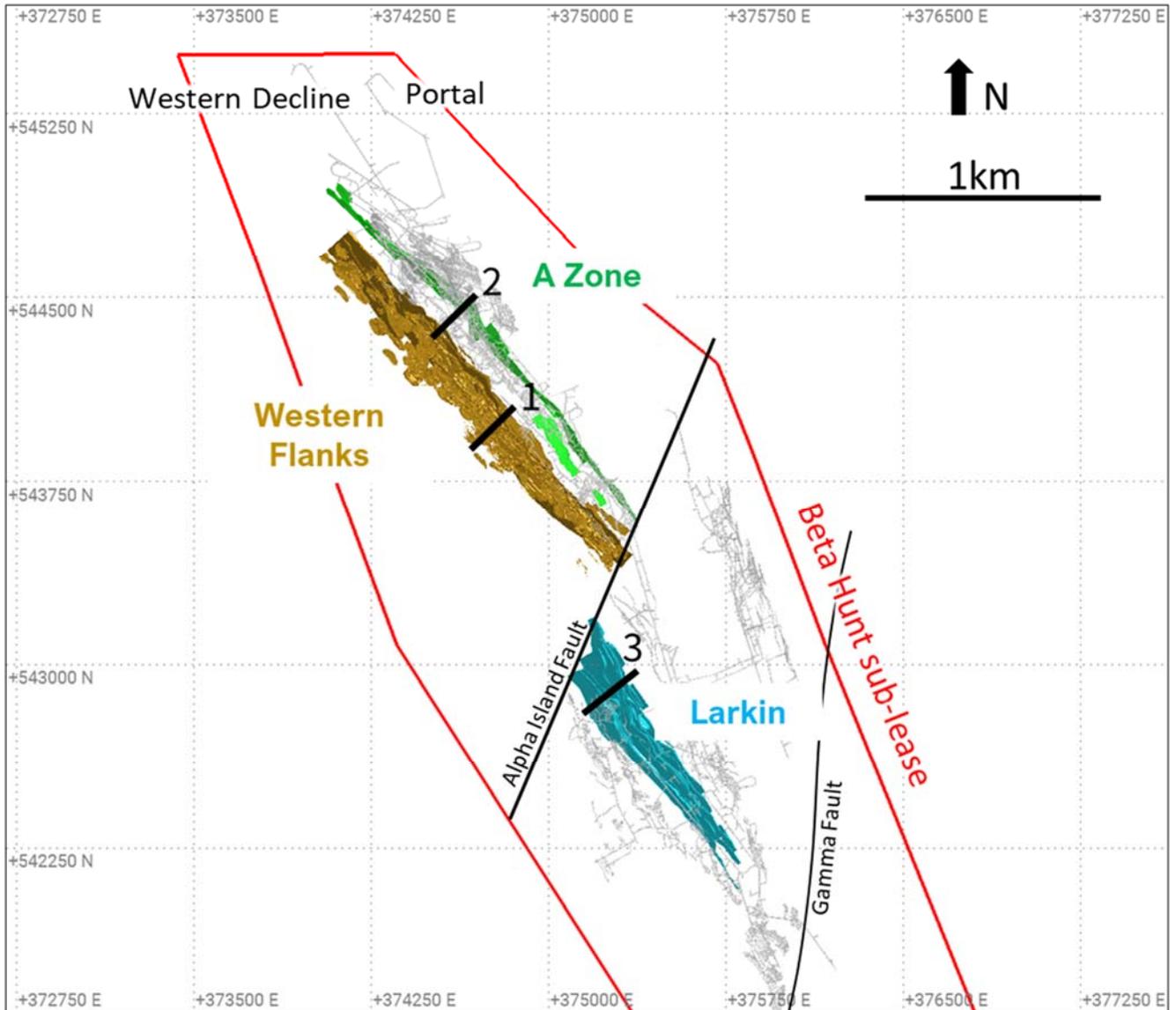


Figure 14-15 Western Flanks model (undepleted) and drill hole grades, cross-section (1) looking north

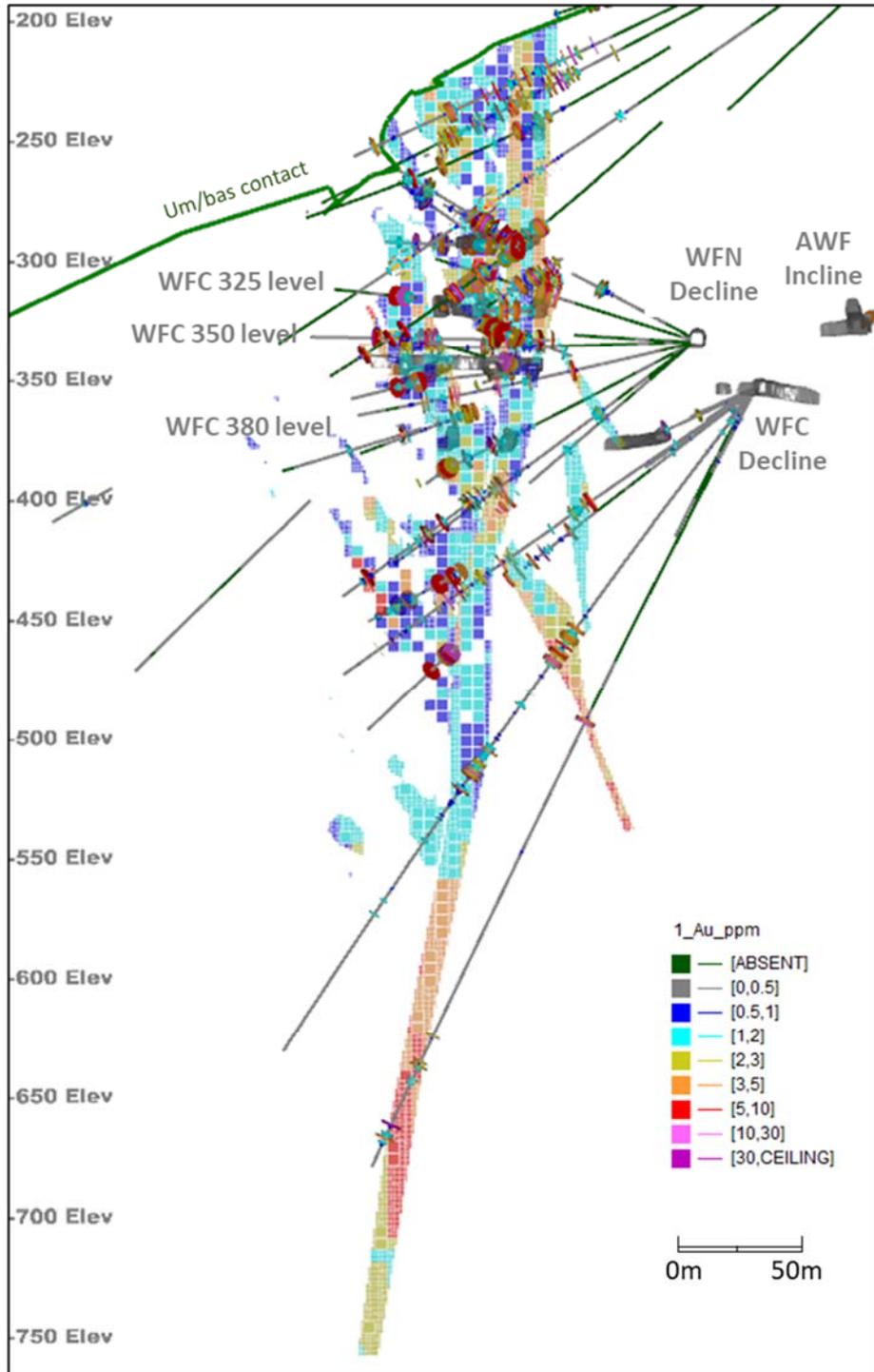


Figure 14-16 A Zone model (undepleted) and drill hole grades, cross-section (2) looking north

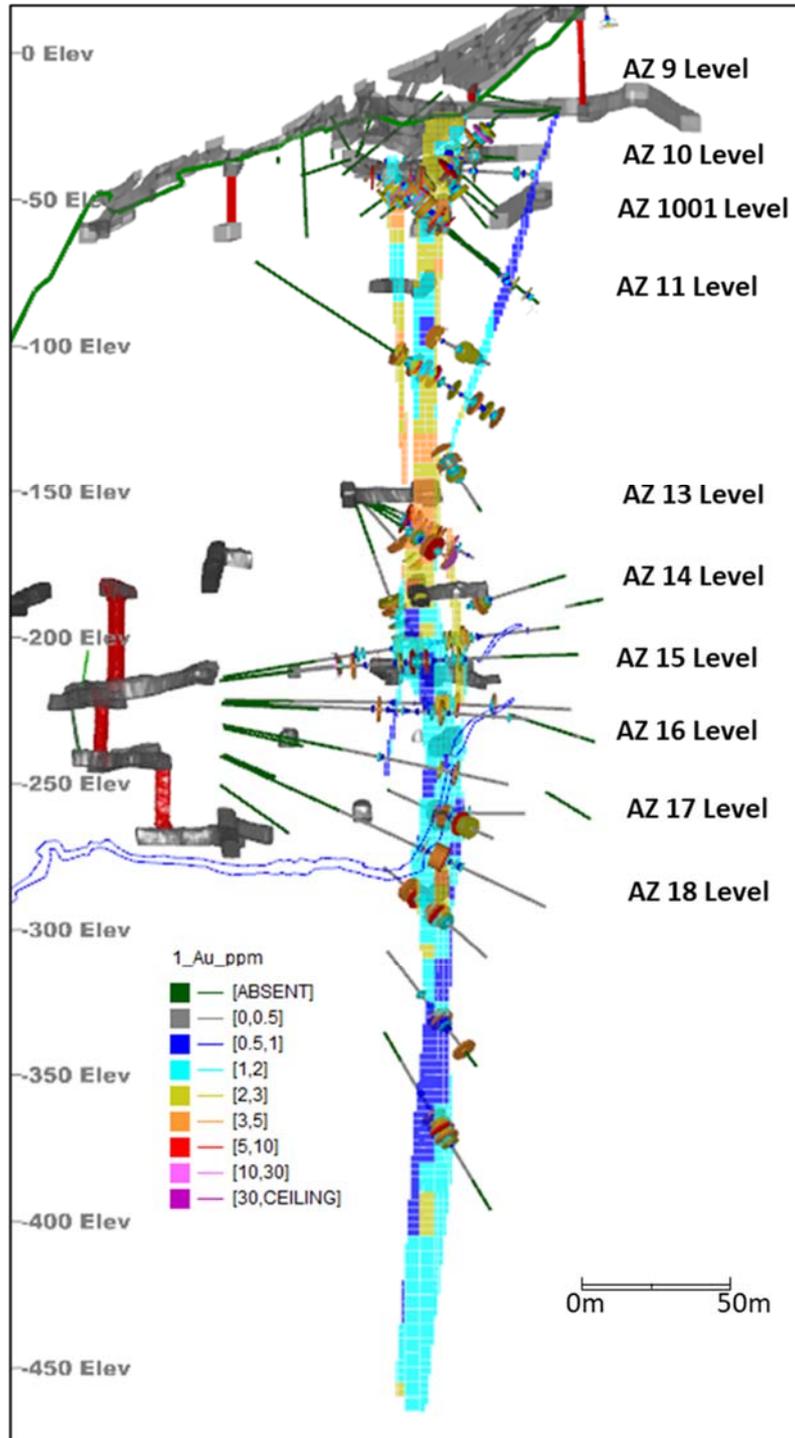


Figure 14-17 Larkin model (undepleted) and drill hole grades, cross-section (3) looking north

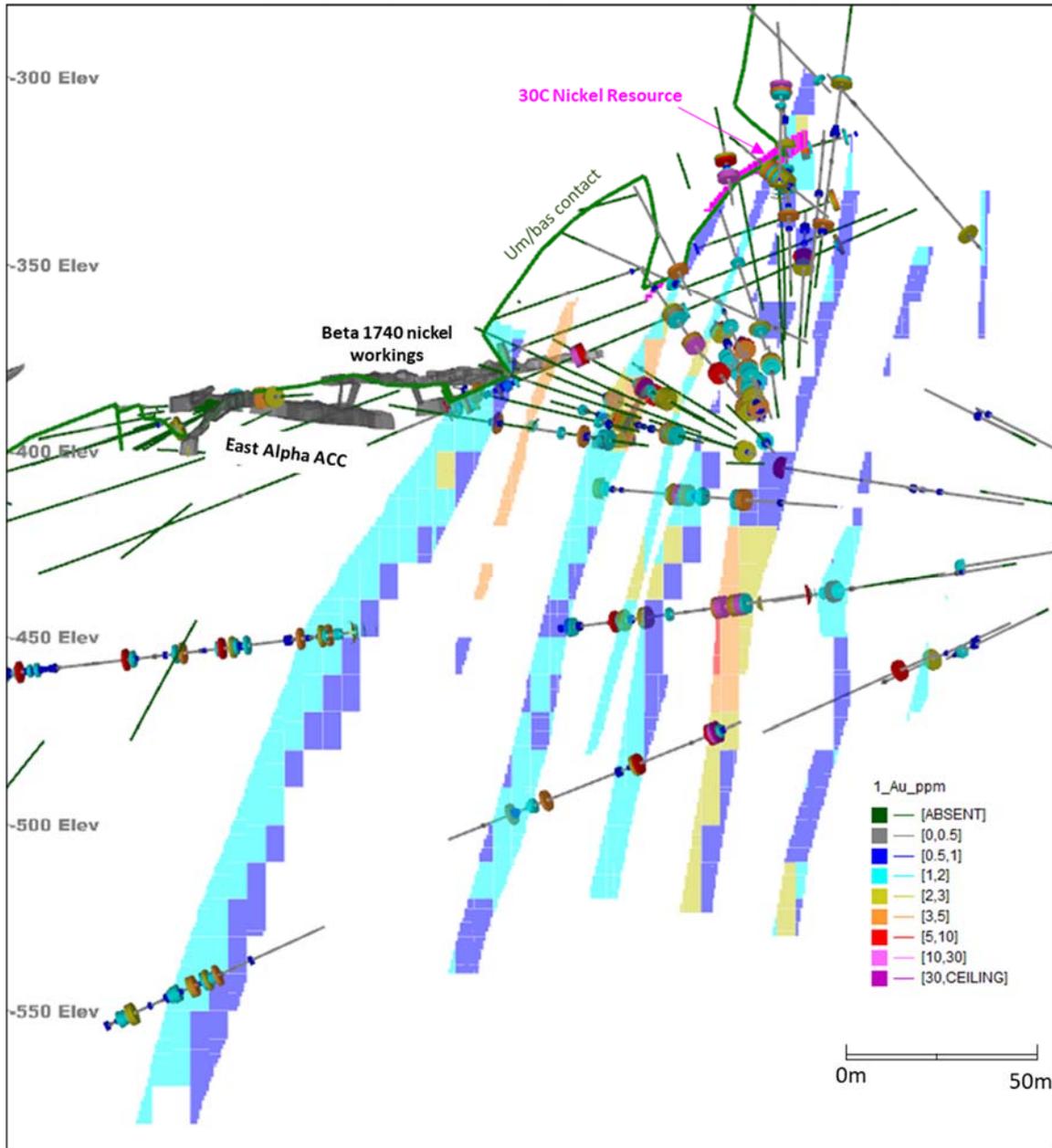


Figure 14-18 and Figure 14-19 show swath plots super-imposed upon block models for Domain 1 and Domain 8 at Western Flanks.

Figure 14-18 Western Flanks Domain 1 swath plot looking east

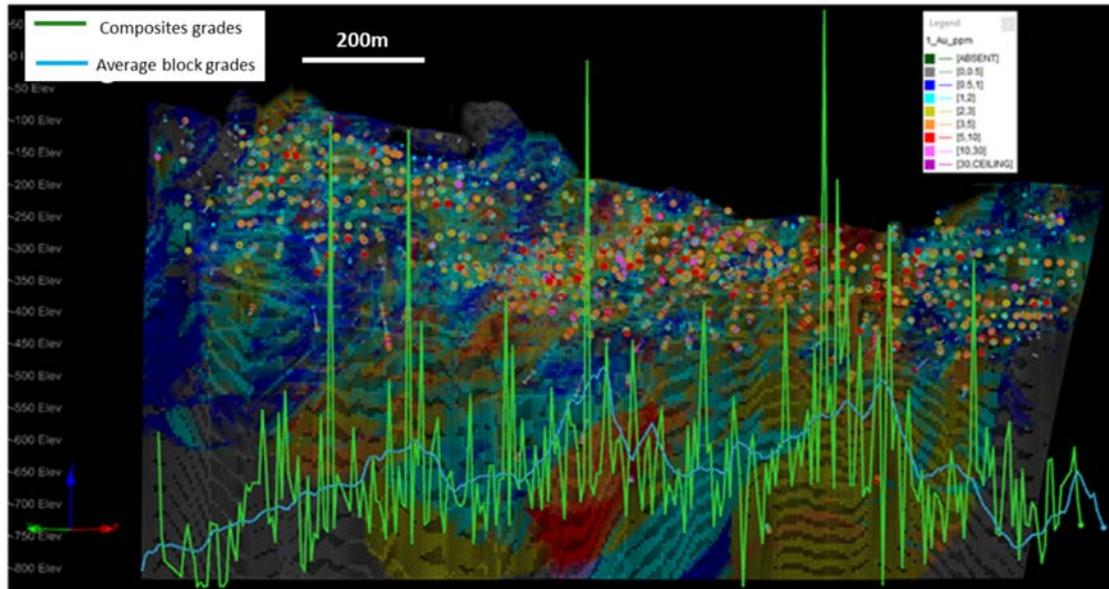


Figure 14-19 Western Flanks Domain 8 swath plot looking east

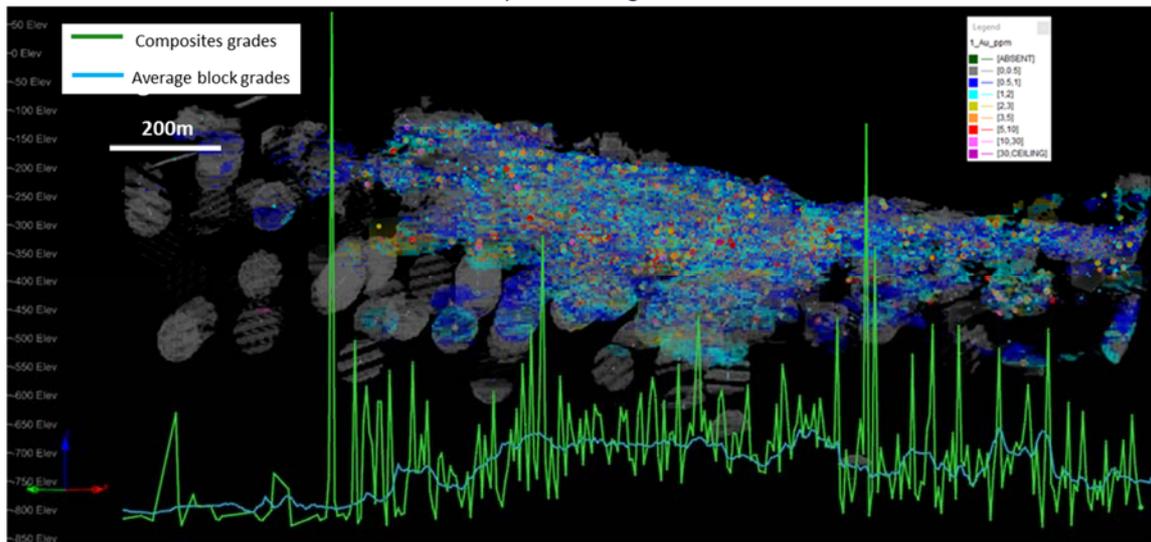


Table 14-14 A Zone average composite grade vs block grade by domain

Resource Area	Domain	Mean	Max	Top cut	Mean with top cut	No. of composites top cut	Block mean
A Zone	18	2.24	386	-	-	-	1.75
	19	0.96	12.7	-	-	-	0.89
	20	1.86	286	80	1.813	1	1.51
	21	2.57	141.58	80	2.52	2	1.84
	22	1.72	16.45	-	-	-	1.98
	23	3.17	90	30	2.92	2	2.68
	24	1.79	20.06	-	-	-	1.96
	25	0.57	2.77	-	-	-	0.46
26	0.8	8.45	-	-	-	0.71	

Resource Area	Domain	Mean	Max	Top cut	Mean with top cut	No. of composites top cut	Block mean
	27	0.84	19.71	-	-	-	0.79
	28	1.97	15.08	-	-	-	2.34
	29	2.6	18.25	-	-	-	2.08
	30	0.71	7.32	-	-	-	0.88
	31	1.11	11.2	-	-	-	1.27
	32	2	13.6	-	-	-	1.86
	33	1.36	8.9	-	-	-	1.46
	34	0.43	4.22	-	-	-	0.42
	35	2.79	11.88	-	-	-	2.74
	36	2.27	39.5	-	-	-	2.3

Table 14-15 Western Flanks average composite grade vs block grade by domain

Resource Area	Domain	mean	max	top cut	mean with top cut	no. of composites top cut	block mean
Western Flanks	1	2.04	387.74	60	1.91	10	1.95
	2	12.26	1,759	80	2.71	2	2.23
	3	2.51	64.97	60	2.39	1	2.39
	4	2.03	20.6	-	-	-	1.86
	5	1.83	23.73	-	-	-	1.78
	6	2.98	118.32	30	2.68	1	3.46
	7	1.89	8.12	-	-	-	2.02
	8	1.28	152.34	60	1.27	8	1.02
	9	0.9	6.17	-	-	-	0.95
	10	1.4	6.84	-	-	-	1.35
	11	1.02	12.52	-	-	-	1.07
	12	1.74	8.74	-	-	-	1.54
	13	0.6	10.6	-	-	-	0.73
	14	1.8	30.8	15	1.29	1	1.68
	15	1.15	13.65	-	-	-	0.79
	16	1.74	6.44	-	-	-	1.46
	17	0.56	13.1	-	-	-	0.56
	18	0.7	2.6	-	-	-	0.54
	19	11.62	987	15	0.444	1	0.42

Table 14-16 Larkin average composite grade vs block grade by domain

Resource Area	Domain	Mean	Max	Top cut	Mean with top cut	No. of composites top cut	Block mean
Lark	100	1.3	280.84	20	0.89	3	0.79
	110	0.85	5.91	-	-	-	1.12
	120	1.06	22.02	20	1.05	1	0.97
	130	0.65	5.87	-	-	-	0.63
	140	1.14	82.75	20	1	9	1
	150	1.38	104.00	20	1.28	2	0.98
	160	0.72	51.13	20	0.69	1	0.97
	170	2.66	192.36	20	1.63	9	1.11
	180	1.23	28.50	20	1.17	2	1.16
	190	0.65	7.06	-	-	-	0.67
	200	2.42	11.60	-	-	-	2.61
	500	2.07	14.09	-	-	-	2.24
	510	2.33	13.44	-	-	-	2.59
	520	1.87	10.30	-	-	-	2
	530	1.64	2.57	-	-	-	1.71
	540	2.7	6.90	-	-	-	2.74
	550	2.12	16.76	-	-	-	2.15

14.2.11 Mine Depletion

Blocks were coded for depletion and sterilization. Cut-off dates for the three resource estimates are listed in Table 14-17.

Table 14-17 Mine depletion cut-off dates for gold resource areas

Resource	Month
A Zone	July 2022
Western Flanks	September 2022
Larkin	August 2022

Blocks were coded for depletion using void solids for actual lateral development while digitized solids were used for stope depletions. Stope cavity monitoring system (“CMS”) solids provided by survey had integrity errors due to intersecting vertices and stope void solids were manually digitized to capture areas that have been mined. Both A Zone and Western Flanks are active mine areas. There is no active mining of the Larkin Mineral Resource.

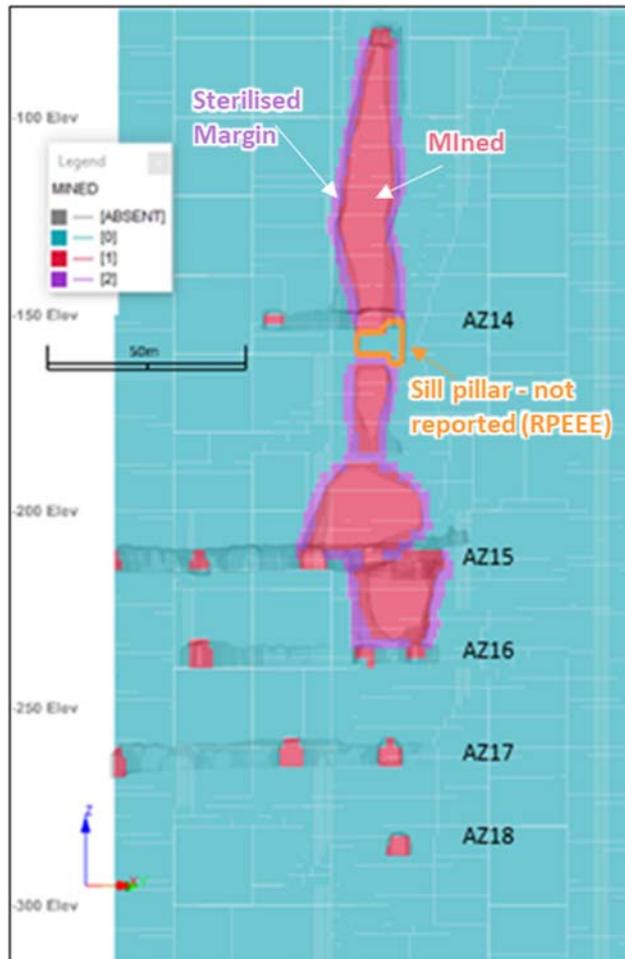
For A Zone, stope solids were expanded 2.5 m to create complimentary sterilization solids for coding blocks. Stopes solids in Western Flanks were expanded 1 m to create a second set of sterilization solids. The A Zone and Western Flanks resource models include a “MINED” variable with “MINED=1” being depleted and “MINED=2” being sterilised.

The Larkin resource model has been coded with an “INSITU” variable, where “INSITU=0” has been depleted with mine void solids.

Limited stope mining has occurred in the Larkin resource area.

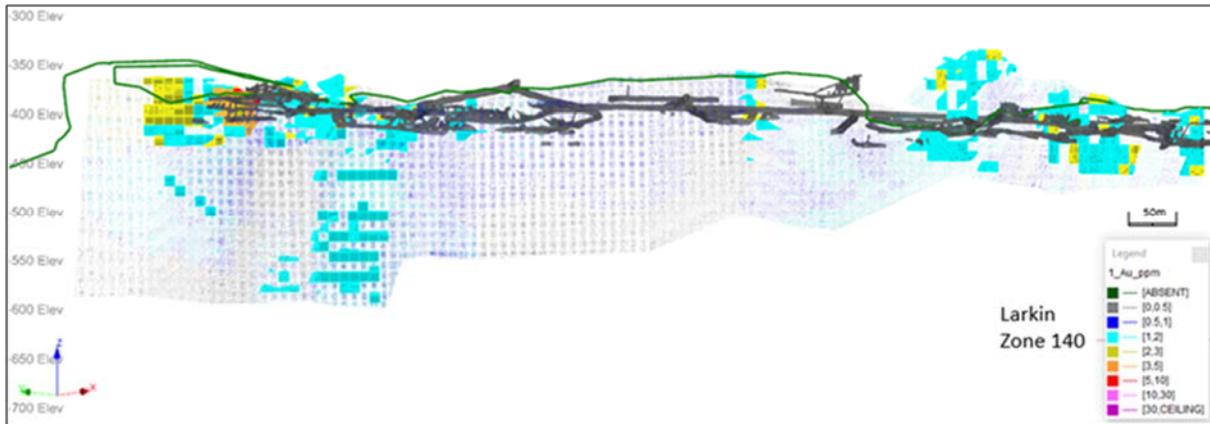
The resources were reviewed for RPEEE for reporting purposes. For A Zone and Western Flanks, the majority of in-situ resource that has not been reported due to RPEEE considerations corresponds with barrier pillars, sill pillars and blocks of ground that are classed as un-mineable due to existing mine voids. An example is shown in Figure 14-20.

Figure 14-20 Cross-section looking north showing A Zone depletion, orange area not reported. Refer to Figure 14-14, section 1 for location



At Larkin, individual blocks that had estimated gold grades greater than the 1.4 g/t, but which were isolated spatially from the main mineralised zones, were not included in the reported Mineral Resource. An example long-section of Zone 140 at Larkin is shown in Figure 14-21.

Figure 14-21 Larkin Zone 140 showing blocks with grades >1.4 g/t that are not reported due to RPEEE (solid shading)



14.2.12 Mineral Resource Classification

Mineral Resource classification has been determined via visual review of drill hole spacing and location of unsampled areas in relation to drill traces and the continuity of grade according to the variogram model.

Criteria applicable to the resource classification of A Zone (Figure 14-23) and Western Flanks Shear Zone (Figure 14-22) are listed below:

- Areas that have been tested by 12 m to 30 m spaced pierce points were classed as Indicated, and 30 m to 180 m as Inferred. Measured Mineral Resource is represented by 12 m spaced drill centers (or tighter).
- All areas that are located adjacent to existing mine development voids are classed as Indicated resource as a minimum level of confidence.

The extensional vein style mineralisation in Western Flanks has limited continuity up and down dip, and classification of the Mineral Resource follows a more conservative set of criteria:

- Areas that have been tested by pierce points separated by distances of 30 m or less have been classed as Indicated. There is no Measured resource for this style of mineralisation.
- Areas tested by pierce points separated by 30 m to 150 m are Inferred.

Figure 14-22 Western Flanks Domain 1 resource classification comparing previous resource, long section looking east

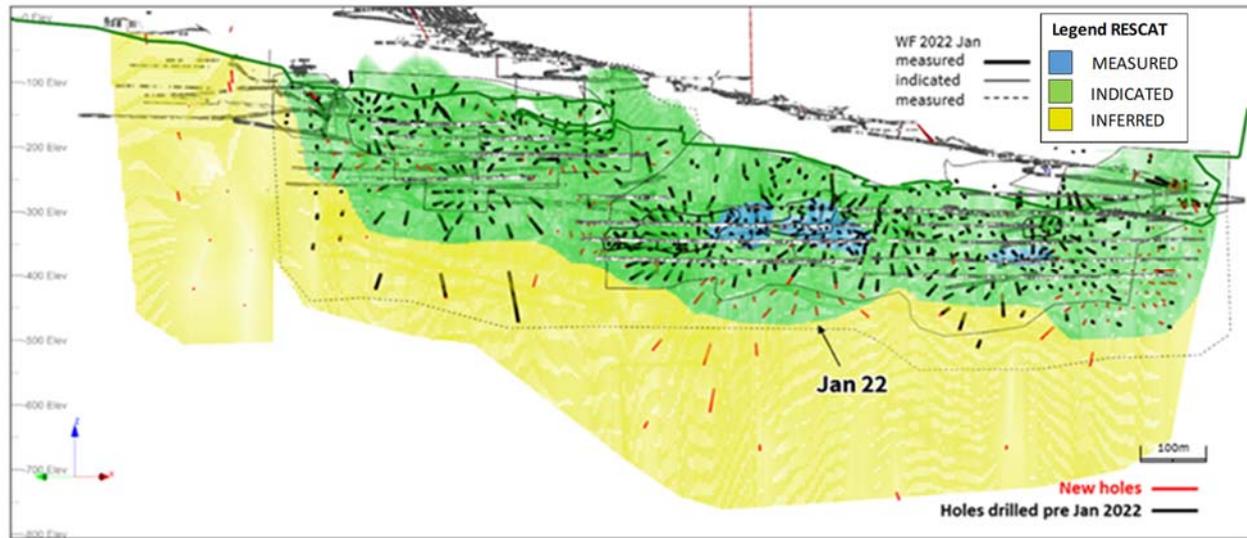
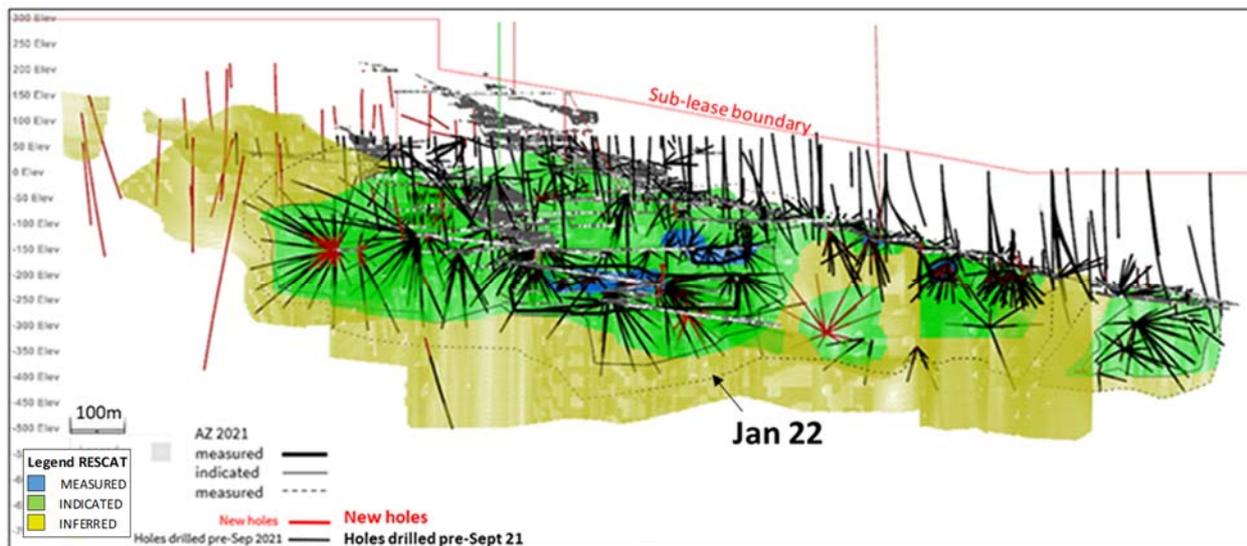


Figure 14-23 A Zone main shear resource classification comparing previous resource, long section looking east



The Larkin drill dataset includes historic (pre-Karora) drill data that has a high proportion of selectively/poorly sampled mineralisation and unsampled intervals of drilling. The criteria adopted for classification of the Larkin estimate by AMC Consultants (2022) into the Inferred category were:

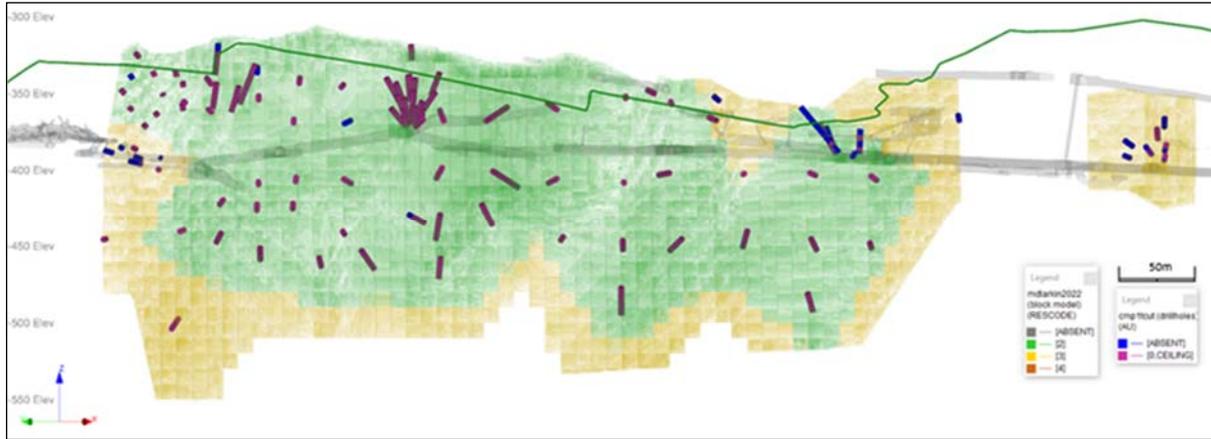
- “Within the first or second pass (75m by 50m by 12m or 150m by 100m by 24m).
- Used at least 14 of 1m composites.
- Composite data used in the block estimate had an average distance from the estimated block of less than 50m.
- Had a proportion of missing assay data in the block neighbourhood of less than 80%.

The criteria for classification into the Indicated category (Figure 14-24) were as follows:

- “Within the first pass of 75m by 50m by 12m.
- Used at least 14 of 1m composites.

- Composite data used in the block estimate had an average distance from the estimate block of less than 30m.
- Had a proportion of missing assay data in the block neighbourhood of less than 40%.”

Figure 14-24 Larkin Zone 150 resource classification showing drill holes coloured by status



14.2.13 Mineral Resource Statement

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a Mineral Resource as:

“A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.

The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.”

The “reasonable prospects for eventual economic extraction” requirement generally implies that the quantity and grade estimates meet certain economic thresholds and that the Mineral Resources are reported at an appropriate cut-off grade that takes into account extraction scenarios and processing recoveries. The Qualified Person considers that major portions of the gold resource are amenable for underground extraction.

The Beta Hunt Gold Mineral Resource is summarised below in Table 14-18.

Table 14-18 Beta Hunt Gold Mineral Resources as at September 30, 2022

Sep 2022 Mineral Resource	Measured			Indicated			Measured & Indicated			Inferred		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
Western Flanks	183	2.6	15	10,873	2.6	900	11,056	2.6	916	8,607	2.8	775
A Zone	86	2.4	7	4,028	2.3	298	4,114	2.3	305	2,832	2.2	203
Larkin	-	-	-	1,710	2.4	131	1,710	2.4	131	1,005	2.3	74
Total	269	2.5	22	16,611	2.5	1,329	16,880	2.5	1,351	12,444	2.6	1,052

- 1) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
- 2) The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce Mineral Reserves.

- 3) The Mineral Resource estimates include Inferred Mineral Resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is also no certainty that Inferred Mineral Resources will be converted to Measured and Indicated categories through further drilling, or into Mineral Reserves once economic considerations are applied.
- 4) The Gold Mineral Resource is estimated using a long term gold price of US\$1,675/oz with a US:AUD exchange rate of 0.70.
- 5) The Gold Mineral Resource is reported using a 1.4 g/t Au cut-off grade.
- 6) Mineral Resources are depleted for mining as of September 30, 2022 with the exception of A Zone which is depleted as of July 31, 2022.
- 7) Beta Hunt is an underground mine and to best represent “reasonable prospects of eventual economic extraction” the Mineral Resource was reported taking into account areas considered sterilized by historical mining. These areas were depleted from the Mineral Resource.
- 8) Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add up due to rounding.
- 9) CIM Definition Standards (2014) were followed in the calculation of Mineral Resources
- 10) Gold and Nickel Mineral Resource estimates were prepared under the supervision of Qualified Person S. Devlin, FAusIMM (Group Geologist, Karora Resources).

14.2.14 Grade Sensitivity Analysis

The Mineral Resources of the Beta Hunt mine are sensitive to the selection of the reporting cut-off grade. To illustrate this sensitivity, the global model quantities and grade estimates are presented for Measured, Indicated and Inferred Mineral Resources as grade tonnage curves in Figure 14-25 to Figure 14-27. *Note that the figures summarised in these graphs do not include RPEEE assessment.*

Figure 14-25 A Zone grade tonnage curve

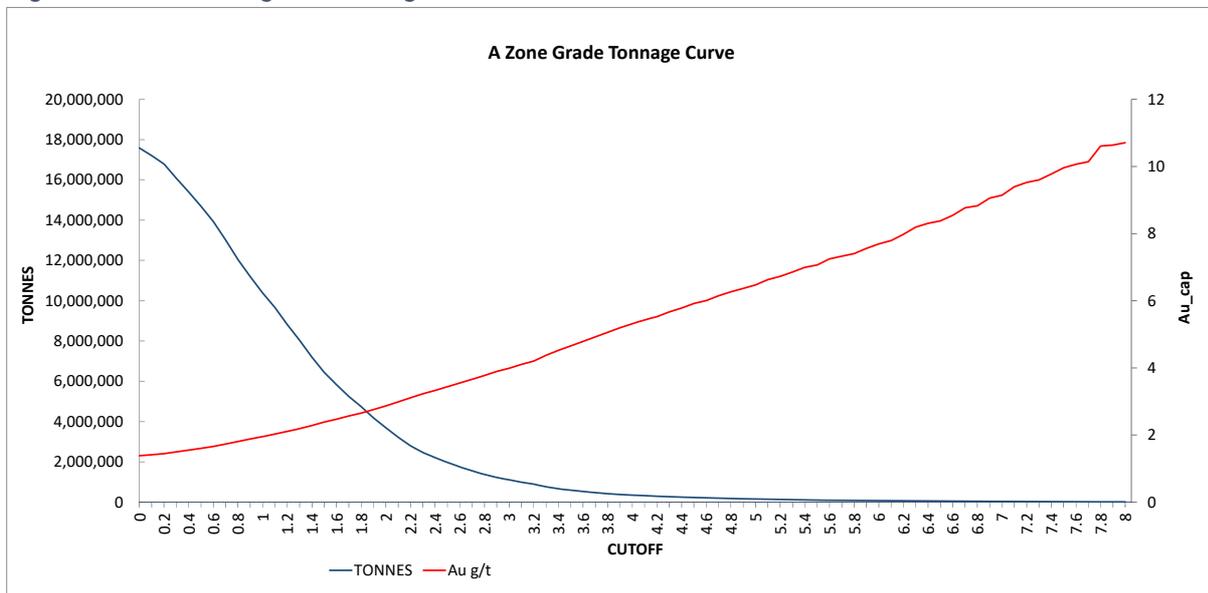


Figure 14-26 Western Flanks grade tonnage curve

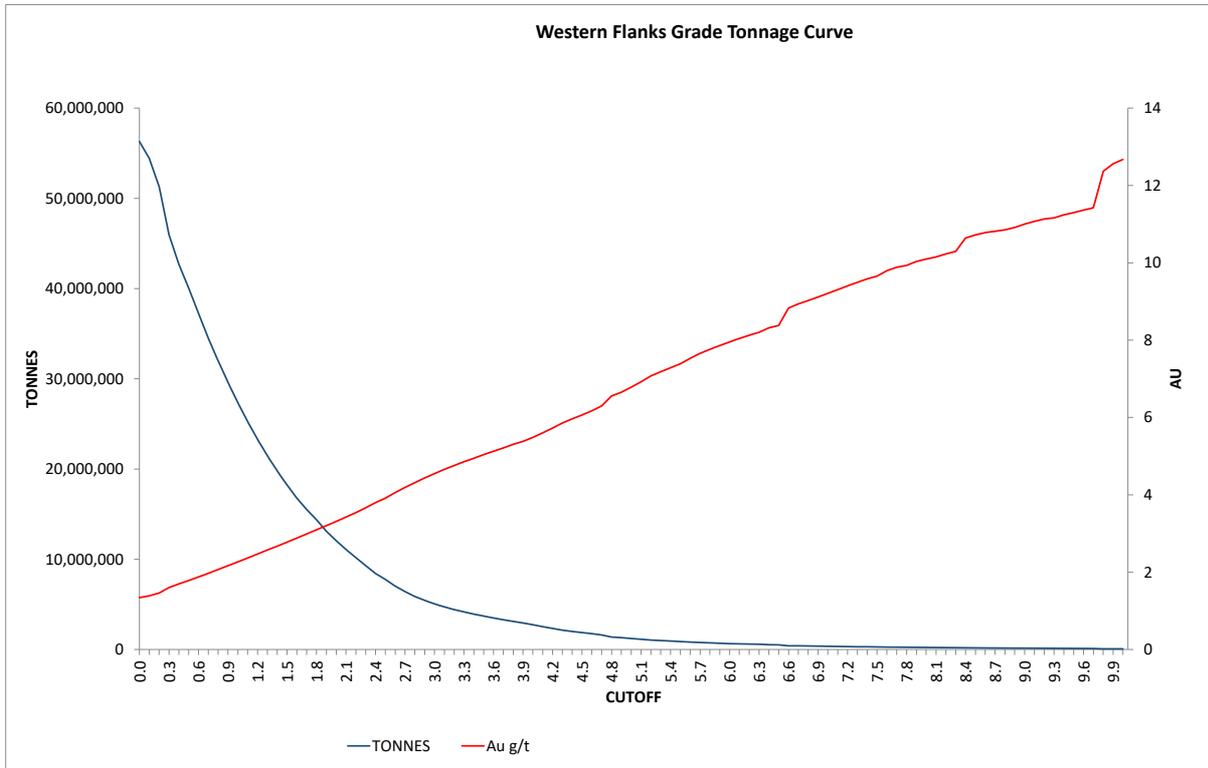
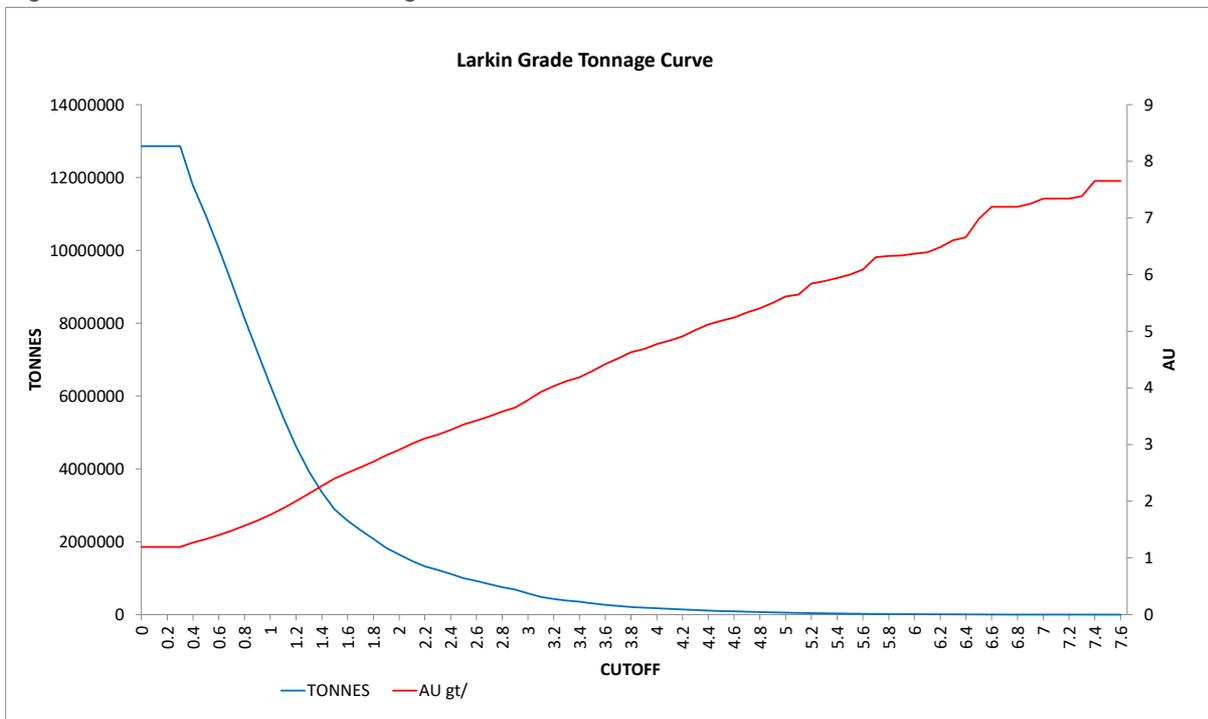


Figure 14-27 Larkin Grade Tonnage Curve



14.3 NICKEL

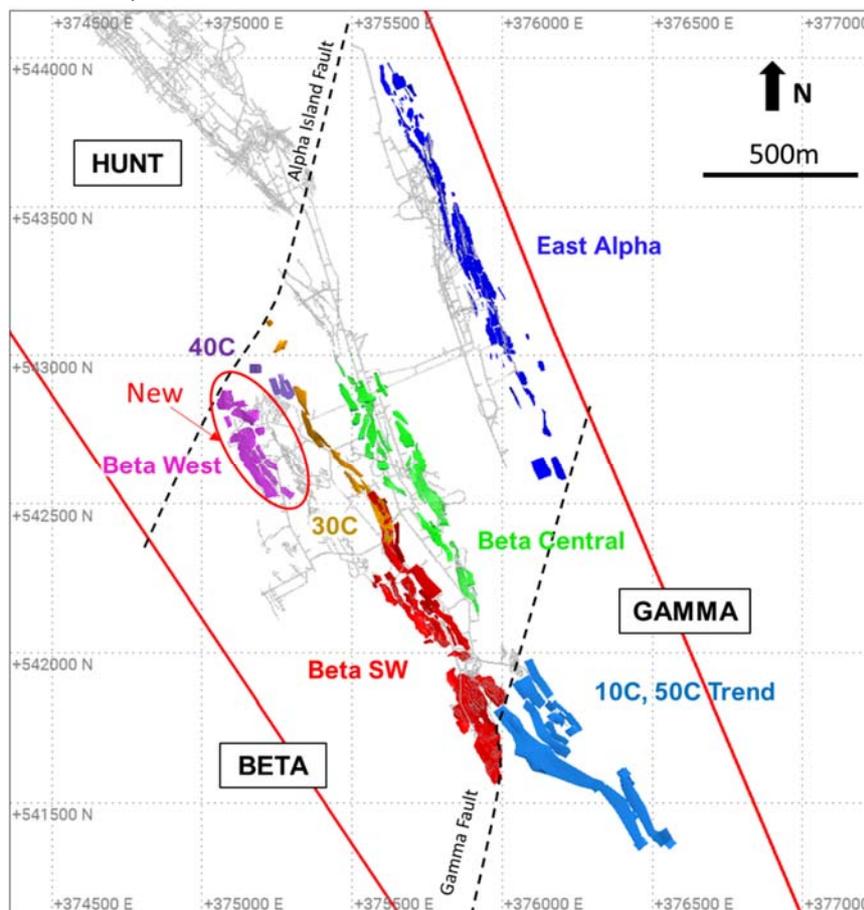
14.3.1 Mineral Resource Estimation Process

The Nickel Mineral Resources presented replace those previously reported by Karora in a Technical Report dated February 3, 2021 as filed on SEDAR and subsequently updated to January 31, 2022 as reported in Karora news release May 11, 2022. The Nickel Mineral Resource updates were completed by AMC (AMC, 2022a; 2022b) and incorporate updated and new resources for the Gamma Area, 30C trough, 40C trough, Beta West (“BW”), and Beta Central (“BEC”). Beta Southwest (“BSW”) and East Alpha remain as previously reported. The effective date of the Mineral Resource Statement is September 30, 2022.

Datamine and Micromine software were used to construct the geological and mineralization solids, prepare assay data for geostatistical analysis, construct the block model, estimate metal grades and tabulate Mineral Resources. Datamine RM, Isatis and Datamine Supervisor™ software were used for geostatistical analysis and variography.

All nickel Mineral Resources are located south of the Alpha Island Fault, and economic mineralisation is hosted within and adjacent to volcanic channels that sit at the stratigraphic base of the Kambalda Komatiite. Nickel sulphides are within narrow troughs that plunge gently to the south. The location of the Beta Hunt nickel areas is shown in Figure 14-28.

Figure 14-28 Beta Hunt September 2022 Nickel Mineral Resource Locations



The nickel resource estimation methodology involved the following procedures:

- Database compilation and verification of drill hole survey data and collar locations.

- Construction of wireframe models was completed for cross-cutting faults, host rock types and mineralisation domains. The ultramafic/basalt contact surface is a guide for the orientation and geometry of nickel sulphides. Modelling porphyritic intrusives and faults prior to modelling mineralized lenses also assisted interpretation of the nickel mineralisation with porphyry intrusions and cross-cutting faults disrupting mineralisation.
- Data conditioning involved compositing assays to full length intervals for geostatistical analysis and variography. The orientation of interpreted nickel lenses was the basis for calculating true thicknesses of intervals within each lens. A nickel accumulation variable was calculated as $NIACC_M = NI\% * TRUETHK$ where TRUETHK is the thickness expressed in metres. True thickness was scaled for use in the calculation of accumulation variables to be order-of-magnitude similar to other grade variables estimated.
- Block modelling and grade interpolation. The majority of domains have been estimated indirectly using metal accumulation kriging and thickness and metal concentration back calculated by dividing the accumulation variable by true thickness. For a small number of domains in the Beta Southwest area, drilling was orientated oblique to the mineralisation and in these cases direct ordinary kriging was involved and drilling composited to 1 m standard intervals.
- Resource classification and validation.
- Depletion of the Mineral Resource using triangulations of development and stope voids supplied by Beta Hunt Mine surveyors. Sterilisation triangulations were also used to deplete mineralisation.
- As Beta Hunt is an operating mine, the assessment of RPEEE and selection of 1% Ni as an appropriate cut-off grade is aligned with previous reporting of Beta Hunt Nickel Mineral Resources (Karora, 2016; 2021a).
- Preparation of the Mineral Resource Statement.

14.3.2 Resource Database

Nickel resources have been updated for the nickel mining areas Gamma, 30C, 40C, Beta Central and Beta West. Table 14-19 and Table 14-20 summarise the number of drillholes used for the individual deposit estimates and specifically the diamond holes that have intersected the mineralized zones of interest. It is not a summary of the total number of drillholes completed for the entire project. The drillholes are a mix of surface holes drilled by WMC and underground diamond holes, with most having been drilled from underground. The underground drillhole traces are oriented with a mix of azimuths and dips (both up and down holes) according to available drilling positions. Consequently, it is not unusual to have some intercepts at a low angle to the mineralized zones.

Table 14-19 Validated and merged drillhole summary by deposit used for MRE of B30, B40, and Gamma

Category	B30 and B40	Gamma	Total
Validated and merged database			
Holes	220	174	394
Metres drilled	30,390	49,150	79,539
Downhole survey records	4,496	5,016	9,512
Records in combined assay table, including	13,859	30,376	44,235
Assays for Ni	3,645	9,707	13,352
Assays for Au	8,906	16,439	25,345
Assays for Ag	0	0	0
Assays for As	2,988	2,214	5,202
Assays for Co	2,181	4,141	6,322
Assays for Cr	204	3,281	3,485
Assays for Cu	3,038	4,626	7,664
Assays for Fe	2,834	1,342	4,176
Assays for MgO	2,834	1,337	4,171
Assays for S	2,023	854	2,877
Density measurements	632	872	1,504
Database used for MRE			
Holes	87	92	179
Metres drilled	21,357	11,055	32,413
Downhole survey records	2,513	1,766	4,279
Records within wireframe models, including	589	676	1,265
Assays for Ni	560	608	1,168
Assays for Au	162	504	666
Assays for Ag	0	0	0
Assays for As	236	557	793
Assays for Co	372	295	667
Assays for Cr	262	14	276
Assays for Cu	425	557	982
Assays for Fe	162	543	705
Assays for MgO	162	543	705
Assays for S	109	293	402
Density measurements	102	141	243

Table 14-20 Validated and merged drillhole summary by deposit used for MRE of Beta West and Beta Central

Category	Beta West	Beta Central	Total
Holes	194	505	699
Metres drilled	23,387	58,395	81,782
Downhole survey records	1,120	4,158	5,278
Records in combined assay table, including	5,999	16,432	22,431
Assays for Ni	4,011	8,282	12,293
Assays for Au	3,965	14,286	18,251
Assays for Ag	0	0	0
Assays for As	3,877	7,688	11,565
Assays for Co	132	2,093	2,225
Assays for Cr	132	1,194	1,326
Assays for Cu	3,976	8,294	12,270
Assays for Fe	3,844	7,083	10,927
Assays for MgO	3,844	7,102	10,946
Assays for S	125	1,259	1,384
Density measurements	385	0	385

14.3.3 Solid Body Modelling Geology

The contact between the host Kambalda Komatiite and Lunnon Basalt was updated to align with geological logging of drill core. The majority of Beta Hunt nickel sulphides are intrinsically related to channel shaped features at the base of the komatiite. The tenor and thickness of nickel generally increases toward the western margin of sulphide lenses within the channels where fault thrust units of basalt overlie nickel lenses. Felsic porphyry intrusives and cross-cutting faults were modelled to guide the interpreted nickel lenses as they disrupt nickel mineralisation.

14.3.4 Solid Body Modelling Mineralisation

Beta Hunt nickel is hosted by massive sulphide mineralisation that sits at the base of the Kambalda Komatiite. The sulphides display lenticular geometries and are concentrated along linear channels that overlie gold-bearing shears in the Lunnon Basalt. The process of modelling the mineralized lenses involved a review of the ultramafic contact while stepping through the drill data and digitising polygons to suit the geometry of the nickel sulphides on each section. Sections were orientated perpendicular to the strike of the mineralisation and separated by distances to suit the spacing of fans of drill holes and locations of structurally related disruptions in the continuity of the geology. Numerous porphyry dykes of varying composition from granite through to diorite and granodiorite break up the nickel mineralisation and effectively stope out the nickel-bearing sulphides. The interpreted lenses are modelled to account for the porphyry intrusions so that mineralisation does not extend into areas of waste.

Mineralisation domains were identified using geological characteristics (logged nickel sulphides ranging from massive to matrix and blebby), and intervals within interpreted domains captured the full sequence of economic nickel sulphide profile (from the massive sulphide through matrix and included blebby sulphides).

14.3.5 Mineralized Zones

The nickel sulphide mineralization interpreted for the various deposits and zones incorporate both massive sulphide and disseminated sulphide styles of mineralization. The disseminated style of mineralization can be incorporated for interpretations where it is peripheral to massive sulphide lenses. Interpretations of the mineralized zones tend to be a mix of geologically defined and grade-

defined intervals. Zone boundaries are usually defined by material with Ni>0.6%, with some exceptions for geologically logged mineralization.

Internal dilution is usually limited to a maximum of one or two sample intervals within the narrow zones that range up to 10.7 m estimated true width (“ETW”) for the Beta West deposit, 11.2 m for Beta Central, 7.2 m for B30 and B40, and 10 m for the Gamma deposits. The average widths of the deposits varies from 2.1 m for Beta West, 1.5 m for Beta Central, 1.9 m for B30/B40, and 2.5 m for Gamma. Interpreted deposit characteristics are as follows:

- Beta West deposit comprises 17 discontinuous lenses that have shallow dipping west-southwest zones and no apparent plunge, occurring in a corridor having a length of approximately 440 m that strikes at 150°.
- Beta Central deposit comprises 43 discontinuous lenses that are relatively flat (with some minor exceptions) and plunge south-southeast at approximately 10°, occurring in a corridor having a length of approximately 1,020 m that strikes at 150°.
- B30 and B40 deposits comprises 17 discontinuous lenses that have shallow dipping west-southwest zones and very shallow south-southeast plunge, occurring in a corridor having a length of approximately 890 m that strikes at 145°.
- Gamma deposit comprises 33 discontinuous lenses that are relatively flat (with some minor exceptions) and no apparent plunge, occurring in a corridor having a length of approximately 1,250 m that strikes at 145°. Several of the most southern, small isolated lenses were modelled with a dip towards the northeast.

The deposits and lenses are shown in Figure 14-29 to Figure 14-31.

Figure 14-29 Oblique long section view of Beta Central deposit and individual lenses looking west

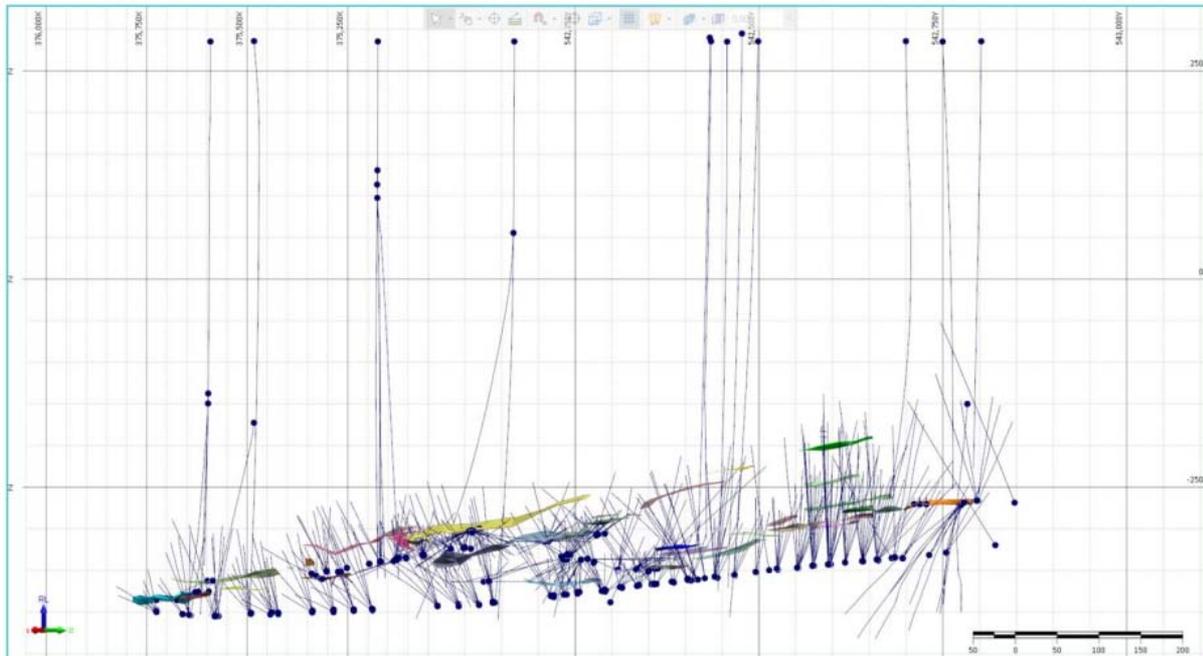


Figure 14-30 Oblique long section of Beta West deposit and individual lenses looking east

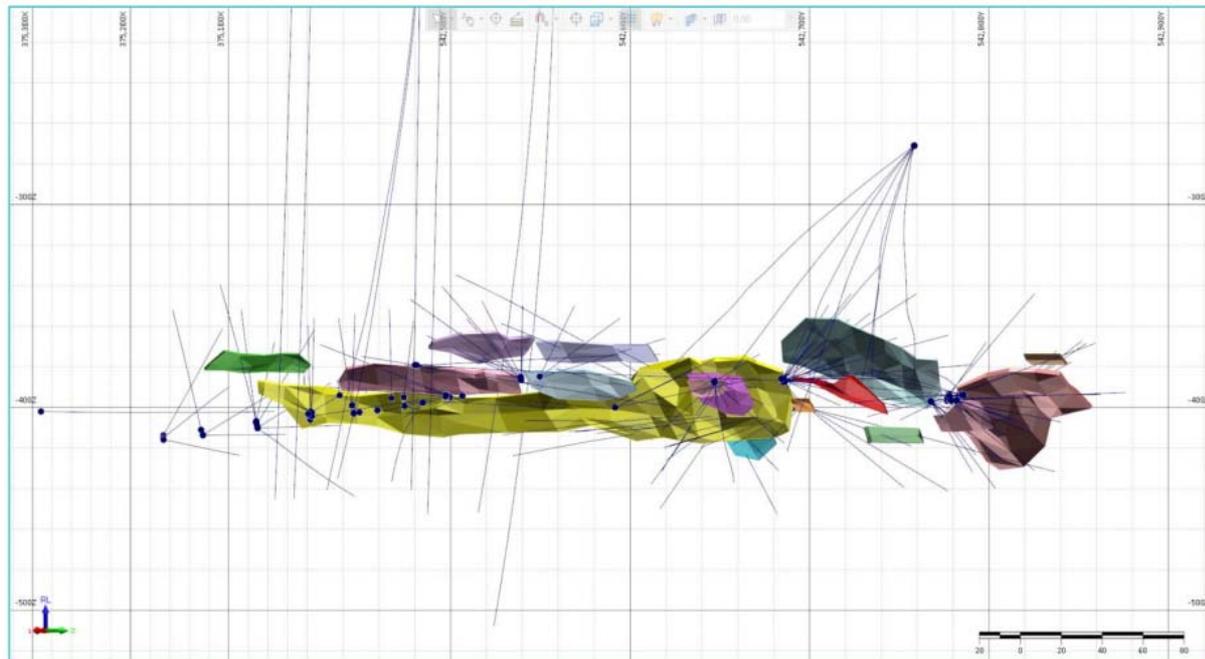
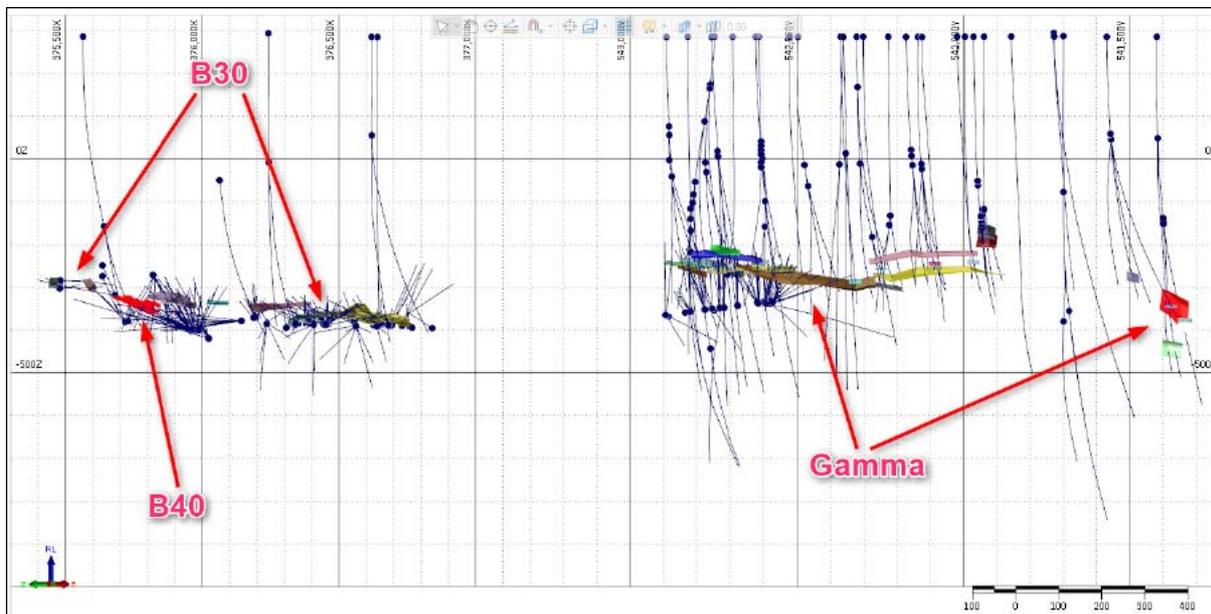


Figure 14-31 Oblique long section of the 30C, B40 and Gamma deposits and individual lenses looking east



14.3.6 Domains

While each of the nickel sulphide deposits and each mineralized body was estimated individually, the deposits were subdivided into domains for geostatistical purposes. The domains were defined visually that logically grouped lenses that tend to have common stratigraphic positions and mineralisation characteristics and that do not overlap in space. Drillhole samples were flagged with the mineralization wireframes. Coding was undertaken on the basis that if the individual sample centroid fell within the mineralization wireframe boundary, it was coded as within the

mineralization wireframe. Each mineralized lode was assigned a wireframe name to allow the application of hard boundary domaining during geostatistical analysis and grade estimation.

The interpreted mineralized zones at B30, B40, and Gamma were grouped into 14 domains for geostatistical analysis. These are displayed in Figure 14-32 and Figure 14-33.

Figure 14-32 Oblique View of the B30 and B40 Domains Used for Geostatistical Analysis

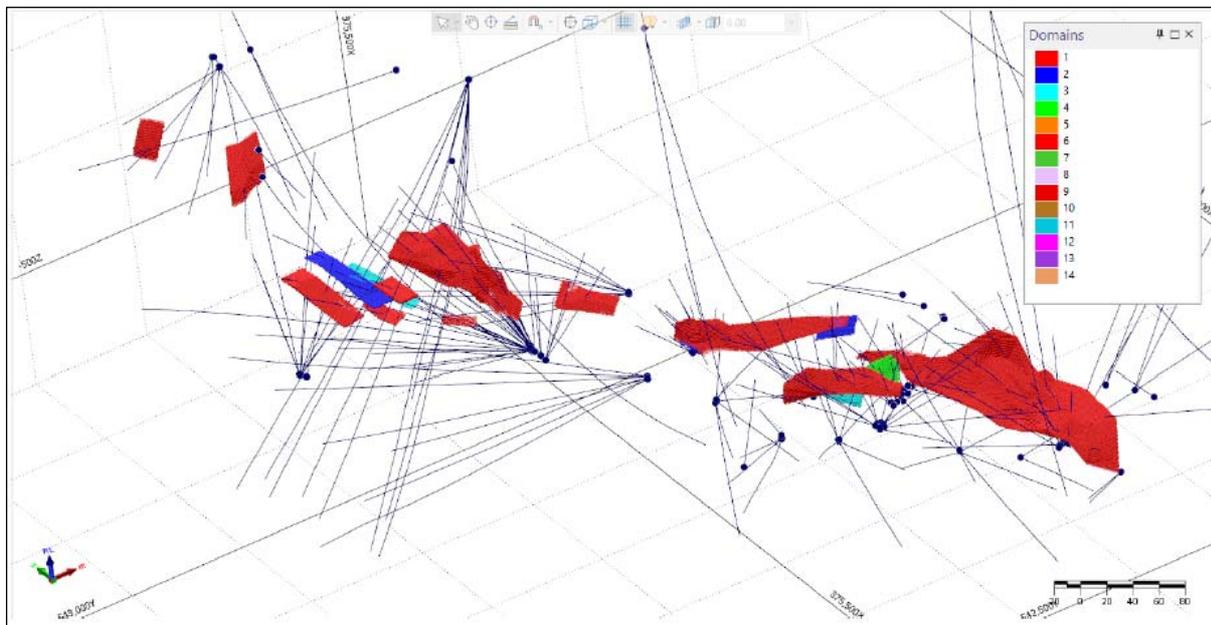
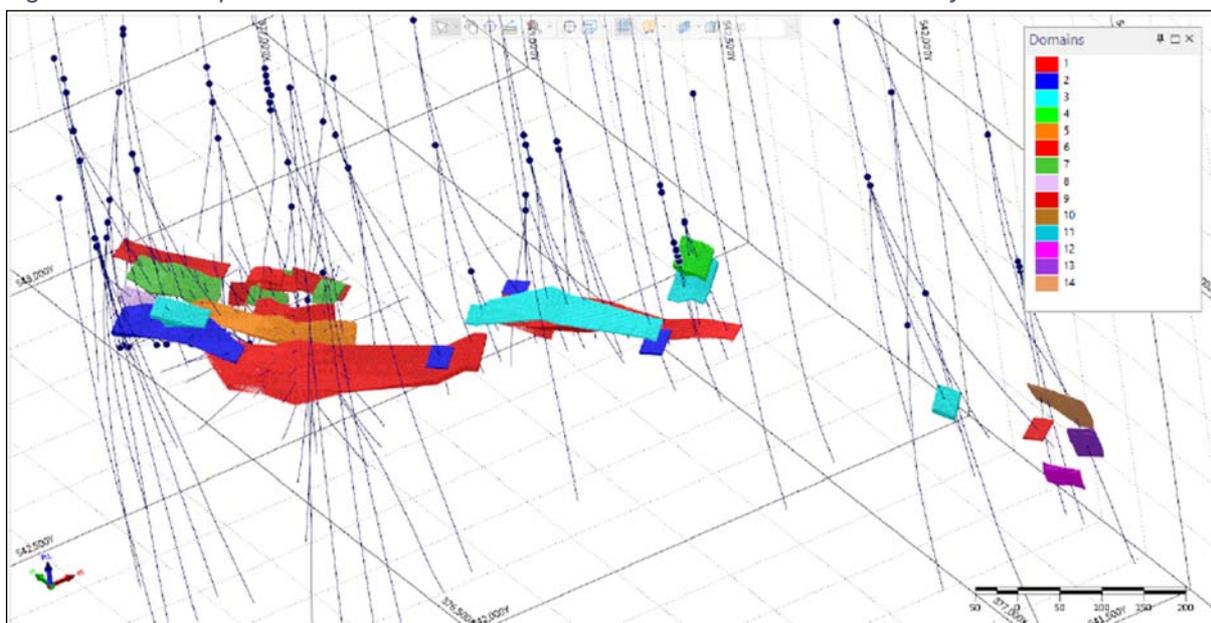


Figure 14-33 Oblique View of the Gamma Domains Used for Geostatistical Analysis



14.3.7 Compositing

Lode geometries are generally very narrow. For this reason, an estimation methodology using two-dimensional linear accumulation was selected for estimation of each mineralized lode. The zone samples were composited to single, full zone width intercepts having variable lengths according to the width of the mineralization and angle of intersection. Composited full zone intercept widths do not necessarily represent the true widths of the mineralized zones. To calculate

true and vertical widths, local orientations (dip and dip direction) of the mineralization were assigned to the composite intervals based on the mineralization wireframes. Dip and dip direction values were calculated for each triangle in the wireframe models, and then interpolated into the sample points using the nearest neighbour (“NN”) method. From this, the composite interval’s true thickness, vertical thickness and horizontal thickness were calculated and visually checked. Some sample points that occurred near the edges of wireframes received incorrect dip and dip direction values, and all of them were corrected manually.

Accumulation variables were calculated for each modelled element. For example, nickel metal accumulation was calculated as:

$$\text{MET_NI} = \text{NI} * \text{VERT_THICK}$$

where “VERT_THICK” is the thickness expressed in metres. Vertical thickness was scaled for use in the calculation of accumulation variables to be order-of-magnitude similar to the grade variables estimated (but not reported here). The applied scaling was as follows:

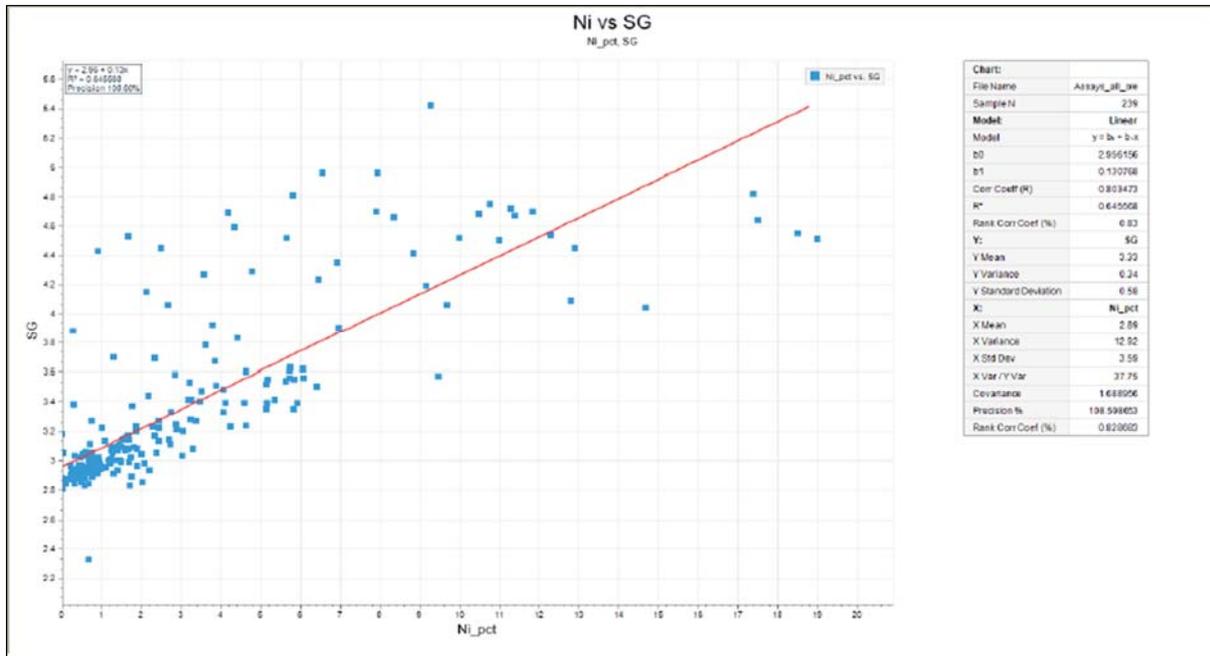
- 100 for vertical thickness used in the Accumulation variable;
- 1,000 for vertical thickness used in the Co, Cr and Cu accumulation variables; and
- 10 for vertical thickness used in the Fe and MgO accumulation variables.

Density was not estimated using the accumulation process.

14.3.8 Density

All raw sample intervals within the mineralized zones that had both Ni grades and density measurements were used to calculate regression formulae which were then applied to all composited intervals. The resultant estimated density values were interpolated into the block model using ordinary kriging algorithm and semi variogram models generated for nickel grades. No bulk density data was available for Beta Central. A regression formula was generated for combined composites at B30, B40, and Gamma, and a formula derived for the Beta West composites. Linear regression scatter plots used to derive the formulae are shown in Figure 14-34 and Figure 14-35.

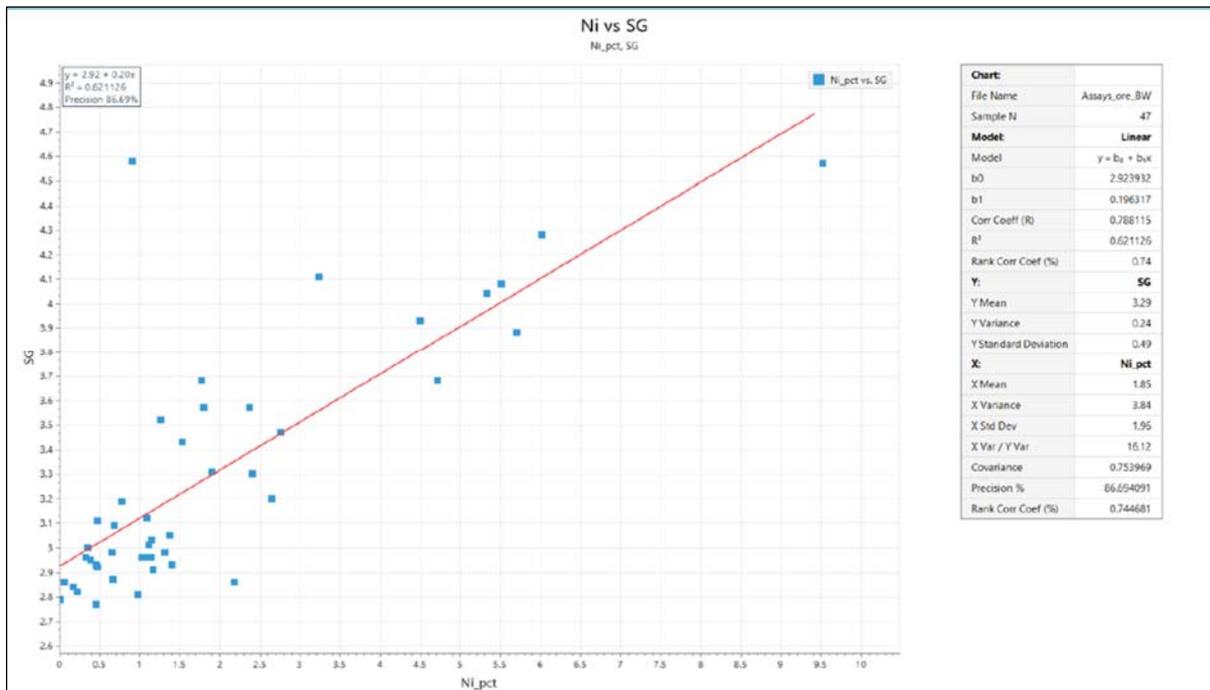
Figure 14-34 Ni and density data linear regression for B30, B40, and Gamma combined composites



The regression formula applied for density for B30, B40 and Gamma composites was:

$$\text{Density} = 2.956 + \text{Ni} (\%) * 0.1308$$

Figure 14-35 Ni and density data linear regression for Beta West composites



The regression formula applied for density Beta West composites was:

$$\text{Density} = 2.9239 + \text{Ni} (\%) * 0.1963$$

14.3.9 Statistical Analysis

Sample counts and basic statistics are supplied for the raw data in each of the deposits in Table 14-21 and Table 14-22. The raw statistics highlight the relatively low raw data count for some of the estimated elements and relatively consistent nickel grades.

Table 14-21 Univariate statistics for each element at B30, B40, and Gamma

Deposit	Element	Minimum	Maximum	No of points	Mean	Variance	Std Dev	Coeff. of Variation	Median
Unconstrained assays									
B30 and B40	Ni_pct	0.001	19.59	3,645	0.59	1.65	1.29	2.20	0.26
	Au_ppm	0.01	339.00	8,906	0.74	39.80	6.31	8.46	0.06
	As_ppm	2.50	1,300.00	2,988	37.28	7,218	84.96	2.27	7.50
	Co_ppm	5.00	3,320.00	2,181	141.89	51,960	227.95	1.62	90.00
	Cr_ppm	40.00	4,560.00	204	706.96	274,403	523.83	0.74	725.00
	Cu_ppm	2.00	50,000.00	3,038	551.50	2,953,938	1,719	3.10	144.00
	Fe_pct	0.01	51.28	2,834	8.23	30.77	5.55	0.68	7.19
	MgO_pct	0.01	41.30	2,834	18.10	137.41	11.72	0.65	18.40
	S_pct	0.01	30,300.00	2,023	17.42	467,364	683.64	39.59	0.57
Gamma	Ni_pct	0.001	20.00	9,707	0.20	0.49	0.70	3.43	0.13
	Au_ppm	0.00	205.00	16,439	0.34	7.83	2.80	8.09	0.07
	As_ppm	1.00	1,070.00	2,214	33.48	4,316	65.69	2.04	15.00
	Co_ppm	2.50	3,670.00	4,141	109.30	30,950	175.93	1.81	85.00
	Cr_ppm	5.00	38,500.00	3,281	899.57	981,841	990.88	1.48	730.00
	Cu_ppm	2.50	34,500.00	4,626	284.74	1,095,231	1,047	3.56	110.00
	Fe_pct	1.21	51.31	1,342	7.10	24.35	4.93	0.76	6.19
	MgO_pct	0.03	38.70	1,337	18.94	130.01	11.40	0.61	22.63
	S_pct	0.01	40.80	854	1.61	17.68	4.20	2.58	0.43
Assays withing mineralized bodies									
B30 and B40	Ni_pct	0.01	19.59	608	1.68	4.03	2.01	1.18	1.31
	Au_ppm	0.01	123.39	504	1.23	76.04	8.72	5.93	0.12
	As_ppm	2.50	1,300.00	557	107.25	21,531	146.74	1.43	50.00
	Co_ppm	5.00	3,610.00	295	400.90	221,180	470.30	1.13	315.00
	Cr_ppm	410.00	1,380.00	14	942.76	62,992	250.98	0.33	940.00
	Cu_ppm	5.00	50,000.00	557	1,307.08	4,930,204	2,220	1.83	930.00
	Fe_pct	1.42	51.28	543	11.48	61.33	7.83	0.69	10.29
	MgO_pct	0.34	35.60	543	19.74	70.93	8.42	0.48	19.90
	S_pct	0.06	41.00	293	6.26	60.24	7.76	1.15	4.82
Gamma	Ni_pct	0.02	20.00	560	2.24	10.36	3.22	1.32	1.17
	Au_ppm	0.01	21.75	162	0.60	3.95	1.99	3.11	0.16
	As_ppm	2.50	1,070.00	236	121.34	26,735	163.51	1.34	55.00
	Co_ppm	20.00	3,670.00	372	451.92	257,429	507.37	1.15	272.50
	Cr_ppm	100.00	38,500.00	262	1,147.72	4,823,730	2,196	2.28	730.00
	Cu_ppm	12.50	34,500.00	425	1,742.32	6,783,115	2,604	1.61	880.00
	Fe_pct	4.07	51.31	162	15.52	120.55	10.98	0.71	10.40
	MgO_pct	0.34	35.70	162	17.82	98.93	9.95	0.61	16.68
	S_pct	0.08	40.80	109	8.41	101.33	10.07	1.27	3.08
Grade composites									
B30 and B40	Ni_pct	0.01	7.70	101	2.01	2.58	1.61	0.80	1.61
	Au_ppm	0.01	50.97	87	1.81	39.74	6.30	3.48	0.19
	As_ppm	2.50	510.00	88	96.10	9,703	98.51	1.02	68.48
	Co_ppm	37.22	1,513.95	53	471.36	112,912	336.02	0.71	413.64
	Cr_ppm	942.76	942.76	1	942.76	-	-	-	942.76
	Cu_ppm	12.50	7,469.92	88	1,478.81	1,829,777	1,353	0.91	1,062
	Fe_pct	3.85	39.37	87	13.59	51.69	7.19	0.53	11.80
	MgO_pct	2.35	33.43	87	17.29	63.61	7.98	0.46	18.29

Deposit	Element	Minimum	Maximum	No of points	Mean	Variance	Std Dev	Coeff. of Variation	Median
	S_pct	0.09	28.94	54	7.91	42.35	6.51	0.82	6.47
Gamma	Ni_pct	0.02	10.10	108	2.35	4.42	2.10	0.89	1.78
	Au_ppm	0.03	8.50	42	0.89	2.85	1.69	1.89	0.22
	As_ppm	14.55	578.31	51	130.68	16,488	128.40	0.98	82.22
	Co_ppm	59.73	2,120.00	65	522.14	193,898	440.34	0.84	350.00
	Cr_ppm	220.00	7,000.00	47	1,126.64	1,665,789	1,291	1.15	784.09
	Cu_ppm	38.33	11,107.38	84	1,739.09	3,210,123	1,792	1.03	1,131
	Fe_pct	5.17	44.70	37	15.93	76.90	8.77	0.55	13.35
	MgO_pct	3.33	33.75	37	16.14	66.95	8.18	0.51	15.06
	S_pct	1.79	16.02	18	7.90	26.07	5.11	0.65	6.47

Table 14-22 Univariate statistics for each element at Beta Central and Beta West

Deposit	Element	Minimum	Maximum	No of Points	Mean	Variance	Std Dev	Coeff. of Variation	Median
<i>Unconstrained assays</i>									
Beta Central	Ni_pct	0.001	16.68	8,282	0.64	2.28	1.51	2.14	0.24
	Au_ppm	0.00	2,584	14,286	0.47	108.88	10.43	32.25	0.07
	As_ppm	0.25	27,629	7,688	63.77	186,312	431.64	6.07	20.00
	Co_ppm	2.50	3,660	2,093	111.77	30,421	174.42	1.93	90.00
	Cr_ppm	20.00	4,460	1,194	1,165.21	582,686	763.34	0.67	1,150
	Cu_ppm	0.50	108,000	8,294	540.61	4,012,576	2,003	3.43	160
	Fe_pct	0.01	55.60	7,083	8.98	50.28	7.09	0.83	7.44
	MgO_pct	0.01	54.10	7,102	16.97	111.97	10.58	0.64	15.46
	S_pct	0.01	46.20	1,259	1.95	15	3.81	1.98	0.86
Beta West	Ni_pct	0.002	12.64	4,011	0.65	2.11	1.45	2.04	0.24
	Au_ppm	0.00	471	3,965	0.44	23.52	4.85	13.30	0.06
	As_ppm	2.50	12,060	3,877	56.55	72,939	270.07	4.39	25.00
	Co_ppm	20.00	2,130	132	141.06	20,175	142.04	1.36	110
	Cr_ppm	90.00	4,250	132	812.65	304,588	551.90	0.78	690
	Cu_ppm	2.50	37,510	3,976	689.36	2,669,534	1,634	2.37	291
	Fe_pct	0.01	59.41	3,844	9.06	64.31	8.02	0.90	7.31
	MgO_pct	0.01	50.08	3,844	16.87	124.80	11.17	0.67	16.80
	S_pct	0.10	35.20	125	6.90	51.28	7.16	1.00	4.85
<i>Assays withing mineralized bodies</i>									
Beta Central	Ni_pct	0.02	16.68	1,156	3.56	9.54	3.09	0.85	2.69
	Au_ppm	0.00	2,584	953	1.19	2,209	47.00	26.52	0.11
	As_ppm	1.00	16,400	1,138	212.12	500,611	707.54	2.99	56
	Co_ppm	50.00	3,340	105	533.13	369,888	608.18	1.03	368
	Cr_ppm	190.00	3,290	36	1,290.41	517,836	719.61	0.61	1,095
	Cu_ppm	2.50	108,000	1,156	3,039.14	28,548,794	5,343	1.71	1,713
	Fe_pct	0.01	55.60	1,124	21.40	145.62	12.07	0.54	20
	MgO_pct	0.19	40.24	1,127	14.54	77.64	8.81	0.63	13.86
	S_pct	0.01	46.20	111	7.84	82.29	9.07	1.07	5.52
Beta West	Ni_pct	0.01	12.64	920	2.02	6.54	2.56	1.13	1.12
	Au_ppm	0.00	471.00	919	0.92	96.37	9.82	11.78	0.08
	As_ppm	2.50	12,060	920	109.05	331,341	575.62	4.68	28.50
	Co_ppm	390.00	2,130	5	991.30	592,774	769.92	0.74	640
	Cr_ppm	150.00	1,340	5	600.23	133,669	366	0.61	660
	Cu_ppm	2.50	37,510	920	1,909.72	8,540,909	2,922	1.52	981
	Fe_pct	0.19	59.41	915	16.54	177.59	13.33	0.74	12.30
	MgO_pct	0.01	41.42	915	13.04	94.49	9.72	0.74	11.64
	S_pct	1.94	35.20	61	11.31	66.30	8.14	0.70	10.30
<i>Grade composites</i>									
Beta Central	Ni_pct	0.02	13.68	280	3.56	4.19	2.05	0.64	2.92
	Au_ppm	0.00	353.61	218	1.18	303	17.41	10.76	0.14
	As_ppm	2.50	2,335	275	212.47	111,343	333.68	1.56	76.00
	Co_ppm	88.15	2,860	33	533.13	214,589	463.24	0.86	489
	Cr_ppm	737.00	2,419	10	1,290.47	143,780	379.18	0.37	1,423
	Cu_ppm	46.85	12,821	280	3,036.25	6,031,862	2,456	0.89	1,869
	Fe_pct	4.62	49.58	271	21.39	72.44	8.51	0.42	20.60
	MgO_pct	0.51	31.20	272	14.53	44.18	6.65	0.49	15.28
	S_pct	0.71	45.20	34	7.84	52.24	7.23	0.96	7.04

Deposit	Element	Minimum	Maximum	No of Points	Mean	Variance	Std Dev	Coeff. of Variation	Median
Beta West	Ni_pct	0.01	8.38	129	2.01	2.29	1.51	0.80	1.73
	Au_ppm	0.01	41.75	127	0.86	6.95	2.64	4.01	0.14
	As_ppm	2.50	1,432	129	105.22	32,179	179.38	1.81	52.67
	Co_ppm	991.30	991	1	991.30				991.3
	Cr_ppm	600.23	600	1	600.23				600.2
	Cu_ppm	8.13	11,049	129	1,882.17	2,317,133	1,522	0.90	1,478
	Fe_pct	1.71	44.60	128	16.42	67.17	8.20	0.53	15.44
	MgO_pct	1.31	30.80	128	13.39	44.03	6.64	0.54	12.07
	S_pct	8.72	17.97	7	11.40	4.70	2.17	0.23	11.65

14.3.10 High-Grade Cutting

A review of grade outliers was undertaken to ensure that extreme grades are treated appropriately during grade interpolation. Although extreme grade outliers within the grade populations of variables are real, they are potentially not representative of the volume they inform during estimation. If these values are not cut, they have the potential to result in significant grade over-estimation on a local basis.

The input sample file was flagged by the modelled mineralized bodies. The log normal histograms and cumulative probability plots were analysed to determine the top cut grades to be applied to the input analytical data before sample compositing and geostatistical analysis. That was carried out for each element.

Figure 14-36 to Figure 14-39 show statistical properties of the assay database for each element at Beta Central, restricted within the interpreted and modelled mineralization. All histograms for Ni, Cr, Co, Fe, MgO and S grades did not demonstrate high-grade outliers or tails that require top cutting. Histograms for Au, As and Cu showed outlier values that required top cutting. The top cuts applied are summarized in Table 14-23.

Figure 14-36 Histogram for nickel grade distribution within mineralized bodies (Beta Central)

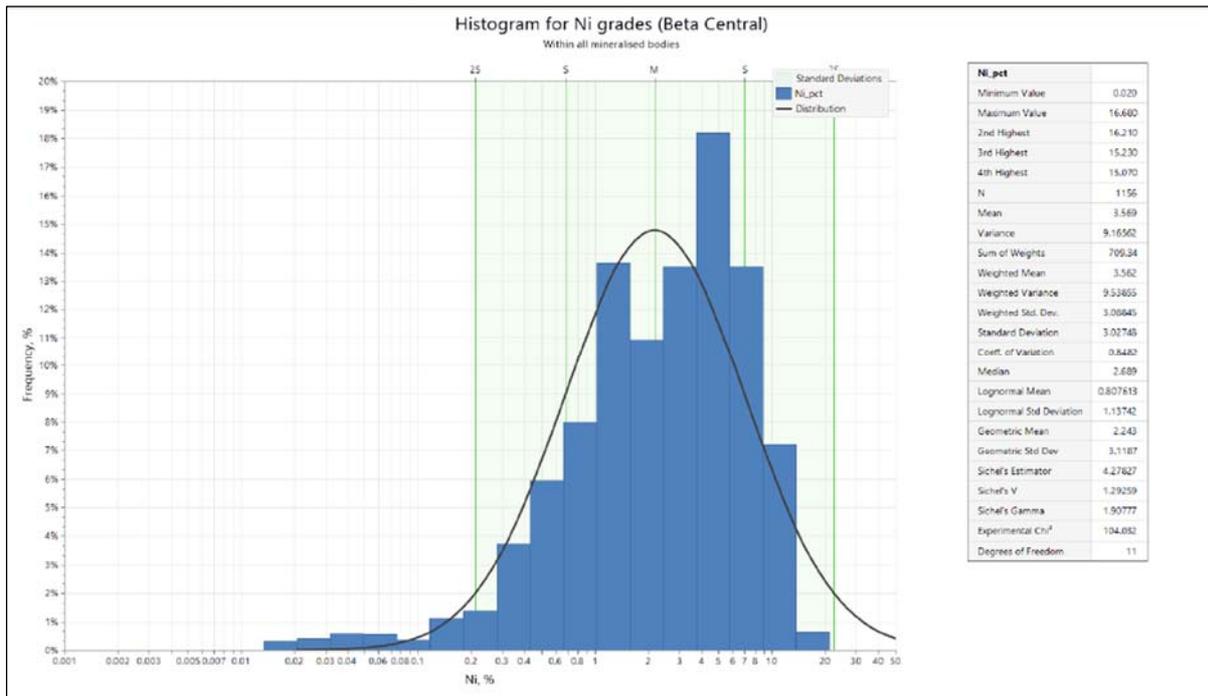


Figure 14-37 Histogram for gold grade distribution within mineralized bodies (Beta Central)

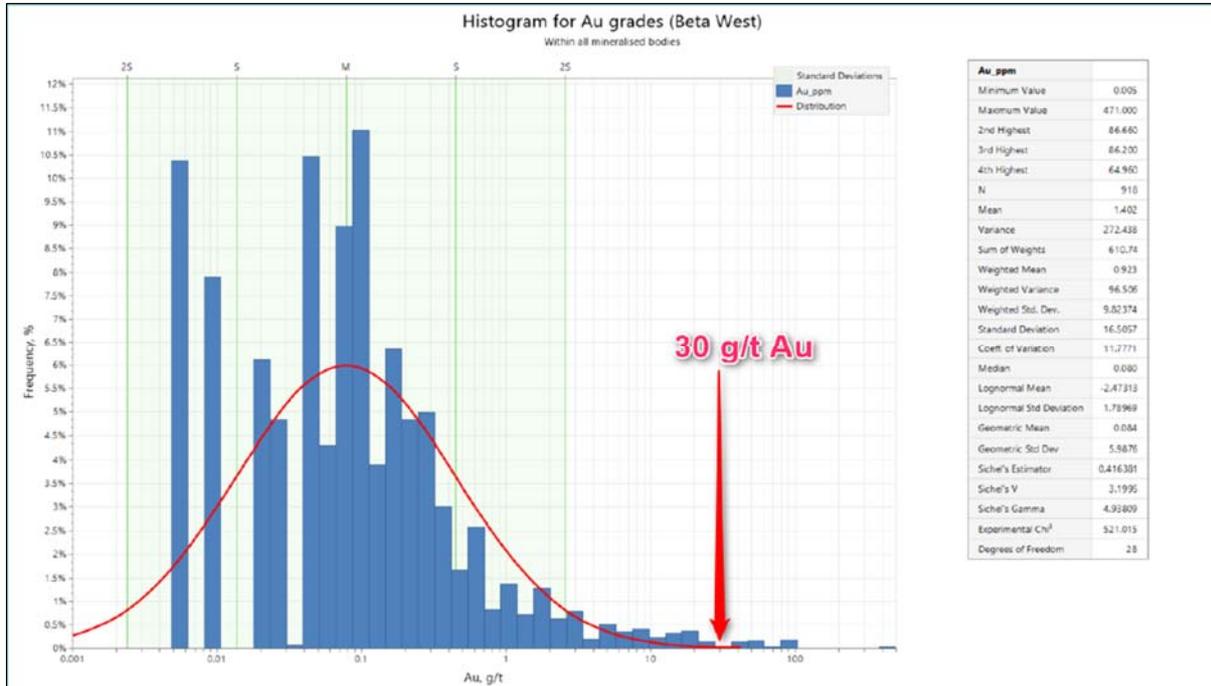


Figure 14-38 Histogram for arsenic grade distribution within mineralized bodies (Beta Central)

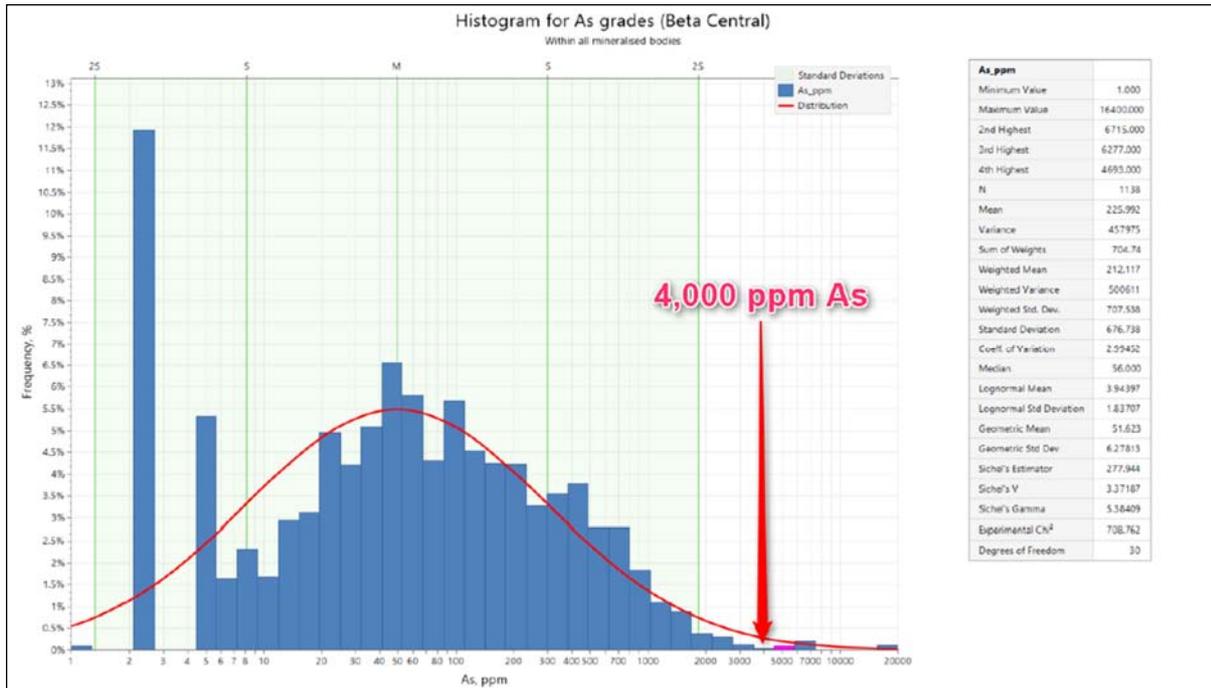


Figure 14-39 Histogram for copper grade distribution within mineralized bodies (Beta Central)

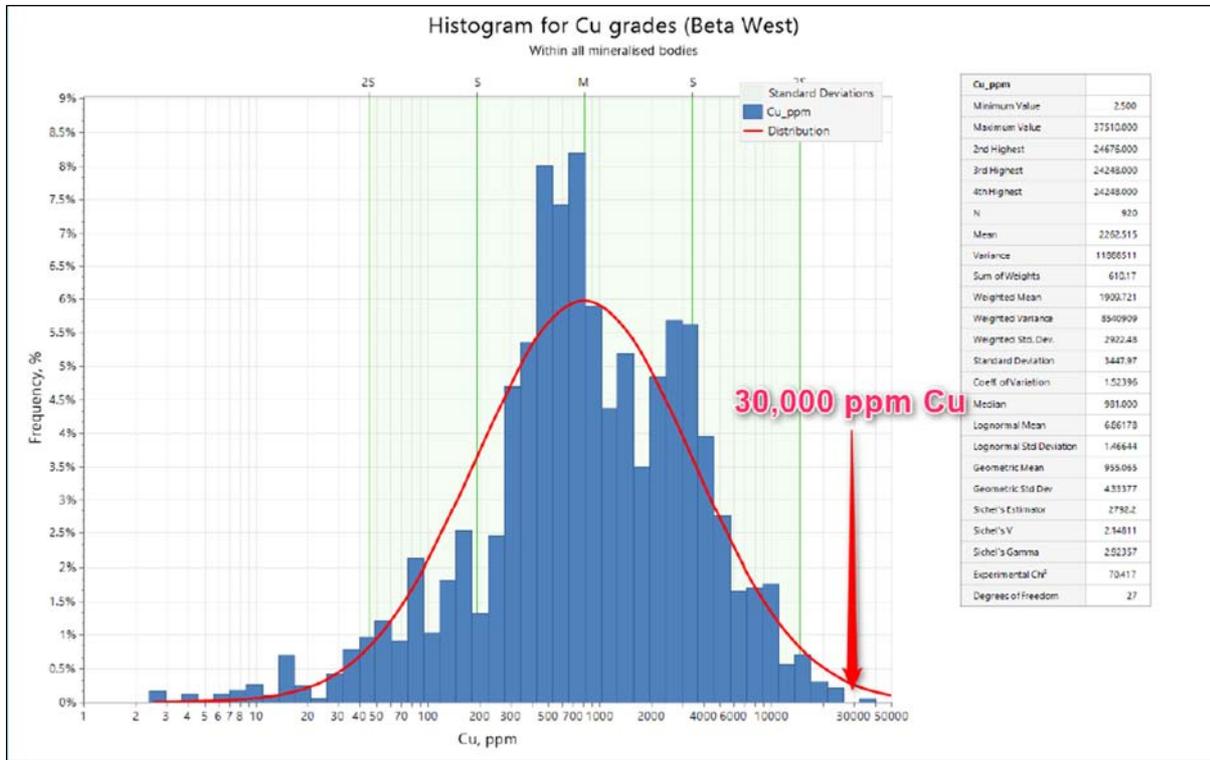


Table 14-23 Selected top cut Beta Central

Element	Top cut	COV
Beta West		
Ni, %	-	1.3
Au, g/t	30	5.7
As, ppm	1,650	1.4
Co, ppm	-	1.1
Cr, ppm	-	2.2
Cu, ppm	30,000	1.7
Fe, %	-	0.7
MgO, %	-	0.5
S, %	-	1.2
Beta Central		
Ni, %	-	0.8
Au, g/t	14.6	26.5
As, ppm	4,000	3.0
Co, ppm	-	1.0
Cr, ppm	-	0.6
Cu, ppm	40,000	1.7
Fe, %	-	0.5
MgO, %	-	0.6
S, %	-	1.1

COV=coefficient of variation

Figure 14-40 to Figure 14-43 show statistical properties of the assay database for each element at B30, B40 and Gamma restricted within the interpreted and modelled mineralization. All histograms for Ni, As, Co, Fe, MgO and S grades did not demonstrate high-grade outliers or tails

that require top cutting. Histograms for Au, Cr and Cu showed outlier values that required top cutting. The top cuts applied are summarized in Table 14-24.

All top cuts were applied to the corresponding grades before the full zone width, length compositing process.

Figure 14-40 Histogram for nickel grade distribution within mineralized bodies (B30/B40/Gamma)

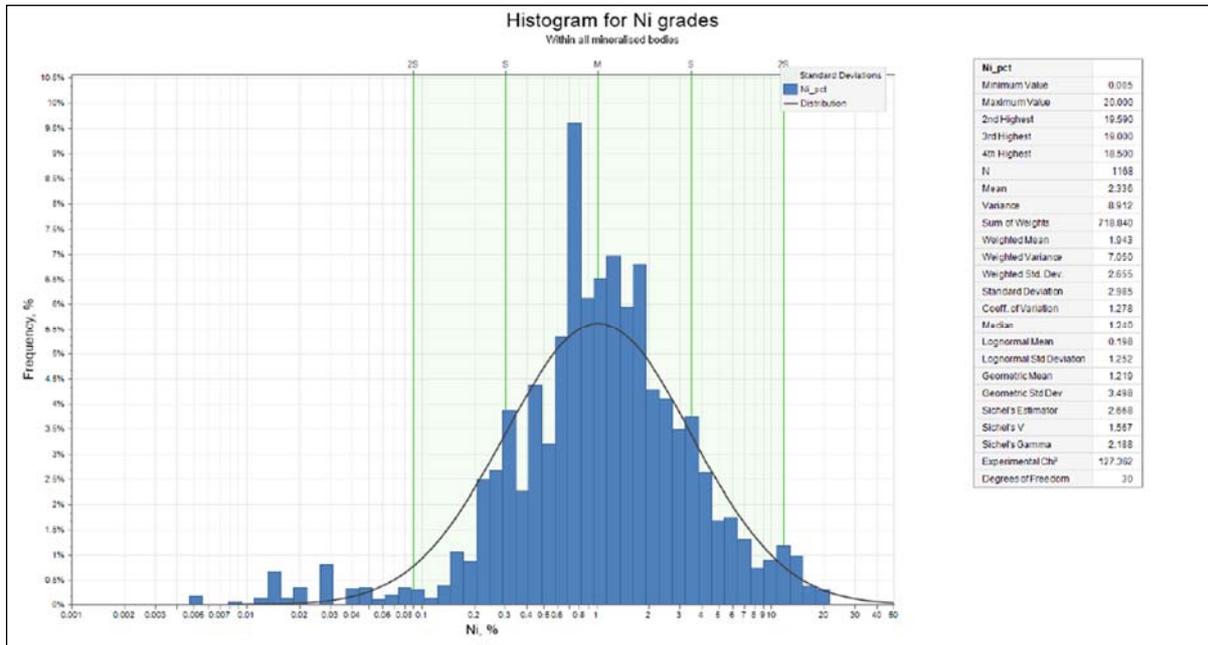


Figure 14-41 Histogram for gold grade distribution within mineralized bodies (B30/B40/Gamma)

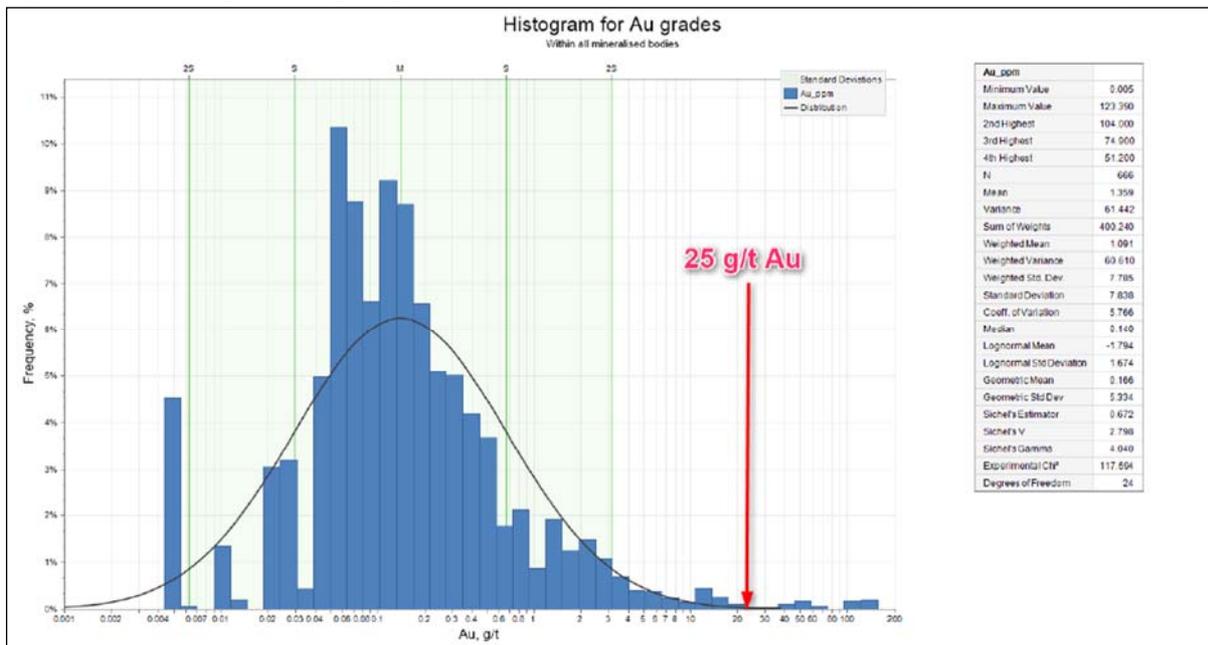


Figure 14-42 Histogram for chromium grade distribution within mineralized bodies (B30/B40/Gamma)

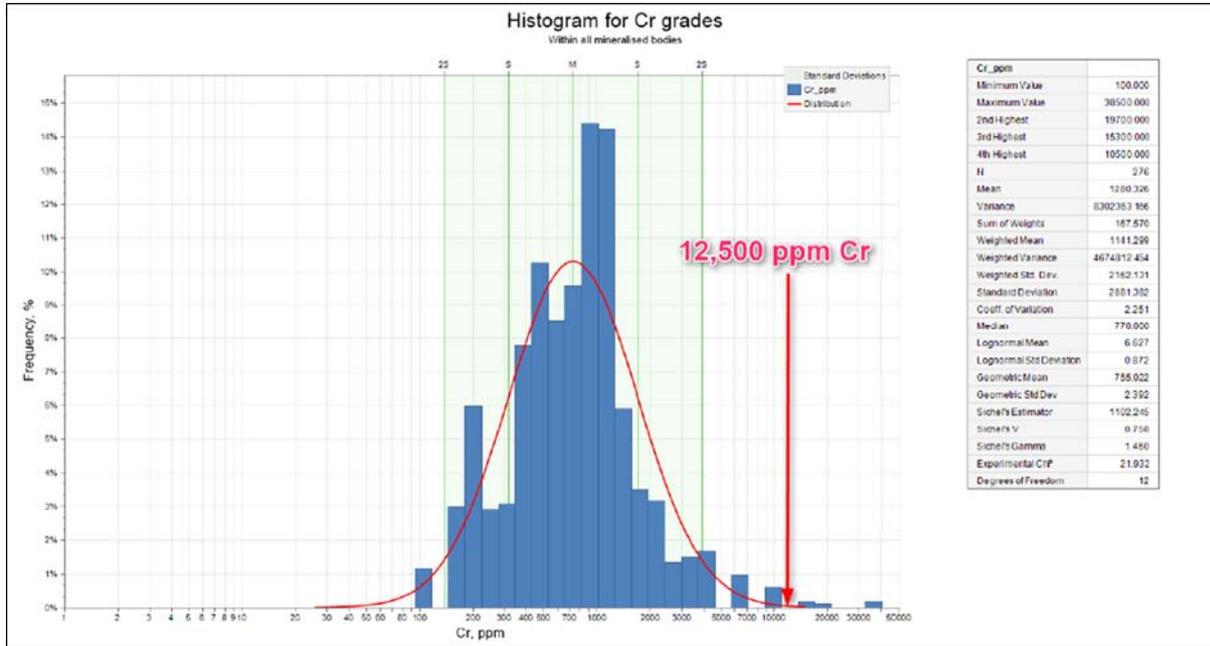


Figure 14-43 Histogram for copper grade distribution within mineralized bodies (B30/B40/Gamma)

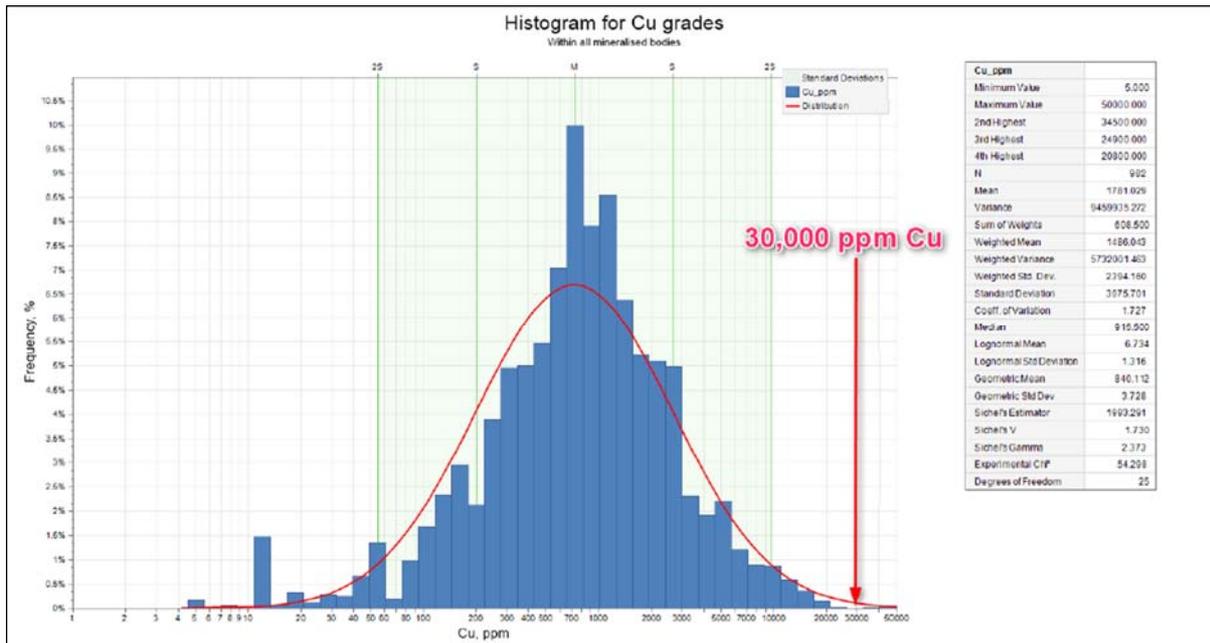


Table 14-24 Selected top cuts (B30/B40/Gamma)

Element	Top cut	Coefficient of Variation
Ni (%)	-	1.3
Au (g/t)	25	5.7
As (ppm)	-	1.4
Co (ppm)	-	1.1
Cr (ppm)	12,500	2.2
Cu(ppm)	30,000	1.7
Fe (%)	-	0.7

Element	Top cut	Coefficient of Variation
MgO (%)	-	0.5
S (%)	-	1.2

14.3.11 Variography

The purpose of geostatistical analysis is to generate a series of semi-variograms that can be used as the input weighting mechanism for the kriging algorithms. The semi-variogram ranges determined from this analysis contribute to the determination of the search neighbourhood dimensions.

Variography was completed on the accumulation “metal” variable (vertical thickness multiplied by grades) for all elements using the intermediate stage 1 m composite data. Micromine software was used for geostatistical analysis.

Using the domain coding, samples from within the resource wireframes were used to conduct a sample length analysis. Most raw sample intervals are 1 m in length (average 0.615 m for B30, B40 and Gamma, average 0.66 m for Beta West and 0.61 for Beta Central), as shown in Figure 14-44 to Figure 14-46. Based on the review, a preliminary 1 m composite length was selected for the initial geostatistical analysis. The selected samples within each mineralized body were separately composited over 1 m intervals, starting at the drillhole collar and progressing downhole. Compositing was stopped and restarted at all boundaries between geological domains or mineralized bodies. If a gap between samples of less than 10 cm occurred, it was included in the sample composite. If the gap was longer than 10 cm, the composite was stopped, and another composite was started from the next sample.

Figure 14-44 Histogram for sample length within all mineralized bodies (B30/B40/Gamma)

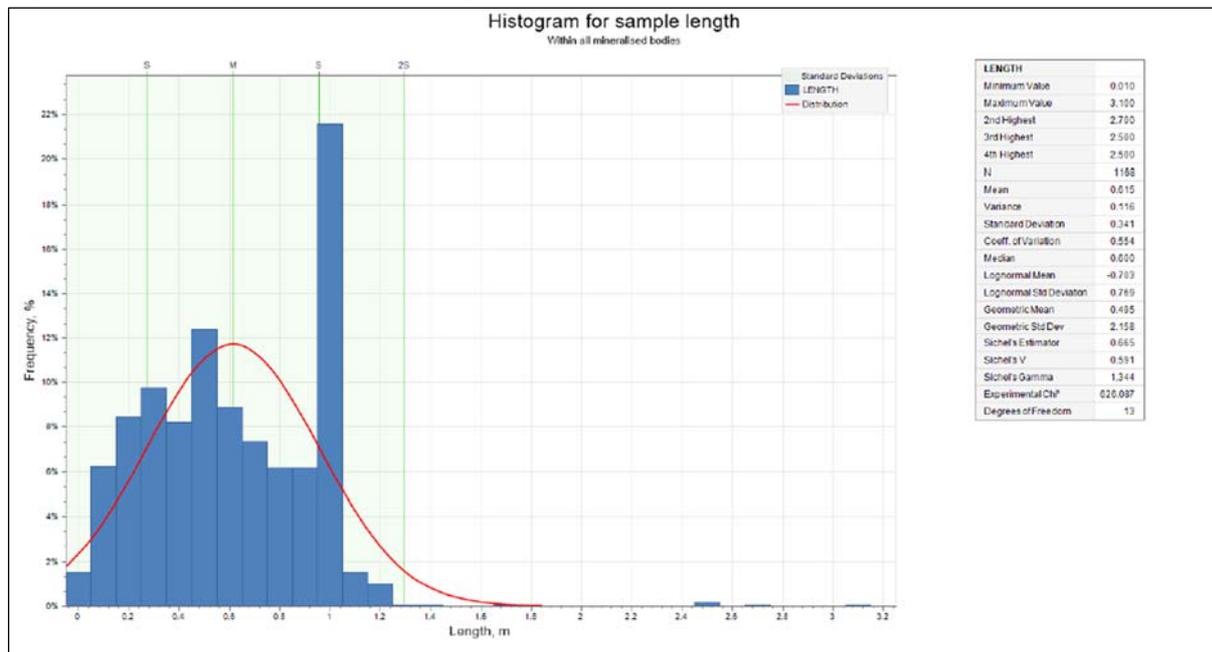


Figure 14-45 Histogram for sample length within all mineralized bodies (Beta West)

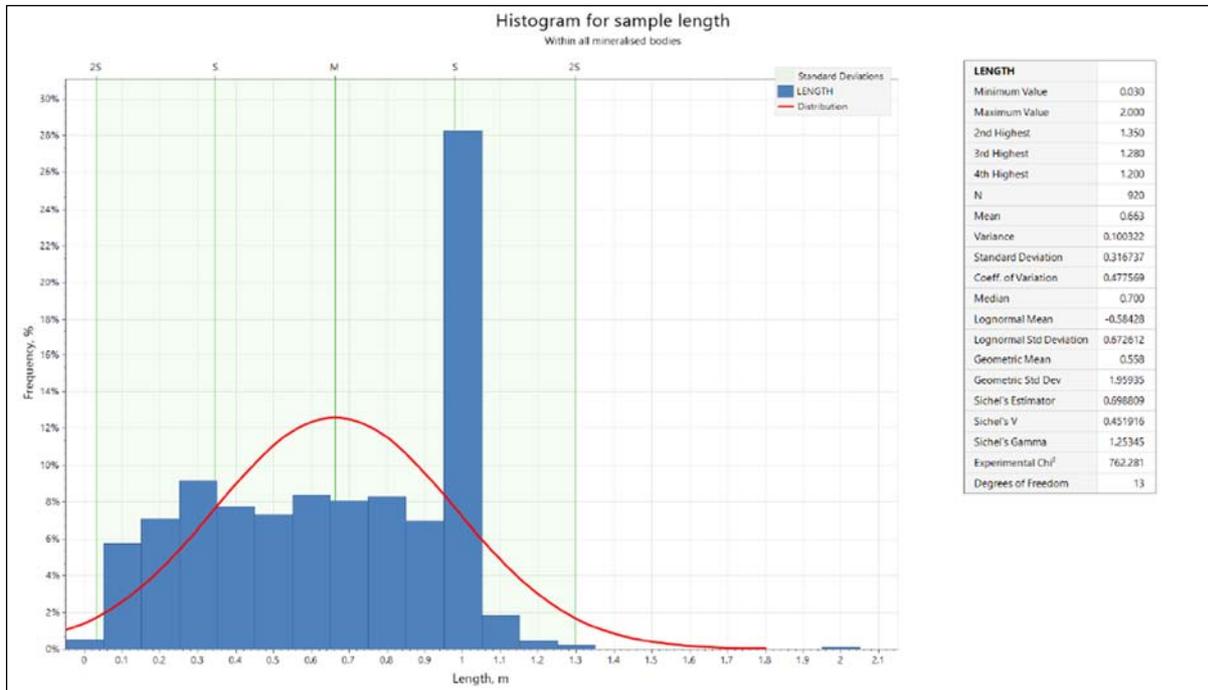
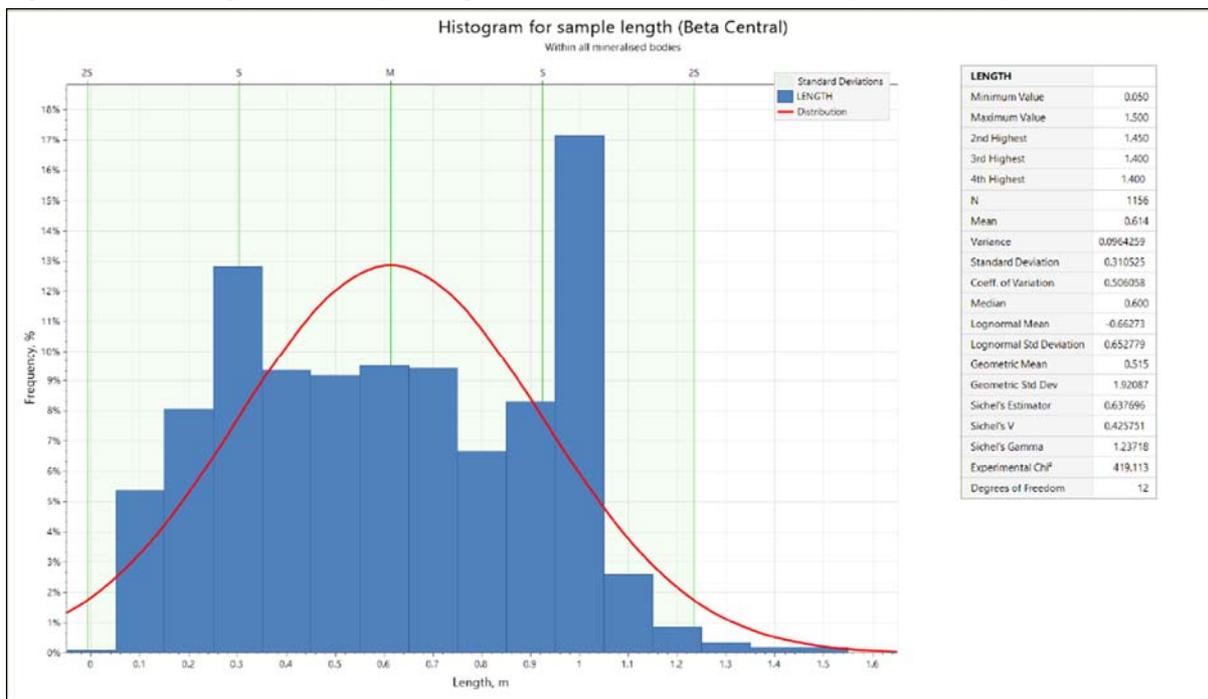


Figure 14-46 Histogram for sample length within all mineralized bodies (Beta Central)



All lodes were flattened to a constant arbitrary thickness and separated in vertical space to make sure that samples were not mixed between the lodes. All semi-variograms were calculated and modelled for the 1 m composited sample file constrained by the corresponding mineralized envelopes.

AMC adopted the approach of combining samples from deposits to ensure sufficient samples for robust geostatistical analysis. Initial geostatistical analysis was completed for Beta West, and then

samples were combined with Beta Central. Similarly, samples were combined at B30, B40 and Gamma deposits.

The main axes for semi-variogram modelling were selected using overall geological parameters of the deposit. All selected domains were flattened for geostatistical purposes. Downhole semi-variograms were modelled for each element to establish the nugget effects which were subsequently used in the directional semi-variogram models. It was found that there were insufficient data points for chromium at Beta West and Beta Central deposits, and for cobalt at the Beta West deposit.

All modelled experimental semi-variograms were spherical and exponential or spherical with one or two nested structures. The obtained semi-variogram ranges were used to determine the search radii as averaged long ranges of all semi-variograms for all elements. The parameters of the modelled semi-variograms are listed in Table 14-25 to Table 14-30.

Table 14-25 Downhole semi-variogram model parameters (Beta West)

Element	Type	Nugget, %	Partial Sill, %	Range
Ni_Met	Spherical Relative	21.2	78.8	7.22
Au_Met	Spherical Relative	31.1	68.9	7.14
As_Met	Exponential Relative	16.4	83.6	5.18
Co_Met	Not enough points	-	-	-
Cr_Met	Not enough points	-	-	-
Cu_Met	Exponential Relative	11.6	88.4	8.35
Fe_Met	Spherical Relative	9.9	90.1	8.21
Mg_Met	Spherical Relative	25.2	74.8	6.01
S_Met	Spherical Relative	34.3	65.7	6.01

Table 14-26 Downhole semi-variogram model parameters (Beta West and Beta Central)

Element	Type	Nugget, C ₀ %	Partial Sill, C ₁ %	Range
Ni_Met	Spherical Relative	12.4	87.6	9.7
Au_Met	Spherical Relative	33.6	66.4	6.8
As_Met	Exponential Relative	15.9	84.1	5.0
Co_Met	Exponential Relative	27.1	72.9	10.2
Cr_Met	Not enough points	-	-	-
Cu_Met	Exponential Relative	12.3	87.7	8.3
Fe_Met	Spherical Relative	15.9	84.1	8.3
Mg_Met	Spherical Relative	20.7	79.3	6.7
S_Met	Spherical Relative	16.7	83.3	10.7

Table 14-27 Downhole semi-variogram model parameters (B30/B40/Gamma)

Element	Type	Nugget	Partial Sill	Range
Ni_Met	Exponential Rel	0.088	0.371	5.72
Au_Met	Spherical relative	0.088	0.518	3.35
As_Met	Exponential Rel	0.133	0.609	5.39
Co_Met	Exponential Rel	0.111	0.314	8.10
Cr_Met	Spherical relative	0.059	0.514	8.14
Cu_Met	Exponential Rel	0.064	0.445	4.03
Fe_Met	Spherical relative	0.030	0.282	6.55
Mg_Met	Spherical relative	0.039	0.348	4.40
S_Met	Spherical relative	0.048	0.486	6.13

Table 14-28 Semi-variogram characteristics (normalised) for Beta West

Element	Type	Axis	Azimuth	Dip	Nugget (C ₀ %)	Partial Sills		Ranges	
						C ₁ %	C ₂ %	R ₁	R ₂
Ni_Met	Pair-wise Relative Spherical	Main	149	0	20.5	47.76	31.78	16.7	45.2
		Second	239	0				3.1	29.18
		Third	239	90				14.2	37.83
Au_Met	Pair-wise Relative Exponential and Spherical	Main	149	0	29.1	55.74	15.14	15.3	68.8
		Second	239	0				7.43	43.98
		Third	239	90				21.4	22.34
As_Met	Pair-wise Relative Spherical	Main	149	0	31.5	46.51	-	11	50.1
		Second	239	0				5.79	34.65
		Third	239	90				10.2	10.67
Co_Met	Not enough points (2)	Main	149	-	-	-	-	-	-
		Second	239	-				-	-
		Third	239	-				-	-
Cr_Met	Not enough points (2)	Main	149	-	-	-	-	-	-
		Second	239	-				-	-
		Third	239	-				-	-
Cu_Met	Pair-wise Relative Exponential and Spherical	Main	149	0	11.5	57.8	30.73	16.5	55.8
		Second	239	0				2.85	49.08
		Third	239	90				21	21.94
Fe_Met	Pair-wise Relative Exponential	Main	149	0	9.4	90.6	-	35.2	-
		Second	239	0				28.3	-
		Third	239	90				37.3	-
Mg_Met	Pair-wise Relative Spherical	Main	149	0	21.1	78.94	-	32.3	-
		Second	239	0				14.4	-
		Third	239	90				14	-
S_Met	Pair-wise Relative Spherical	Main	149	0	30.4	69.56	-	9.17	-
		Second	239	0				9.17	-
		Third	239	90				5.35	-

Table 14-29 Semi-variogram characteristics (normalised) for Beta West and Beta Central

Element	Type	Axis	Azimuth	Dip	Nugget (%)	Partial Sills, %		Ranges	
						C1	C2	R1	R2
Ni_Met	Pair-wise Relative Exponential	Main	150	0	45.3	54.7	-	61.6	-
		Second	240	0				29.4	-
		Third	240	90				35.1	-
Au_Met	Pair-wise Relative Spherical	Main	150	0	48.6	44.9	6.5	12.87	44.2
		Second	240	0				11.13	30.91
		Third	240	90				16.13	21.76
As_Met	Pair-wise Relative Exponential	Main	150	0	60.5	39.5	-	22.1	-
		Second	240	0				15.71	-
		Third	240	90				7.37	-
Co_Met	Pair-wise Relative Exponential	Main	150		26.5	73.5	-	17.4	-
		Second	240					17.0	-
		Third	240					17.0	-
Cr_Met	Not enough points (22)	Main	150		-	-	-	-	-
		Second	240					-	-
		Third	240					-	-
Cu_Met	Pair-wise Relative Exponential and Spherical	Main	150	0	28.8	49.8	21.3	7.7	66.1
		Second	240	0				6.52	48.4
		Third	240	90				20.85	28.52
Fe_Met	Pair-wise Relative Exponential and Spherical	Main	150	0	13.8	54.3	31.9	6	60.6
		Second	240	0				9.94	48.73
		Third	240	90				18.61	37.22
MgO_Met	Pair-wise Relative Exponential and Spherical	Main	150	0	17.6	54.3	28.1	5.8	60.1
		Second	240	0				8.12	22.64
		Third	240	90				14.06	17.62
S_Met	Pair-wise Relative Exponential and Spherical	Main	150	0	12.1	43.7	44.2	28	64.3
		Second	240	0				50.8	53.3
		Third	240	90				40.9	43.3

Table 14-30 Semi-variogram characteristics (normalised) for B30/B40/Gamma

Element	Type	Axis	Azimuth	Dip	Nugget (%)	Partial Sills, %		Ranges	
						C1	C2	R1	R2
Ni_Met	Pair-wise Relative Exponential	Main	145	0	10.9	56.4	32.8	7.9	80.6
		Second	235	0				43	100
		Third	235	90				19	1000
Au_Met	Pair-wise Relative Exponential	Main	145	0	9.3	30.8	59.9	5.5	57.9
		Second	235	0				5.5	37
		Third	235	90				7.2	45.2
As_Met	Pair-wise Relative Exponential	Main	145	0	14.1	85.9	-	11	-
		Second	235	0				29	-
		Third	235	90				25	-
Co_Met	Pair-wise Relative Exponential	Main	145	0	18.3	81.7	-	28	-
		Second	235	0				28	-
		Third	235	90				29	-
Cr_Met	Pair-wise Relative Spherical	Main	145	0	13.3	86.7	-	15	-
		Second	235	0				15	-
		Third	235	90				6.5	-
Cu_Met	Pair-wise Relative Spherical	Main	145	0	10.8	10.9	78.3	4.8	80.5
		Second	235	0				50	60.3
		Third	235	90				12	20
Fe_Met	Pair-wise Relative Spherical	Main	145	0	5.4	55.6	39.0	36	111
		Second	235	0				56	300
		Third	235	90				20	56
Mg_Met	Pair-wise Relative Spherical	Main	145	0	6.7	79.2	14.1	3.6	49
		Second	235	0				14	48.1
		Third	235	90				19	200
S_Met	Pair-wise Relative Spherical	Main	145	0	4.6	24.3	71.1	11	98.2
		Second	235	0				34	61
		Third	235	90				5	45.4

14.3.12 Volume Modelling/Block Model Development

Three-dimensional, non-rotated block volume models were created for use in grade estimation and sized to encompass each of the nickel sulphide deposits. No waste background model was created.

The models assume underground mining by very selective methods, using airleg miners where required.

As the lodes are very narrow, usually averaging less than 2 m horizontal width, it would be unlikely that selective mining would occur across their width. Therefore, a seam model was chosen to represent their volume. For the relatively flat-lying deposits, a single block spans the vertical (Z) width of the zones.

The selection of appropriate block sizes took into consideration the geometry of the domains to be modelled, the local drillhole spacing and the strike and dip of the domains. The narrow lode domains had parent cell dimensions set to 10 m x 10 m in the northing and easting directions for

all modelled lenses. The dimensions across the width of the lenses are infinitely variable in vertical direction to allow for accurate definition of the variable width in each lens using a single cell.

Controlled sub-cell splitting to a minimum of 1 m was allowed in the general plane of mineralization in all cases to enable accurate wireframe volumes to be captured as well as allowing suitable edge definition for all lenses.

The parent cell dimensions, sub-cell dimensions, model origins and model extents are shown in Table 14-31.

Table 14-31 Block model parameters summary

Axis	Extent for Parent Cell Centroids (m)		Block Size (m)	Maximum Sub-Celling (m)	No. of Parent Blocks
	Minimum	Maximum			
Easting	375,004.5	377,004.5	10	1	201
Northing	541,004.5	543,254.5	10	1	226
RL	-900	9,100	10000	N/A	1

14.3.13 Grade Estimation

Ordinary kriging (“OK”) was used to obtain estimates of the approximate vertical thickness and accumulation variables in each of the estimation lenses for the Beta West and Beta Central deposits using the full zone width composites. Ni, Au, As, Co, Cu, Fe, MgO and S grades were derived using the accumulation method whereby estimates of the factored vein thickness (VERT_THICK) were multiplied by grade to generate the Ni metal accumulation variable NI_MET. The accumulation variables are then estimated into blocks along with the associated factored vertical thickness variable. Block grades are then back calculated from these estimates. Estimates were generated for parent blocks. From the accumulation-based lode block estimates, block nickel grades (NI) were back-calculated using the following equation:

$$NI_MET = NI * VERT_THICK$$

All other grades were calculated using the same methodology, but these variables are not reported as part of the Mineral Resource. Bulk density (using actual and regressed data) was also estimated but only used OK for block estimates. The regression formulae for density was initially applied to the raw sample intervals and then the combined data (actual and regressed data) were interpolated to the block model.

Given the geological features of the deposit and taking into account the average semi-variogram long ranges in main directions (which were 42 m x 30 m x 21 m (XYZ) for the Beta West deposit, 50 m x 33 m x 26 m for the Beta Central deposit, and 59 m x 42 m x 16 m for B30, B40 and Gamma), a base search ellipse equal to the long ranges for each deposit was used. The first search ellipse employed two-thirds of the base search parameters. The second and all the subsequent interpolation runs used a search ellipse multiplier to the search axes, which was started from 1 and incremented by 1 until all cells were informed with all estimated grades. All accumulations and vertical thicknesses were initially estimated in all sub-cells, and then volume weighted average values were calculated within the 10 m x 10 m parent cells.

When model cells were estimated using search radii that were not greater than twice the long ranges along the horizontal axes, the minimum and maximum composite search parameters for block estimates used a minimum of four and a maximum of six samples. No restrictions were applied for drillhole numbers used in the estimate as all samples were composited to the entire mineralized intersections.

No sectors were employed. The degree of discretization was 5 x 5 x 5 points. The grade estimation in the centre of the block consisted of the simple average value of the estimated points throughout the block volume.

The block estimates were limited by the corresponding mineralized lens. The grade interpolation strategy is summarised in Table 14-32 and Table 14-33.

Table 14-32 Model interpolation parameters for Beta West/Beta Central

Interpolation Method	Ordinary Kriging			
	Less Than or Equal to two-Thirds of Semi-Variogram Ranges	Less Than or Equal to Semi-Variogram Ranges	Less Than or Equal to Twice semi-Variogram Ranges	Greater Than Twice Semi-Variogram Ranges
Minimum no. of samples	4	4	4	1
Maximum no. of samples	6	6	6	6
Minimum no. of drillholes	1	1	1	1

Table 14-33 Model interpolation parameters for B30/B40/Gamma

Interpolation Method	Ordinary Kriging			
	Less Than or Equal to two-Thirds of Semi-Variogram Ranges	Less Than or Equal to Semi-Variogram Ranges	Less Than or Equal to Twice semi-Variogram Ranges	Greater Than Twice Semi-Variogram Ranges
Minimum no. of samples	4	4	4	1
Maximum no. of samples	6	6	6	24
Minimum no. of drillholes	1	1	1	1

14.3.14 Depletion for Underground Workings

The modelled deposits are proximal and subject to underground mining by both development and stoping. The review of the underground workings revealed that there are many modelled wireframes of mineralized lenses at Beta Central and Beta West that are intersected by underground infrastructure (Figure 14-47). At B30C, only one mineralized body is intersected by underground workings (Figure 14-48 and Figure 14-49).

Figure 14-47 Beta Central lodes intersected by underground workings, oblique view

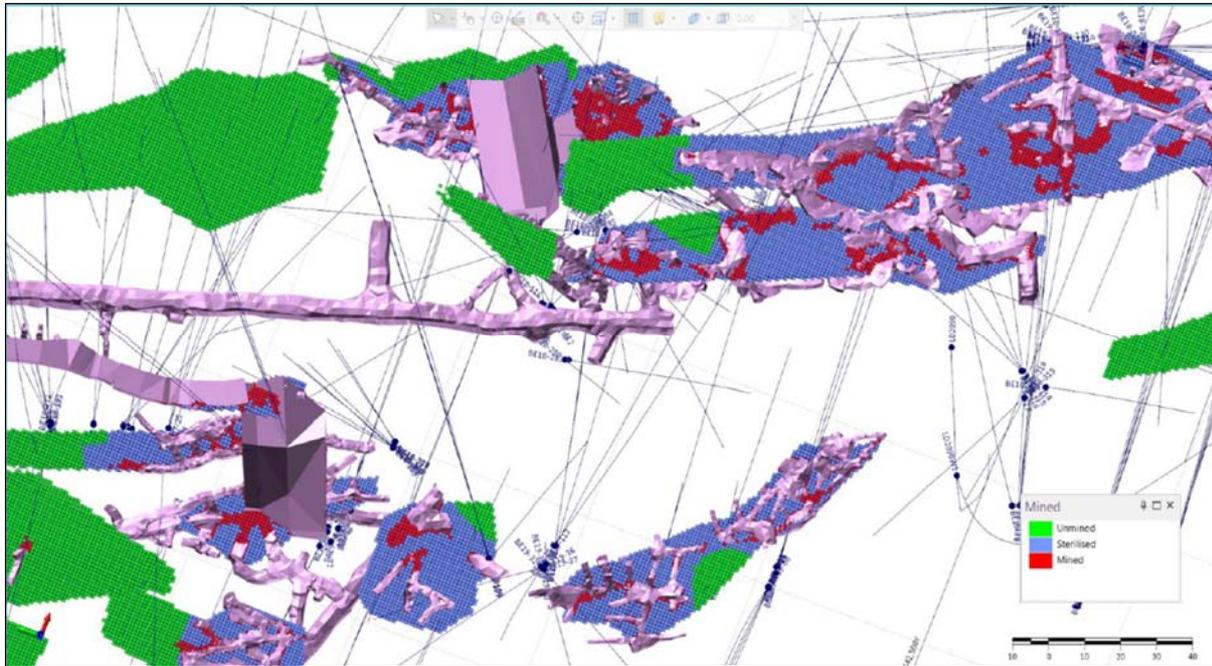


Figure 14-48 Underground infrastructure through B30/B40/Gamma, oblique view

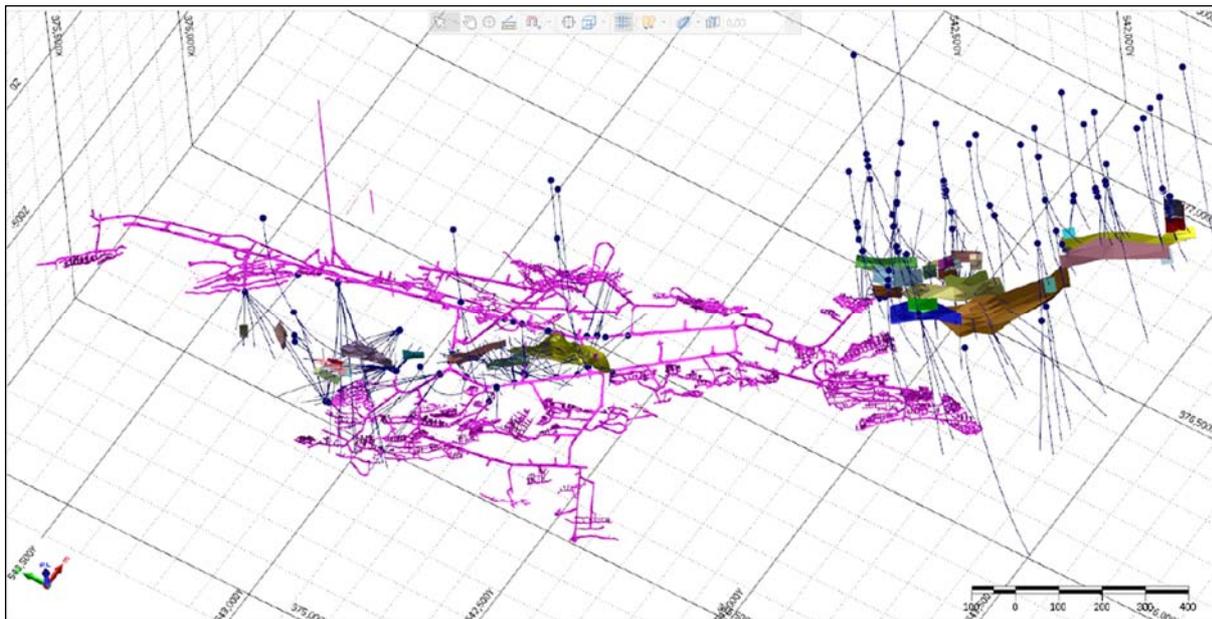
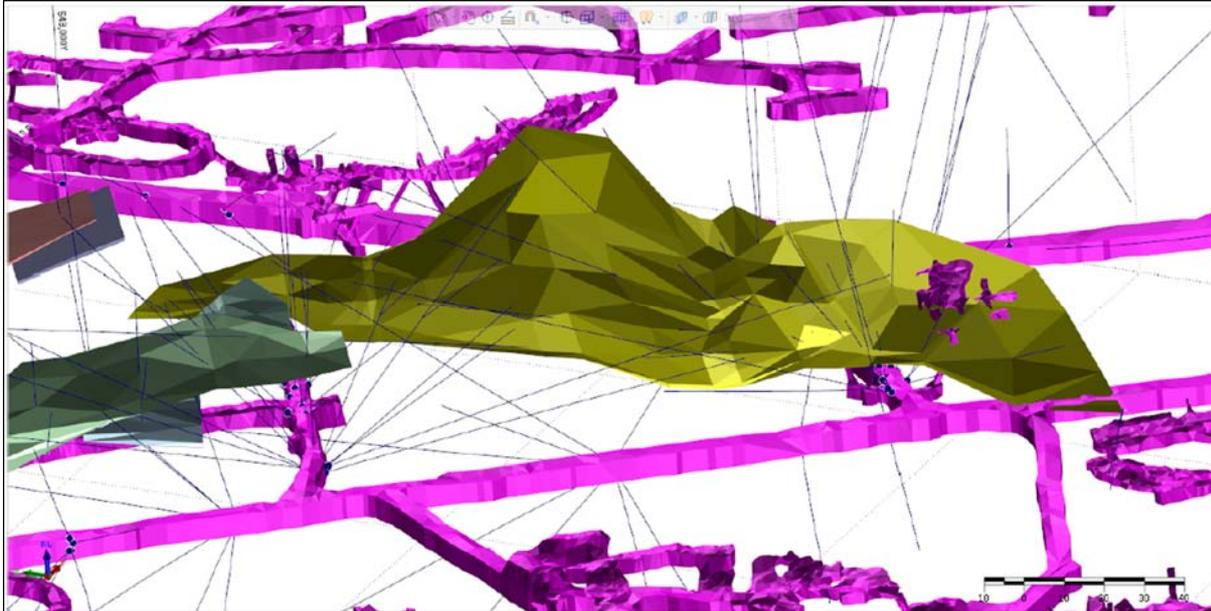


Figure 14-49 B30C_Ni_04 lens intersected by underground workings, oblique view



“As mined” development and stope wireframes were used to intersect and flag model blocks within the mined areas using controlled sub-celling to accurately define the depleted volumes. The MINED field values were set to 2 (MINED=2) in the model according to values defined in Table 14-34.

All mineralized lodes that were subject to mining were also flagged as MINED=1 (sterilized) when model cells were proximal to the underground workings. Where further mining was unlikely, those portions of the lodes were coded as “sterilized”. All “mined” and “sterilized” blocks were excluded from the Mineral Resource statements.

Table 14-34 Block model attributes and field names

Field	Description
XC YC ZC	Block centroid coordinates, m
XINC YINC ZINC	Block sizes, m
WF AREA DOMAIN CLASS DEPOSIT MINED MET_NI THI_NI MET_AU THI_AU MET_AS THI_AS MET_CO THI_CO MET_CU THI_CU MET_FE THI_FE MET_MG THI_MG MET_S THI_S DENSITY NI_CUT AU_CUT AS_CUT CO_CUT CR_CUT CU_CUT FE_CUT MGO_CUT S_CUT	Wireframe names Deposit names (10, 30 or 40) Domains used for geostatistical analysis Classification: 2 - Indicated, 3 Inferred Deposit names (B30, B40, G10, G50, G55, G70 or G95) Codes for data within workings (0 - unmined, 1 - sterilized, 2 - mined) Ni metal (thickness * grade) Vertical thickness used for Ni metal (with factor of 1 applied) Au metal (thickness * grade) Vertical thickness used for Au metal (with factor of 1 applied) As metal (thickness * grade) Vertical thickness used for As metal (with factor of 100 applied) Co metal (thickness * grade) Vertical thickness used for Co metal (with factor of 1000 applied) Cu metal (thickness * grade) Vertical thickness used for Cu metal (with factor of 1000 applied) Fe metal (thickness * grade) Vertical thickness used for Fe metal (with factor of 10 applied) MgO metal (thickness * grade) Vertical thickness used for MgO metal (with factor of 10 applied) S metal (thickness * grade) Vertical thickness used for S metal (with factor of 100 applied) Density, t/m ³ Ni grade, % Au grade, g/t As grade, ppm Co grade, ppm Gr grade, ppm Cu grade, ppm Fe grade, % MgO grade, % S grade, %

14.3.15 Model Validation

Validations of the grade estimates were completed by:

- Visual checks on screen in cross-section and plan view to ensure that block model grades honour the grade of sample composites;
- Statistical comparison of sample and block grades; and

- Generation of swath plots to compare input and output grades in a two-dimensional process by easting, northing, and elevation.

The block models with interpolated grades were displayed on screen along with the sample grades and colour coded. Visual validation demonstrated close correlation between modelled grades and composites.

The average grades in the model were compared with the average grades in the composited sample file. It was found that the estimated nickel grades were 3.3% relatively higher than the composite grade for the Beta West deposit (2.17% Ni in the model versus 2.12% Ni in the composite data), 9.2% relatively lower than the composites for the Beta Central deposit (3.03% Ni in the model vs 3.34% Ni in the composite data), and 0.7% relatively lower than the composites for B30, B40 and Gamma (2.33% Ni in the model vs 2.35% Ni in the composite data). This is a natural result caused by data clustering and grade smoothing inherent in all interpolators. The difference is acceptable. In addition, since the accumulations were used in the modelling process, there may be a component of grade difference that is related to that, for example, the final back-calculated grades will be weighted slightly towards the thicker intervals, whether those were higher or lower grade.

Swath plots were generated for each 40 m vertical section in east-west and north-south directions. The plots were generated separately for all mineralized bodies and all deposits combined. Examples of the results of this validation are shown in Figure 14-50 to Figure 14-55. The plots demonstrate close correlation between the modelled nickel grades and sample composites. It is apparent that the model has smoothed the composite grades, which is to be expected due to volume-variance effects.

Figure 14-50 Swath plot for nickel grades by easting (Beta West)

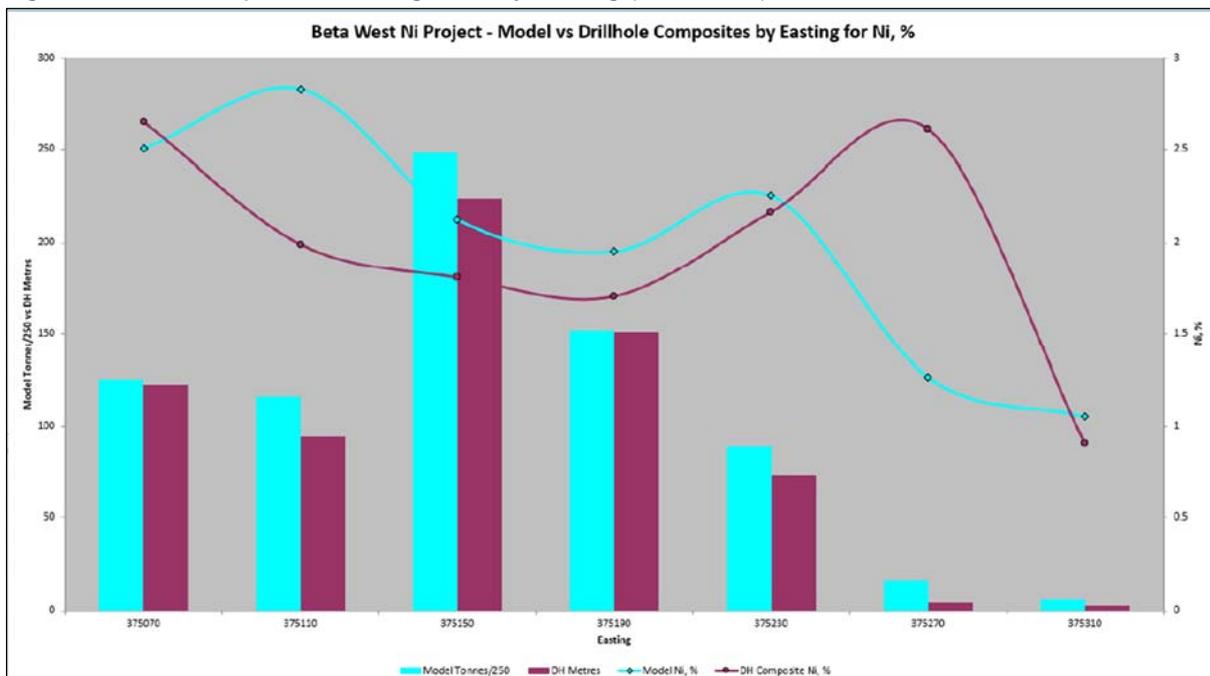


Figure 14-51 Swath plot for nickel grades by northing (Beta West)

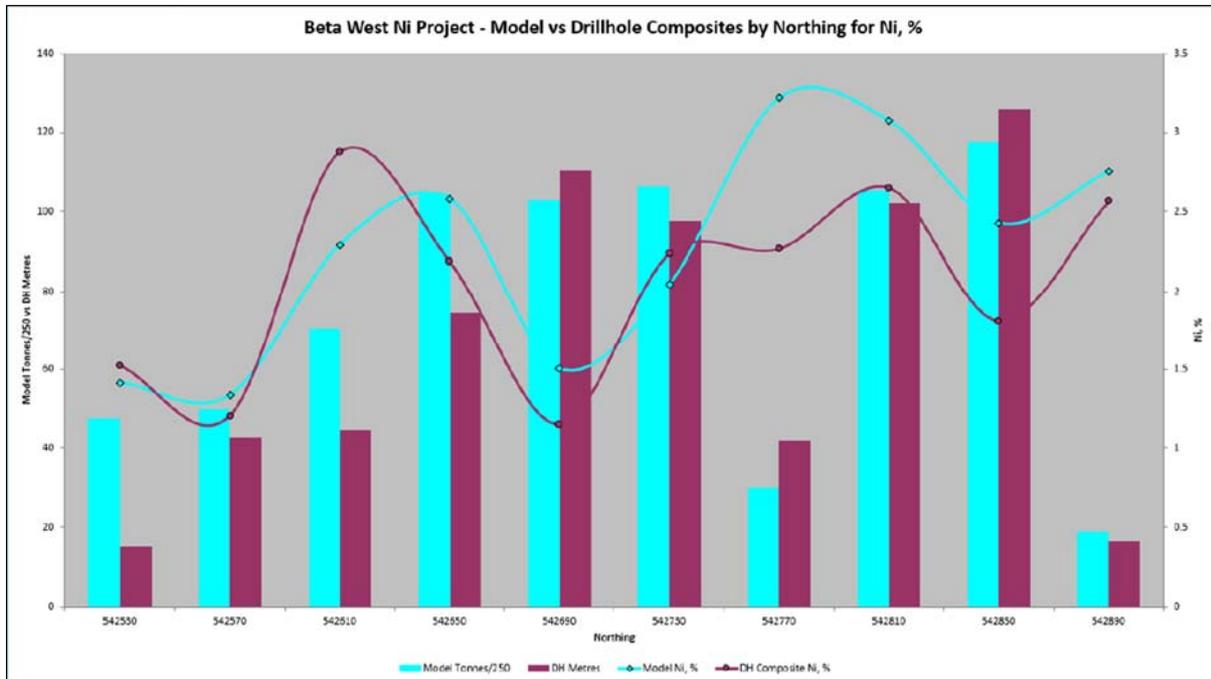


Figure 14-52 Swath plot for nickel grades by easting (Beta Central)

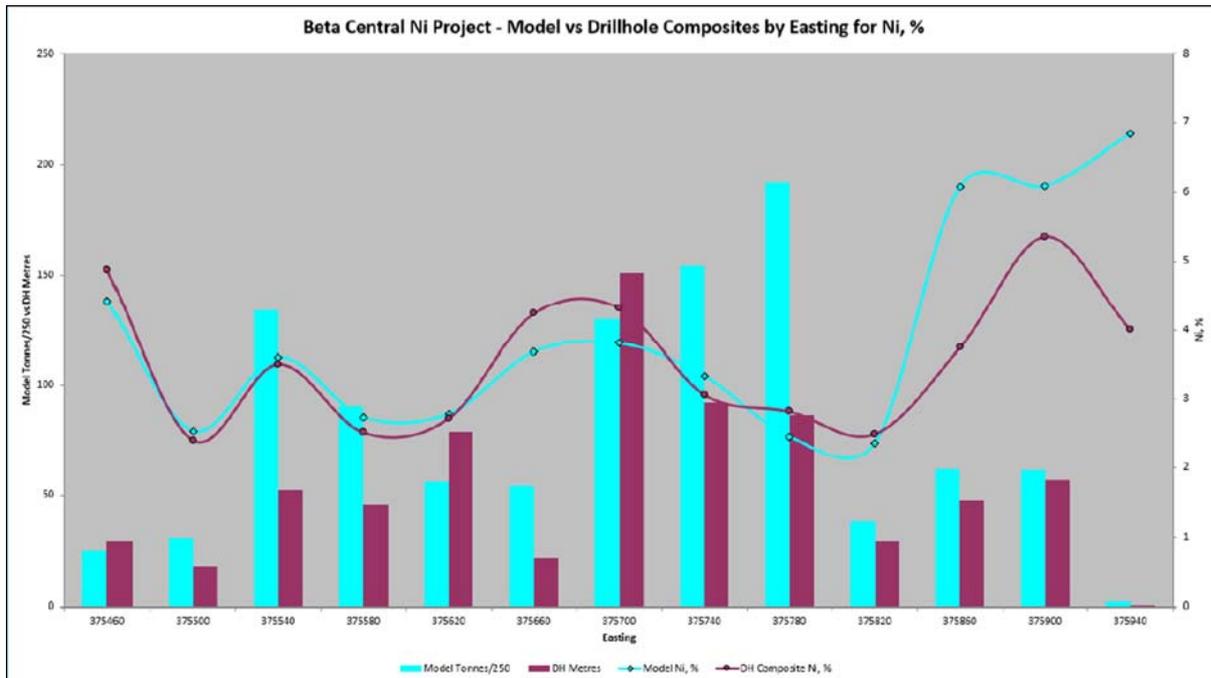


Figure 14-53 Swath plot for nickel grades by northing (Beta West)

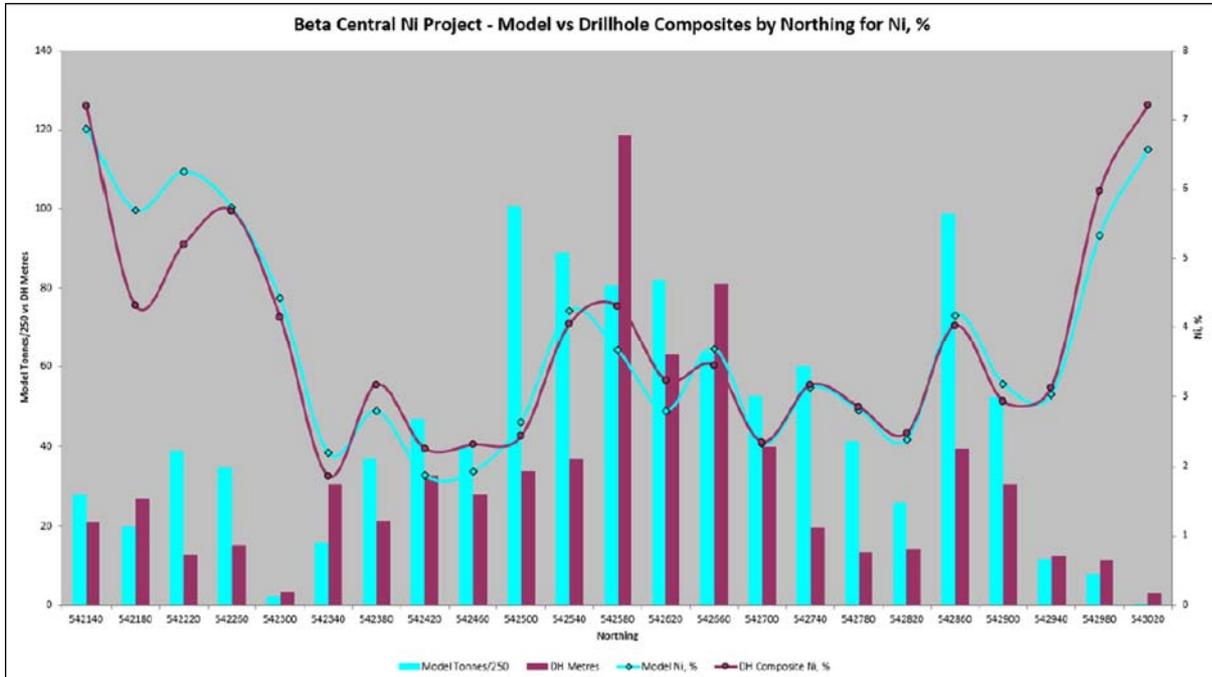


Figure 14-54 Swath plot for nickel grades by easting (B30/B40/Gamma)

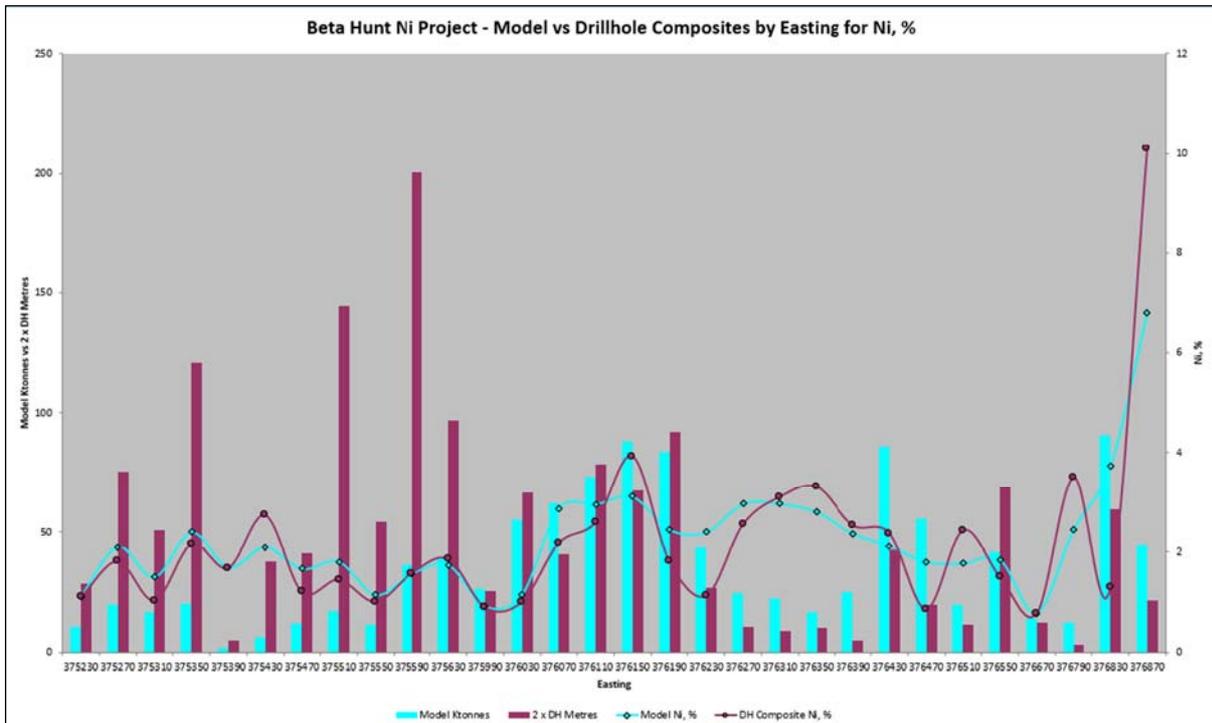
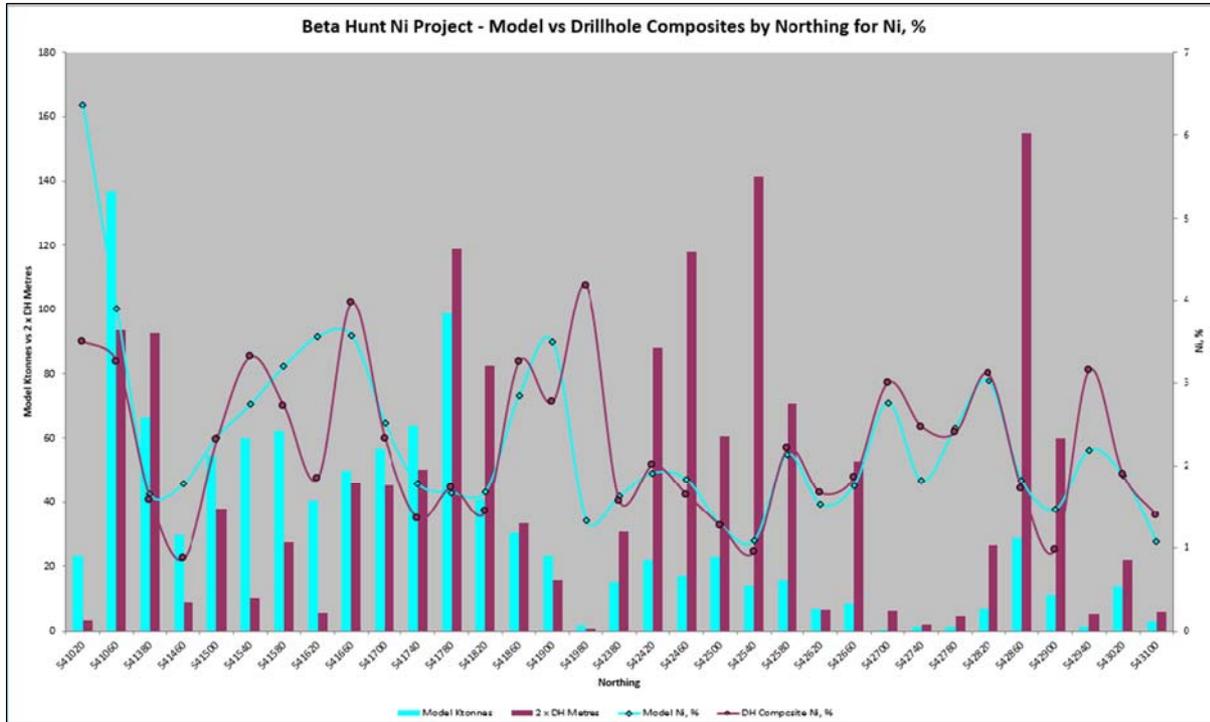


Figure 14-55 Swath plot for nickel grades by northing (B30/B40/Gamma)



14.3.16 Mineral Resource Classification

Preliminary passes to set Mineral Resource classification codes for each of the nickel deposits were made where:

- No material was classified as Measured considering limited data, uncertainty regarding spatial location of mineralized lenses, their morphology, and structural geology. The available density data was very limited.
- Any lenses or portions thereof that were estimated in the first or second passes which were intersected by at least several drillholes with at least two exploration lines, estimated with four or more drillholes was given a classification of Indicated Mineral Resource ("CLASS=2").
- Any lenses or their parts that were estimated with at least two drillholes was given a classification of Inferred Mineral Resource ("CLASS=3").
- Planar strings were used to tidy up the classification to either CLASS=3 or CLASS=2 for the deposits as required.

Final Mineral Resource classifications are shown in Figure 14-56 to Figure 14-59.

Figure 14-56 Mineral Resource classification for Beta West deposit

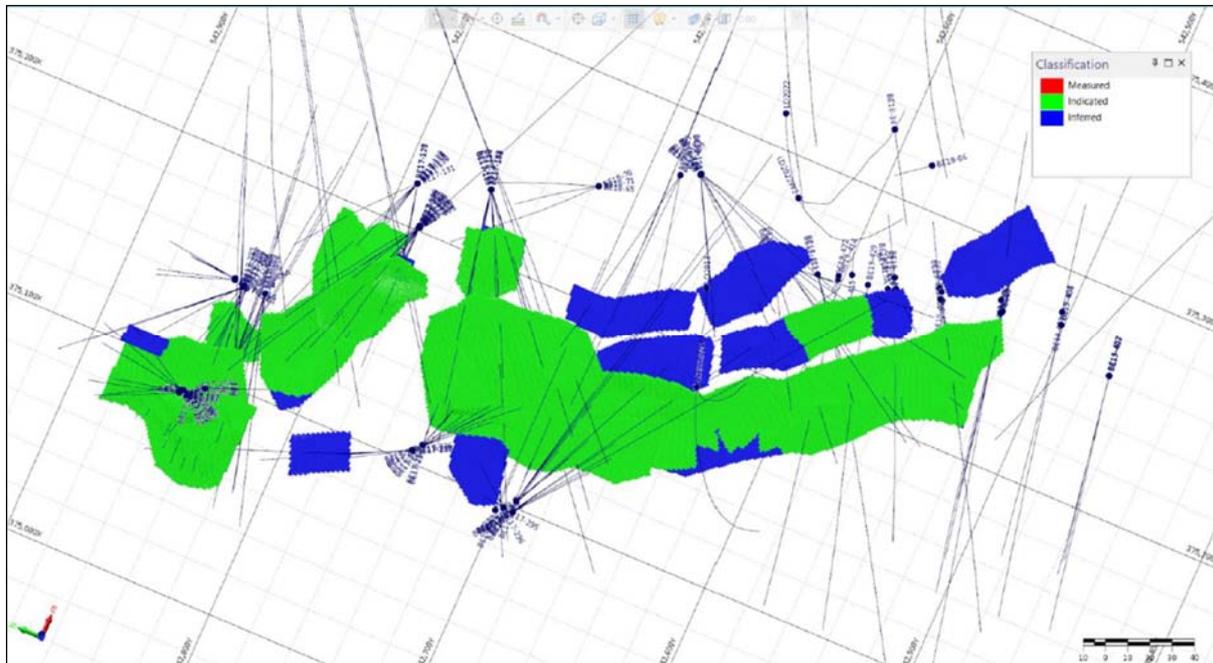


Figure 14-57 Mineral Resource classification for Beta Central deposit

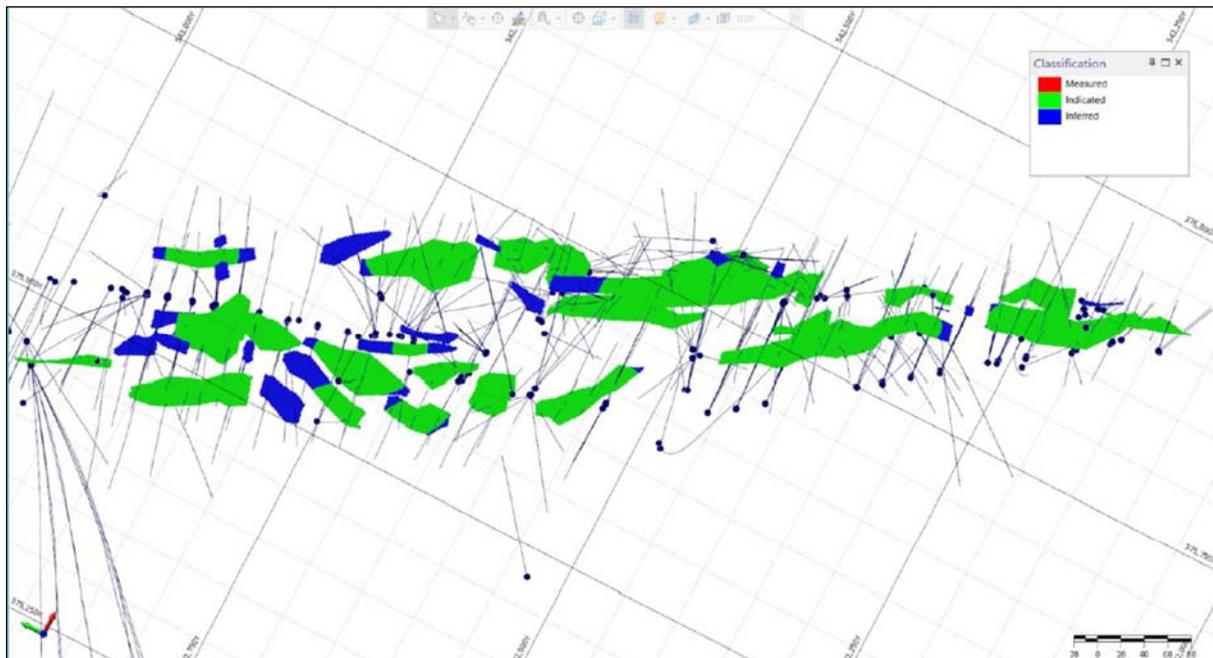


Figure 14-58 Mineral Resource classification for B30 and B40 deposits

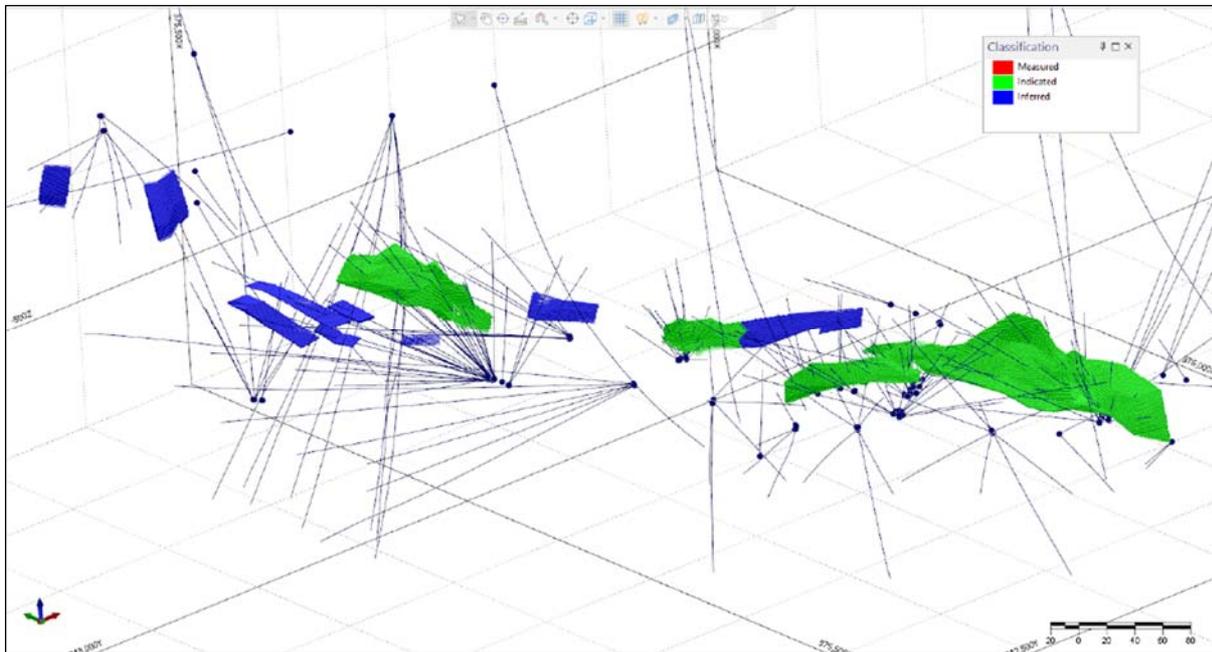
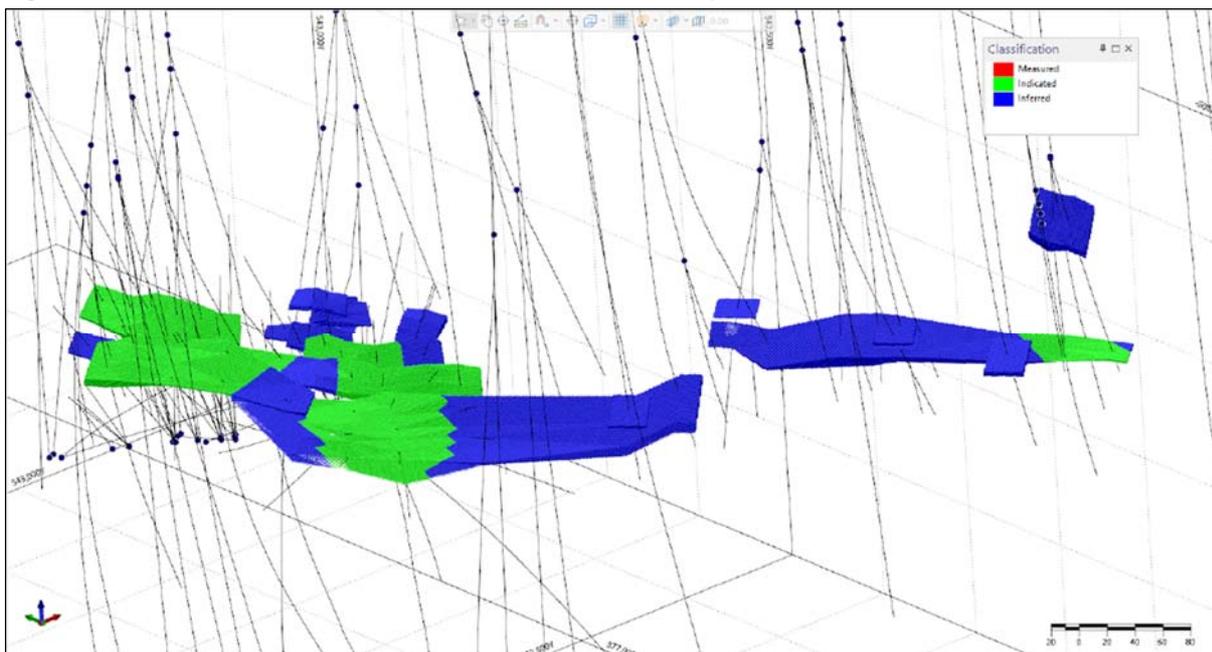


Figure 14-59 Mineral Resource classification for Gamma deposit



14.3.17 Mineral Resource Statement

CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a Mineral Resource as:

“A Mineral Resource is a concentration or occurrence of solid material of economic interest in or on the Earth’s crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction.”

The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.”

The updated Mineral Resource represents a replacement of the previously reported by Karora in a Technical Report dated February 3, 2021 as filed on SEDAR (refer Karora profile at www.sedar.com). and subsequently updated to January 31, 2022 as reported in Karora news release, May 11, 2022.

The Mineral Resource model for the B30, B40, and Gamma deposits was completed in March 2022 by AMC Consultants. The Mineral Resource model for the Beta Central and Beta West deposits was completed in August 2022 by AMC Consultants. The Consolidated Beta Hunt Resource was then adjusted for each deposit for mine depletion to September 30, 2022 for Beta Block only. The ordinary kriged accumulation models have been reported using a 1% Ni cut-off grade. Grade-tonnage-metal distributions have been subdivided by appropriate Mineral Resource categories.

The Mineral Resource is proximal to existing underground development and Stephen Devlin, FAusIMM, considers the Mineral Resource to meet RPEEE requirements.

Reported tonnes, grades and metal are listed in Table 14-35 have been reported using rounded figures to reflect the level of accuracy in the data and report.

Table 14-35: Nickel Mineral Resources (by deposit) as at September 30, 2022 – 1% Ni lower cut-off

NICKEL MINERAL RESOURCE AS AT SEPTEMBER 30, 2022 ^{1,2,3,4,5,6 & 7}													
Location	Deposit	Measured			Indicated			Measured & Indicated			Inferred		
		kt	Ni	Ni Metal	kt	Ni	Ni Metal	kt	Ni	Ni Metal	Kt	Ni	Ni Metal
			(%)	(t)		(%)	(t)		(%)	(t)		(%)	(t)
Beta Block	30C	-	-	-	133	1.8	2,400	133	1.8	2,400	24	1.7	400
Beta Block	40C	-	-	-	-	-	-	-	-	-	6	2.4	100
Beta Block	BEC	-	-	-	76	3.2	2,400	76	3.2	2,400	14	2.7	400
Beta Block	BW	-	-	-	50	2.3	1,200	50	2.3	1,200	5	3.3	200
Beta Block	BSW	-	-	-	14	3.5	500	14	3.5	500	36	3.5	1,300
Beta Block	EA	-	-	-	276	3.1	8,600	276	3.1	8,600	98	2.9	2,900
Gamma Block	10	-	-	-	44	3.8	1,700	44	3.8	1,700	193	2.3	4,400
Gamma Block	50/55	-	-	-	130	3.0	3,900	130	3.0	3,900	117	3.1	3,600
Gamma Block	95	-	-	-	23	1.7	400	23	1.7	400	7	2.8	200
Total		-	-	-	745	2.8	21,100	745	2.8	21,100	500	2.7	13,400

- 1) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
- 2) The Measured and Indicated Mineral Resources are inclusive of those Mineral Resources modified to produce Mineral Reserves.
- 3) The Mineral Resource estimates include Inferred Mineral Resources that are normally considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. There is also no certainty that Inferred Mineral Resources will be converted to Measured and Indicated categories through further drilling, or into Mineral Reserves once economic considerations are applied.
- 4) The Nickel Mineral Resource is reported within proximity to underground development and nominal 1% Ni lower cut-off grade for the nickel sulphide mineralization.
- 5) The Nickel Mineral Resource assumes an underground mining scenario and a high level of selectivity.

- 6) Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add up due to rounding.
- 7) Nickel Mineral Resource estimates were prepared under the supervision of Qualified Persons S. Devlin, FAusIMM (Group Geologist, Karora Resources).

15 MINERAL RESERVE ESTIMATES

15.1 INTRODUCTION

The Gold Mineral Reserve estimates set out in this report were calculated by Entech Pty Ltd (“Entech”) of Perth, Western Australia, who were engaged by Karora to undertake the Gold Mineral Reserve estimate for Beta Hunt. The Gold Mineral Reserve estimates have been prepared using accepted industry practice and in accordance with NI 43-101 reporting standards, by Ross Moger under the supervision of Shane McLeay, FAusIMM. Both are employees of Entech. Shane McLeay, FAusIMM of Entech accepts responsibility as Qualified Person for the Mineral Reserve estimates.

Since July 2019, Beta Hunt mine has been operated on an integrated basis with Karora’s 100% owned Higginsville Gold Operations and 100% of the Beta Hunt feed has been processed at HGO. The Mineral Reserve estimate calculations are based on actual costs, production rates and metallurgical factors achieved at these operations.

15.2 MINERAL RESERVE ESTIMATION PROCESS

Beta Hunt is an operating underground gold mine allowing current design criteria, mining methods, and actual costs to form the basis for mine design, scheduling, and economic evaluation used in this estimation process. As an operating mine, costs, mining methods, metallurgical factors are well understood, providing confidence in their application as part of the Mineral Reserve estimation. All major infrastructure and permitting is also in place. The economics of the Mineral Reserve estimate could be materially affected by a significant change to commodity price.

A process has been followed to convert the Mineral Resources to Mineral Reserves which is underpinned by design, schedule, and economic evaluation completed by Entech and overseen by Karora. Entech’s general conversion process is described in the following points, with further detail provided in subsequent sections.

- Three Mineral Resource models were provided by Karora to Entech; one for the Western Flanks mining area, one for the A Zone mining area, and one for the Larkin mining area. (The Beta Hunt Gold Mineral Resource was published by press release on February 13, 2023 which can be found on Karora’s website at www.karoraresources.com and at www.sedar.com.)
- Stope optimisations were run on these Mineral Resource models, using Datamine Software’s Mineable Shape Optimiser® (“MSO”) filtered to a 1.8 g/t cut-off grade. The resulting stope shapes were reviewed for practicality of mining, with unpractical mining shapes removed.
- Modifying factors were applied to these stope shapes including dilution and recovery factors based on Karora’s current dilution and recovery performance.
- A development design was produced to align with the resulting stope shapes that tied into the existing underground as-builts. The development design follows current site design criteria and a development ore dilution factor of 5% and recovery factor of 100% has been applied.
- Stope shapes were depleted with development drives.
- The mine design was then depleted with current site as-builts provided by Karora.
- All stope and development designs (the mine design) were evaluated with Mineral Resource models and any Inferred material within the mine design was set to waste grade (0 g/t Au).
- Levels were evaluated using the cost and revenue assumptions applied in the cut-off grade estimation and sub-economic levels were removed from the Mineral Reserve.
- The mine design was scheduled in Deswik mining software to produce a mine plan, using current site productivity rates and following the appropriate mining sequence.

- The resulting mining schedule was evaluated in a financial model based on current operation costs to ensure economic viability.

The resulting Mineral Reserve estimate as at September 30, 2022 is shown in Table 15-1.

All Mineral Reserves are shown on a 100% ownership basis.

Table 15-1 Summary of Beta Hunt Mineral Reserves as at September 30, 2022 (Notes: 1, 2, 3, 4)

Mining Area	Proved			Probable			Total		
	kt	g/t	koz	kt	g/t	koz	kt	g/t	koz
Western Flanks	101	2.4	8	4,727	2.5	386	4,827	2.5	393
A Zone	14	3.2	1	1,200	2.2	85	1,214	2.2	87
Larkin	-	-	-	719	2.5	58	719	2.5	58
Total	115	2.5	9	6,646	2.5	529	6,761	2.5	538

- The Mineral Reserve is reported at a 1.8g/t incremental cut-off grade
- Key assumptions used in the economic evaluation include:
 - A metal price of US\$1,450 per oz gold and an exchange rate of 0.70 US\$:A\$
 - Metallurgical recovery of 94%
 - The cut-off grade takes into account Operating Mining, Processing/Haulage and G&A costs, excluding capital
- The Mineral Reserve is depleted for all mining to September 30, 2022.
- The tonnes and grades are stated to a number of significant digits reflecting the confidence of the estimate. Since each number is rounded individually, the table may show apparent inconsistencies between the sum of rounded components and the corresponding rounded total.

15.3 STOPE DESIGN PARAMETERS

The following stope design parameters were applied within the mine design:

- Minimum footwall dip angles were set at 40°.
- Minimum mining widths (excluding dilution) of 5.0 m were applied in all mining areas.
- Dilution of 0.25 m on the footwall and hangingwall of each stope shape (total of 0.5 m of dilution) applied as part of the stope optimisation process. The dilution is evaluated with the Mineral Resource model and, therefore, dilution carries the evaluated grade from the Mineral Resource Model.
- Sill pillars have been included in the mine design as per Karora geotechnical recommendations. An additional mining recovery factor of 85% has been applied to account for rib pillar requirements, and bogging recovery losses as per Karora's currently applied geotechnical parameters.

15.4 CUT-OFF GRADE DERIVATION

Cut-off grades are based on revenue inputs and current site actual costs as stated in Table 15-2.

Table 15-2 Cut-off grade inputs

Factor	Unit	Assumption	Source
Gold Price	US\$/oz	1,450	Karora Forecast
State Royalty	%	2.5	Site Actuals
Other Royalties	%	4.75	Site Actuals
Mill Recovery	%	93.5	Site Actuals

Factor	Unit	Assumption	Source
Haulage and Milling Cost	A\$/t ore	44.61	Site Actuals
Mining Direct Operating Costs	A\$/t ore	34.01	Site Actuals
Technical Services	A\$/t ore	2.20	Site Actuals
Mine Overheads and Admin (inc Corp)	A\$/t ore	4.50	Site Actuals
Grade Control drilling	A\$/t ore	2.75	Site Actuals
Operating Development	A\$/t ore	15.00	Karora Forecast

When completing the initial stope optimisation process, a 1.8 g/t cut-off grade was applied. After depletion of stope shapes with development and setting of Inferred material to waste grade (0 g/t Au), levels were evaluated using the cost and revenue assumptions applied in the cut-off grade estimation and sub-economic levels were removed from the Mineral Reserve. An ore development cut-off grade of 0.8 g/t was applied which covers the processing cost, as mining and haulage of this material is a sunk cost required for access for stoping. The cut-off grade inputs and calculations are shown in Table 15-3 and Table 15-4.

Table 15-3 Cut-off grade inputs

Assumptions	Unit	Value
Gold Price Calculation		
Gold Price	US\$/oz	1,450
Exchange Rate	US\$: A\$	0.70
Metallurgical Recovery (Au)	%	93.5
Total Royalty	%	7.25
Total Revenue per Ounce of Gold	A\$/oz	1,800
Total Revenue per Gram of Gold	A\$/g	57.8

Table 15-4 Cut-off grade calculation

Operating Costs	Unit	Operating Cost	Incremental Stoping Cost	Development Cut-off Grade
Direct Operating Costs	A\$/t ore	34.01	39.21	
Grade Control Drilling	A\$/t ore	2.75	2.75	
Technical Services	A\$/t ore	2.20	2.20	
Mine Overheads and Admin	A\$/t ore	4.50	4.50	4.50
Operating Development	A\$/t ore	15.00		
Sustaining Capex	A\$/t ore			
Total Mine Operating Cost	A\$/t ore	58.46	48.66	4.50
Processing and Surface Haulage	A\$/t ore	44.61	44.61	44.61
Total Operating Cost	A\$/t ore	103.07	93.27	49.11
Economic Stope cut-off grade	g/t	1.8		
Incremental Stope cut-off grade	g/t		1.6	
Incremental Development cut-off grade	g/t			0.8

16 MINING METHODS

16.1 INTRODUCTION

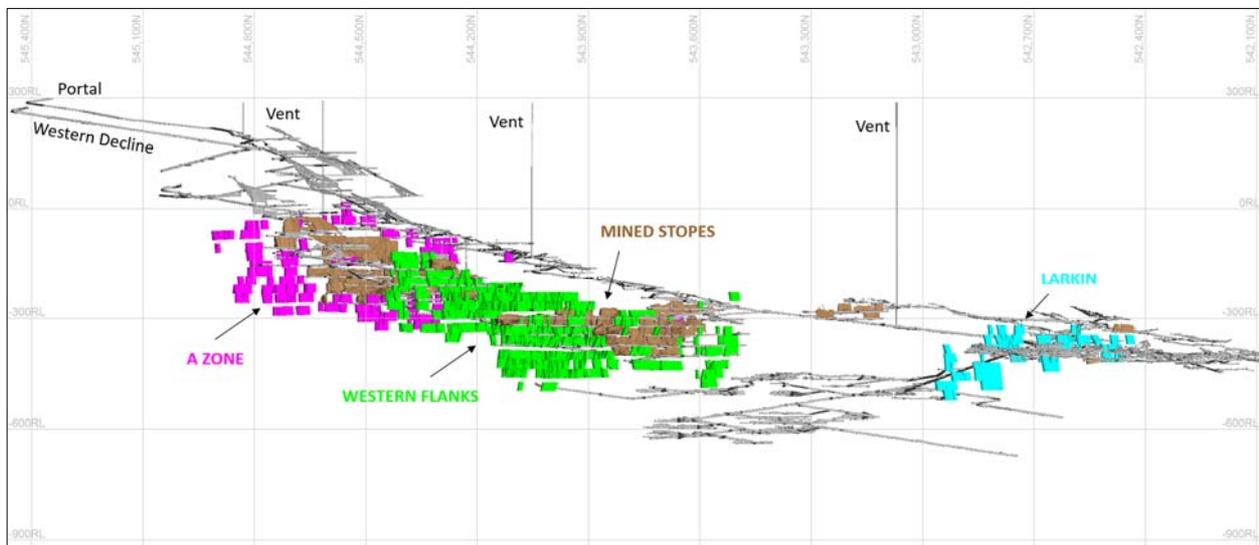
Beta Hunt is a mechanised underground mine accessed from established portals and declines. The mine commenced operation in 1974, mining both nickel and gold over extended periods. From 2008 to 2014, the mine was on care and maintenance with gold mining recommencing in 2015. Currently, the mine is producing at a rate of approximately 100,000 t/month ore. Gold mine production is processed at Karora’s 100% owned Higginsville and Lakewood processing facilities located 78 km by road to the south and 61 km by road to the north, respectively.

The mine is accessed via established portals and declines. Pumping, ventilation, power and mine service infrastructure is established and in use for current mining operations.

Underground gold mining currently takes place in two mining areas, the Western Flanks and the A Zone, with planned mining of the Larkin deposit within the next year. The strike of the A Zone and Western Flanks totals approximately 1,500 m, with stoping occurring over a total vertical extent of approximately 500 m. Western Flanks and A Zone employ a top down, longhole retreat mechanized mining method which suits the subvertical nature of the orebody. Mining at Larkin will also utilise the same mining method.

In situ rib and sill pillars are left at geotechnically specified positions, with sill pillars typically at 75 m vertical intervals. An isometric view of the stopes captured in the gold Mineral Reserves is shown in Figure 16-1.

Figure 16-1 Beta Hunt Underground plan looking east



16.2 UNDERGROUND INFRASTRUCTURE

The mine is accessed by portals and a series of declines throughout the mine. The declines are typically 5.5 mW x 5.8 mH, with a standard ore drive size of 5.0 mW x 5.0 mH. Lateral development profiles are well matched to the mobile fleet. Ore is hauled from the underground to surface via the decline where it is then transported via a separate surface haulage fleet to the processing facility.

As an established mine, key infrastructure such as underground communications, electrical reticulation, pumping and ventilation are already set up. Most of the primary development is interconnected for ventilation and ease of access.

There is a radio communications system throughout the mine. Electrical power is available via mains power to site and is distributed throughout the mine at 11 kV. The 11 kV power is transformed to 1 kV for use as required for the mine equipment. The primary pumping system is established at Beta Hunt and services the relatively dry mine workings. A secondary network of pumps then removes water from work areas back to the primary pumping system to be removed and reused in the mine or discharged to surface.

The ventilation network currently supplies 300 m³/s of fresh air to the underground, with capacity to increase to 430 m³/s. The primary ventilation system is comprised of a combination of a decline intake and underground exhaust fans via an exhaust raisebore to surface. Auxiliary fans then provide secondary ventilation to active work areas.

Equipment is maintained and serviced at a surface workshop.

16.3 MINING METHODS

The primary mining method used at Beta Hunt is top down, mechanised long hole retreat. Current stope design dimensions are typically 25 m high, vary in width from 5.0 m to 25 m and up to 50 m on strike. In situ rib and sill pillars are left at geotechnically specified positions, with sill pillars typically left at 75 m vertical intervals. Waste is used to backfill voids where possible. No other methods of backfilling stopes is employed in the mine plan.

The typical stope ore cycle post ore drive development is:

- Drilling of blast holes using a longhole drilling rig;
- Charging and firing of blast holes;
- Boggging of ore from the stope using conventional and tele-remote loading techniques;
- Loading of trucks with a load-haul-dump (“LHD”) loader;
- Trucks haul ore to surface via the portal; and
- Surface trucks haul ore to the processing facility.

Generally, the ground conditions at Beta Hunt are good with the gold mineralisation located within the Lunnon Basalt unit. The site has an extensive history of mining performance and has developed guidelines to respond to local conditions. A ground control management plan is in place on site and is used in mine planning, mine development, and production.

Lateral development drives are excavated using mechanised twin boom jumbos, with vertical development excavated using a raisebore drill rig.

16.4 HYDROLOGY

Surface hydrology of the Beta Hunt area is dominated by the Lake Lefroy salt lake. The lake is subject to occasional inundation from rainfall and associated runoff. Surface water is hyper-saline, with salinity of up to 450 g/L. Groundwater within aquifers is also hyper-saline, though with lower salinity in the range of 250 g/L to 350 g/L. Groundwater is used for service water, with excess being pumped to Lake Lefroy. No treatment is necessary as the surface water (when present) has higher salinity, and is otherwise chemically similar to the discharge.

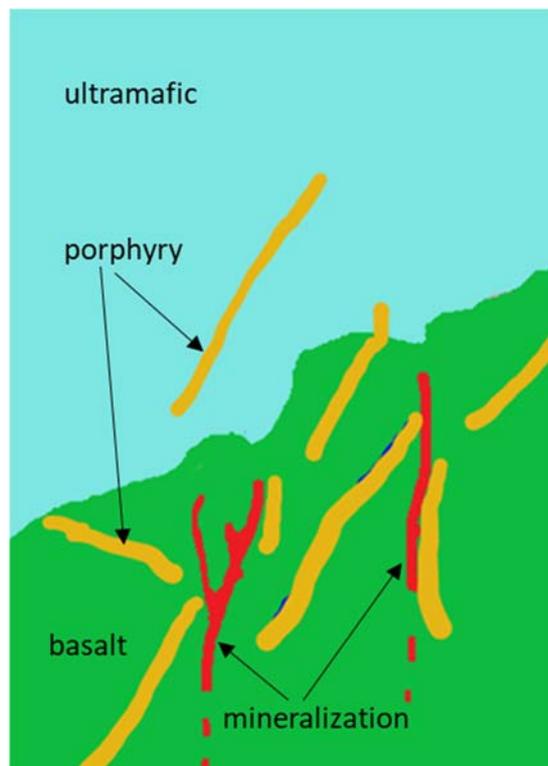
16.5 GEOTECHNICAL

The generalized lithological package for all styles of mineralization at Beta Hunt comprises the following:

- Basalt; containing the steeply dipping mineralised surfaces.
- Intermediate porphyry;
- Felsic porphyry;
- The mineralized horizon, comprising massive and disseminated sulphides; and
- Ultramafic rocks situated above the basalt.

Figure 16-2 provides an idealised view of the relationship between the major lithologies.

Figure 16-2 Major lithologies



Geotechnical logging and laboratory testing on these various lithologies was performed by WMC, with results as summarised in Table 16-1.

Table 16-1 Rock properties

Lithology	Logging	Laboratory			
	RQD	UCS (MPa)	UTS (MPa)	Young's (GPa)	Poisson's Ratio
Basalt	100	203	27	81	0.26
Intermediate Porphyry	90	115	16	58	0.21
Felsic Porphyry	90	252	21	64	0.26
Mineralisation	100	118	11	55	0.32
Ultramafic	95	83	8	52	0.37

These results indicate that all Beta Hunt lithologies are competent, if somewhat brittle. The risk of bursting is mitigated by a stress regime where the maximum principal stress is on the lower end of that reported regionally, with the principal stress being parallel to the strike of the gold mineralisation.

Waste development excavations are predominantly located in the footwall basalt, which is the most competent lithology. The backs of all waste development are arched to improve stability. Development headings are primarily supported with 2.4 m long galvanized rock bolts, typically installed on a 1.4 m by 1.1 m pattern and supplemented with wire mesh.

16.6 MINE DESIGN PARAMETERS

As an operating mine, the mine planning and design process is well established and effectively executed at Beta Hunt. Geological block models are produced and are the basis for preliminary development and stope design. As development and infill drilling are completed these geological models are updated and development and stope designs are updated to reflect the increased local information.

The stope and development designs undergo a site approvals process prior to mining. This considers a range of aspects such as development, mining method, ventilation, ground support, drill and blast, and geotechnical considerations. As part of the approvals process, designs are reviewed for:

- Stope geometry and shape;
- Geotechnical stability assessment;
- Local ground conditions;
- Consideration and allowance for planned and unplanned dilution;
- Mining recovery factors;
- Any hydrological impact;
- Historical stope performance in the area;
- Historical stope performance for similar conditions; and
- Presence of adjacent voids or filled stopes.

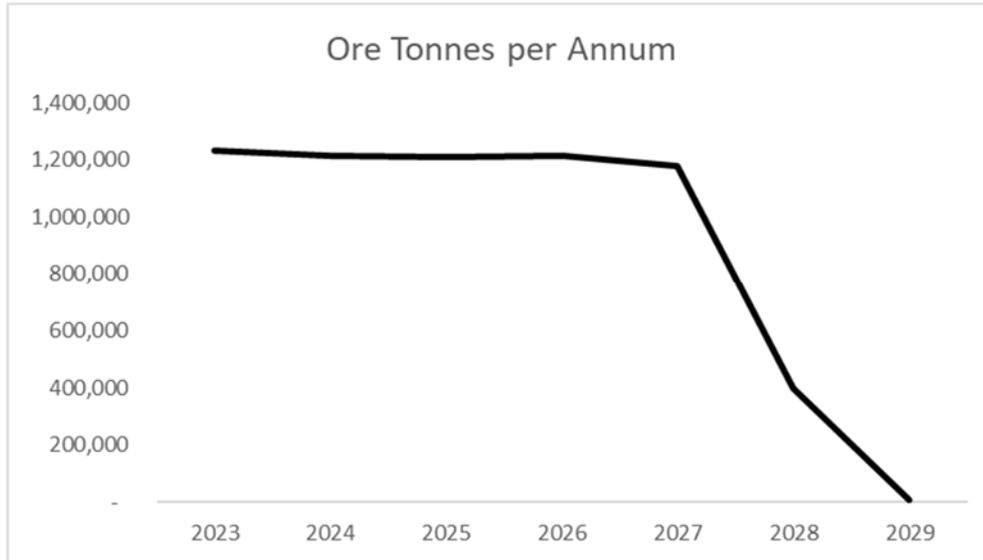
16.7 MINE SCHEDULING

The mining schedule for the life-of-mine (“LOM”) plan is generated using Deswik mine planning software. Once the development and stope designs are produced, they are evaluated in Deswik against the geological block model. Development and stope shapes are then reviewed and included in the schedule if they are economic to mine. All activities that make up the stoping cycle, such as production drilling, charging, and bogging, are added into the mine schedule. The development and stoping activities are then linked in a logical extraction sequence which considers mining practicality, geotechnical, and productivity constraints. Each task has an equipment resource applied to it, with schedule productivities based on current site performance and parameters appropriate to the equipment being used.

Site performance has ramped up recently to 100 kt/month, made possible with an increase to the mining fleet size. Karora is targeting a 100 kt/month production rate which is underpinned by the 2022 Mineral Reserve Estimate.

The current mine life extends to 2029. The annual production profile is shown in Figure 16-3.

Figure 16-3 Ore tonnes hoisted by annum (2022 excluded)



16.8 MOBILE EQUIPMENT

The mine equipment at Beta Hunt is industry standard trackless underground diesel equipment constructed by reputed manufacturers and well suited to current site operations. The main underground fleet is shown in Table 16-2.

Table 16-2 Beta Hunt underground mobile equipment

Unit Description	Unit Quantity
Twin boom jumbo	3
Production drill	2
17 t LHD	6
14 t LHD	2
55 t Truck	1
60 t Truck	6
63 t truck	2
Integrated tool carrier	3

16.9 SITE LAYOUT

Beta Hunt is an operating mine with infrastructure already in place. Main elements of this infrastructure include:

- Ramp access to underground mine is via two portals.
- A surface workshop is used for major maintenance and routine services for the mobile equipment fleet.
- An underground workshop is available for minor maintenance of the mobile fleet. This is in the footwall side of the main decline in the East Alpha section. *Note that it is not in use at this stage; however, it can be re-activated if required.*
- The mine has recently installed a ventilation system that uses the declines and two smaller raises as intakes, with a single RAR measuring 4.2 m in diameter. The system has a capacity

to supply 430 m³/s, compared to the current airflow of 300 m³/s. Additional rises currently in development will enable an increase in ventilation volume.

- A dewatering system which includes six stage pumps that discharge, via a 100 mm line, into Lake Lefroy.
- Management and administration offices.

Utilities provided to the mine include:

- Electricity that is supplied by SIGMC; and
- Service water that is sourced from groundwater stored in what is effectively an aquifer created by the mined-out Silver Lake deposit. Storage tanks have been added to provide surge capacity.

Potable water is supplied by SIGMC and BHP. The Main Beta Hunt decline portal is shown in Figure 16-4, with Beta Hunt west portal and site layout shown in Figure 16-5.

Figure 16-4 Beta Hunt decline portal



Figure 16-5 West decline portal and surface layout



17 PROCESSING

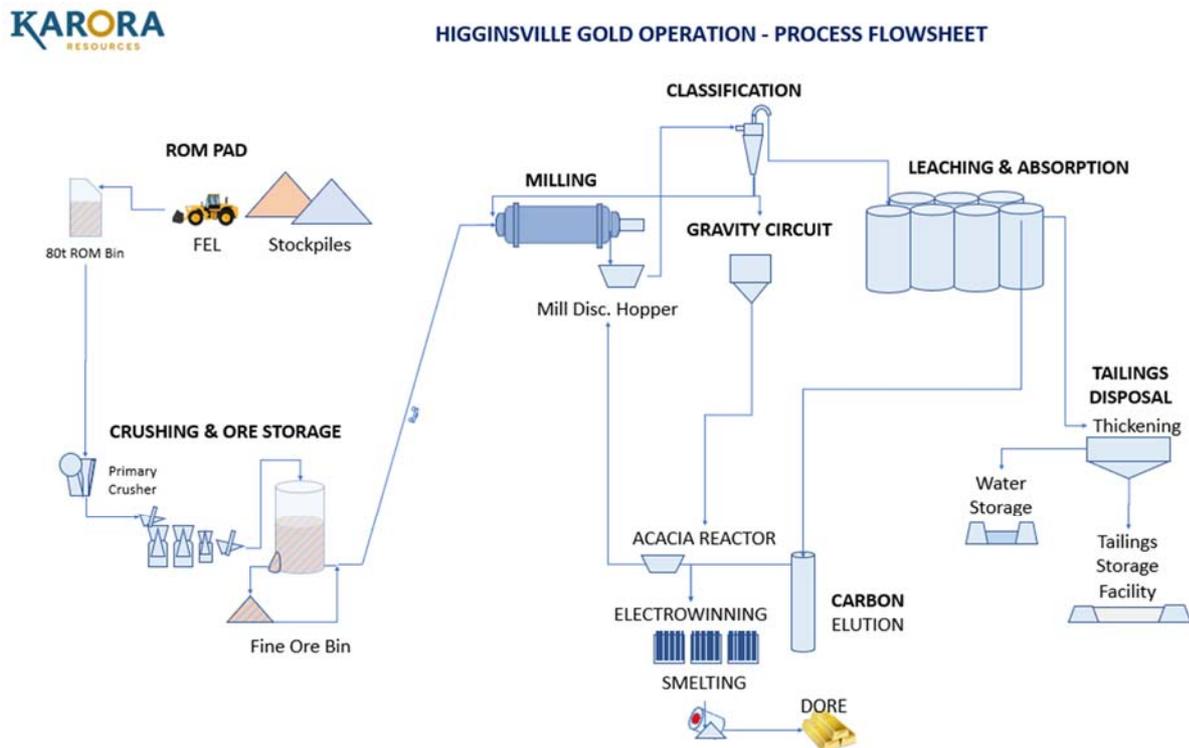
17.1 HIGGINSVILLE PROCESSING FACILITY

Karora treats gold mineralisation at its Higginsville 1.6 Mtpa conventional CIL processing plant, built by GR Engineering in 2007 and commissioned in 2008. The processing plant consists of an open circuit jaw crusher followed by closed circuit secondary and tertiary crushers, a fine ore bin, ball mill, gravity separation circuit, one leach tank, and six carbon adsorption tanks. A quaternary stage hard rock crushing circuit was incorporated in 2010.

The primary sections of the processing plant shown in Figure 17-1 that are currently in use are:

- Crushing and conveying;
- Ore storage and reclaim and grinding;
- Leaching and carbon adsorption;
- Carbon stripping, electrowinning, refining and carbon regeneration;
- Tailings deposition and storage;
- Reagent mixing and handling; and
- Plant services.

Figure 17-1 Higginsville process flowsheet 2020



17.1.1 Process Description

17.1.1.1 Crushing

Mill feed is trucked to the ROM pad from open pits in the immediate Higginsville area together with underground ore from the Beta Hunt Mine located 73 km to the north. The mill feed is classified and stockpiled according to gold grade to blend an optimal feed mix to the processing facility. Oversize mill feed is sorted from stockpiles and broken on the ROM pad using a loader or excavator. Any oversize that cannot pass through the primary crusher grizzly is broken by a rock breaker.

The crushing circuit has a nameplate capacity of 1.0 Mtpa and consists of four stages of crushing:

- A 36 x 48 Trio primary single-toggle jaw crusher;
- A 1.68 m Trio Turbocone TC66 (standard configuration) secondary cone crusher;
- A 1.68 m Trio Turbocone TC66 (short head configuration) tertiary cone crusher; and
- A 1.29 m Trio Turbocone T51 quaternary cone crusher.

In addition, there are separate surge bins that are operated in closed circuit with a 2.4 m wide by 7.3 m long Oreflow double deck vibrating screen.

Crushed material exits the product screen with a P80 of 10 mm and is stored in the fine ore bin. The fine ore bin has a live capacity of 1,500 t.

The crushing circuit contains one Ramsey belt scale (CV02) for measuring mass of circuit ore.

17.1.1.2 Grinding

Crushed mill feed is withdrawn from the fine ore bin via a belt feeder (CV05), which transfers the crushed product onto the mill feed conveyor (CV07) that feeds into the ball mill (ML01). Mill feed can also be fed via an emergency feeder, which is fed from the fine ore stockpile via FEL.

The grinding circuit consists of an overflow ball mill, hydro-cyclone cluster classifier and gravity recovery circuit. The ball mill is a LMMP/CITIC-HMC 4.90 m diameter by 6.77 m effective grinding length ("EGL") overflow ball mill.

The crushed mill feed is conveyed to the ball mill feed chute and combined with process water and recirculating cyclone underflow slurry. The ball mill operates in closed circuit with the mill discharge slurry classified by a cluster of hydro-cyclones.

Oversize ore particles and reject grinding balls are rejected from the ball mill discharge slurry by a 16 mm aperture trommel screen connected to the discharge trunnion of the mill. The oversize material (mill scats) is removed from the circuit to protect the cyclone feed slurry pumps and reduce wear rate on cyclone liners and the slurry handling equipment. Mill scats are rejected to a scats bin for removal by wheel loader.

Slurry from the grinding and classification circuit is passed over a trash screen to ensure that no oversize particles enter the leaching circuit and to remove plastic and other containments from the slurry. The trash screen is a 1.5 m wide by 3.6 m long horizontal vibrating screen with an aperture size of 0.80 mm. Undersize from the trash screen is directed to the leach feed distributor ahead of the 1,000 m³ leach tank.

17.1.1.3 Gravity and Intensive Cyanidation

A gravity separation circuit is included in the design to enhance the recovery of gold that concentrates in the hydro-cyclone underflow stream.

A 100 t/h bleed of the hydro-cyclone underflow stream is delivered to the gravity feed screen for classification. The gravity feed screen is a 1.2 m wide by 2.4 m long horizontal vibrating screen with an aperture size of 3.25 mm.

Oversize from this screen will return to the ball mill feed chute for further grinding. Undersize material will report to a centrifugal concentrator to extract the gold. The gravity concentrator is a XD40 Knelson Concentrator.

The resulting concentrate from this process will then be subject to intensive cyanidation in a CS1000DM ConSep Acacia dissolution module to recover the gold. Pregnant solution from the intensive cyanidation process is pumped to the gold room for electrowinning in a CS1000EW ConSep electrowinning module.

17.1.1.4 Leaching and Adsorption

The leach and adsorption circuit consists of one 1,000 m³ leach tank and six CIL carbon adsorption tanks, all with a 1,000 m³ capacity.

All tanks are mechanically agitated with dual, open, down-pumping impellor systems powered by 55 kW drives. Facilities are currently available to inject oxygen into tanks #1, #2 and #3 with a high shear oxygen injector pump recirculating into Tank #1.

Leach tank 1 is used as the initial oxidation (oxygen sparged) tank and for the initial dosing of cyanide. Slurry flows from this tank into the carbon adsorption circuit.

Gold that is dissolved into the cyanide leach solution is recovered and concentrated by adsorption onto activated carbon (Haycarb) in the adsorption tanks.

Cyanide solution at 30% strength by weight is added to the leach tank feed distributor box and/or the first CIL tank via a flow meter and automatic control valve. The design leaching residence time is 5 hours.

Discharge from the leach tank will overflow into the first of six 1,000 m³ CIL tanks (tanks 2 to 7) which have an average effective working volume of 984 m³ each. The combined adsorption residence time is 30 hours.

In the CIL tanks, the carbon is advanced counter-current to the slurry flow, with new and regenerated carbon added to the last tank and advanced to the first tank while the slurry flows from tank one to tank six. Loaded carbon is pumped from adsorption tank one to the gold room elution circuit periodically for stripping of the gold.

The target pH in the leach circuit is 8.6, and the target cyanide concentrations up to 300 ppm. An on-line free cyanide analyser is used to control the cyanide addition. Cyanide can be added to tank one and tank three. Dissolved oxygen probes are installed in tanks one and two.

17.1.1.5 Carbon Stripping, Electro-Winning, Refining, and Carbon Regeneration

Gold is recovered from the loaded carbon by a Pressure Zadra electro-winning circuit. Gold is deposited onto steel wool cathodes by the electro-winning cells. The cathodes are subsequently washed to remove the gold concentrate which is then dried and smelted in the gold room barring furnace to produce gold bullion for shipment.

The gold from the gravity circuit is leached in the Acacia reactor, and it is then electroplated by the Acacia electrowinning circuit onto steel wool cathodes in the Acacia cell. The gold is recovered and smelted in a similar manner to the gold produced by the Pressure Zadra circuit.

Barren carbon is reactivated using a liquified natural gas (“LNG”) fired horizontal kiln at around 700°C prior to being returned to the adsorption circuit for reuse.

17.1.1.6 Tailings Disposal

Slurry from the last CIL tank flows by gravity to the feed box of the tailings screen. The tailings screen is a 1.5 m wide by 3.6 m long horizontal vibrating screen with an aperture size of 0.8 mm. The screen undersize will flow by gravity to be directed to either the tailings thickener, or allowed to bypass the thickener and report directly to the tailings pump hopper.

The screen oversize (trash and carbon fines) is collected and stored in a self-draining carbon fines bin located at ground level.

Plant tailings slurry is pumped through a polyethylene pipeline to the tailings storage facility. Pressure and flow in the lines is monitored on the Citect system to detect high pressures that result from line obstructions, or sanding, or low pressure resulting from possible pipe failures.

17.1.1.7 Plant Services

All necessary plant services are available to support the operation of the Higginsville Processing Facility. Raw water is sourced from the main production source at the disused Chalice open pit 16 km to the west.

Process water is stored for use in a 5,000 m³ process water dam. Process water is made up of raw water from the Chalice production source and tailings return water. Incoming raw water from Chalice reports to the disused Aphrodite pit before it is pumped to the site raw water dam of 2,000 m³ capacity.

Potable water is sourced via accessing the WA Water Corporation supply line from Kalgoorlie to Norseman. Potable water is utilised in the process plant, administration building, workshop, stores, main camp, and mining offices.

High pressure air is provided at a nominal pressure of 650 kPa.

Power is generated in the diesel power station at 11 kV and distributed to various plant, the disused Trident mine area and the camp.

17.1.2 Plant Performance

The Higginsville Processing Facility has been in operation since 2008 with historical throughput vs recoveries for the past two years shown in Figure 17-2.

Recoveries have ranged from 84.6% to 94% since June 2019, with the average recovery over the 18-month period at 92%.

Figure 17-2 Higginsville – process recoveries vs plant throughput

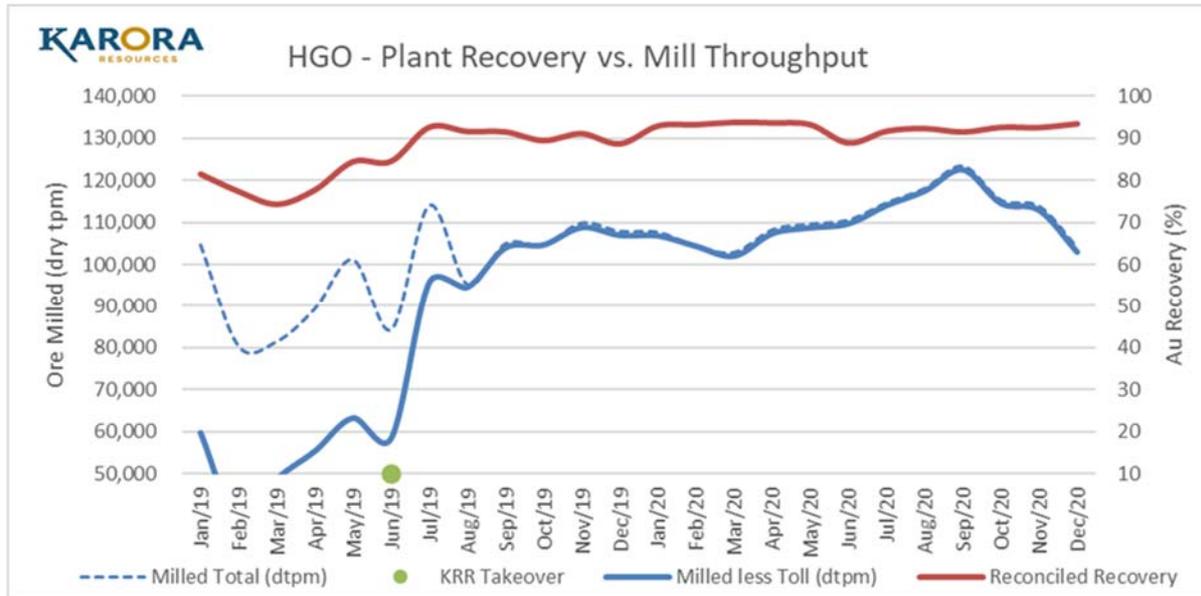
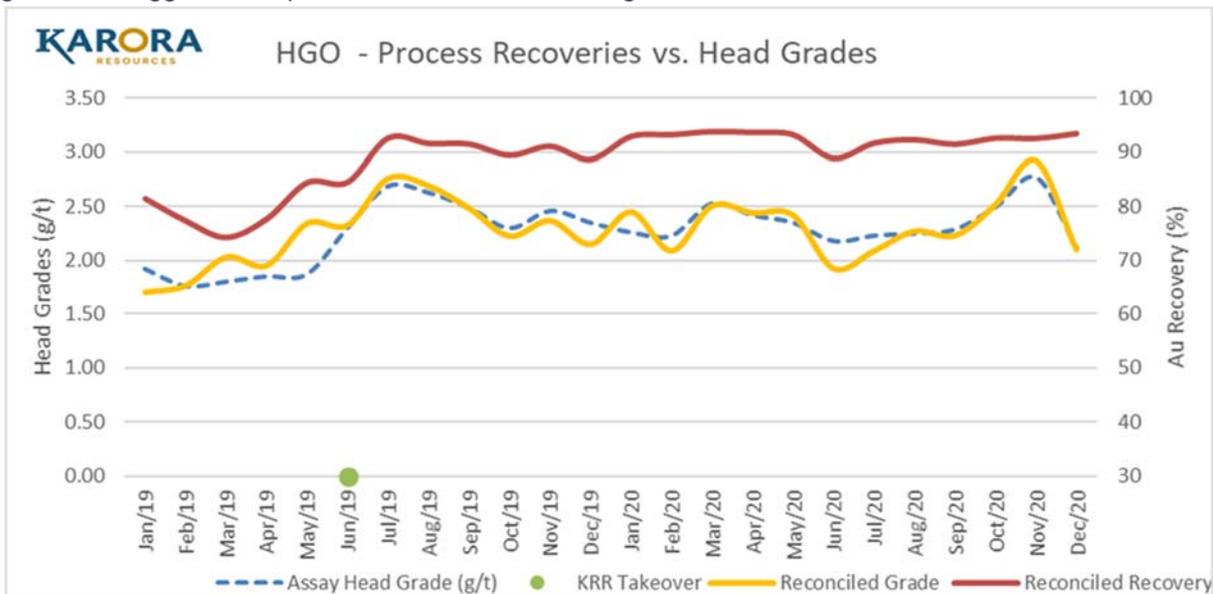


Figure 17-3 shows the historical processing recoveries against the calculated/reconciled and assayed head grades, showing that there is no obvious correlation between head grade and recovery. The calculated and assayed head grades are in good agreement and have ranged from 1.92 g/t Au to 2.92 g/t Au during the observed period, with an average head grade of 2.36 g/t Au.

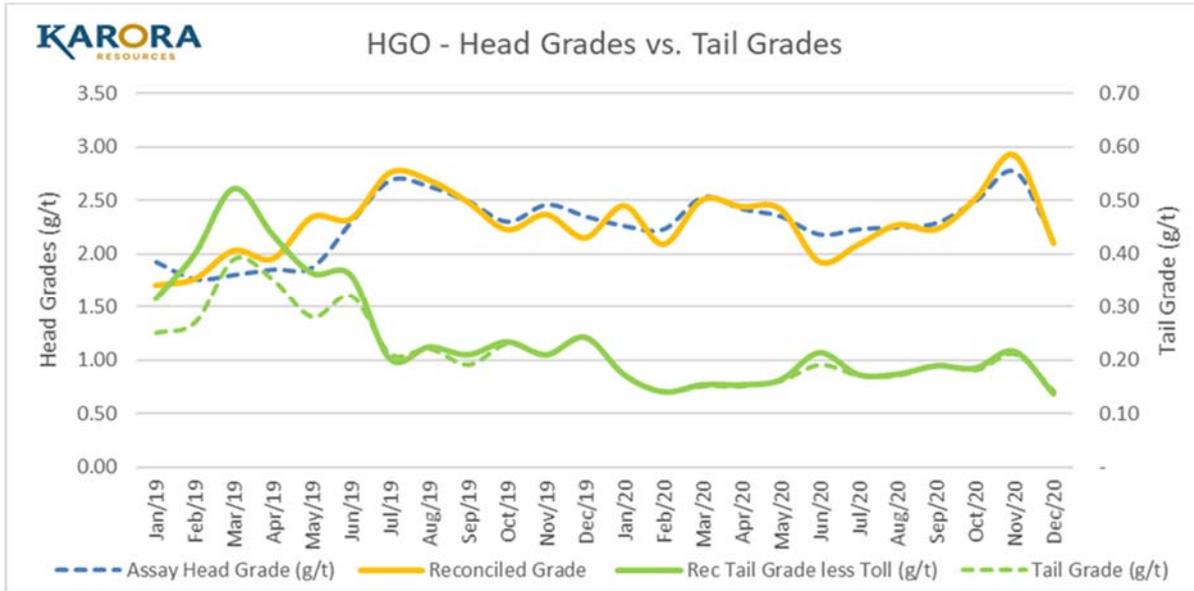
The tails grade during the same period of time has ranged from 0.14 g/t Au to 0.36 g/t Au, with an average tail grade of 0.19 g/t Au.

Figure 17-3 Higginsville – process recoveries vs head grade



As expected, and as shown in Figure 17-4, there is a correlation between the head grade and the tails grade discharge from the mill to the TSF.

Figure 17-4 Higginsville – head grades vs tail grades



17.2 LAKEWOOD GOLD PROCESSING FACILITY

Karora treats gold mineralisation at its Lakewood 1.0 Mtpa conventional CIL processing plant. The processing plant consists of contract crushing, ball mill, gravity separation circuit, one leach tank, and six carbon adsorption tanks.

The primary sections of the processing plant that are currently in use are:

- Crushing and conveying;
- Ore storage and reclaim and grinding;
- Leaching and carbon adsorption;
- Carbon stripping, electrowinning, refining and carbon regeneration;
- Tailings deposition and storage;
- Reagent mixing and handling; and
- Plant services.

17.2.1 Process Description

17.2.1.1 Crushing

Mill feed is trucked to the ROM pad with underground ore from the Beta Hunt Mine located 56 km to the south. The mill feed is classified and stockpiled according to gold grade and is not typically blended. Oversize mill feed is sorted from stockpiles and broken on the ROM pad using a loader or excavator. Any oversize that cannot pass through the primary crusher grizzly is broken by a rock breaker.

The crushing is provided by a contract crushing provider who uses a variety of mobile crushing equipment, including jaw and cone crushers plus screens, to achieve a final crushed product with a P80 of 10 mm. This product is then stockpiled by a radial stacker onto the ground.

The crushing circuit contains one Ramsey belt scale (CV02) for measuring mass of circuit ore.

17.2.1.2 Grinding

Crushed mill feed is fed by a loader via a belt feeder, which transfers the crushed product onto the mill feed conveyor (CV04) that feeds into the ball mill (ML01).

The grinding circuit consists of a grate discharge ball mill, hydro-cyclone cluster classifier and gravity recovery circuit.

The crushed mill feed is conveyed to the ball mill feed chute and combined with process water and recirculating cyclone underflow slurry. The ball mill operates in closed circuit with the mill discharge slurry classified by a cluster of hydro-cyclones.

Oversize ore particles and reject grinding balls are rejected from the ball mill discharge slurry by a 16 mm aperture trommel screen connected to the discharge trunnion of the mill. The oversize material (mill scats) is removed from the circuit to protect the cyclone feed slurry pumps and reduce wear rate on cyclone liners and the slurry handling equipment. Mill scats are rejected to a scats bin for removal by wheel loader.

Slurry from the grinding and classification circuit is passed over a trash screen to ensure that no oversize particles enter the leaching circuit and to remove plastic and other containments from the slurry. The trash screen is 1.5 m wide by 3.6 m long horizontal vibrating screen with an aperture size of 0.80 mm. Undersize from the trash screen is directed to the leach feed distributor ahead of the 1,546 m³ leach tank.

17.2.1.3 Gravity and Intensive Cyanidation

A gravity separation circuit is included in the design to enhance the recovery of gold that concentrates in the hydro-cyclone underflow stream.

The hydro-cyclone underflow stream is delivered to two gravity feed screens for classification. The gravity feed screen panels have an aperture size of 3.25 mm.

Oversize from these screens returns to the cyclone feed hopper for reintroduction back into the milling circuit. Undersize material will report to two centrifugal concentrators to extract the gold. The gravity concentrators are two XD30 Knelson Concentrator, which are always in operation.

The resulting concentrate from this process will then be subject to intensive cyanidation in a CS1000DM ConSep Acacia dissolution module to recover the gold. Pregnant solution from the intensive cyanidation process is pumped to the gold room for electrowinning in a CS1000EW ConSep electrowinning module.

17.2.1.4 Leaching and Adsorption

The leach and adsorption circuit consists of one 1,546 m³ leach tank and seven CIL carbon adsorption tanks, with total 2,337 m³ capacity.

All tanks are mechanically agitated with dual, open, down-pumping impellor systems powered by 55 kW drives. Facilities are currently available to inject oxygen into tanks #1, #2 and #3 with a high shear oxygen injector pump recirculating into Tank #1.

Leach tank 1 is used as the initial oxidation (oxygen shear pump) tank, and for the initial dosing of cyanide. Slurry flows from this tank into the carbon adsorption circuit.

Gold that is dissolved into the cyanide leach solution is recovered and concentrated by adsorption onto activated carbon (Haycarb) in the adsorption tanks.

Cyanide solution at 30% strength by weight is added to the leach tank feed distributor box and/or the first CIL tank via a flow meter and automatic control valve. The design leaching residence time is 12.8 hours.

Discharge from the leach tank will overflow into the first of seven CIL tanks (tanks 11 to 17) which the combined adsorption residence time is 20 hours.

In the CIL tanks, the carbon is advanced counter-current to the slurry flow, with new and regenerated carbon added to the last tank and advanced to the first tank while the slurry flows from tank 11 to tank 17. Loaded carbon is pumped from adsorption tank 11 to the gold room elution circuit periodically for stripping of the gold.

The target pH in the leach circuit is 8.6 and the target cyanide concentrations up to 300 ppm. Cyanide can be added to tank 1 and tank 3.

17.2.1.5 Carbon Stripping, Electro-Winning, Refining, and Carbon Regeneration

Gold is recovered from the loaded carbon by a Pressure Zadra electro-winning circuit. Gold is deposited onto steel wool cathodes by the electro-winning cells. The cathodes are subsequently washed to remove the gold concentrate, which is then dried and smelted in the gold room barring furnace to produce gold bullion for shipment.

The gold from the gravity circuit is leached in the Acacia reactor, and it is then electroplated by the Acacia electrowinning circuit onto steel wool cathodes in the Acacia cell. The gold is recovered and smelted in a similar manner to the gold produced by the Pressure Zadra circuit.

Barren carbon is reactivated using a LNG fired horizontal kiln at around 700°C prior to being returned to the adsorption circuit for reuse.

17.2.1.6 Tailings Disposal

Slurry from the last CIL tank flows by gravity to the feed box of the tailings screen. The tailings screen is a 1.5 m wide by 3.6 m long horizontal vibrating screen with an aperture size of 0.8 mm. The screen undersize will flow by gravity and report directly to the tailings pump hopper.

The screen oversize (trash and carbon fines) is collected and stored in a self-draining carbon fines bin located at ground level.

Plant tailings slurry is pumped through a polyethylene pipeline to the TSF. Pressure and flow in the lines is monitored on the Citect system to detect high pressures that result from line obstructions, or sanding, or low pressure resulting from possible pipe failures.

17.2.1.7 Plant Services

All necessary plant services are available to support the operation of the Lakewood Processing Facility. Raw water is sourced from Kalgoorlie, delivered by truck, for use where clean water is required in the process.

Process water is stored for use in the process water tanks. Process water is made up of bore water, tailings return water from Lakewood, and offtake from Northern Stars KCGM operation.

Potable water is sourced from the WA Water Corporation in Kalgoorlie and is trucked in. The potable water is utilised in the process plant, administration building, workshop, and stores.

High pressure air is provided at a nominal pressure of 650 kPa.

Power is drawn from the local power grid.

18 PROJECT INFRASTRUCTURE

18.1 BETA HUNT

Beta Hunt is an operating mine with all required infrastructure already in place. Main elements of this infrastructure include:

- Normal infrastructure associated with a ramp access underground mine, including the portal, a decline ramp measuring 5.0 m x 5.5 m, the trackless mining fleet (described in Section 16.8) and refuge stations.
- A surface workshop used for major maintenance and weekly services for the mobile equipment fleet.
- An underground workshop is available for minor maintenance of the mobile fleet. This is located in the footwall side of the main decline in the East Alpha section.
- A ventilation system that uses the decline and two smaller raises as intakes, with a single RAP measuring 4.2 m in diameter (Figure 18-1). The system has a capacity to supply 300 m³/s, compared to the current airflow of 216 m³/s.
- A dewatering system which includes six stage pumps that discharge, via a 100 mm line, into Lake Lefroy.
- The management and administration offices, which are portable buildings that will be easy to de-commission at closure (Figure 18-2).

Utilities provided to the mine include:

- Electricity is supplied by SIGMC at a cost of A\$0.23/kWh.
- Service water is sourced from ground water stored in what is effectively an aquifer created by the mined out Silver Lake deposit. Storage tanks have been added to provide surge capacity.
- Potable water is supplied by SIGMC and BHP.

Figure 18-1 Beta Hunt return air fan and secondary escapeway

Source: Karora



Figure 18-2 Beta Hunt management and administration offices

Source: Karora



18.2 HIGGINSVILLE GOLD PROCESSING FACILITY

The Higginsville operation is a well-established mine which has services and infrastructure consistent with an isolated area operating mine.

Infrastructure specific and available to the GPF include:

- 1.6 Mtpa processing plant and supporting infrastructure;
- Power station;
- Gatehouse;
- Medical facilities;
- Accommodation village;
- Administration block and training buildings;
- Fuel storage and dispensing facility;
- Waste water treatment plant; and
- Water storage and distribution and tailings facilities.

18.2.1 Utilities

Electricity is generated on-site by means of a diesel-powered generating station (eight primary units, with an additional unit (850 kW each) providing standby when servicing is required). Supply is reticulated to all the site buildings, services, camp and processing plant.

Figure 18-3 HGO powerhouse



Figure 18-4 HGO underground workshop



Potable water is sourced via accessing the WA Water Corporation supply line from Kalgoorlie to Norseman.

18.2.2 Disposal and Drainage

Both domestic and industrial waste is disposed of by burial at the Higginsville landfill site located on the Barminco waste dump.

Sewage disposal from the camp, main administration building and the processing plant ablutions is via a sewage pumping system and a Waste Water Treatment Plant located to the north of the processing facility.

All used oils, greases, and lubricants are collected and removed from site for recycling or disposal. Waste oil from mobile and fixed equipment is stored on site within existing bunded storage areas. Oil is transported to an oil recycling facility based in Perth on a regular basis. Any oil-contaminated ground is treated on site using existing bio-remediation treatment facilities.

18.2.3 Buildings and Facilities

All infrastructure required for mineral processing is in place and operational, including offices, workshops, first aid/emergency response facilities, stores, water and power supply, ROM pad, and site roads (Figure 18-5 and Figure 18-6).

Figure 18-5 HGO LV workshops



Figure 18-6 HGO Processing Facility & workshop/store



Higginsville operates primarily as a FIFO operation and maintains a camp on site for the employees and contractors. A small number of employees drive in/out from Esperance, Kambalda and Kalgoorlie.

The camp has a room capacity for 240+ persons, and includes wet and dry mess facilities, a recreational gymnasium, and entertainment room.

18.2.4 Communications

The mine site has a communication network of landline and mobile telephones within the Administration, camp and Processing Plant areas and licensed UHF radio repeaters within the Main Pit mining areas. Outside these areas, communication is by means of radio or satellite phone only.

18.2.5 Tailings Storage

Higginsville has several approved sites for the deposition of tailings, including four paddock-style TSFs 1–4, Aphrodite in-pit, Fairplay in-pit and Vine in-pit TSFs. The TSF 2–4 supercell, constructed on TSF 2, TSF 3 and TSF 4 is the current location for tailings deposition.

Both the Aphrodite and Fairplay in-pit TSFs and TSF 1 have reached full capacity. The Vine in-pit TSF is close to capacity and is reserved for tailings storage during construction periods of future TSF 2–4 stage raises.

For TSF 2–4, a further two stage raises of a height of 2.5 m will provide tailings storage capacity for another 2.5 years.

Karora is currently undertaking prefeasibility studies for TSF 5 at Higginsville. It is expected Karora will make a decision on the location for the next tailings storage facility within the next six months.

18.3 LAKEWOOD GOLD PROCESSING FACILITY

The Lakewood GPF operation is a well-established mine which has services and infrastructure consistent with an isolated area operating mine.

Key infrastructure includes:

- 1.0 Mtpa processing plant and supporting infrastructure;
- Administration block and training buildings;
- Contractors crushing facilities;
- Maintenance workshop and stores;
- Fuel storage and dispensing facility;
- Muster/crib room and ablutions; and
- Tailings storage facilities.

18.3.1 Utilities

Electricity is mains powered connected to the Southwest Interconnected System.

Water requirements for dust suppression and road maintenance are sourced from borefields located on Lakewood tenements.

18.3.2 Tailings Storage

Karora just completed TSF 1 lift at Lakewood known as Stage 7. There are another three stage lifts approved for TSF 1.

Karora will commence construction of TSF 2 at Lakewood by June 2023 and is expected to take 12 months for completion. Tailings deposition will be alternated between TSF 1 and TSF 2. The approved tailings storage capacity for Lakewood provides another approximate five years of storage.

19 MARKET STUDIES AND CONTRACTS

19.1 MARKET STUDIES

The following discussion of gold and nickel markets is provided as background to cut-off grade calculations used in this market study.

19.1.1 Gold Market

Mined gold production totaled 3,611.9 t in 2022, up slightly from 3,568.9 t in 2021. Net producer de-hedging of -1.5 t, plus recycled gold of 1,144.1 t in 2022, brought the total gold supply to 4,754.5 t, 72.1 t higher than 2021.

The demand side totaled 4,740.7 t of gold in 2022, resulting in a small surplus of 13.8 t of gold for the year. Jewelry fabrication and technology applications totaled 2,441.5 t of demand, while investment, central banks and other institutions' net purchases of 2,242.5 t made up the balance of demand in 2022 (Table 19-1).

Table 19-1 Gold market supply – demand balance

Source: World Gold Council

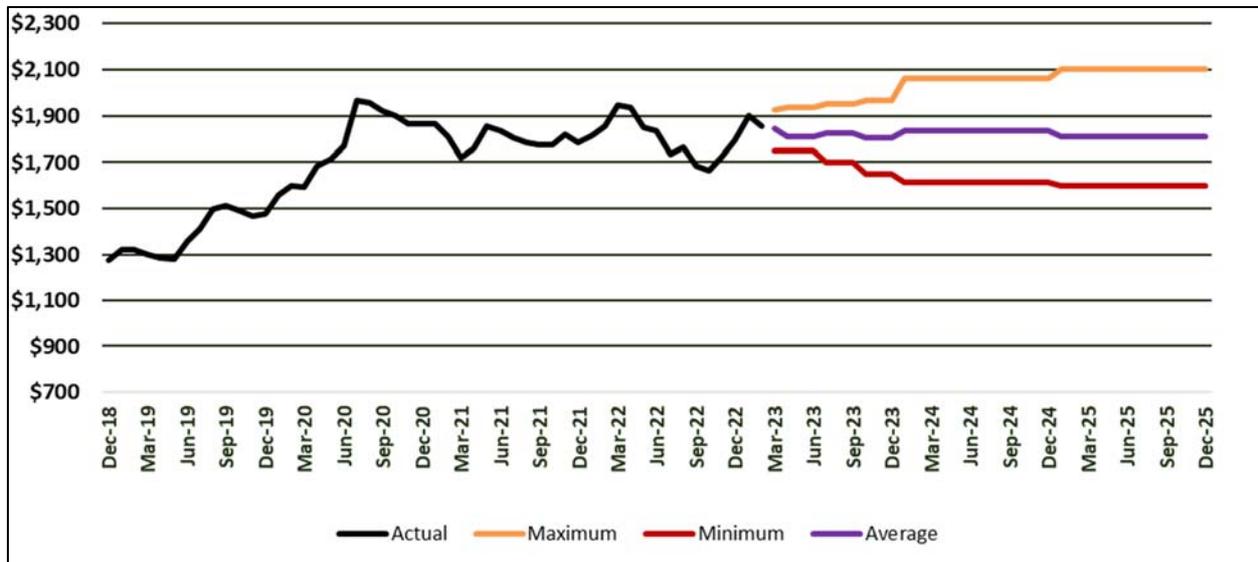
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Supply										
Mine production	3,166.8	3,270.5	3,361.3	3,509.6	3,573.1	3,655.3	3,594.5	3,472.4	3,568.9	3,611.9
Net producer hedging	-27.9	104.9	12.9	37.6	-25.5	-11.6	6.2	-39.1	-22.7	-1.5
Recycled gold	1,195.3	1,129.6	1,067.1	1,232.1	1,112.4	1,131.7	1,275.7	1,293.1	1,136.2	1,144.1
Total supply	4,334.1	4,505.0	4,441.3	4,779.3	4,660.0	4,775.3	4,876.3	4,726.4	4,682.4	4,754.5
Demand										
Jewellery fabrication	2,735.3	2,544.4	2,479.2	2,018.8	2,257.5	2,290.0	2,152.1	1,324.0	2,230.6	2,189.8
Technology	355.8	348.4	331.7	323.0	332.6	334.8	326.0	302.8	330.2	308.5
Investment	797.7	900.7	967.0	1,614.2	1,315.0	1,164.0	1,271.1	1,796.3	1,001.9	1,106.8
Central banks & other inst.	629.5	601.1	579.6	394.9	378.6	656.2	605.4	254.9	450.1	1,135.7
Gold demand	4,518.2	4,394.6	4,357.4	4,350.8	4,283.6	4,445.0	4,354.5	3,677.9	4,012.8	4,740.7
OTC and other	-184.1	110.4	83.8	428.5	376.4	330.3	521.8	1,048.5	669.6	13.8
Total demand	4,334.1	4,505.0	4,441.3	4,779.3	4,660.0	4,775.3	4,876.3	4,726.4	4,682.4	4,754.5
LBMA Gold Price (US\$/oz)	1411.23	1266.4	1160.06	1250.8	1257.15	1268.49	1392.6	1769.59	1798.61	1800.09

Figure 19-1 shows the monthly average price history for gold over the period December 2018 through February 2023. The price generally trended upward over the selected period from a low of US\$1,279/oz at the beginning of the period to a high of US\$1,965/oz in July 2020, ending the selected period at US\$1,854/oz. Over the period 2023 to 2025, consensus annual gold price estimates range from an average annual price of US\$1,840/oz in 2023, US\$1,837/oz in 2024 and US\$1,812/oz in 2025.

The forecast period out to 2025 was compiled by S&P Capital IQ and are based on an average of 33 analysts for FY 2023, 30 analysts for FY 2024 and 25 analysts for FY 2025.

Figure 19-1 Gold price history and consensus forecast (US\$/oz)

Source: S&P Capital IQ



19.1.2 Nickel Market

Global nickel consumption is forecast to increase by approximately 6% in 2022 to 3.02 Mt and, according to the Macquarie Group, is forecast to increase by an estimated average of 7.5% per year to 3.60 Mt in 2025. Both of the two main consumption sectors, stainless and non-stainless, are expected to grow in the future with the non-stainless sector being primarily driven by rapid growth in the use of nickel in lithium-ion batteries.

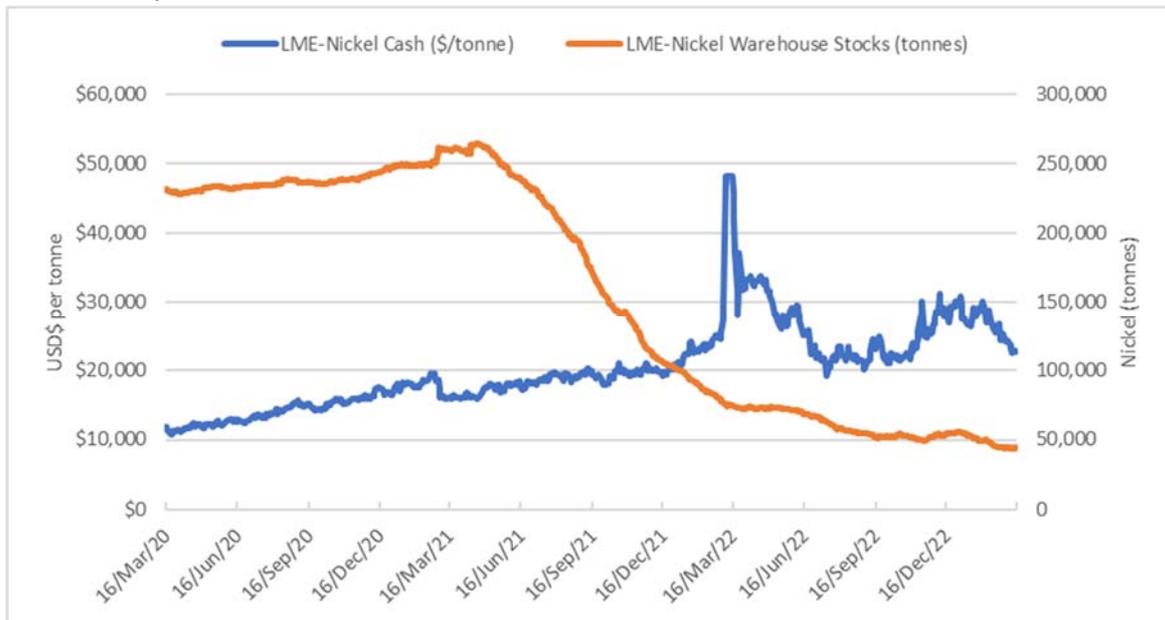
Currently, stainless steel makes up approximately 70% of total world nickel use. However, the fastest growing sector for nickel in recent years, and for the foreseeable future, is the use of nickel in lithium-ion batteries for the booming electric vehicle market.

Nickel use in all types of batteries was less than 200 ktpa in 2020 and has more than doubled to nearly 500 kt in 2022. The demand growth for nickel in batteries is expected to remain robust, largely driven by the electric vehicle market as nickel-rich battery chemistries gain market share compared to batteries with lower nickel content. Demand for nickel for batteries is expected to grow to approximately 1.5 Mtpa by 2030.

After two years of steady declines in London Metal Exchange (“LME”) nickel inventories, the global nickel market is expected to return to a small surplus position in 2023. Figure 19-2 shows market inventories increased in 2020 as market turmoil took hold. As nickel consumption strongly rebounded in 2021 and 2022, inventories once again began to decrease, placing upward pressure on prices.

Figure 19-2 LME Nickel Price and Inventory Levels

Source: S&P Capital IQ



19.2 CONTRACTS

Karora operates the mining activities as an owner-operator. The material contracts are those relating to the toll treatment of nickel ore and trucking.

19.2.1 Nickel Tolling

Nickel mineralisation processing is covered by the Ore Tolling and Concentrate Purchase Agreement (OTCPA) with BHP.

Material is blended with nickel ores from other mines, and the metallurgical recovery credited to Beta Hunt is based on the mineralization grade. The Kambalda Nickel Concentrator (KNC) is the delivery point for Beta Hunt ore under the OTCPA.

19.2.2 Trucking

Nickel ore is trucked approximately 5 km to KNC. Gold ore is trucked to Lakewood (56 km) and Higginsville (78 km) GPFs. All trucking uses a contracted haulage operator (KBD Haulage WA Pty Ltd).

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

Beta Hunt is an operating underground mine that is in possession of all required permits. Karora owns and operates Beta Hunt through a sub-lease agreement with SIGMC. The environmental permitting and compliance requirements for mining operations on the sub-lease tenements are the responsibility of Karora under the sub-lease arrangement, but ultimate responsibility remains with the primary tenement holder SIGMC. Beta Hunt is a small mine with a limited disturbance footprint, and the environmental impacts of the project are correspondingly modest. The information provided in respect to Beta Hunt set out in this chapter is based on information provided by Karora or sourced from publicly accessible sources and government databases.

HGO is a multi-deposit operating mine with a gold processing facility that is in possession of all required permits. Environmental permitting and compliance requirements for mining and processing is the responsibility of Karora. HGO covers over 1,900 km² and has a significant disturbance footprint including tailings storage facilities, an operating processing facility, open pits, underground mines, and haul roads.

Lakewood GPF is an operating gold processing plant that is in possession of all required permits for operations. Karora is responsible for the environmental permitting and compliance requirements for mineral processing. Karora recently obtained the necessary environmental approvals to build a new tailings storage facility (TSF 2) and increase the annual plant throughput capacity.

20.1 BETA HUNT

20.1.1 Environmental Studies

Beta Hunt is located within a developed mining camp that has been subject to many environmental studies throughout its history. Most recently, SIGMC completed The Beyond 2018 Project – Environmental Review Document (Gold Fields, 2018) which covered all SIGMC tenements. This Review also covered the Beta-Hunt sub-lease tenements and was produced by SIGMC in response to the framework set out in the Environmental Scoping Document (“ESD”) prepared by the Environmental Protection Authority (“EPA”) in October 2017. The objective of the Beyond 2018 Project is to ensure the continuation of mining activities, including those leases that make up the Beta Hunt sub-lease tenements, beyond 2018. Key findings of this and earlier studies are summarised in the following sub-sections.

20.1.1.1 Soils and Flora

Soils in the region are typically composed of weathered basalt mixed with gravels and wind-blown sands. Soils in the immediate project area have been heavily disturbed by prior mining activity and have been covered with crushed rock to provide stability for equipment and machinery. Soils in the adjacent lake embayment are saline sediments.

The predominant vegetation species is eucalyptus, which is a fast-growing tree that emits compounds inhibiting other species from growing near-by. Other species that have managed to overcome the effects of these compounds include those in the acacia, figwort, protea and soapberry families. No known declared rare flora or restricted flora occurs in the region.

The Beta Hunt sub-lease covers the Lefroy and Red Hill Land Systems detailed below:

- Lefroy: Salt lakes and fringing saline plains, sandy plains and dunes with chenopod low shrublands.
- Red Hill: Basalt hills and ridges supporting acacia shrublands and patchy eucalypt woodlands with mainly non-halophytic undershrubs.

20.1.1.2 Fauna

A wide range of fauna is indigenous to the area in which Beta Hunt is located. None of the species is restricted to the immediate local habitat type. Studies have found that the long history of mining has had little impact on the fauna of the area, with the reduction in both diversity and abundance being temporary (resulting from habitat removal), with a return of diversity and abundance following reclamation. As a result, operations at Beta Hunt are not expected to cause the loss of any species or populations.

20.1.2 Hydrology

Surface hydrology of the Beta Hunt area is dominated by the Lake Lefroy salt lake. The lake is subject to occasional inundation from rainfall and associated runoff. Surface water is hyper-saline, with salinity of up to 450 g/L.

Ground water within aquifers is also hyper-saline, though with lower salinity in the range of 250–350 g/L. As discussed in Section 17, groundwater is used for service water. Where possible, this water is recycled and reused to minimise discharge. Where discharge is necessary, the excess is pumped to Lake Lefroy. No treatment is necessary as the surface water (when present) has higher salinity than, and is otherwise chemically and physically similar to, the discharge.

20.1.3 Required Permits and Status

20.1.3.1 Permitting History

The Karora group acquired Beta Hunt from CNKO in December 2013. The mine was non-operational at this time, having been placed on care and maintenance in November 2008 in response to the financial crisis and associated collapse in nickel metal prices. Permits held by the mine remained valid, allowing Karora to the mine to re-start in April 2014. The proposed expansion at Beta Hunt to increase annual production required further environmental approvals. The mining proposal for the second portal at Beta Hunt was approved in January 2022.

Beta Hunt is located on tenements held by SIGMC and operated by Karora under a sub-lease agreement. Accordingly, most environmental permitting and compliance requirements for mining operations on the project tenements are the responsibility of the primary tenement holder, SIGMC.

20.1.3.2 Environmental Protection Act 1986

20.1.3.2.1 Part IV

Part IV of the *Environmental Protection Act 1986* (“EP Act”) applies to “environmentally significant proposals”. The term “environmentally significant” is not defined in the EP Act, and is instead described in the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2012*. The Beta Hunt operation has not been separately assessed under Part IV of the EP Act; however, discharges from Beta Hunt are recognised under Part IV assessments for SIGMC operations at Lake Lefroy (Figure 20-1).

Gold mining on Lake Lefroy was originally approved in July 2000 under Ministerial Statement 548. In 2011, an expansion of lake-based mining activities was assessed by the EPA (Assessment Number 1809, EPA Report 1411) and was approved under Ministerial Statement 879 in November

2011. The two Ministerial approvals were subsequently consolidated, and the Part IV approval is now entirely described in Ministerial Statement 548. The Ministerial approval for mining on Lake Lefroy is held by SIGMC. Accordingly, the implementation conditions contained in Ministerial approval 879 are not directly binding on Karora.

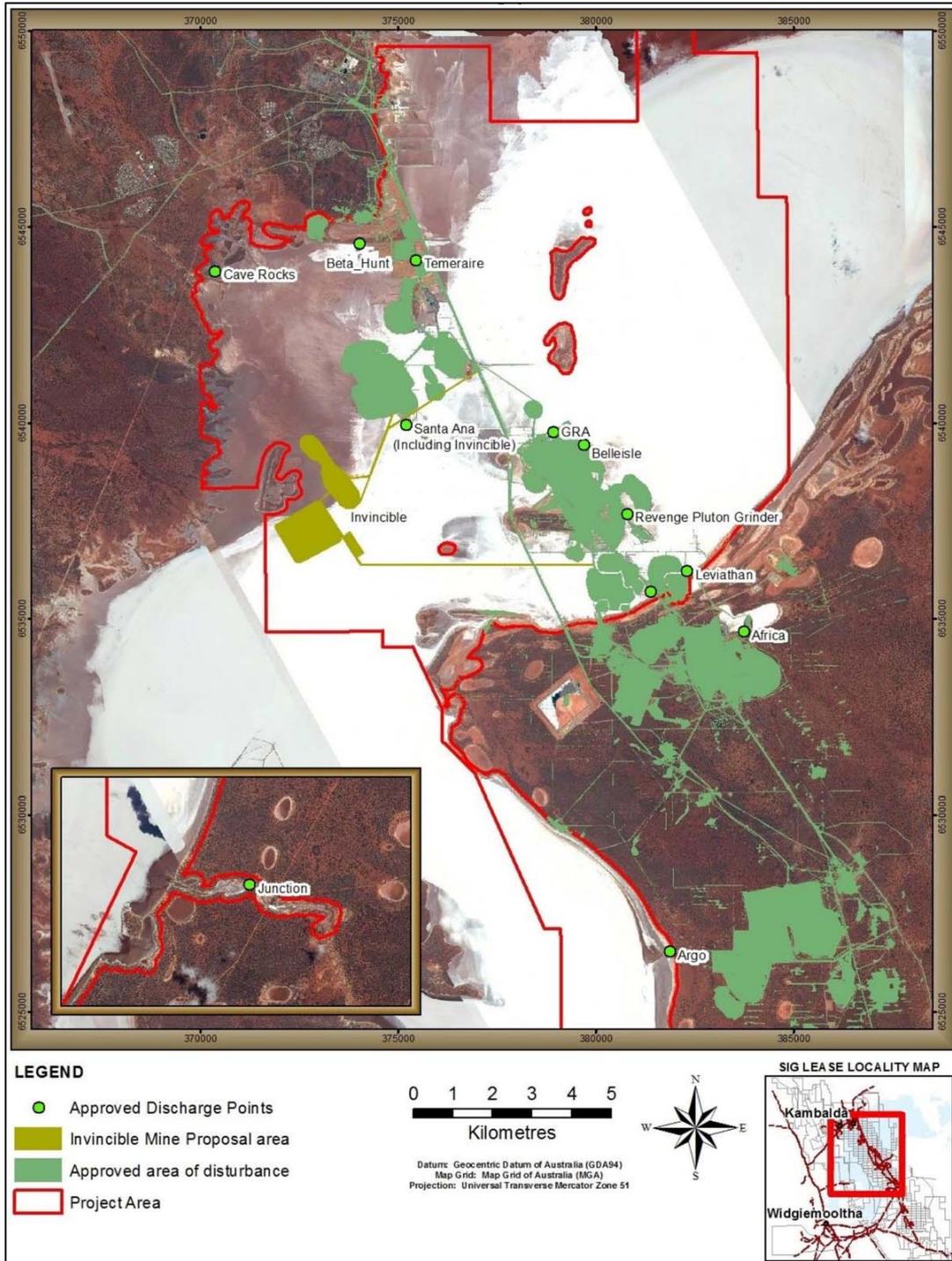
20.1.3.2.2 Part V - Work approvals and Licences

Although mining itself is not regulated under Part V of the EP Act, the Act and associated regulations stipulate that certain “prescribed activities”, including mine dewatering, must be permitted through a works approval and licence if the scale of the activity exceeds a specified threshold. The licensing threshold for mine dewatering is 50,000 tonnes or more per year.

Beta Hunt is currently licensed for discharge of up to 480 kt/pa of water from mine dewatering (DWER licence number L8893/2015/1). As groundwater inflows from the mined out Silver Lake mine are the source of service water (discussed in Section 1), actual discharge is below this limit. The DWER licence was reissued on July 9, 2021 with an expiry of July 8, 2026. The licence also includes a X Class II putrescible waste landfills (450 tpa) and inert waste type 2 (tyres only) – 1,000 tpa. In addition to limiting the quantity of water that may be discharged, the licence imposes a number of implementation conditions relating to the discharge location, monitoring requirements and environmental management and reporting obligations. Although the licence specifies requirements for monthly and quarterly water quality monitoring, and for reporting monitoring results to the DWER, it does not impose any explicit limits on the concentration or load of any chemical constituent in the discharge water. In part, this reflects levels of salinity in the discharge that are lower than the salinity of surface water into which it is discharged.

Figure 20-1 Approved discharge points (St. Ives Gold, Ministerial Statement 879)

Source: Karora, EPA (2011)



20.1.3.2.3 Part V – Native Vegetation Clearing Permits

Under some circumstances, a permit for clearing of native vegetation is required under Part V of the EP Act. Holders of approved mining proposal or other authorisations under the Mining Act are allowed to clear up to 10 ha of native vegetation per tenement per financial year without obtaining a vegetation clearing permit, providing the vegetation is not specially protected and does not lie in an environmentally sensitive area.

Public databases of native vegetation clearing permits do not include any records of permits issued to Karora, or to the previous operator of Beta Hunt, CNKO. Note that mining operations take place underground, most waste rock is used as backfill for mined out voids, while processing and the associated storage of tailings is performed off-site by third parties. As a result, only limited clearing of vegetation is required.

20.1.3.3 Mining Act 1978

Environmental aspects of mining and mineral processing (and related infrastructure) are regulated under the *Mining Act 1978*. The proposed expansion at Beta Hunt required Karora submit a new mining proposal to document the existing and proposed activities and how they may impact on the local environment. The mining proposal (Reg ID: 101317) covered all existing and proposed activities to be undertaken at Beta Hunt and was approved by DMIRS on January 25, 2022.

As SIGMC is the legal holder of the tenement, it is chiefly the responsibility of SIGMC to notify DMIRS of any changes to activities on tenements used by the Beta Hunt project.

20.1.3.4 Rights in Water and Irrigation Act 1914

Construction of bores, taking of surface water and groundwater and implementation of works that may affect watercourses are generally regulated under the *Rights in Water and Irrigation Act 1914*. However, special administrative and policy arrangements have been agreed between DMP and DoW, such that some mining activities that would normally require formal DoW approval are exempt from DoW permitting and are instead managed through the instrument of a mining proposal approved by the DMP (DMP and DoW, 2012). Licensing exemptions do not apply to taking of water.

Abstraction of water from Beta Hunt workings is regulated under groundwater licence GWL62505, which is held by SIGMC. The licence provides a water allocation of 5 GL/a and is valid until April 2031. Beta Hunt's dewatering requirements (up to 0.5 GL/a) represent less than 10% of the water that may be abstracted under the current licence.

20.1.3.5 Aboriginal Heritage Act 1972

The Department of Aboriginal Affairs database shows no registered heritage sites on the four tenements (M15/1512, M15/1516, M15/1529 and M15/1531) where Karora is likely to do any surface disturbance.

20.1.4 Environmental Aspects, Impacts and Management

The project is a small operation with a limited disturbance footprint, and the environmental impacts of the project are correspondingly modest. The information reviewed suggests that the key environmental aspects requiring management effort are:

- Water management; and
- Mine rehabilitation and closure.

Karora has disclosed that there are no other known outstanding significant environmental issues.

20.1.4.1 Water Management

Mine dewatering at Beta Hunt is generally required to be undertaken in accordance with the Licence to Take Water (GWL 62505) and the conditions attached to that licence. SIGMC is the licence holder and accordingly has primary responsibility for ensuring compliance with the licence.

Discharge of mine water is regulated under DER licence L8893/2015/2, held by Karora. Karora is required to lodge annual compliance in relation to its water discharge licence and periodic scrutiny by the DWER should be expected. The water quality monitoring results presented in the 2020–2021 environmental compliance report showed relatively high concentrations of nickel in water being discharged to Lake Lefroy, as well as trace amounts of hydrocarbon and slight turbidity, but were otherwise unremarkable. The discharge water was hypersaline, as expected. The licence approved by DWER specifies no limits for the other parameters to be monitored.

20.1.4.2 Mine Rehabilitation and Closure

Under the Mining Act, responsibility for mine rehabilitation and closure generally lies with the tenement holder (SIGMC, in respect to Beta Hunt). However, any areas of disturbance created or utilised are the liability of Karora. The Beta Hunt management plan explains that accountability for rehabilitation of the Beta Hunt tenements will be allocated as follows:

Karora will be responsible for disturbance arising from September 9, 2003 to the completion of its operations.

SIGMC will be responsible for disturbance prior to September 9, 2003 or after the cessation of Karora's operations and mine rehabilitation/closure activities.

Once the growth plan for Beta Hunt has been executed, Karora does not contemplate any significant clearing of vegetation or new surface disturbance, so rehabilitation and closure costs are limited.

Karora notes that it does not propose to undertake any significant work on the existing mullock dump unless it disturbs the dump through removal of material. It is Karora's expectation that the rehabilitation required to complete will be generally limited to closure and the rehabilitation of access tracks, routine clean-up of rubbish and waste materials, removal of buildings, pavements, and above ground infrastructure, and sealing of exploration boreholes and mine openings.

Karora is also responsible for a section of the Jubilee haul road (L26/281) – Mine Closure Plan, Reg ID 69806. This area is insignificant for closure costs with total disturbance of <0.5 ha.

The estimated closure costs are described in Section 20.1.5.

20.1.5 Mining Rehabilitation Fund

The Mining Rehabilitation Fund (“MRF”) is a State Government levy, the responsibility of the DMIRS, which provides a pooled fund, based on the environmental disturbance existing on a tenement at the annual reporting date. Levies paid into the MRF will be used for rehabilitation where the operator fails to meet rehabilitation obligations and every other effort has been used to recover funds from the operator. Liability to pay the MRF Levy became compulsory from July 1, 2014. This means that tenement holders now need to report for the MRF by June 30 each year.

The MRF liabilities are based on negotiated set of standard rates for the purposes of setting the levy. The amount of levy payable is assessed as the rehabilitation liability estimate (if over \$50,000) multiplied by the fund contribution rate which is set at 1%.

With respect to the Beta Hunt sub-lease, the MRF levy is paid by SIGMC as registered owners of the leases to which Karora contributes an agreed to amount based on its rehabilitation commitments as defined in the Beta Hunt sub-lease agreement. Karora's contribution to the MRF levy in 2022 was A\$6,026.

It should be noted that levies paid into the MRF required under the *Mining Rehabilitation Fund Act 2012* and the *Mining Rehabilitation Fund Regulations 2013* are non-refundable and separate from the internal accounting provisions for closure and rehabilitation and should not be used to offset the costs for rehabilitation.

20.1.6 Social and Community

The Kambalda region (Western Australia) has a substantial history of exploration, mining, and pastoral activity. This includes small alluvial and underground mining around the early 1900s, salt mining at Lake Lefroy during the 1960s to 1980s, nickel and gold mining from the 1970s to the present, and pastoral grazing on the nearby Woolibar and Mt Monger pastoral stations. Beta Hunt operates within an environment of strong local community support.

The nearest town to Beta Hunt is Kambalda, with a population of 1,666 (2021 Census). The closest houses are approximately 2 km from Beta Hunt. As the active underground workings are a further 1–4 km down the decline and the scale of operation is small, noise and vibration do not affect the residents. The mine workings are underground, and waste rock is generally used to backfill mined out voids, so there is no active surface waste dump. There is also no concentrator or tailings storage facility at Beta Hunt. As a result, dust generation is not an issue.

Kalgoorlie-Boulder has a population of 29,306 (2021 Census) and is located 60 km north of Kambalda. Kalgoorlie is the regional centre for the Eastern Goldfields and is a regional hub for transport, communications, commercial activities, and community facilities.

The majority of the current workforce of approximately 183 persons is accommodated within the Kalgoorlie-Boulder-Kambalda region.

There are no registered heritage sites at Beta Hunt. Red Hill lookout is situated on nearby Red Hill and overlooks the Lake Lefroy area.

The nearest port is Esperance, 330 km south of Kambalda.

20.2 HIGGINSVILLE

20.2.1 Environmental Studies

Karora and the previous operators of Higginsville have undertaken numerous flora, fauna and vegetation surveys. There is a wealth of baseline data for vegetation and fauna communities in the vicinity of the HGO processing plant. No rare or endangered species were identified that would be impacted by the construction and operation of the process plant. No Priority Species as defined by the Department of Climate Change, Energy, the Environment and Water ("DCCEEW") in the *Threatened Species Action Plan 2022-2032* were located during the surveys. Some conservation significant fauna species occur in the local region. Prior to Karora undertaking any clearing activities, areas are targeted for the following:

- A grid search for Malleefowl and their breeding mounds;

- Inspection of large hollow bearing trees; and
- Personnel are made aware of the presence of Carpet Pythons so that they can be relocated to suitable habitat.

The mining proposal for the expansion of tailings storage facilities at Higginsville required the following studies to be undertaken:

- An Interpretation of the Moving Loop Electromagnetic Survey using the Loupe System (2020) prepared by Newexco.
- Higginsville TSF2-4 Seepage Recovery Investigation (2020) prepared by Rockwater Hydrogeological and Environmental Consultants.

20.2.2 Required Permits and Status

A licence under the EP Act is required to operate certain industrial premises, known as “prescribed premises”. In addition, a works approval is required for any work or construction that will cause the premises to become prescribed premises, or for work or construction which may cause, or alter the nature or volume of, emissions and discharges from an existing prescribed premises. Key licences and approvals for the operation of the Higginsville processing plant are listed in Table 20-1.

Table 20-1: Summary HGO key licence and approvals

Reference	Approval	Issuer	Date Commenced	Expiry Date
L9155/2018/1 (Higginsville)	Licence relating to category 5 - Processing or beneficiation of metallic or non-metallic ore, 06 - mine dewatering, 054 - sewerage facility operations and 64 – Class I or II putrescible landfill	DWER	Sep 18, 2018	Sep 17, 2024
GWL160795 (8) (Higginsville)	Licence to take water under section 5C of the Rights in Water and Irrigation Act 1914 (WA). Annual water entitlement 3,150,000 kL for the purpose of mineral processing, dewatering and dust suppression.	DER	Mar 16, 2021	May 5, 2029
CPS8152/4 (Higginsville)	Clearing of Native Vegetation for the purpose of mineral production and associated activities of up to 1,082.81 hectares	DMIR S	Oct 27, 2018	Jul 31, 2025

The HGO licences, issued under the EP Act (Part V) provides for the processing and beneficiation of metallic and non-metallic ore up to 1.5 Mtpa. Conditions such as groundwater level and limits, monitoring, discharge and reporting requirements are set in the licences.

Karora amalgamated several licences to take water in 2020 to reduce regulatory commitments and reporting requirements. There was a total of nine active permits in place around HGO, and these have been reduced to five active permits. The primary HGO groundwater licence has an allocation of 3,150 ML per year and allows for the dewatering of the Chalice open pit. The water is pumped 30 km to the Aphrodite pit where it is stored prior to pumping to the process mill. The HGO groundwater licence allows for dewatering of open pits and underground operations in close vicinity to the Higginsville processing plant.

Karora also amalgamated five active native vegetation clearing permits in 2020 to a single permit for HGO. CPS8152/3 permits the clearing of up to 1,000 ha of native vegetation and includes the pits Baloo, Hidden Secret, Mousehollow, Fairplay and the proposed underground mines Aquarius and Two Boys. The clearing permit was amended in early 2023 to include the footprint for the proposed TSF 5. CPS8152/4 now permits the clearing of 1,082.81 ha.

20.2.2.1 Mining Proposals and Mine Closure Plans

A total of 63 Mining Proposals (“MP”) and Mine Closure Plans (“MCP”) are registered as belonging to the HGO. An application for a Mining Lease or the proposed mining of a new deposit must be accompanied by a mineralisation report or an MP and MCP in accordance with the Mining Act. A Mining Lease, MP and MCP are required prior to carrying out mining activities on a site.

The Higginsville MCP—(Reg ID:88901) dated August 5, 2020, approved on July 5, 2021—is the most extensive as it covers several mining areas including Higginsville, Chalice, Lake Cowan, Paleochannel and Mt Henry areas. DMIRS requires that the MCP is updated on a regular basis to demonstrate preparedness for closure of the project. The Higginsville MCP is due for revision in July 2023.

20.2.2.2 Aboriginal Heritage Act 1972

There are a number of Aboriginal sites within the HGO tenements, as documented in the Western Australian Government’s Aboriginal Heritage Inquiry System (“AHIS”). The Department of Planning, Lands and Heritage preserves all Aboriginal sites in Western Australia whether or not they are registered. Aboriginal sites may exist that are not recorded on the register.

Ethnographic and archaeological surveys were commissioned over the HGO prior to it being developed and mined. No sites of ethnographic or archaeological significance were recorded that would impact on the operation of the Higginsville processing plant.

Heritage protection agreements are in place with the Ngadju Native Title Aboriginal Corporation (“Ngadju”), the traditional owners at HGO.

20.2.3 Environmental Aspects, Impacts and Management

HGO, under operation of the previous owners Westgold, went through a period of non-compliance from April 2016 to Jan 2019. The non-compliance related to high standing water levels in a number of monitoring boreholes adjacent to active tailings storage facilities (TSF 1, 2, 3 and 4). In 2020, Karora applied to recommission TSF 2–4 to provide a further five years of tailings storage capacity under the current production rate at HGO. Studies were undertaken on the hydrogeology beneath the tailings facility to develop a seepage recovery plan that would ensure the facility remained compliant with the Premises Licence conditions, if the facility were to be recommissioned. DMIRS accepted the groundwater recovery plan and approved the mining proposal that included an initial raise of TSF 2 and three subsequent stage raises of TSF 2, 3 and 4 into one supercell. DWER has also issued an amended Premises Licence that approved the recommissioning of the facility.

The HGO site has a detailed Environmental Management Plan that includes site specific processes and procedures. The site has a detailed record of the applicable legislation and legal requirements as well as various management and monitoring programs required to ensure compliance with legal and legislative compliance.

Karora has in place the appropriate processes and plans to meet its environmental requirements and commitments.

20.2.4 Mining Rehabilitation Fund

The MRF is a pooled fund, established under the *Mining Rehabilitation Fund Act 2012 (WA)* (“MRF Act”), that is used to rehabilitate abandoned mine sites in Western Australia. All tenement holders (with the exception of tenements covered by State Agreements not listed in the Mining Rehabilitation Fund Regulations 2013 (WA) (“MRF Regulations”) are required to participate in the MRF. The HGO tenements are subject to the MRF Act.

A 1% levy is paid annually by tenement. HGO is up to date with payment to end of June 2020. The next annual payment is due in July 2023.

HGO’s MRF mine closure is estimated at approximately A\$27M. Annual MRF contributions payments are approximate A\$300k.

20.2.5 Social and Community

The HGO region has a substantial history of exploration and mining. Gold was first discovered in 1905 with gold mining operations continuing sporadically throughout the 20th century and then recommencing in earnest in 1989. Additional mining activities included salt mining at Lake Lefroy during the 1960s to 1980s and nickel mining from the 1970s to the present. HGO operates within an environment of strong local community support.

The nearest town to HGO is Norseman, with a population of 562 (2021 Census), 52 km south of the Higginsville process facility. Kambalda with a population of 1,666 (2021 Census), is located 68 km via the Goldfields Highway to the north.

Kalgoorlie-Boulder has a population of 29,306 (2021 Census) and is located 60 km north of north of Kambalda. Kalgoorlie is the regional centre for the Eastern Goldfields and is a regional hub for transport, communications, commercial activities and community facilities.

The current workforce at HGO (Karora employees and contractors), comprising approximately 121 personnel, is accommodated on site during their rostered-on periods. Most workers permanently reside in Perth and FIFO from Perth to HGO on either an 8 days-on/6 days-off, 12 days-on/9 days-off or 14 days-on/7 days-off rotation. The FIFO workers are supplemented by workers who reside in closer regional towns such as Norseman, Kambalda, Kalgoorlie and Esperance, Western Australia.

The nearest port is Esperance, 260 km south of HGO.

20.3 LAKEWOOD

20.3.1 Environmental Studies

The Lakewood Gold Processing Facility is located within a historical gold treatment area adjacent to the famous Golden Mile. The site and its immediate surrounds have been subject to extensive historic disturbance from the early 1900s including timber cutting, town site development, mining, and tailings stockpiling. The main access to the Lakewood GPF is from the Goldfields Highway via the public Mt Monger Road and gazetted Lakewood Gold Processing Facility Access Road. Given that the area has been heavily disturbed by historic mining operations the ‘regrowth’ present around Lakewood does not represent the pre-disturbance vegetation communities.

20.3.1.1 Soils and Flora

Soils in the immediate project area have been heavily disturbed by prior mining activity and have been contaminated by the historic storage of tailings known as ‘slime dumps’. These tailings were

reprocessed at Lakewood in the early 1990s. Surface soils for the majority of the proposed TSF 2 site are salt scalded and contaminated with historic tailings. A soil assessment was undertaken by Outback Ecology in 2013. The assessment was completed in the proposed TSF 2 area. This area was classed as silty clay loam to medium clay. Most soils within this area were identified as being non-dispersive; however, all samples contained high clay content and were extremely saline.

The predominant vegetation communities are comprised of shrubland with all overstorey species removed by historic clearing. The vegetation condition has been assessed as degraded to completely degraded within areas of future development for TSF 2.

20.3.1.2 Fauna

G&G Environmental Pty Ltd were commissioned by Silver Lake Resources in 2009 to undertake a Desktop Fauna Survey of tenement M26/242. The 2009 Assessment noted that tenement M26/242 has been impacted by extensive clearing and mining activities on the site and surrounds over the past 100 years, resulting in the complete removal/destruction of habitat required to support most of these fauna species. The resultant vegetation generally comprises sparse low chenopod shrubland and vegetation dominated by old man saltbush. The dominant vegetation of the Coolgardie and Murchison area (eucalypt woodland) that commonly supplies habitat for tree nesting reptiles and birds has been cleared. As a result of the altered nature of the site with significantly degraded vegetation and general lack of habitat in good condition, it is considered unlikely that the project area supports fauna assemblages of conservation significance.

20.3.2 Hydrology

Lakewood GPF site lies directly in the flow path of an upstream catchment area of approximately 114 km². Based on a review of current aerial photography, approximately 11 km² of the contributing catchment area is assumed to be internally draining mining pits, TSFs, and waste rock landforms ("WRL") from the nearby mining operations (TTC, 2021).

Runoff from the Lakewood GPF enters Hannan Lake approximately 2 km south of the site. Diversion drains are required at Lakewood to manage potential floodwaters. The proposed diversion drain around the western and southern sides of TSF 2 has a base width of 3 m and a nominal depth of approximately 1 m. The drain size is sufficient to provide 300 mm of freeboard in the 10% AEP or 10-year ARI event.

The production bores WB01, WB02 and WB03 intersected about 5 m to 10 m of ferruginous sandy gravel, further intersecting 20 m to 30 m of Cainozoic alluvium, comprising clays, sandy clays, and gravelly clays. Beneath the Cainozoic alluvium, the bores intersected 10 m to 20 m of saprolitic clays and saprock. This zone provided the primary inflow for WB01 and WB03 (base of the saprolitic zone for WB03). Beneath the saprock, the bores intersected fresh felsic porphyry, understood to be the Mulgabbie Formation.

The groundwater quality around Lakewood has a TDS ranging between 39,000 mg/L and 112,000 mg/L with a pH in the range of 3–6.5. Kalgoorlie's Fimiston Operations (upgradient of the Lakewood GPF), completed an Acid Drainage Risk Evaluation as part of a Public Environmental Review in 2006. It was commented that groundwater in monitoring bores around the Fimiston TSF has a low pH of circa 3–4, and that there is evidence of the occurrence of acid mine drainage in the Kalgoorlie region, primarily associated with the presence of Black Flag Shales in WRLs. The acidic nature of groundwater was also thought to potentially be a result of dry-land salinity sulfidic acidity from oxidising monosulphides within the regolith profile.

20.3.3 Required Permits and Status

20.3.3.1 Permitting History

The Lakewood area has been used for tailings storage since the early 1900s with most of the tailings being derived from the processing of gold bearing ore from the Golden Mile. These tailings dumps (historically called slime dumps) were a significant source of dust in the Kalgoorlie-Boulder community. In the late 1980's, the retreatment of the residual gold bearing tailings was planned as part of the Fimtails and Kaltails Projects.

The Lakewood (Fimtails) Treatment Plant and associated Tailings Storage Facility was initially constructed in 1989 (approved via Notice of Intent (NOI) 213) and operated on a periodic basis throughout the 1990s. Historic tailings from the Kalgoorlie-Boulder area were retreated using the carbon-in-leach (CIL) process, between 1989 and 1991. The Lakewood Plant was placed into Care and Maintenance from August 1991 until 1995.

Roehampton Resources NL purchased the Lakewood Plant in 1995 and upgraded the treatment facility. The plant completed campaign processing for a number of years until 1997. Refurbishment of the Lakewood Plant was undertaken in 2000 by Lakewood Mill Pty Ltd (approved via NOI 3589), allowing for the recommencement of processing operations between 2001 until 2007. The plant was operated on a campaign basis until November 2007, including the retreatment of residual tailings on agreement with Normandy Kaltails.

In 2007, the Lakewood Plant was purchased by Silver Lake Resources that undertook a number of refurbishment projects at the plant until 2011. Golden Mile Milling Pty Ltd (GMM) purchased Lakewood GPF in 2015 and steadily increased the production rate up to a throughput around 0.7 Mtpa to 0.9 Mtpa. Karora purchased the Lakewood GPF from GMM on July 27, 2022.

DMIRS approved the Lakewood Gold Processing Facility Mining Proposal (Reg ID: 111925) on March 16, 2023. The mining proposal granted approval to construct TSF 2 in accordance with the revised design and to increase the production rate up to 1.2 Mtpa. DWER granted the Works Approval to construct TSF 2 and the process plant upgrades on January 20, 2023.

20.3.3.2 Environmental Protection Act 1986

20.3.3.2.1 Part IV

Part IV of the EP Act applies to “environmentally significant proposals”. The term “environmentally significant” is not defined in the EP Act, and is instead described in the *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2012*. The Lakewood GPF has not been separately assessed under Part IV of the EP Act.

20.3.3.2.2 Part V - Work approvals and Licences

The DWER regulates industrial emissions and discharges to the environment through a works approval and licensing process, under Part V of the EP Act. Industrial premises with potential to cause emissions and discharges to air, land or water are known as ‘prescribed premises’ and trigger regulation under the Act. Prescribed premises categories are outlined in Schedule 1 of the *Environmental Protection Regulations 1987*.

The Act requires a works approval to be obtained before constructing a prescribed industrial premise and makes it an offence to cause an emission or discharge unless a licence or registration is held for the premises. In effect, a works approval enables the construction and licence the operation of a prescribed premises in accordance with set conditions.

GMM was issued an amended Prescribed Premises Licence (L9024/2018/1) for the Lakewood GPF on 9 October 2020. Licence L9024/2018/1 is valid from 21 May 2020 to 20 May 2030. The approved licence categories for the Lakewood GPF are Category 5: Processing or Beneficiation of Ore (900,000 tonnes per year) and Category 61: Liquid Waste Facility (1,300 tonnes per year). This licence has been transferred to Lakewood Mining Pty Ltd. DWER granted Karora the Works Approval (W6719/2022/1) to undertake construction of the proposed TSF 2.

20.3.3.2.3 Part V – Native Vegetation Clearing Permits

Under the EP Act, clearing of native vegetation is an offence unless it is done under the authority of a Clearing Permit or an exemption applies. Clearing Permits either allow the clearing of a specific area (Area Permit) or for a specific purpose (Purpose Permit).

The Native Vegetation Clearing Permit (CPS 9743/1) was granted on June 23, 2022 and is valid for a period of two years. No conservation significant species were recorded within the areas to be cleared at Lakewood for the proposed TSF 2.

20.3.3.3 Mining Act 1978

Environmental aspects of mining and mineral processing (and related infrastructure) are regulated under the *Mining Act 1978*. DMIRS approved the Lakewood Gold Processing Facility Mining Proposal (Reg ID: 111925) on March 16, 2023. The mining proposal granted approval to construct TSF 2 in accordance with the revised design and to increase the production rate up to 1.2 Mtpa.

20.3.3.4 Rights in Water and Irrigation Act 1914

Construction of bores, taking of surface water and groundwater and implementation of works that may affect watercourses are generally regulated under the *Rights in Water and Irrigation Act 1914*. However, special administrative and policy arrangements have been agreed between DMP and DoW, such that some mining activities that would normally require formal DoW approval are exempt from DoW permitting and are instead managed through the instrument of a mining proposal approved by the DMP (DMP and DoW, 2012). Licensing exemptions do not apply to taking of water.

Karora holds two Licences to Take Water GWL203328(2) & GWL203329(2) for a combined abstraction of 900,000 kL at Lakewood for water supply. Lakewood also has an agreement with Kalgoorlie Consolidated Gold Mines (“KCGM”) for the supply of process water from their Fimiston mining operations.

20.3.3.5 Aboriginal Heritage Act 1972

There have been two recorded ethnographic surveys and one archaeological survey which covered the Lakewood mining lease areas. The buffer areas of two registered Aboriginal Sites intersect with the southern portion of L26/234 that provides access to a borefield. No disturbance to these Aboriginal Sites is required to maintain water supply for processing at Lakewood.

20.3.4 Environmental Aspects, Impacts and Management

The project is relatively small in size with a limited disturbance footprint and placed within the foothills of the KCGM waste dumps. Groundwater mounding around the TSFs is the largest environmental concern at Lakewood. Karora has maintained the existing seepage recovery network around TSF 1 and is currently assessing the most suitable seepage recovery network for the proposed TSF 2 if it is required. The information reviewed suggests that the key environmental aspects requiring management effort are:

- Water management; and
- Mine rehabilitation and closure.

Karora has disclosed that there are no other known outstanding significant environmental issues.

20.3.4.1 Mine Rehabilitation and Closure

Under the Mining Act, responsibility for mine rehabilitation and closure lies with the tenement holder, as such, Karora, as the new tenement holder, is responsible for the rehabilitation of the disturbed area associated with the Lakewood GPF. No significant rehabilitation activities are possible while the tailings storage facilities are active. The opportunity may arise in the future to coordinate the closure of the site in synergy with KCGM's operations and waste dump expansion. The estimated closure costs are detailed in Section 20.3.5.

20.3.5 Mining Rehabilitation Fund

The Lakewood tenements are subject to the MRF Act (Refer Section 20.2.4).

A 1% levy is paid annually by tenement. The MRF payment for Lakewood up until July 2022 is the responsibility of GMM. The next annual payment is due in July 2023.

MRF mine closure costs for Lakewood was estimated to be A\$3.18M by GMM at the time of submission in June 2022.

20.3.6 Social and Community

Lakewood is approximately 4 km southeast of the City of Kalgoorlie-Boulder which is the nearest occupied townsite.

Kalgoorlie is the regional centre for the Eastern Goldfields and is a regional hub for transport, communications, commercial activities, and community facilities. Kalgoorlie-Boulder has a population of 29,306 (2021 Census)

The majority of the current workforce of approximately 20 persons is accommodated within the Kalgoorlie-Boulder-Kambalda region.

The nearest port is Esperance, 390 km south of Kalgoorlie.

21 CAPITAL AND OPERATING COSTS

Capital and operating costs are derived from current site costs, in addition to recent supplier quotations. As such, these costs are well understood and allow enough detail for Mineral Reserves to be declared.

21.1 CAPITAL COSTS

As an operating mine, most major infrastructure capital is already in place at Beta Hunt. The operation intends to primarily incur sustaining capital costs from 2024, as the planned production rates are achieved with the infrastructure networks that are already in place. Some non-sustaining capital is budgeted for primary ventilation circuit upgrades in 2023 and 2024, including new ventilation fans, variable speed drives for existing fans, and raises to develop a parallel exhaust circuit. New heavy vehicle equipment purchases in 2023 and 2024, along with existing heavy vehicles, are expected to last the life of the Mineral Reserves schedule.

The sustaining capital expenditure is allocated for ongoing capital development, mining equipment costs (rebuilt and major overhauls), and other underground infrastructure refurbishment. Sustaining capital requirements also include extensions to the ventilation, pumping, and electrical networks that follow capital decline development as the mine goes deeper. This is in addition to sustaining costs associated with ongoing processing plant infrastructure maintenance, which are included in operating cost details. The sustaining capital costs per annum are detailed in Table 21-1.

Table 21-1 Sustaining capital costs per annum

Capital Cost Type	Units	Total	2022	2023	2024	2025	2026	2027	2028	2029
Development and Plant	A\$M	91.3	4.1	16.7	16.4	16.4	16.4	15.9	5.4	0.1
Mining Infrastructure	A\$M	53.6	5.5	22.0	11.8	3.5	3.5	3.5	3.5	0.3
Total Mining Capital	A\$M	144.8	9.6	38.7	28.1	19.8	19.9	19.4	8.9	0.4

21.2 OPERATING COSTS

As an established operation, Beta Hunt has a good understanding of its costs and has a functioning cost management system. Operating cost inputs are based on site actual costs in addition to recent supplier quotes. The mining operating costs are split into direct operating costs, maintenance costs, technical services costs, and general and administrative (“G&A”) costs. Direct operating costs include mining operator labour and consumable costs. Maintenance costs include maintenance labour and maintenance consumables. Technical services costs include engineering, geology and geotechnical labour and consumables. G&A costs include administration labour and consumables, in addition to safety department labour and consumables. The operating costs are detailed in Table 21-2 (per tonne) and Table 21-3 (total per annum).

Table 21-2 Site operating costs

Operating Costs	Unit	Operating Costs
Mining Costs:		
Direct Operating Costs	A\$/t ore	34.01
Grade Control Drilling	A\$/t ore	2.75
Technical Services	A\$/t ore	2.20
Mine Overheads and Admin	A\$/t ore	4.50
Operating Development	A\$/t ore	15.00
Total Mining Operating Cost	A\$/t ore	58.46
Processing and Surface Haulage	A\$/t ore	44.61
Total Operating Costs	A\$/t ore	103.07

Table 21-3 Operating costs per annum

Type	Units	Total	2022	2023	2024	2025	2026	2027	2028	2029
Mining (incl G&A)	A\$M	395.3	17.8	72.2	70.9	70.8	71.0	69.0	23.2	0.3
Processing (incl G&A)	A\$M	301.6	13.6	55.1	54.1	54.0	54.2	52.7	17.7	0.3
Total	A\$M	696.9	31.4	127.2	125.0	124.8	125.2	121.7	40.9	0.6

21.3 CLOSURE

An independent audit and mine closure estimate prepared in 2018 by consultant MBS Environmental estimated the current rehabilitation liability accruing to Karora for the Beta Hunt sub-lease at A\$881k. In 2022, the disturbance area at Beta Hunt increased due to construction activities to raise underground production rates. The new estimate rehabilitation liability at Beta Hunt for the end of 2022 was \$1,270,560.

22 ECONOMIC ANALYSIS

22.1 CASH FLOW ANALYSIS

Karora is using the provision for producing issuers, whereby producing issuers may exclude the information required under Item 22 for technical reports on properties currently in production and where no material production expansion is planned.

Mineral Reserve declaration for the Operations is supported by a positive cash flow.

22.2 COMMENTS ON SECTION 22

An economic analysis was performed in support of estimation of Mineral Reserves. This indicated a positive cash flow using the assumptions and parameters detailed in this Technical Report.

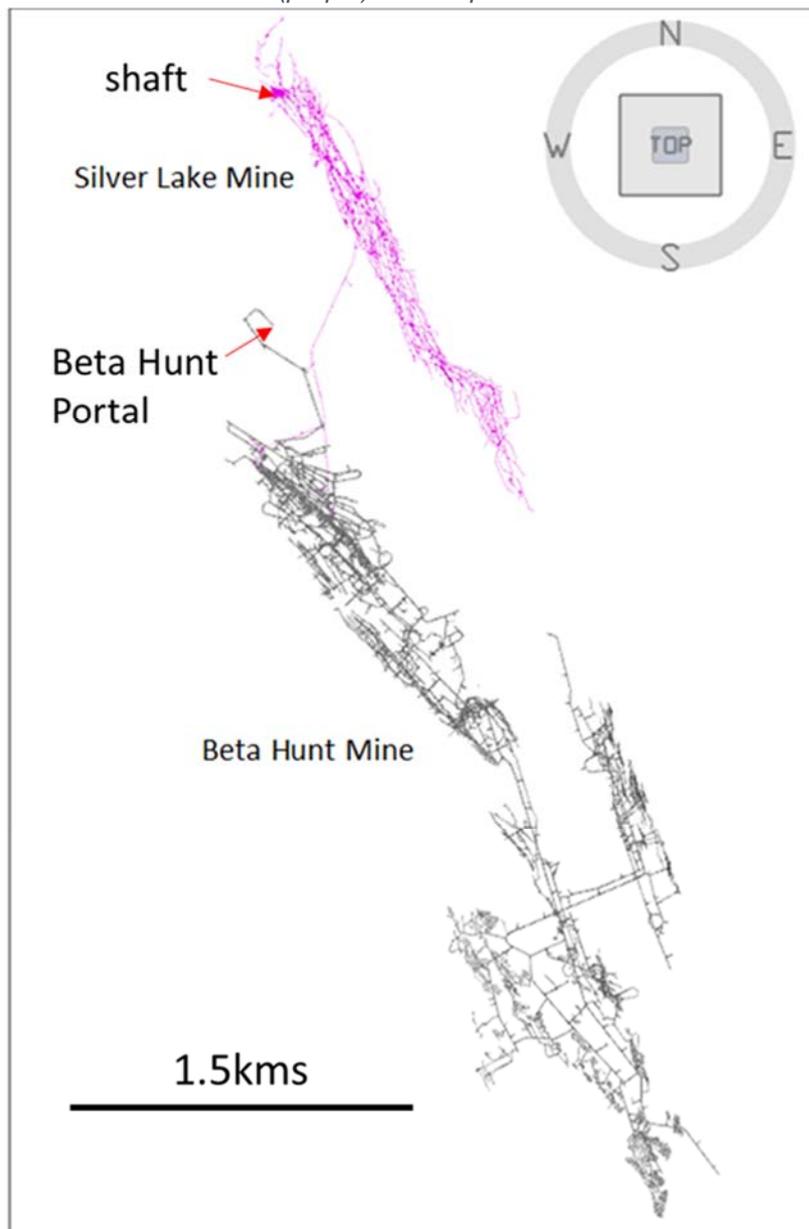
23 ADJACENT PROPERTIES

23.1 ADJACENT NICKEL DEPOSITS

Nickel ore was first mined in the Kambalda region from WMC Resources Silver Lake shaft (Figure 23-1) in 1966. The deposits mined from this shaft were known as the Lunnon shoot. The Silver Lake mine commenced in 1966/67 with final remnant mining being completed in 1985/86.

Total production from this deposit was 4.5 Mt of ore at a grade of 2.7% Ni for a total of 123 kt of nickel contained in ore (WMC, 1985).

Figure 23-1: Location of Silver Lake mine (purple) with respect to Beta Mine



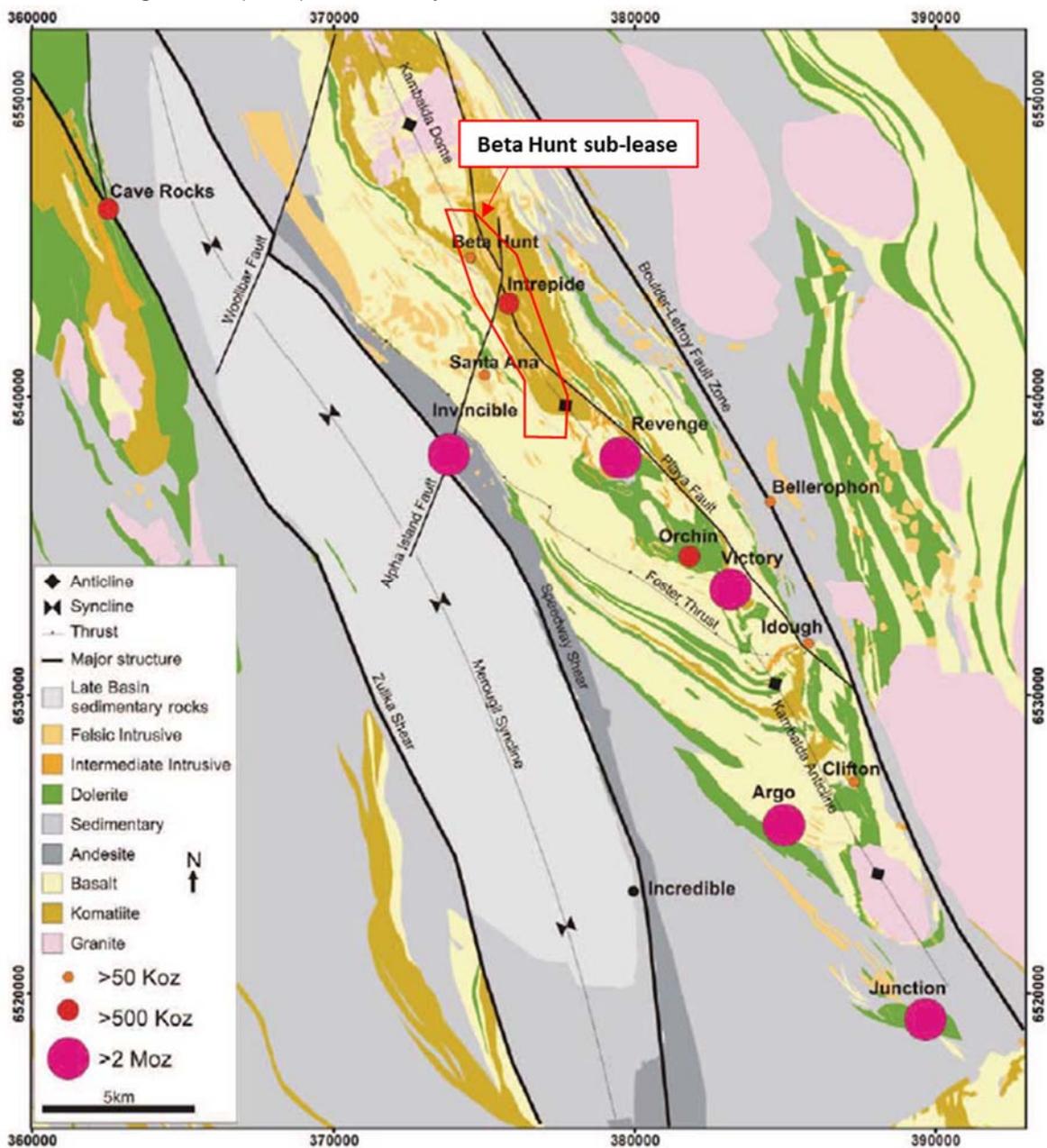
23.2 ADJACENT GOLD DEPOSITS

The Beta Hunt Gold deposits (A Zone, Western Flanks, Larkin) are localized about the Alpha Island Fault, west of the Playa Fault and are part of the multi-million oz Kambalda-St Ives gold ore system (Oxenburgh et al., 2017) (Figure 23-2) operated and owned by St Ives Gold Mining Company (SIGMC) a 100% Gold Fields Limited subsidiary company. The St Ives Gold Operation surrounds Karora’s Beta Hunt sub-lease.

In 2022, SIGMC reported a Mineral Resource estimate of 37,247 kt grading 4.06 g/t Au for 4,861 koz contained Au as part of their 2021 Annual Mineral Resource and Mineral Reserve Statement (Gold Fields Limited, 2022) covering the St Ives Operation.

Figure 23-2 Gold deposits adjacent and along strike of Beta Hunt

Source: Oxenburgh et al., (2017), modified by Karora



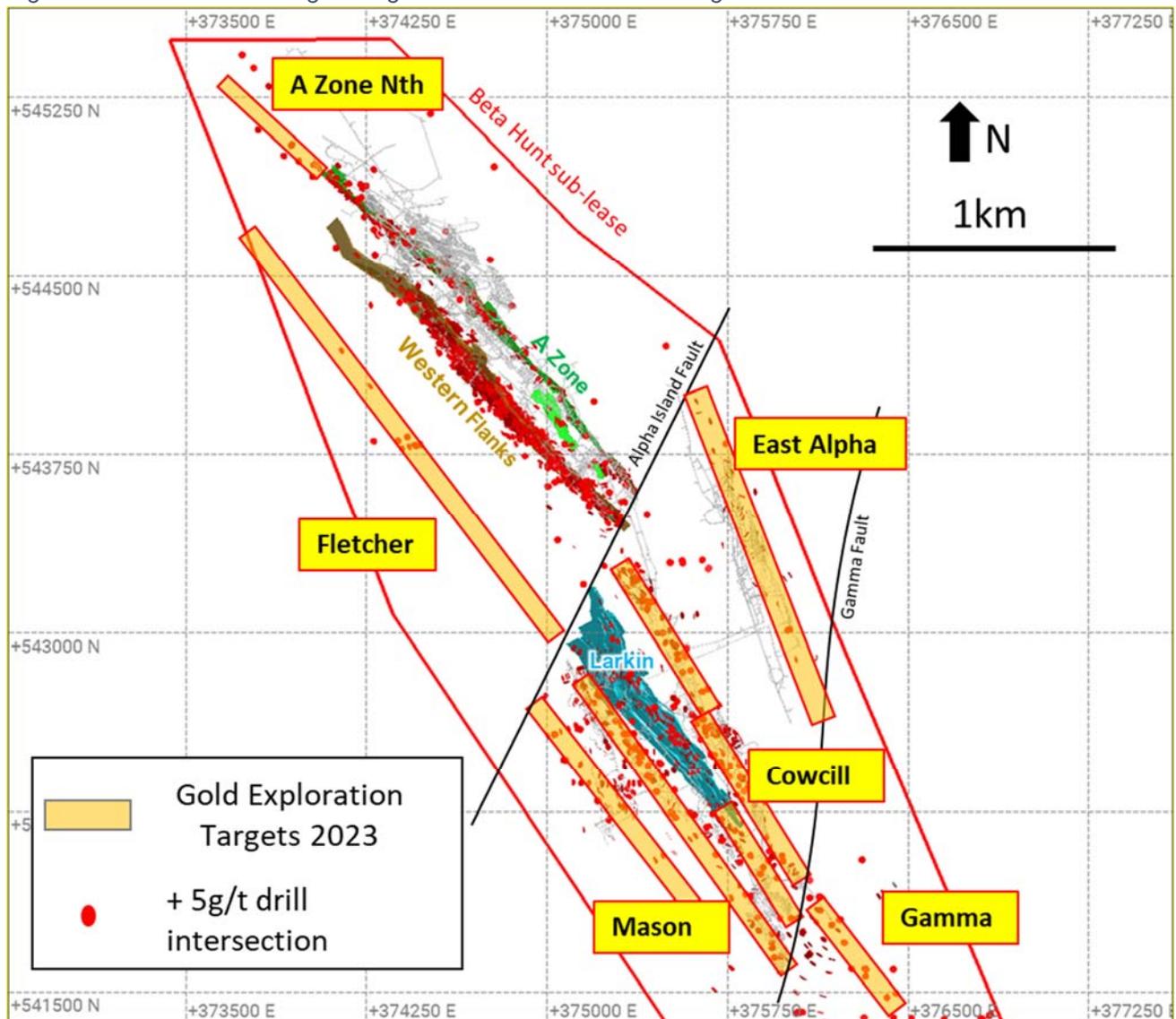
The qualified person has been unable to verify the information on these adjacent properties. This information is not necessarily indicative of the mineralization on the property that is the subject of the technical report.

24 OTHER RELEVANT DATA AND INFORMATION

24.1 GOLD EXPLORATION POTENTIAL

Drilling in 2022 was highlighted by significant gold drill intersections that both extended and outlined new parallel mineralized shear zones that support the ongoing growth of the Beta Hunt Gold Mineral Resource. Key areas for growth as a result of recent drilling (Figure 24-1) are detailed below.

Figure 24-1 3D view of new gold targets and extensions to known gold resources Source: Karora



In addition to the broad shear zone targets, the recognition of the potential for coarse, specimen quality gold pods to occur where the Lunnon interflow sediment intersects these shear zones provides a more focused target for drill planning.

24.1.1 Western Flanks

Drilling in 2022 successfully extended the Mineral Resource up to 250 m below the previous resource (January, 2022) limit (see Karora news release, dated October 25, 2022) resulting in the zone contributing the bulk of the updated Mineral Resource increase. Significantly, the Western Flanks mineralized system remains open at depth and along strike (north).

Figure 24-2 Beta Hunt plan view showing all drill traces with gold results received for period July 24 – October 13, 2022. Significant results labelled. Western Flanks cross section designated A – A'. (Karora, 2022g)

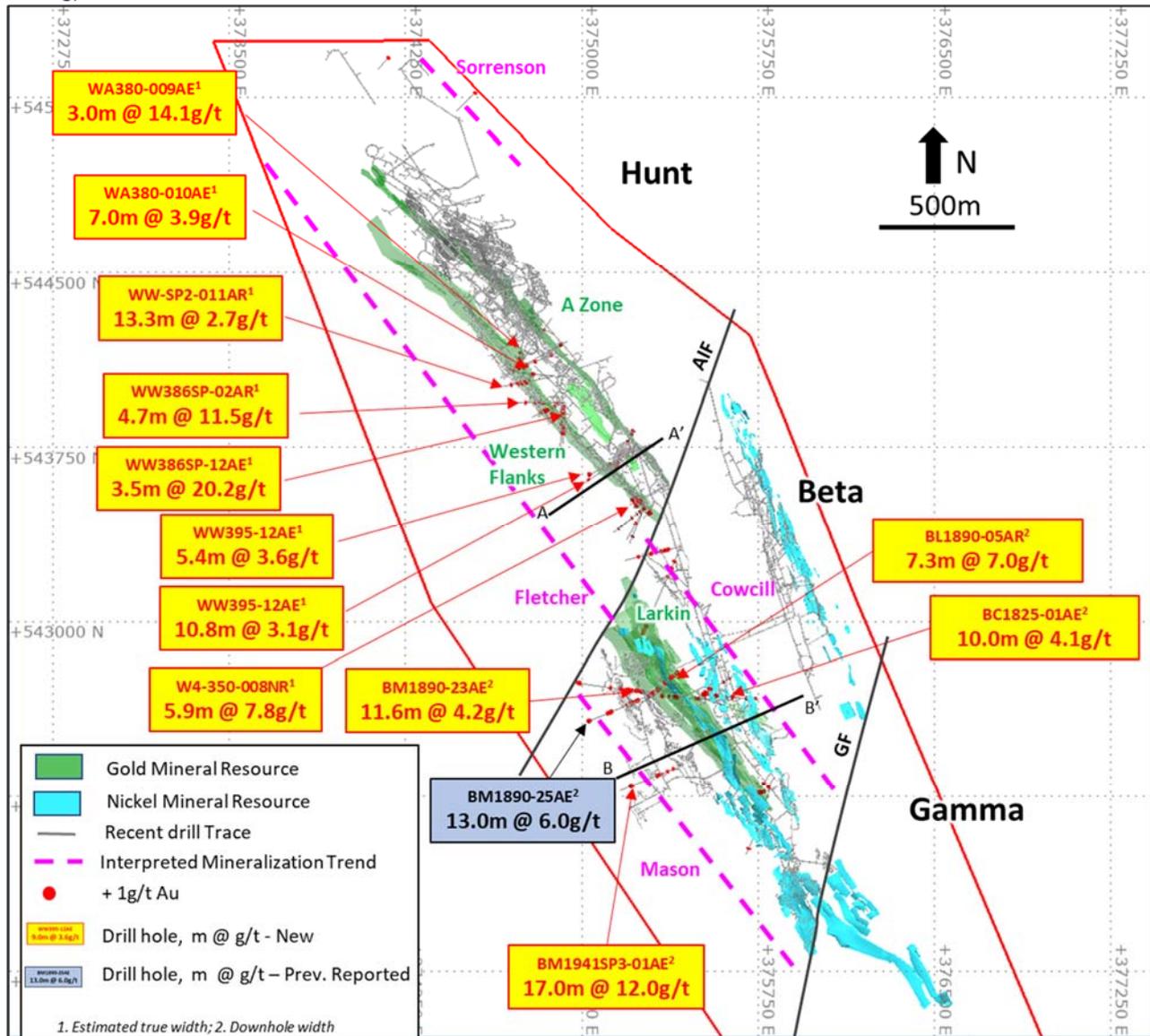
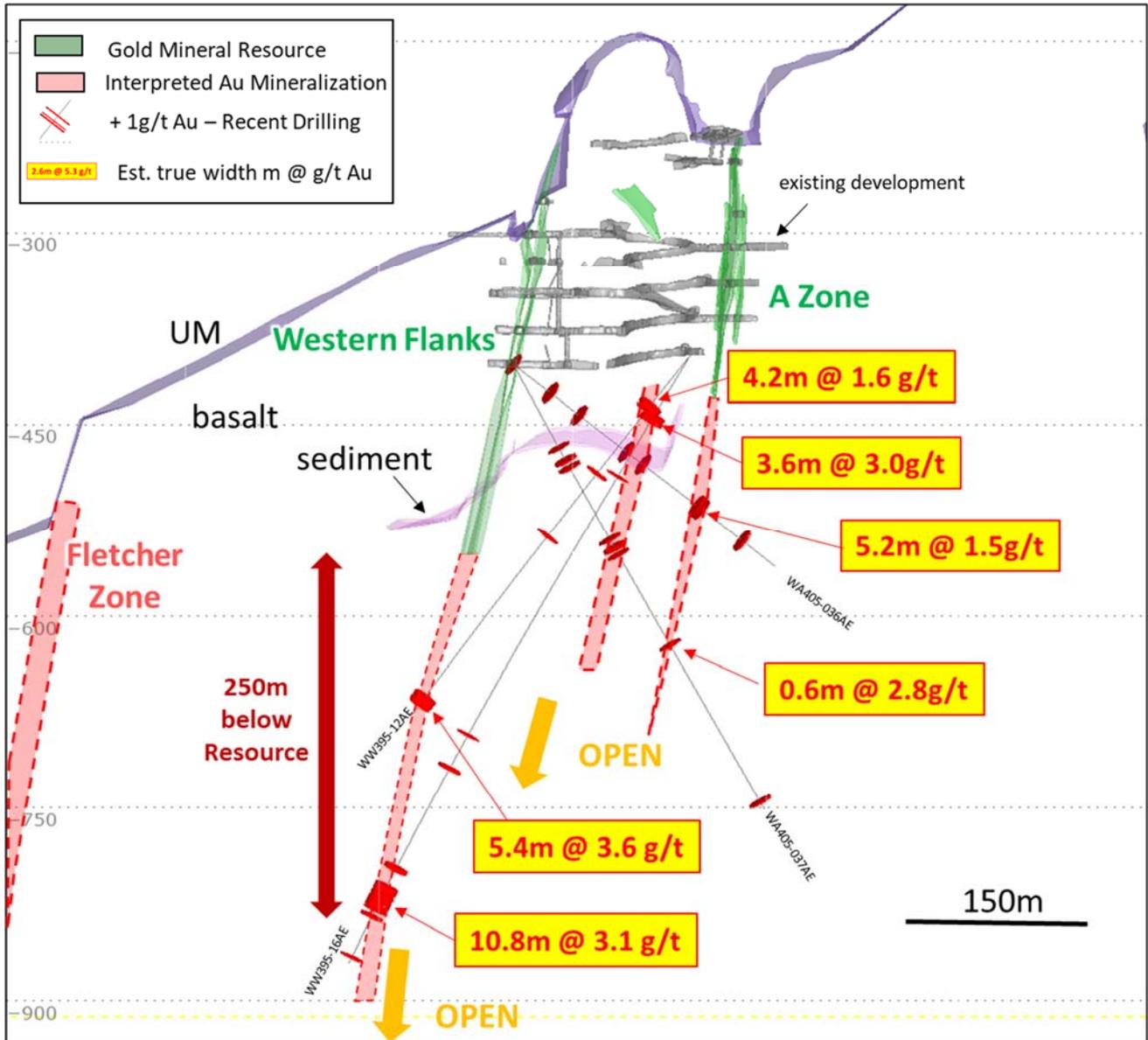


Figure 24-3 Western Flanks Deeps cross-section looking north highlighting recent drill results for both A Zone and Western Flanks. Refer Figure 24-2 for location. Karora news release, October 25, 2022)

Source: Karora



24.1.2 Mason Zone

Drill results from testing an interpreted parallel mineralized shear zone west of the Larkin Mineral Resource returned significant assay results up to 300 m west of the Larkin Zone. This new zone is called the Mason Zone (Figure 24-2, Figure 24-4). Mason Zone mineralization is characterized by strong biotite-pyrite-albite alteration associated with weak to moderate shearing and both shear and extensional quartz veining – similar to Western Flanks mineralization.

Reported results^(Note) (Karora news releases, August 23, 2022 and October 25, 2022) are detailed below:

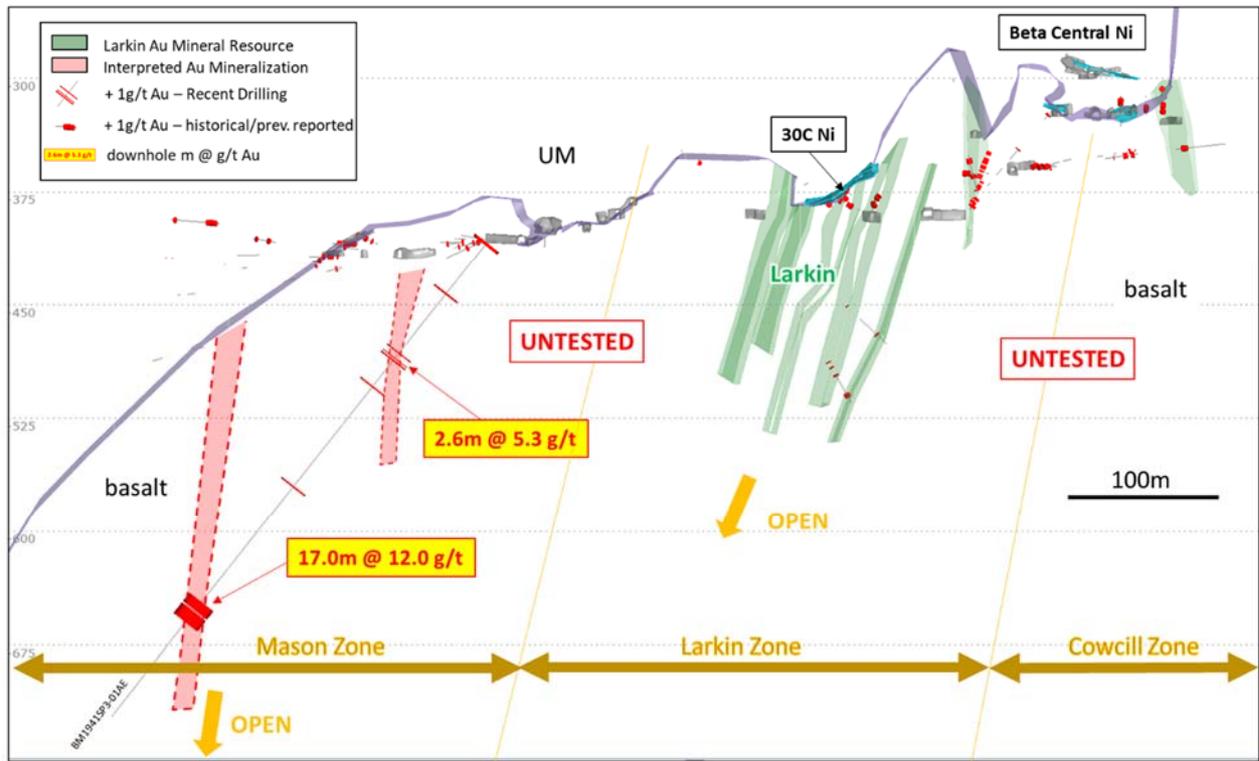
- BM1941SP3-01AE: 12.0 g/t over 17.0 m;
- BM1890-23AE: 4.2 g/t over 11.6 m; and

- BM1890-25AE: 6.0 g/t over 13 m.

Note: Downhole intervals. Estimated true widths cannot be determined with available information.

These results support the potential for the Mason Zone to deliver a new mining opportunity south of the Alpha Island Fault. The Mason is still at a relatively early stage in its development and, until now, this area virtually untested along strike for gold mineralization as a result of the historical focus on nickel targets along the ultramafic/basalt contact.

Figure 24-4 Mason-Larkin-Cowcill cross-section, Beta Block looking north highlighting recent Mason drill result from BM1941SP3-01AE



24.1.3 Fletcher Shear Zone

The gold mineralized Fletcher Shear Zone (“FSZ”) was discovered in 2016 (See RNC news release dated July 6, 2016) and is considered a structural analogue to the Western Flanks and A Zone deposits, representing Beta Hunt’s third major mineralized shear zone system. The FSZ comprises foliated biotite-pyrite altered and irregularly quartz veined basalt – similar alteration to that found at Western Flanks.

Previously reported drilling comprised two holes on the same section with results^(Note) shown below (See RNC news release dated September 16, 2019).

- WF14-98 (Lode A): 2.67 g/t Au over 6.2 m, including 3.1 g/t Au over 3.1 m;
- WF14-98 (Lode B): 2.32 g/t Au over 11.2 m, including 3.8 g/t Au over 4.8 m; and
- FZ350-001: 1.21 g/t Au over 17.5 m, including 5.87 g/t over 0.54 m.

Note: Estimated true widths.

Drilling in 2021/22 comprised three holes, all of which intersected gold mineralization (Karora news release January 24, 2022, May 24, 2022) in the targeted position (Figure 10-6). Significant results listed below^(Note):

- AF18LV-07AE: 3.3 g/t over 9.5 m, including 5.5 g/t over 4.4 m;
- AF18LV-16AE: 18.6 g/t over 0.8 m and 0.6 g/t over 3.3 m; and
- AF-AZDDC1-11AE: 1.5 g/t over 4.0 m.

Note: Downhole intervals. Estimated true widths cannot be determined with available information.

The five drill holes now intersecting FSZ support a steep, west-dipping zone over 150 m in down dip extent over 500 m of strike with potential to extend over a total strike length of 2 km. The mineralized system remains open at depth. These results and the potential mining opportunity they will deliver provide continued support of Karora's growth plan.

24.2 NICKEL EXPLORATION POTENTIAL

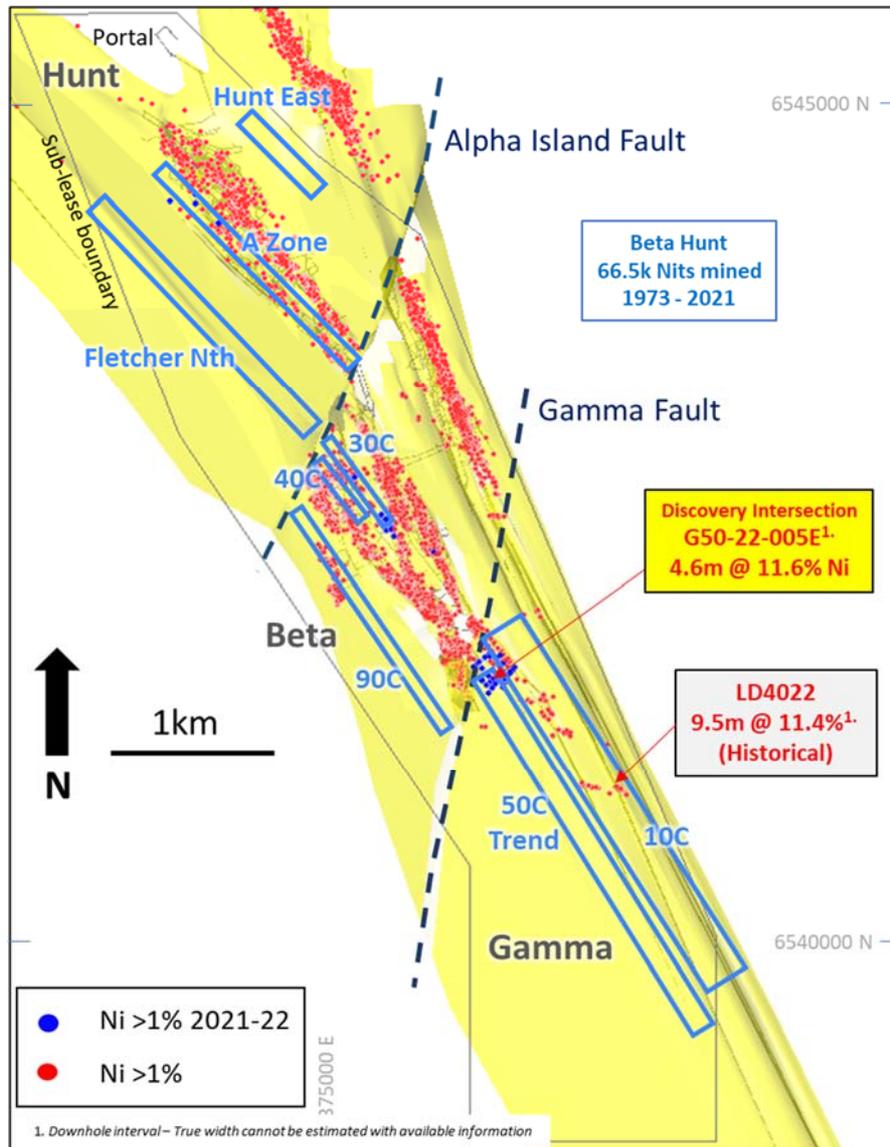
Significant potential exists for the discovery of additional nickel deposits at Beta Hunt along trend from known nickel shoots and in parallel structures north and south of the Alpha Island Fault (Figure 24-5).

Since the release of the 2016 PEA, drilling activity has mostly focused on gold mineralization. This situation, changed in 2020 when Karora recommenced drilling nickel targets, primarily testing targets south of the AIF. This work was successful in discovering the 30C Nickel Trough and the 50C Nickel Trough.

Drilling in 2021/2022 was successful in discovering two new nickel deposits – Gamma Block-50C trough and the 4C and highlights the potential for continued growth of Karora's nickel Mineral Resources.

Figure 24-5 Basalt geology model showing, nickel targets and plus 1% Ni drill intersections

Source: Karora



Note: Nickel targets are highlighted as blue outlines.

24.2.1 Gamma Block

Exploration potential remains open south of the Gamma Fault. This potential was highlighted in 2021 with the discovery of the 50C Nickel Trough from drilling completed in late 2020.

The targeted basalt/ultramafic contact was intersected in four of five diamond holes with nickel mineralization intersected in three holes: G50-22-005E, G50-22-003E and G50-22-002 in the nickel contact position. Two holes, G50-22-005E and G50-22-003E encountered strong nickel mineralization logged as massive and disseminated nickel sulphide, with hole G50-22-005E intersecting 2.2 m (downhole) of massive nickel sulphide. Assay results^(Note) support the visual observation of high tenor mineralization in this hole:

- G50-22-005E: 11.6% Ni over 4.6 m, including 18.4% Ni over 2.2 m;
- G50-22-002E: 1.2% Ni over 0.3 m; and

- G50-22-003E: 2.4% Ni over 1.8 m.

Note: Downhole intervals. True widths cannot be determined with currently available information.

This result was the catalyst for follow-up infill and extensional drilling facilitating the production of updated nickel resources and a maiden nickel resource for the 50C trend.

Both the 10C and 50C trends remain open along strike to the southeast with a potential strike of 3km from the Gamma Fault to the sub-lease boundary. This potential is highlighted by historical surface drill hole LD4022 which intersected 9.5 m (downhole) @ 11.4% Ni, 400 m southeast along strike of the new Mineral Resource (see Karora, 2022c).

24.2.2 Beta Block - 4C

Infill drilling at the top of the Western Flanks gold Mineral Resource at the south end of the deposit intersected high grade, contact-related, nickel sulphide mineralization in two holes drilled 30 m apart along strike. The mineralization is interpreted to be the offset extension of the 4C nickel deposit, part of the A Zone trend, previously mined by Reliance in 2004/05. Significantly, these intersections were located only 25 m from existing development (Figure 24-6). Significant intersections^(Note) from these two holes are highlighted below:

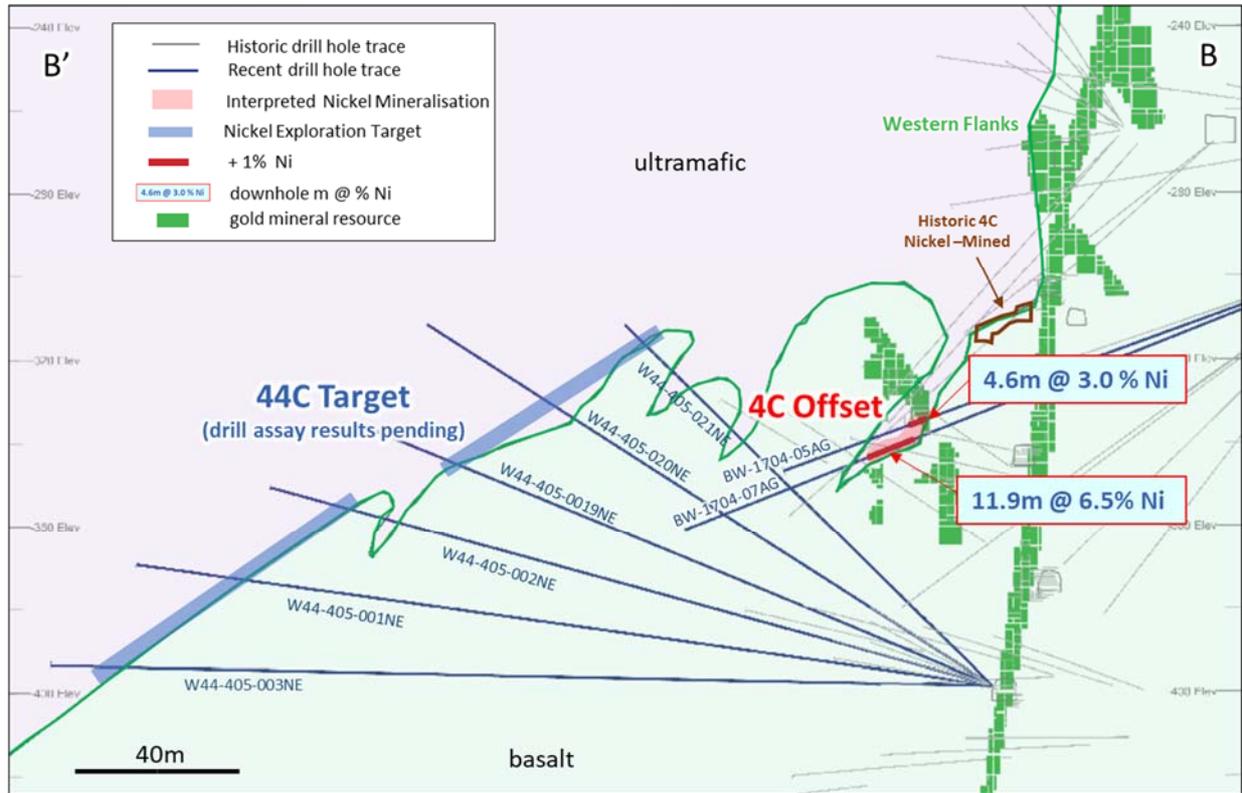
- BW-1704-07AG: 6.5% Ni over 11.9 m; and
- BW-1704-05AG: 3.0% Ni over 4.6 m.

Note: Downhole intervals. True widths cannot be determined with currently available information.

The intersection in drill hole BW-1704-07AG (6.5% Ni over 11.9 m) comprises four layers of massive sulphide mineralization, up to 2.5 m thick, interbedded with both matrix and disseminated sulphide layers. The multiple massive sulphide layers indicate this intersection to represent stacked repeats of the same massive layer, though no visual evidence of thrusting to produce the repeats was observed in the drill core.

The 4C is currently the focus of active mining development and, significantly, represents the first mining within the Hunt Block in over 15 years. Follow-up infill and extensional drilling is in progress, including testing of the 44C, to better define the geometry and extent of this new discovery.

Figure 24-6 Beta Hunt cross-section (+/- 15 m clipping) looking northwest highlighting nickel results from the 4C Offset drilling and location of the 44C nickel target



25 INTERPRETATION AND CONCLUSIONS

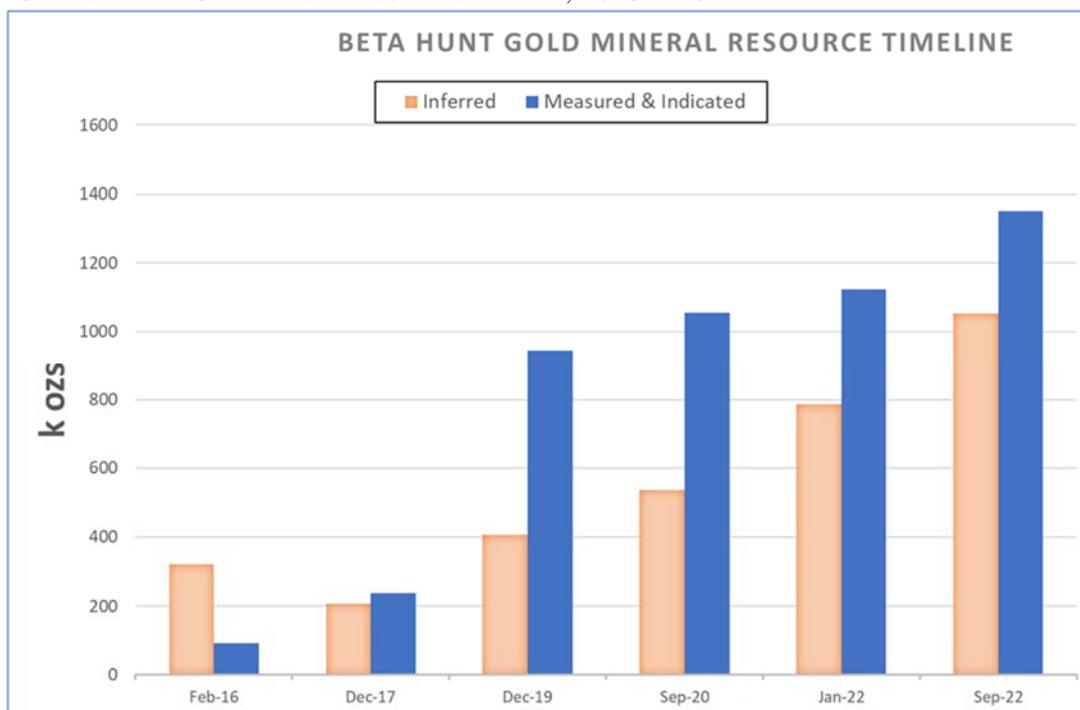
Beta Hunt is an established mining operation with a 50 year history of mining to support its proposed mine plans to exploit the available Mineral Resources. The continued growth of the Beta Hunt Gold and Nickel Mineral Resources and Mineral Reserves, net of mine depletion, provides a strong foundation for ongoing investment in the operation.

Specific conclusions by area follow.

25.1 MINERAL RESOURCES

The steady growth of the Beta Hunt Gold Mineral Resource provides confidence for ongoing investment in the operation. The September 30, 2022 Indicated Gold Mineral Resource totals 1.35 million ounces, an increase of 20% (227,000 ounces). The updated Inferred Gold Mineral Resource now totals 1.05 million ounces, representing a 34% (266,000 ounces) increase. These increases are in comparison to the previously released January 30, 2022 Mineral Resources (Karora, 2022h). The result continues the trend of increasing Mineral Resources (Figure 25-1) and provides the Company with the opportunity to develop medium to long-term plans.

Figure 25-1 Beta Hunt Gold Mineral Resource timeline, 2016 to 2022



The nickel Mineral Resource of 21.1 kt Ni and Inferred Mineral Resource of 13.4 kt Ni represents the most nickel tonnes in a Mineral Resource since the mine was last operated by Consolidated Minerals in 2008. This result underlines the re-invigoration of the nickel by-product opportunity at Beta Hunt. After a four-year pause in nickel focused drilling from 2016 to 2020, a targeted and well-planned exploration drilling program has successfully discovered and defined the 30C Nickel Trough and more recently the 50C Nickel Trough in the Gamma Block. Although only partially drilled out, the new 50C discovery forms part of the current nickel Mineral Resource. Both 50C and parallel 10C trends remain open along strike to the southeast with a potential strike of 3 km from the Gamma Fault to the sub-lease boundary.

The property-wide exploration potential for both gold and nickel remains significant and is outlined in Chapter 24.

25.2 MINERAL RESERVES

The 2022 Mineral Reserve statement represents a 12% increase in consolidated Gold Proven and Probable (“2P”) Mineral Reserves to 538 koz.

The Gold Mineral Reserve provides a fundamentally strong basis for a robust production profile moving forward. It is important to note that the Mineral Resource supporting the Gold Mineral Reserve does not account for any high-grade coarse gold occurrences found at Beta Hunt which have been encountered intermittently in the recent past.

25.3 MINERAL PROCESSING

There is limited risk associated with the ongoing processing of mineralization from Beta Hunt as:

- Beta Hunt has the proven ability to blend with mineralization from Karora’s Higginsville Operation which has, in some cases, resulted in improved throughputs and lowering overall milling costs.
- Beta Hunt mineralisation has shown to be readily amenable to the Higginsville and Lakewood milling circuit, achieving good recoveries and throughputs.
- Beta Hunt is an operating mine with gold production currently being processed at the Karora owned HGO and Lakewood Processing Facility and an agreement is in place for processing of nickel.

25.4 MINING

Beta Hunt transitioned to owner-operations using conventional methods and has since experienced considerably improved results. The steady-state ore production rate of 3,000 t/d was achieved by the second half of 2022.

Gold mineralization occurs in wide and steeply dipping shear-vein system that are amenable to mechanized methods.

25.5 ENVIRONMENTAL

Risks associated with environmental issues at Beta Hunt and two GPFs are considered low.

Beta Hunt is an operating mine and in possession of all required permits. The mine is high grade, low tonnage and uses underground methods. Furthermore, there is no processing of ore and associated impoundment of tailings performed on the site. The consequent impact on the environment is low.

At Lakewood, water and tailings management remain the key focus. Since the acquisition of Lakewood by Karora, considerable work has been undertaken to ensure compliance and risk mitigation by addressing all of the recommendations made by the geotechnical design engineer that included rock buttressing and sheet of TSF embankments. The Lakewood Gold Processing Facility is currently in compliance with environmental approvals, licences and permits.

In November 2021, Karora completed the second stage of a four-stage consolidation and lift program of its tailings storage facility (TSF 2–4) at Higginsville. Karora will begin construction on the third stage lift in April 2023. The remaining tailings storage capacity at TSF 2–4 is estimated to be approximately three years. Independent analysis and design were undertaken by Tetra Tech

Coffey. Regulatory approvals have been received for all four stages. Karora are currently completing a feasibility study for the location of the next tailings storage facility.

25.6 CAPITAL REQUIREMENTS

The capital intensity at Beta Hunt and the Higginsville GPF is relatively low for the following reasons:

- Beta Hunt is an operating mine with all necessary infrastructure mostly in place and primary development to the various working areas established. Processing of mineralization is performed at the HGO Processing Facility, so there is no required investment in surface infrastructure, such as a mill or tailings facility. The new updated Mineral Resource and Reserve is relatively close to existing infrastructure and will not require large capital investments to access.
- At Higginsville, the HGO Processing Facility is fully functional requiring limited capital to maintain current production rates. Supporting capital requirements including an office and workshops, a 200 person accommodation village, and a fully stocked store including most critical spares are also in place.
- The Lakewood GPF plans to expand its production rate to 1.2 Mtpa in 2023. To achieve this target requires an appropriate increase in tailings storage capacity. The additional capacity will be met by undertaking two lifts on TSF 1 and completing the first stage of TSF 2. Funds of \$7.4M are allocated to do this work.

26 RECOMMENDATIONS

At Beta Hunt, the authors recommend that Karora use the recently defined Gold Mineral Reserve as the basis for providing medium to long term security for the ongoing development of the Beta Hunt Mine.

Specific recommendations for Beta Hunt include:

- Using the security of the Gold Mineral Reserve to develop medium- to long-term improvements in operational performance and costs, and also to provide leverage for capital investment if required.
- Use the updated Nickel Mineral Resources to develop Nickel Mineral Reserves to support ongoing investment into nickel mining.
- Develop Mineral Resources for the newly discovered Mason Zone by supporting a resource definition drilling program to infill wide spaced drill intersections recorded in 2022.
- Support with drilling the upgrade and extension of the newly defined 50C Nickel Mineral Resource south of the Gamma Fault.
- Continue to evaluate and test with drilling the gold and nickel exploration potential at Beta Hunt.

A key feature of Beta Hunt is the separate but adjacent nickel and gold deposits and associated ability to modulate production in response to market conditions. Accordingly, and given current market turbulence, short-term plans should include sufficient flexibility to allow prioritization of whichever metal that allows free cash flow to be maximized at the time.

The authors are unaware of any other significant factors and risks that may affect access, title, or the right or ability to perform the exploration work recommended for Beta Hunt.

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28 DATE AND SIGNATURE PAGE

Technical Report Title: NI 43-101 Technical Report
Beta Hunt Operation
Eastern Goldfields, Western Australia

Technical Report Date: March 30, 2023

Effective Date: December 30, 2022

Signed by:



March 30, 2023

Stephen Devlin, FAusIMM



March 30, 2023

Shane McLeay, FAusIMM

29 DEFINITIONS

All currency amounts are stated in either Australian dollars (A\$ or AUD), Canadian dollars (C\$) or US dollars (USD or US\$). The choice of currency reflects the underlying currency for an item, for example:

Capital and operating costs are expressed in A\$ as this is the currency in use at site. Moreover, the size of the Australian economy is such that these costs are relatively insensitive to variation in the A\$ - US\$ exchange rate.

As is the common global practice, commodity prices in this Technical Report are generally expressed in US\$. Nickel prices are also reported in A\$ as this is the contractual basis for one of the royalties.

Valuations are expressed in US\$ to reflect both the global nature of the investment community and the linkage between valuation and commodity price.

Quantities are generally stated using the Système International d'Unités (SI) or metric units, the standard Canadian and international practice, including metric tonnes (t), kilograms (kg) or grams (g) for weight, kilometres (km) or metres (m) for distance and hectares (ha) for area. Wherever applicable, imperial units have been converted to SI units for reporting consistency.

Frequently used acronyms and abbreviations are listed below.

ABGM PTY LTD	ABGM
<i>Aboriginal Heritage Act 1972 (WA)</i>	AHA
Aboriginal Heritage Inquiry System	AHIS
Annum (year)	a
All-in sustaining cost	AISC
Alpha Island Fault	AIF
Ammonium nitrate–fuel oil	ANFO
Atomic Absorption Spectroscopy	AAS
Australian Securities Exchange	ASX
Avoca Resources Pty Ltd (previously Avoca Resources Limited)	Avoca
Avoca Mining Pty Ltd	AML
Banded Iron Formation	BIF
Base of Alluvial	BOA
Base of Complete Oxidation	BOCO
Beta Hunt Mine	Beta Hunt
BHP Billiton Nickel West Pty Ltd	BHP
Canadian Securities Administrators	CSA
Carbon-in-leach	CIL
Cavity monitoring system	CMS
Cemented rock fill	CRF
Centimetre	cm
Certified reference material	CRM
Coefficient of variation	CV
Consolidated Nickel Kambalda Operations Pty Ltd.	CNKO
Canadian Securities Administrators	CSA
Cubic metre	m ³
Concentration by weight	Cw
Datamine Studio	Studio UG
Degree	°
Degrees Celsius	°C

Department of Biodiversity, Conservation and Attractions	DBCA
Department of Climate Change, Energy, the Environment and Water	DCCEEW
Department of Water and Environment Regulation, amalgamation of previous government bodies: Department of Environmental Regulation and Department of Water	DWER, DoW, or DER
Department of Water	DoW
Department of Mines, Industry Regulation and Safety	DMIRS, DMP
Department of Planning Lands and Heritage	DPLH
Earnings before interest, taxation, depreciation & amortization	EBITDA
Effective grinding length	EGL
Electric Vehicle	EV
Electromagnetic	EM
<i>Environmental Protection Act 1986</i>	EP Act
Environmental Protection Authority	EPA
Environmental Scoping Document	ESD
Estimated true width	ETW
Exploration Incentive Scheme	EIS
Fletcher Shear Zone	FSZ
Fly-in/Fly-out	FIFO
Full time equivalent employee	FTE
General and administrative	G&A
Geological Database Management System	GDMS
Gold	Au
Gold Processing Facility	GPF
Golden Mile Milling Pty Ltd	GMM
Gram	g
Grams per litre	g/L
Grams per tonne	g/t
Greater than	>
Greenstone-hosted quartz-carbonate vein	GQC
Hectare (10,000 m ²)	ha
Heavy vehicle	HV
Higginsville Gold Operations	HGO
Hour	h
Joint Ore Reserves Committee	JORC
Australasian Code for Reporting of Mineral Resources and Ore Reserves prepared by the Joint Ore Reserves Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia	JORC Code
Inductively coupled plasma	ICP
Inverse distance	ID
Kalgoorlie Consolidated Gold Mines	KCGM
Kalgoorlie Nickel Smelter	KNS
Kambalda Nickel Concentrator	KNC
Karora Resources Inc.	Karora
Kilogram	kg
Kilometre	km
Kilovolts	kV
Kilowatt hour	kWh
Kilowatt	kW
Kriging neighbourhood analysis	KNA
Less than	<
Litre	L

Life of mine	LOM
Light vehicle	LV
Liquified natural gas	LNG
Litres per second	L/s
Load-haul-dump	LHD
London Metal Exchange	LME
Longhole Open Stopping	LHOS
Metre	m
Metres above sea level	masl
Micrometre (micron)	µm
Millimetre	mm
Million troy ounces	M oz
Million pounds	Mlbs
Million pounds per annum	Mlbs/a
Million tonnes per annum	Mtpa
Million	M
Million years	Ma
Mine Closure Plan	MCP
Mineable Shape Optimizer	MSO
Mineral Titles Online	MTO
<i>Mining Act 1978 (WA)</i>	Mining Act
Mining Proposal	MP
Mining Rehabilitation Fund	MRF
<i>Mining Rehabilitation Fund Act 2012 (WA)</i>	<i>MRF Act</i>
Minute (plane angle)	'
Minute	min
National Instrument 43-101	NI 43-101
<i>Native Title Act 1993 (Cth)</i>	NTA
Net present value	NPV
Net smelter return	NSR
Net smelter return per tonne	NSR/t
Ngadju Native Title Aboriginal Corporation	Ngadju
Nickel	Ni
Nickel Pig Iron	NPI
Notice of Intent	NOI
Ore Tolling & Concentrate Purchase Agreement (BHP)	OTCPA
Operating cash flow	OCF
Ordinary Kriging	OK
Orelogy Mine Consulting Pty Ltd	Orelogy
Ore Research and Exploration Pty Limited	OREAS
Original Equipment Manufacturers	OEM
Parts per billion	ppb
Parts per million	ppm
Percent	%
Preliminary economic assessment	PEA
Preliminary feasibility study	PFS
Polar Metals Pty Ltd	PMT
Pound(s)	lb(s)
Qualified Person	QP
Quality Assurance and Quality Control	QA/QC
Reliance Mining Limited	RML
Return air pass	RAP
RNC Minerals	RNC

Reasonable prospects for eventual economic extraction	RPEEE
Rock Quality Designation	RQD
Run of mine	ROM
Salt Lake Mining Pty Limited	SLM
Second (plane angle)	"
Specific gravity	SG
Square kilometre	km ²
Square metre	m ²
St Ives Gold Mining Company Pty Limited	SIGMC
System for Electronic Document Analysis and Retrieval	SEDAR
Tailings storage facility	TSF
Tetra Tech Coffey	TTC
Tonne (1,000 kg)	t
Thousand tonne	kt
Thousand tonne per day	kt/d
Thousand troy ounces	koz
Tonnes per day	t/d
Tonnes per hour	t/h
Tonnes per year	t/a
Top of Fresh	TOFR
Troy ounce (31.10348 grams)	oz
Uncemented rock fill	URF
Waste rock landform	WRL
Western Mining Corporation	WMC

30 CERTIFICATES OF QUALIFIED PERSONS

CERTIFICATE OF QUALIFIED PERSON

Stephen Devlin

Karora Resources Inc

6 Outram St, West Perth WA 6005, Australia

Telephone: +61 (0)427 778 299

Email: steve.devlin@karoraresources.com

To accompany the Technical Report titled: "Beta Hunt Operation Eastern Goldfields, Western Australia" dated March 30, 2023.

I, Stephen Devlin, BSc ,FAusIMM, do hereby certify that:

1. I am Group Geologist – Exploration & Growth at Karora Resources Inc, with an office at 15 Altona St, West Perth, Western Australia, Australia.
2. I am a graduate from Sydney University, NSW Australia in 1980 with a B.Sc. Hons in Geology and from Curtin University, Perth, Western Australia in 2013 with a Grad. Certificate in Mineral & Energy Economics; and I have practised my profession continuously since 1981. My relevant experience for the purpose of the Technical Report is: Over 30 years of gold industry experience in exploration, resource development, resource estimation/auditing, mining and management of gold and nickel deposits in the Archean of Western Australia.
3. I am a Fellow of the Australasian Institute of Mining and Metallurgy.
4. I have read the definition of "Qualified Person" set out in National Instrument 43- 101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
5. I have prior involvement with the properties that are the subject of the Report. This involvement is via my role as Group Geologist – Exploration & Growth with Karora Resources Inc between January 2019 and present, as well as fulfilling the role of Business Development Manager with Salt Lake Mining Pty Ltd (prior owners of the Beta Hunt Mine) between 2014 and 2018.
6. I am responsible for preparation of the Technical Report entitled "Beta Hunt Operation Eastern Goldfields, Western Australia" dated March 30, 2023.
7. I am not an independent "qualified person" within the meaning of section 1.5 of National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators.
8. I have read NI 43-101 and Form 43-101F1 and have prepared and read the previously-mentioned section of the report entitled "Beta Hunt Operation Eastern Goldfields, Western Australia" dated March 30, 2023 for Karora Resources Inc, in compliance with NI 43-101 and Form 43-101F1.
9. That, at the effective date of this technical report December 30, 2022, to the best of my knowledge, information, and belief it contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

This 30th day of March 2023

Original Signed

A handwritten signature in cursive script that reads "Steve Devlin". The signature is written in black ink and is positioned above a horizontal line.

Steve Devlin

CERTIFICATE OF QUALIFIED PERSON

Shane McLeay
Entech Pty Ltd

8 Cook, West Perth WA 6005, Australia

Telephone: +61 (0) 418 940 433

Email: shane.mcleay@entechmining.com

To accompany the Technical Report entitled: "Beta Hunt Operation Eastern Goldfields, Western Australia" dated March 30, 2023.

I, Shane McLeay, B.Eng (mining) .FAusIMM, do hereby certify that:

1. I am Principal Consultant of Entech Pty Ltd, an independent mining consultant, with an office at 8 Cook St, West Perth, Western Australia, Australia.
2. I am a graduate from the Western Australian School of Mines, Curtin University Australia in 1995 with a B.Eng (mining). Hons. I have practised my profession continuously since 1995. My relevant experience for the purpose of the Technical Report is: Over 20 years of gold and base metals industry experience in feasibility studies, operational mine start-up, mine costing and steady state production.
3. I am a Fellow of the Australasian Institute of Mining and Metallurgy.
4. I have read the definition of "Qualified Person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfil the requirements to be a "Qualified Person" for the purposes of NI 43-101.
5. I have prior involvement with the property that is the subject of the Report having assisted Salt Lake Mining with design and operational reviews since 2014.
6. I am responsible Section 15, 16, 21.1 and 21.2 of the Technical Report entitled "Beta Hunt Operation Eastern Goldfields, Western Australia" dated March 30, 2023, specifically related to Beta Hunt.
7. I am an independent "qualified person" within the meaning of section 1.5 of National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators.
8. I have read NI 43-101 and Form 43-101F1 and have prepared and read the report entitled "Beta Hunt Operation Eastern Goldfields, Western Australia" dated March 30, 2023 for Karora Resources Inc, in compliance with NI 43-101 and Form 43-101F1.
9. That, at the effective date of this technical report December 30, 2022 to the best of my knowledge, information, and belief it contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

This 30th day of March 2023

'Original Signed and Sealed'



Shane McLeay

Principal Consultant

Entech Pty Ltd