Market Update

18 February 2025

Cobalt Blue Holdings Limited

A Green Energy Exploration Company

ASX Code: **COB**

Commodity Exposure:

Cobalt, Copper & **Sulphur**

Directors & Management:

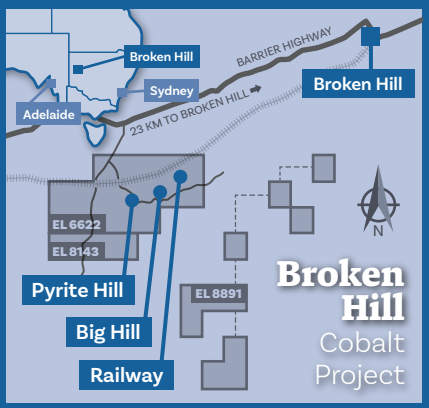
Robert Biancardi	Non-Exec Chairman
Hugh Keller	Non-Exec Director
Joe Kaderavek	CEO & Exec Director
Kelvin Bramley	CFO & Company Secretary

Capital Structure:

Ordinary Shares at 18/02/2025:	**436.7m**
Unlisted options/rights:	**52.0m**
Market Cap (undiluted):	**$24m**

Share Price:

Share Price at 18/02/2025:	**$0.054**



Cobalt Blue Holdings Limited

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Highlights

COB Diversifies – Major Copper Project Earn in

KEY POINTS

Corporate Rebrand

- Cobalt Blue Holdings Limited (ASX: COB) ('**COB**' or '**the Company**') is pleased to announce a proposed rebrand and change of name (subject to shareholder approval) to better reflect its expanded focus across a broader range of metals. The proposed new name, Core Blue Minerals Limited, aligns with COB's expanded focus beyond cobalt into a diversified commodity portfolio.

Earn-In Agreement for major copper project

- COB has entered into an Earn-in agreement ('**the Agreement**') with AuKing Mining Limited ('**AKN**') for the Halls Creek Project (the '**Halls Creek Project**' or '**the Project**'); a large scale copper-lead-zinc-silver-gold asset with significant cobalt potential.
- The Agreement enables COB to leverage its extensive metallurgical, engineering, and project development expertise to drive portfolio diversification.
- The Halls Creek Project hosts two major deposits with existing Mineral Resource estimates containing a combined 89kt copper (Cu), 69kt lead (Pb), 326kt zinc (Zn), 9.2Moz silver (Ag) and 45koz gold (Au) including:
  - **Sandiego** – Total of 4.1Mt (3.7Mt Indicated / 0.4Mt Inferred) at 1.4% Cu, 0.4% Pb, 4.2% Zn and 25g/t Ag for 56kt contained Cu, 18kt Pb, 175kt Zn, 3.3Moz Ag, and 25koz Au; and
  - **Onedin** – Total of 4.8Mt (Indicated) at 0.7% Cu, 1.1% Pb, 3.1% Zn and 38g/t Ag for 33kt contained Cu, 51kt Pb, 151kt Zn, 5.9Moz Ag and 20koz Au.
  - 96% of the total Mineral Resource tonnes are classified as Indicated.
- Geological modelling has highlighted substantial opportunity for high-grade extensions and or repetitions with deposits open along strike and at depth. Drilling by AKN has also intersected substantial zones of near surface oxide-transition-supergene copper mineralisation at the Onedin deposit with significant intersections including:
  - 55.1m at 3.5% Cu, 1.2% Pb, 0.8% Zn & 103g/t Ag from 94m (AORD004) including:
    - 16.6m at 10.2% Cu, 0.5% Pb, 1.0% Zn & 316g/t Ag from 130m
  - 118m at 1.1% Cu, 1.6% Pb, 1.1% Zn & 52g/t Ag from 14m (AOWB03) including:
    - 21m at 2.1% Cu & 66g/t Ag from 93m
- The Project is favourably located within the Kimberley region of Western Australia; just 15km southwest of Halls Creek and 320km south of Wyndham port. The area has historically supported the Nicholsons Gold Mine and the Savannah Nickel-Copper-Cobalt Mine). The Project is supported by strong logistics support, including established road and port facilities.

Commenting on the corporate rebranding and Earn-in agreement, Cobalt Blue's Chief Executive Officer, Joe Kaderavek said: *"The Cobalt Blue name no longer reflects the full scope of our business. As our technical and project development expertise uncovers new opportunities across base and precious metals, a corporate rebrand marks a key milestone. While our commitment to delivering a strong battery materials strategy remains unchanged, we are actively expanding our portfolio with high-value projects that have the potential to enhance future earnings.*

The Halls Creek Project Earn-in is a transformational step, broadening our commodity exposure and strengthening our resilience against future pricing cycles. We see immense development potential at Halls Creek and are well-positioned to unlock value through complementary initiatives—including the development of Australia's first cobalt-nickel refinery."

Proposed Corporate Rebrand

Following the development of the ReMine+ business unit and the proposed Earn-in of the Halls Creek Project, COB has expanded its focus to include non-battery metals, extending beyond cobalt alone. Our three core business pillars remain unchanged, with the proposed Halls Creek Project Earn-in enhancing our technical and development expertise while reinforcing our long-term growth strategy.

Recognising this expanded focus, the Board of COB has endorsed a proposal to seek shareholder approval for a name change to **Core Blue Minerals Limited.** This transition acknowledges our diversified commodity exposure, providing economic resilience against individual metal pricing cycles. At the same time, it preserves the strong battery materials branding that is well recognised by governments, investors, and key stakeholders.

Importantly, the renaming will not impact the Company's commitment to the Kwinana Cobalt Refinery ('**KCR**') and the Broken Hill Cobalt Project ('**BHCP**') and our partnership with Iwatani Corporation. These remain core projects for the Company, and we anticipate providing further updates, particularly on the KCR project, in 1H 2025.

The proposed name change is subject to shareholder approval, with a resolution to be included in the Notice of Meeting for a general meeting to be scheduled in Q2 2025. The Company's ASX code will remain the same.

Halls Creek Project Earn-In Agreement

The key terms of the Agreement are as follows:

Stage 1

- Subject to satisfaction of certain conditions precedent including deeds of assignment and assumption being executed by relevant third parties, COB will acquire a 51% beneficial interest in the Project by issuing AKN with A$200,000 worth of COB shares (at an issue price of $0.072 – set at the same level as the recent rights issue), being 2,777,778 shares, which will be subject to escrow for a period of six months from the date of the Agreement.
- To retain the 51% beneficial interest COB must meet a minimum expenditure of A$500,000 by 30 June 2027.

Stage 2

- COB will then have the right (but not the obligation) to earn up to a 75% interest (an additional 24%) in the Project by incurring an additional A$1.5 million of expenditure on the tenements by 30 June 2028.
- Should AKN's interest dilute below 10% the interest shall revert to a 1% Net Smelter Royalty ('**NSR**').

Strategic Rationale

The Halls Creek Project Earn-in provides commodity diversification, reducing exposure to cyclical lows in the global cobalt market. The low-cost entry structure of the agreement allows COB to progressively increase its beneficial interest in the Project while significantly advancing its technical development.

Crucially, the low capital intensity of the Earn-in obligations ensures COB can maintain financial flexibility, enabling the Company to pursue additional growth opportunities through ongoing business development initiatives.

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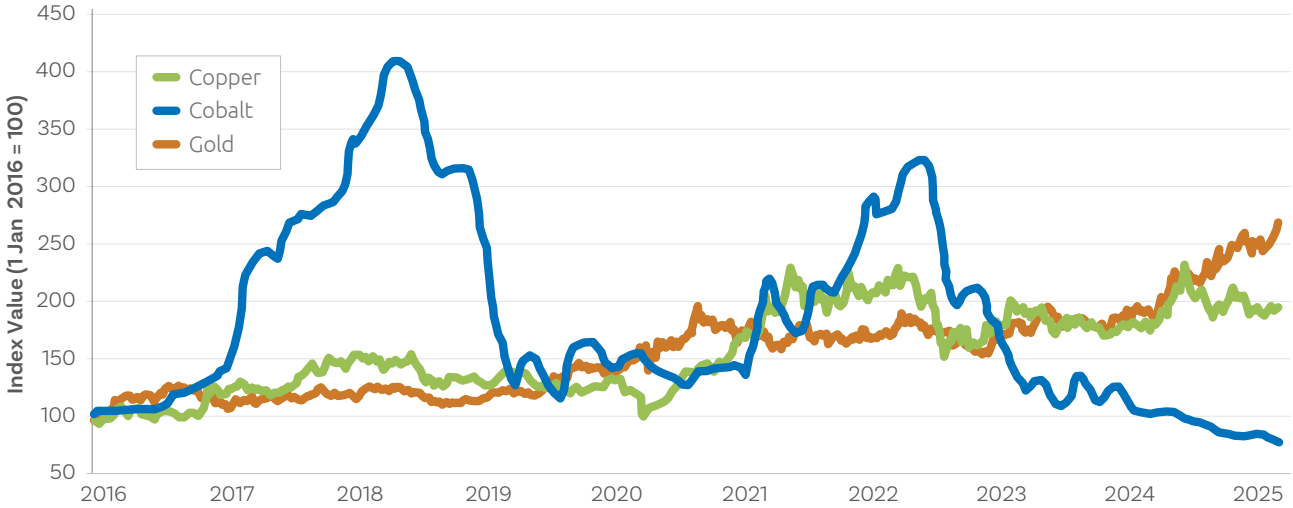
In addition, the agreement delivers the following advantages:

Diversification for Enhanced Resilience

The Halls Creek Project expands the Company's portfolio beyond cobalt, adding copper, lead, zinc, silver, and gold to our commodity mix. This diversification enhances resilience against price volatility, creating a more balanced foundation for capital allocation and strategic planning. By reducing reliance on single-commodity cycles, the Company is strengthening its ability to adapt to market dynamics with greater agility and unlock new growth opportunities.

Figure 1 – **Diversification provides financial resilience during individual commodity price cycles (Gold, copper and cobalt prices since 2016, rebased $2024. Source: Fastmarkets, Cobalt Blue Holdings).**



Strong Market Outlook for Key Commodities

The global outlook for copper, silver, and gold remains strong, driven by robust short- and long-term fundamentals:

- Copper stands out as one of the most compelling investment opportunities, benefiting from strong demand growth and constrained supply. Essentially the "metal of electrification", copper is fundamental in traditional industrial applications as well as vital to all energy transition plans. Already in strong demand among industrialising economies, global copper consumption is expected to continue to rise because of its critical role in electrification, decarbonisation technologies, spread of Artificial Intelligence (**AI**) tools and data centres. Meanwhile, supply is expected to remain under pressure from decades of underinvestment, declining ore grades, long project lead times, and increasing resource nationalism.
- Silver and gold offer additional exposure to strategic and financial metals. In the near term, falling U.S. interest rates, geopolitical uncertainty, and central bank buying provide strong tailwinds. Over the long term, rising global debt levels and growing demand for alternative stores of value are expected to further support gold's role in financial markets.

The Halls Creek Project aligns our portfolio with long-term macroeconomic and geopolitical trends, reinforcing our position in metals that are essential to the global economy and the energy transition.

Synergies with Our Refinery and Future Feedstock Strategy

A key element of our growth strategy is the advancement of our Kwinana Cobalt Refinery, where we are actively pursuing opportunities to secure domestic feedstocks and expand our processing capabilities. The Halls Creek Project Earn-in aligns with this objective, creating the potential for integrated value chains that leverage our refining expertise and technical capabilities.

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Unlocking Value through Technical Expertise

With a proven track record of technical excellence in project development and metallurgical innovation, COB is uniquely positioned to unlock the full potential of the Halls Creek Project. Our deep expertise in resource development and process optimisation will promote value creation while advancing the project efficiently. Integrating the Halls Creek Project Earn-in into our portfolio improves financial resilience, seizes market opportunities, and solidifies our business as a leading, diversified resource development company.

Halls Creek Project

The Halls Creek Project is located in the Kimberley region of Western Australia; a mature mining jurisdiction with a significant record of resource production including iron ore, mineral sands, rare earths, nickel, copper, cobalt and gold. Located 15km southwest of Halls Creek (pop. ~3,500), the project comprises two significant deposits; Sandiego and Onedin. The deposits are directly adjacent to the Great Northern Highway which connects the Project to Kununurra and Wyndham Port, respectively some 300km and 320 km north. Wyndham Port is the only deep-water port between Broome and Darwin servicing exports including crude oil, live cattle, raw mined products, scrap metal and maize from across Northern Australia and produce from the Ord River irrigation area.

Figure 2 – **Halls Creek Project – regional location**

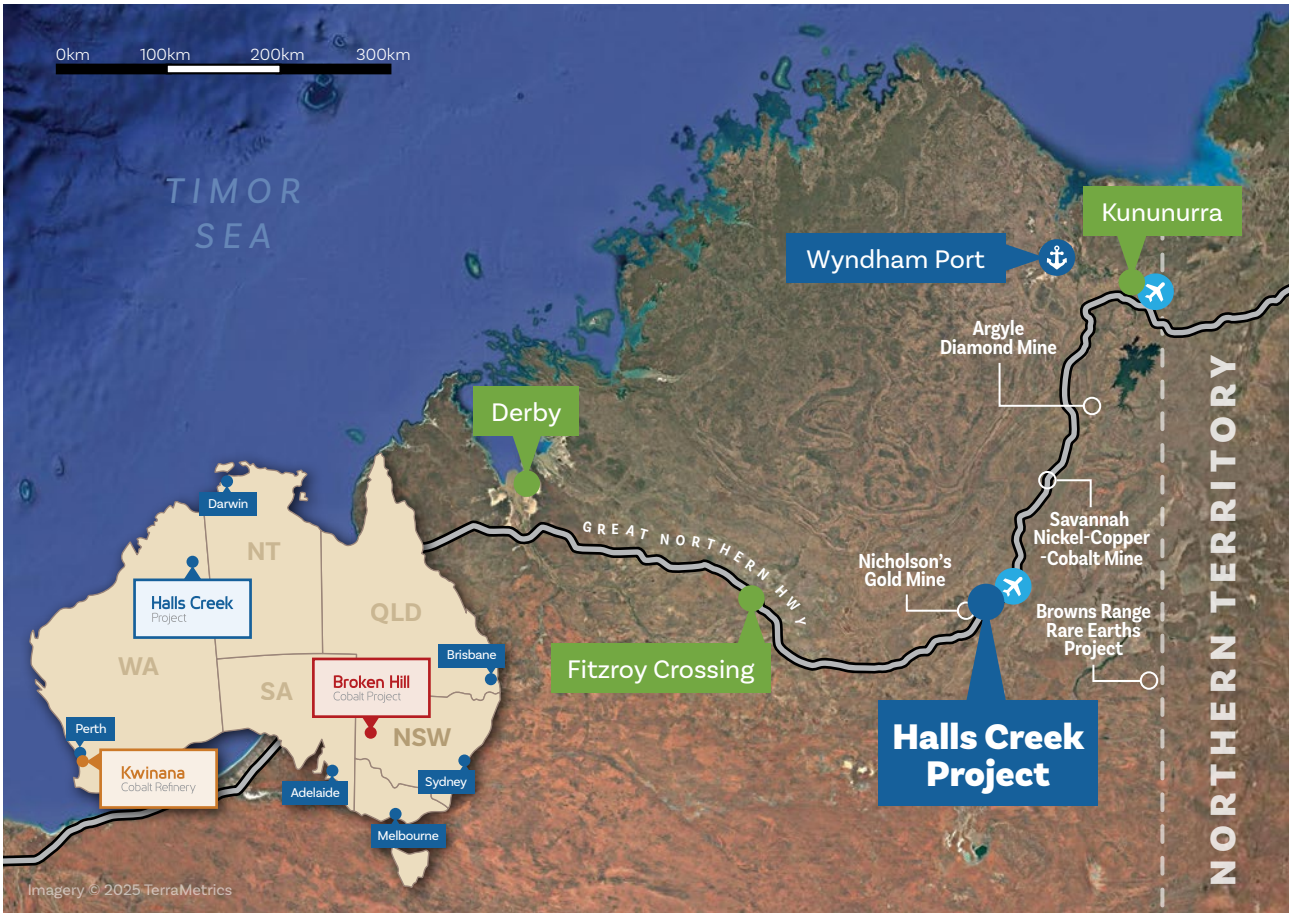

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Figure 3 – **Wyndham Port facilities (Source: Kimberley Ports Authority)**

Other notable projects within the region include the:

- **Nicholsons' Gold Mine:** Located approximately 15km west of the Project area, the Nicholsons Find gold mine was owned and operated by Pantoro Limited between 2015 and 2023, producing ~30koz gold per annum.
- **Savannah Nickel-Copper-Cobalt Mine:** Located approximately 110km north of Halls Creek, the Savannah Nickel Mine was formerly operated by Panoramic Resources producing nickel-copper-cobalt concentrates which were exported via Wyndham port. Production ceased in 2024, and the project was recently acquired by Zeta Resources.
- **Argyle Diamond Mine:** Located approximately 180km northeast of Halls Creek and 110km southwest of Kununurra, The Argyle Diamond Mine was formerly operated by Rio Tinto. Over its 37-year life, the mine produced more than 865 million carats of rough diamonds—operations ceased in late 2020.
- **Browns Range Rare Earths Project:** Located approximately 160km southeast of Halls Creek, the Browns Range Project is currently being advanced through a Definitive Feasibility Study.

The Project has been subject to previous exploration by Billiton Australia Pty Ltd, Lachlan Resources NL, Anglo Australian Resources NL and AKN through various joint ventures. Since 1990, expenditure attributed to the main deposit areas totals some A$20 million providing the Company with a strong foundation upon which to advance Project development.

Mineral Resources

The Halls Creek Project is inclusive of two existing Mineral Resources including:

- **Sandiego** – 4.1Mt at 1.4% Cu, 0.4% Pb, 4.2% Zn and 25g/t Ag for 56kt contained copper, 18kt lead, 175kt zinc and 3.3Moz silver.
- **Onedin** – 4.8Mt at 0.7% Cu, 1.1% Pb, 3.1% Zn and 38g/t Ag for 33kt contained copper, 51kt lead, 151kt zinc and 5.9Moz silver.

The Mineral Resource estimates were independently prepared by ERM Australia Consultants Pty Ltd ('**ERM**', formerly CSA Global) and were originally released to ASX on 7 April 2022 by AKN.

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Table 1 – **Mineral Resource estimate for the Sandiego deposit detailed by classification. Note minor rounding errors may have occurred in compilation of this table.**

		Grade					Contained Metal				
Classification	**Tonnes** (Mt)	**Copper** (%)	**Lead** (%)	**Zinc** (%)	**Silver** (g/t)	**Gold** (g/t)	**Copper** (kt)	**Lead** (kt)	**Zinc** (kt)	**Silver** (Moz)	**Gold** (Koz)
Sandiego (Copper zone reported at a 0.8% copper cut-off grade)											
Indicated	1.7	2.3	0.2	0.8	18	0.3	39.1	3.4	13.6	0.98	16.4
Inferred	0.3	1.6	–	3.0	5	0.2	4.8	–	9.0	0.05	1.9
Sub-total	2.0	2.2	0.1	1.1	16	0.3	43.9	3.4	22.6	1.03	18.3
Sandiego (Zinc zone reported at a 3% zinc cut-off grade)											
Indicated	2.0	0.6	0.7	7.3	35	0.1	12.0	14.0	146.0	2.25	6.4
Inferred	0.1	0.2	0.1	6.1	10	0.1	0.2	0.1	6.1	0.03	0.3
Sub-total	2.1	0.6	0.7	7.3	34	0.1	12.2	14.1	152.1	2.28	6.7
Total											
Indicated	3.7	1.4	0.5	4.3	27	0.2	51.1	17.4	159.6	3.23	22.8
Inferred	0.4	1.3	0.0	3.8	6	0.2	5.0	0.1	15.1	0.08	2.2
Total	**4.1**	**1.4**	**0.4**	**4.2**	**25**	**0.2**	**56.1**	**17.5**	**174.7**	**3.31**	**25.0**

Table 2 – **Mineral Resource estimate for the Onedin deposit detailed by classification. Note minor rounding errors may have occurred in compilation of this table.**

		Grade					Contained Metal				
Classification	**Tonnes** (Mt)	**Copper** (%)	**Lead** (%)	**Zinc** (%)	**Silver** (g/t)	**Gold** (g/t)	**Copper** (kt)	**Lead** (kt)	**Zinc** (kt)	**Silver** (Moz)	**Gold** (Koz)
Onedin (Copper zone reported at a 0.4% copper cut-off grade)											
Indicated	1.5	1.1	1.2	0.6	47	0.2	16.5	18.0	9.0	2.27	9.7
Onedin (Zinc zone reported at a 1% zinc cut-off grade)											
Indicated	3.3	0.5	1.0	4.3	34	0.1	16.5	33.0	141.9	3.61	10.6
Total	**4.8**	**0.7**	**1.1**	**3.1**	**38**	**0.1**	**33.0**	**51.0**	**150.9**	**5.88**	**20.3**

Growth Potential

Geological modelling undertaken by AKN in support of the Sandiego and Onedin Mineral Resource estimates has substantially improved the understanding of structural controls on mineralisation. This understanding has highlighted significant opportunity for high-grade extensions and or repetitions within favourable host rocks and structures proximal to the main deposits and across the broader tenement portfolio.

Alignment with Refinery

The potential to incorporate cobalt into future Mineral Resource estimates is subject to review with significant intersections from select drill holes at the Sandiego deposit, including:

- 22m at 12.6% Cu, 1.3% Pb, 8.0% Zn, 0.17% Co & 121g/t Ag from 100m (SRCD031)
- 12.9m at 12.2% Cu, 0.1% Pb, 2.8% Zn, 0.27% Co & 37g/t Ag from 149.5m (SRCD031)
- 10.37m at 9.9% Cu, 0.46% Co & 19g/t Ag from 393.73m (SRCD064)

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Figure 4 – **Sandiego deposit drilling**

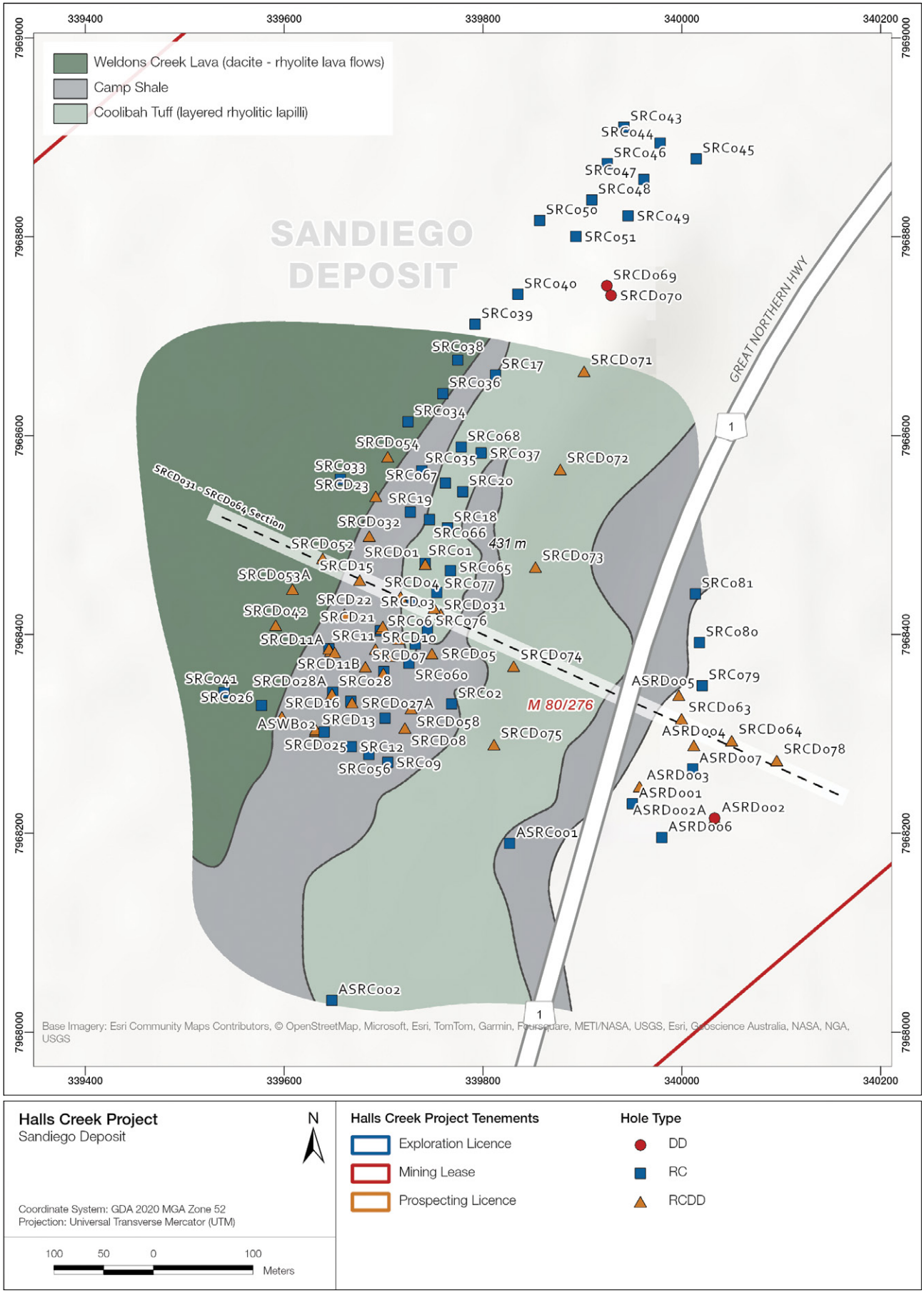

Figure 5 – **Sandiego deposit cross section illustrating significant cobalt intersections from SRCD031 and SRCD064**

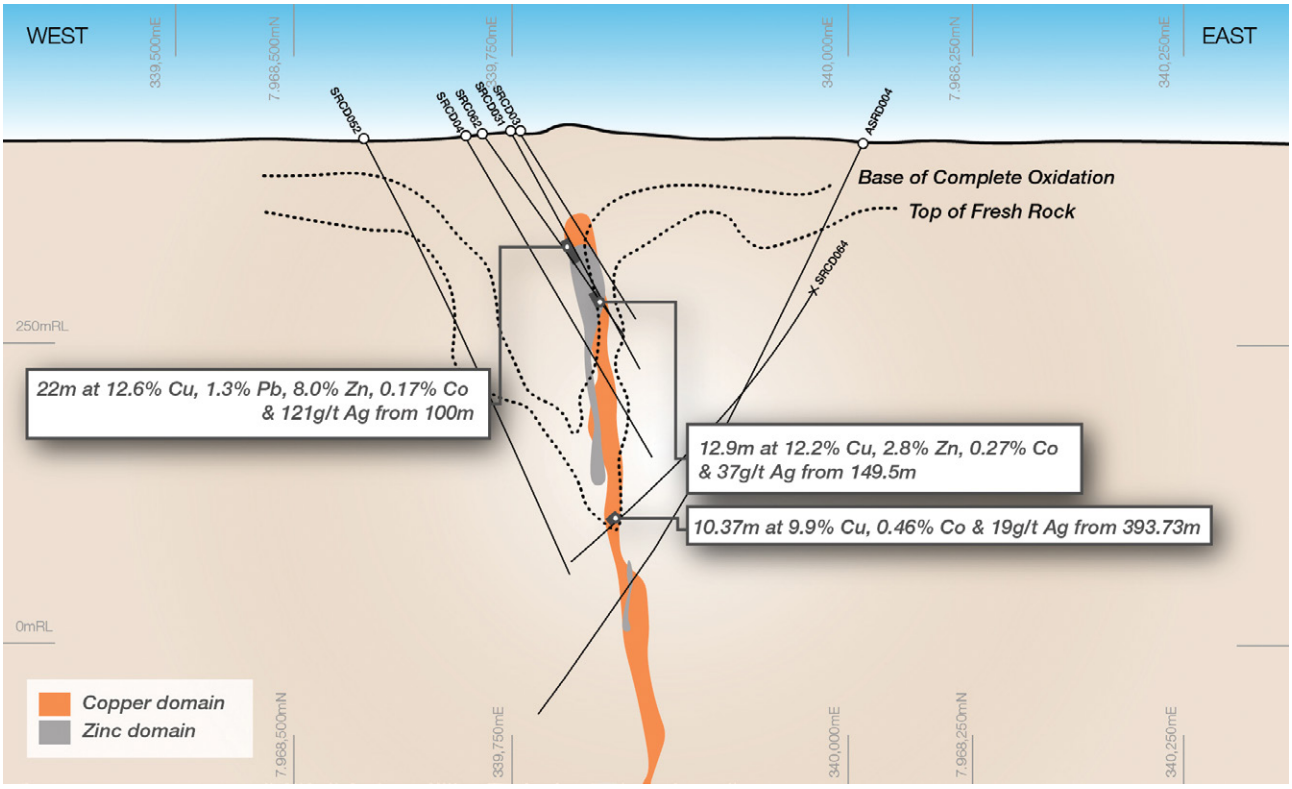

Figure 6 – **COB personnel inspecting core at the Halls Creek core storage facility (Left). High-grade oxide-supergene copper mineralisation intersected by AORD004 comprising 16.6m at 10.2% Cu, 0.46% Pb, 1.03% Zn & 316g/t Ag from 130m (core pictured at approximately 137m)**

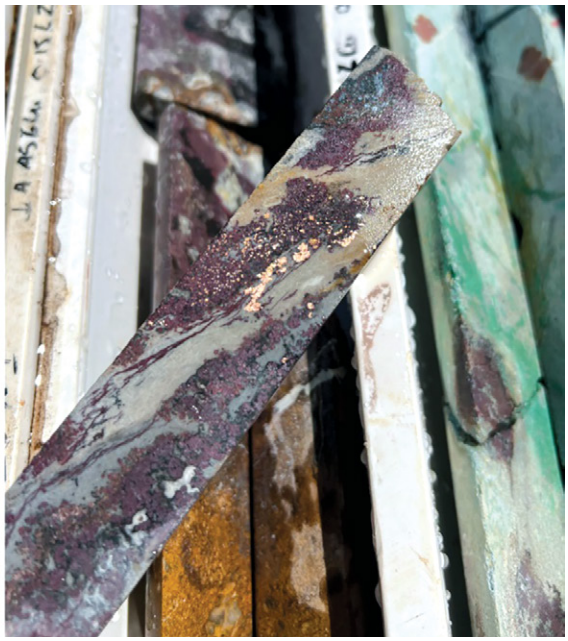

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Figure 7 – **Onedin deposit drill plan**

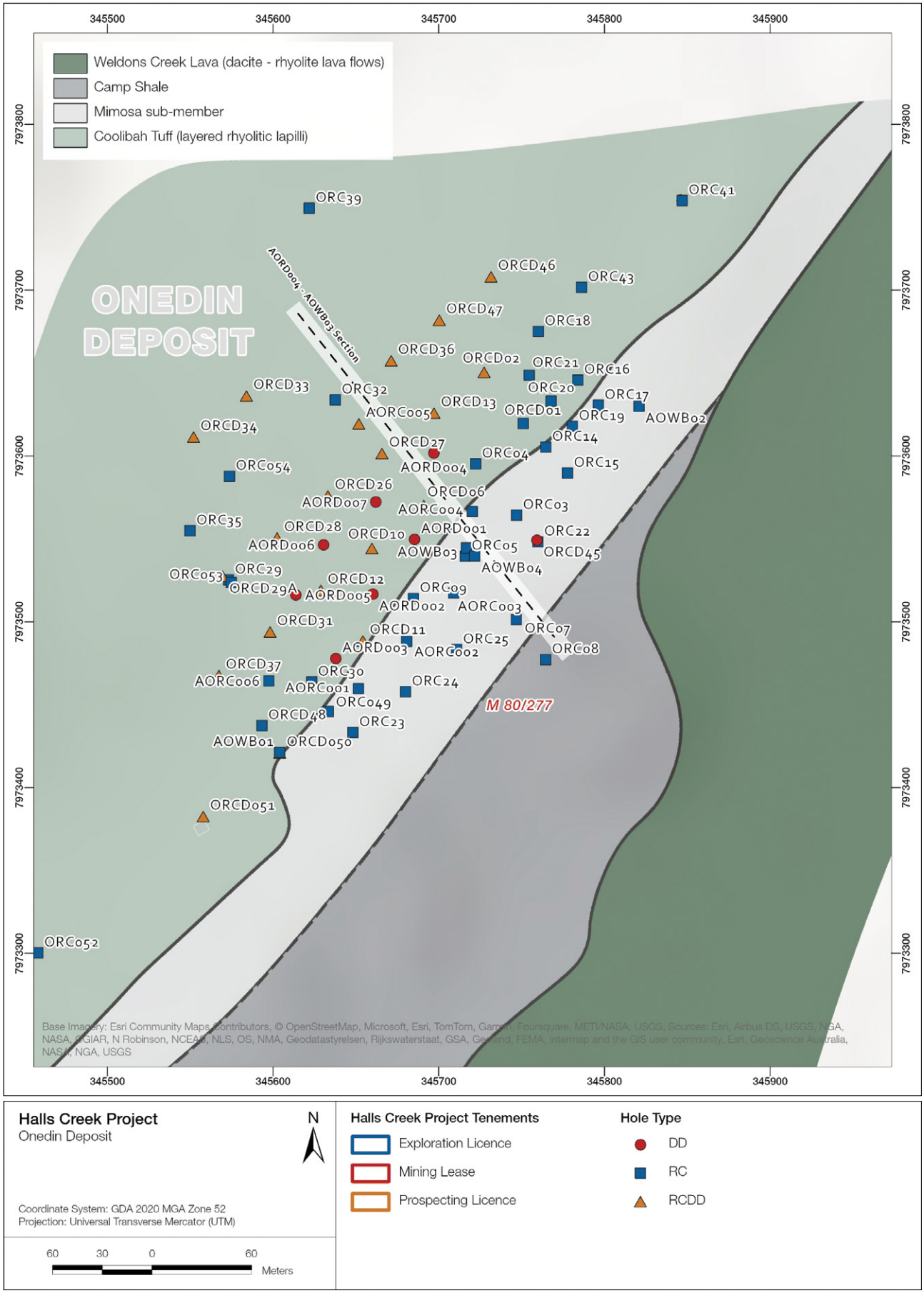
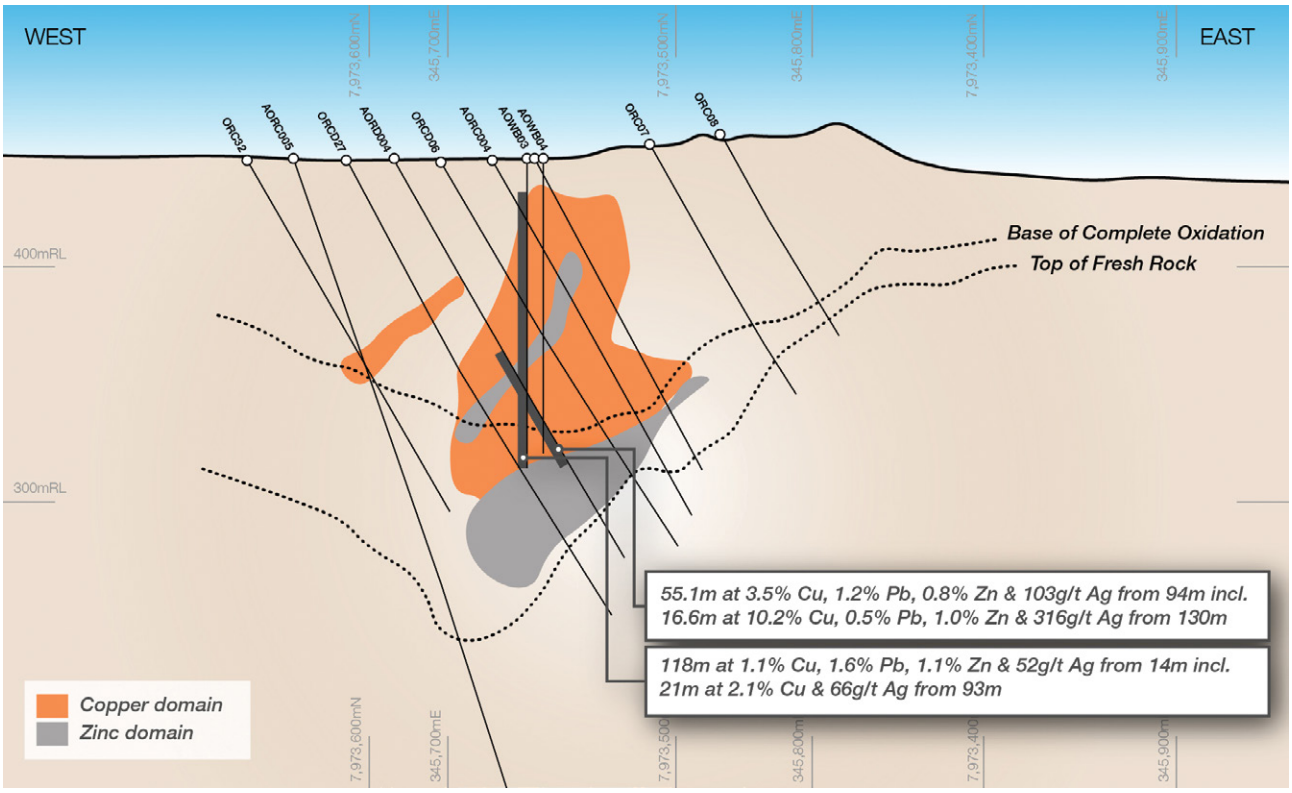


Figure 8 – **Onedin deposit cross section illustrating significant copper intersections from AORD004 and AOWB03**



Tenement Portfolio

The Project boasts an extensive tenement portfolio covering some 250km² with the main deposits (Sandiego and Onedin) hosted within existing Mining Leases (M 80/276 and M 80/277 respectively).

Table 3 – **Halls Creek Project tenement schedule**

Tenement	Grant Date	Expiry Date	Area (km²)
Mining Leases			
M 80/276	2/04/1989	5/04/2031	2.2
M 80/277	2/04/1989	5/04/2031	3.2
Exploration Licences			
E 80/4957	11/11/2016	10/11/2026	21.2
E 80/4960	24/03/2017	23/03/2027	51.7
E 80/5076	27/11/2018	26/11/2028	22.7
E 80/5087	28/11/2018	27/11/2028	16.2
E 80/5127	27/11/2018	26/11/2028	109.8
E 80/5707	24/10/2022	23/10/2027	13.7
Prospecting Licences			
P 80/1878	3/11/2022	2/11/2026	1.9
P 80/1879	3/11/2022	2/11/2026	1.8
P 80/1880	3/11/2022	2/11/2026	0.4
P 80/1881	3/11/2022	2/11/2026	1.7
P 80/1882	3/11/2022	2/11/2026	1.9

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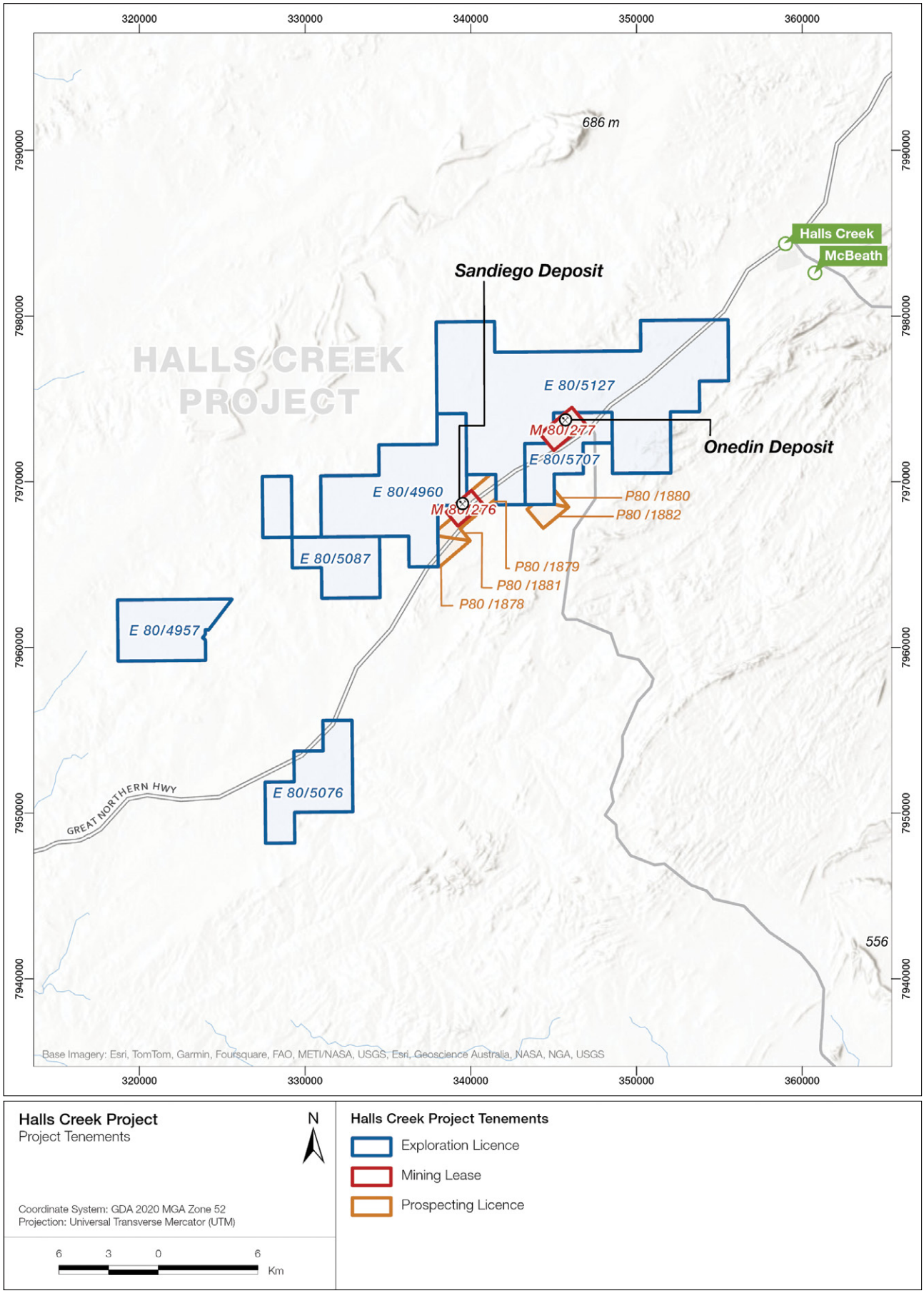
Figure 9 – **Halls Creek tenement map**



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Information required under ASX Listing Rule 5.8.1

Geology and Geological Interpretation

Massive sulphide deposits at Sandiego and Onedin are hosted by the Koongie Park Formation comprising mafic and felsic volcanics, associated sediments including sandstone, mudstone, carbonate, chert and ironstone, and are intruded by rhyolitic to rhyodacitic sills, dolerite bodies and basalt dykes. Massive sulphide mineralisation is strata-bound, with disseminated sulphides overlaying the massive sulphides. Both deposits are interpreted to occur within the limbs of intensely folded, higher order, double-plunging anticlinal structures.

The massive sulphide deposits of the Halls Creek Project are classified as Volcanogenic Massive Sulphide ('**VMS**') deposits. The mineralogy of the primary mineralisation at Sandiego is pyrite-sphalerite-pyrrhotite-chalcopyrite +/- galena, which is largely hosted in the magnetite-rich exhalative suite of rocks where it occurs as a massive conformable wedge-shaped lens 200m in length with a maximum thickness of 75m. At Onedin, sphalerite is the main sulphide in the primary mineralisation with subordinate pyrrhotite-pyrite-chalcopyrite-galena. Onedin comprises numerous stacked lenses of mineralisation with a folded and faulted geometry over a vertical extent of 400m.

Both deposits have a deep weathering profile (up to 250m below the surface), resulting in three weathering domains: an oxidised zone at the surface, a primary zone at depth, and a transition zone in between.

The geological interpretation supporting the Mineral Resource estimates was guided firstly by geology, and secondly by grade envelopes to constrain mineralisation. Zinc domains were based on nominal lower cut-off grades of 1.5 % Zn (Onedin) and 1.0 % Zn (Sandiego); copper domains were based on nominal lower cut-off grades of 0.4 % Cu (Onedin) and 0.5 % Cu (Sandiego). Internal dilution was permitted during the interpretation of the mineralisation domains, however it was limited to 3 m in most cases. Some overlap of the zinc and copper zones occurs. Weathering domains were interpreted for the Base of Complete Oxidation ('**BOCO**') and Top of Fresh ('**TOFR**') interfaces. The Onedin Mineral Resource extends along strike 300m, across strike by 200m and has a depth extent below surface of 400m. The Sandiego Mineral Resource extends along strike 300m, across strike by 200m and has a depth extent below surface of 600m.

Sampling and Sub-sampling Techniques

Sampling and sub-sampling techniques have varied between phases of exploration at the Sandiego and Onedin deposits and are summarised in Table 4 for each respective period.

Table 4 – **Summary of sampling and sub-sampling techniques since 1995**

Period	Sampling and Sub-Sampling Techniques
Diamond Drilling	
1995–1996	Diamond drilling was used to obtain core from which intervals averaging 1m in length were sawn to produce samples (typically quarter (25%) core). These samples were crushed, split and pulverised for analysis. Details of sub-sampling, lab preparation techniques are not recorded.
2006– 2011	Diamond drilling was used to obtain core from which intervals averaging 1m in length were sawn to produce quarter (25%) core or half (50%) core samples from HQ or NQ core respectively. These samples were crushed, split and pulverised to produce a sample for analysis. Details of sub-sampling and lab preparation techniques are not recorded.
2021	Diamond drilling was used to obtain core from which intervals averaging 0.95m in length were sawn to produce quarter (25%) core or half (50%) core samples from PQ3 / HQ3 or HQ core respectively. These samples were crushed (passing -10mm), riffle split and pulverised (80% passing -75µm) to produce a sample for analysis.
RC Drilling	
1995–1996	RC drilling was used to obtain 1m samples by means of a riffle splitter which were composited into 4m intervals for analysis. Composite samples returning Cu, Pb or Zn >1%, and or Au >1/g/t were typically re-assayed at 1m intervals. Details of sample compositing, sub-sampling and lab preparation techniques are not recorded.
2006–2008	RC drilling was used to obtain 4m composite samples by means of a sample 'spear'. These samples were crushed, split and pulverised to produce a sample for analysis. Details of sub-sampling and lab preparation techniques are not recorded.
2010–2011	RC drilling was used to obtain 1m samples by means of a cone splitter. These samples were crushed, split and pulverised to produce a sample for analysis. Details of sub-sampling and lab preparation techniques are not recorded.
2021	RC drilling was used to obtain 1m samples by means of a cone splitter from which up to 3.5kg was pulverised (80% passing -75µm) to produce a sample for analysis. Samples >3.5kg were riffle split and pulverised (80% passing -75µm) to produce a sample for analysis.

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Drilling Techniques

The Sandiego drilling database comprises drill holes completed from 1995 including 3 diamond drill holes, 53 reverse circulation ('RC') drill holes and 42 diamond drill holes with RC pre-collars ('RCDD') of varying depths. In addition, the database includes 35 drill holes (27 diamond drill holes and 8 RC drill holes) for which no information regarding the date of drilling or details related to drilling techniques is recorded. A summary of the number of drill holes and drilling techniques since 1995 is provided in Table 5.

Table 5 – **Summary of drilling techniques employed at the Sandiego deposit since 1995**

	No. Drill Holes				No. Metres			Drilling Diameters	
Year	Diamond	RC	RCDD	Total	Diamond	RC	Total	Diamond	RC
1995	–	4	5	9	630.6	1,096.65	1,727.25	NQ2–HQ3	4.75–5.625"
1996	–	6	8	14	1,427.6	1,928.1	3,355.7		
2006	–	–	4	4	912.65	520.75	1,433.4	NQ2–HQ2	5.25"
2008	–	22	11	33	2,289.8	5,208.4	7,498.2		
2010	2	11	10	23	1,220.1	3,193.9	4,414		
2011	–	3	–	3	–	648	648		
2021	1	7	4	12	1,742.58	1,431.33	3173.91	NQ2–HQ2	5.5"
Total	**3**	**53**	**42**	**98**	**8,223.33**	**14,027.13**	**22,250.46**	**–**	**–**

The Onedin drilling database comprises drill holes completed from 1995 including 8 diamond drill holes, 41 RC drill holes and 21 diamond drill holes with RC pre-collars ('**RCDD**') of varying depths. In addition, the database includes 21 diamond drill holes for which no information regarding the date of drilling or details related to drilling techniques is recorded. A summary of the number of drill holes and drilling techniques since 1995 is provided in Table 6.

Table 6 – **Summary of drilling techniques employed at the Onedin deposit since 1995**

	No. Drill Holes				No. Metres			Drilling Diameters	
Year	Diamond	RC	RCDD	Total	Diamond	RC	Total	Diamond	RC
1995	–	22	10	32	759.2	3,918.9	4,678.1	NQ2–HQ3	4.75–5.625"
1996	–	5	6	11	1,004.72	1,661.08	2,665.8		
2006	1	1	2	4	558.9	383.1	942	NQ2–HQ2	5.25"
2008	–	4	2	6	322.3	1,054	1,376.3		
2021	7	9	1	17	1,627	1,577.7	3,204.7	HQ2/HQ3–PQ3	5.5"
Total	**8**	**41**	**21**	**70**	**4,272.12**	**8,594.78**	**12,866.9**	**–**	**–**

Mineral Resource Classification

The Mineral Resource models were classified based upon drill hole spacing, quality of sampling and sample analyses, quantity of density measurements, and the relative confidence in the geological interpretation. The Mineral Resource estimates are supported by confidence in the geological interpretations, sufficient to assume geological and grade continuity to satisfy an Indicated classification. All blocks within the Onedin Mineral Resource are classified as Indicated in accordance with the JORC Code; the Sandiego Mineral Resource is classified as a combination of Indicated and Inferred.

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Figure 10 – **Sandiego Mineral Resource block model looking southwest illustrating block distribution by resource classification for the respective copper and zinc zones.**

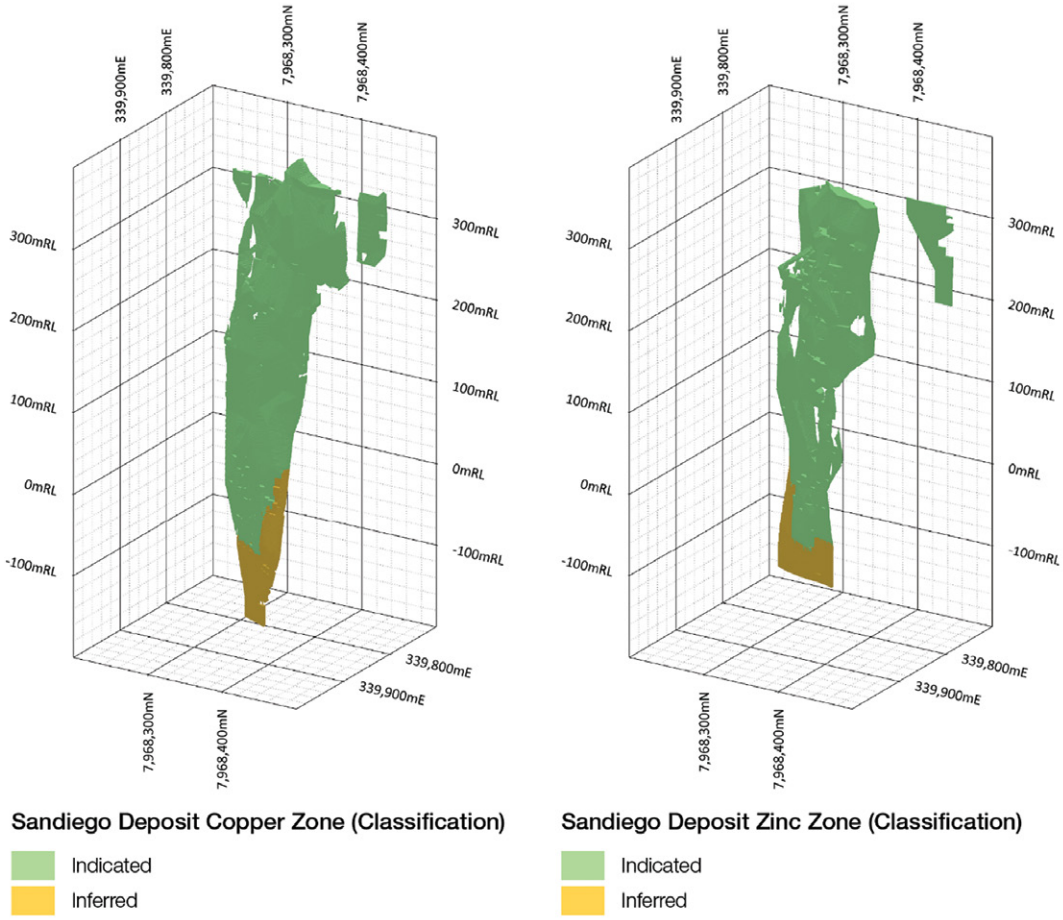
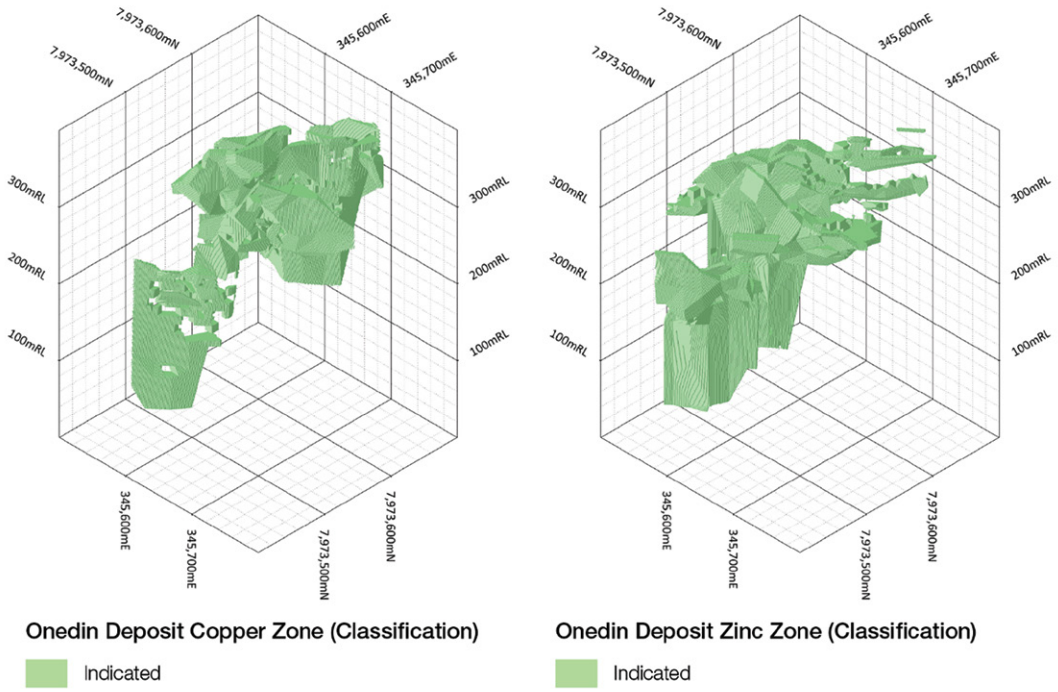


Figure 11 – **Onedin Mineral Resource block model looking southwest illustrating block distribution by resource classification for the respective copper and zinc zones.**



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Sample Analysis Method

Sample analysis methods have varied between phases of exploration at the Sandiego and Onedin deposits are summarised in Table 7 for each respective period.

Table 7 – **Summary of sample analysis methods since 1995**

Period	Sample Analysis Method
Diamond Drilling	
1995–1996	Samples were analysed via atomic absorption spectroscopy ('**AAS**') reporting a limited and variable suite of elements (nominally Cu, Pb, Zn and Ag). Au was variably analysed by fire assay. Details of lab digestion techniques are not recorded.
2006– 2011	Samples were subject to mixed-acid digestion and analysis via Inductively Coupled Plasma - Mass Spectrometry ('**ICP-MS**') or Inductively Coupled Plasma - Optical Emission Spectroscopy ('**ICP-OES**') reporting a variable suite of elements. Au was typically analysed by fire assay using a 40–50g charge with an AAS finish.
2021	Samples were subject to mixed-acid digestion and analysis via ICP-OES for a suite of 39 elements. Au was analysed by fire assay using a 30g charge with an AAS finish.
RC Drilling	
1995–1996	Samples were analysed via AAS reporting a limited suite of elements (nominally Cu, Pb, Zn and Ag). Au was variably analysed by fire assay.
2006–2008	Samples were subject to mixed-acid digestion and analysis via ICP-MS or ICP-OES reporting a variable suite of elements. Au was typically analysed by fire assay using a 40–50g charge with an AAS finish.
2010–2011	Samples were subject to mixed-acid digestion and analysis via ICP-OES reporting a variable suite of elements. Au was typically analysed by fire assay using a 50g charge with an AAS finish.
2021	Samples were subject to mixed-acid digestion and analysis via ICP-OES for a suite of 39 elements. Au was analysed by fire assay using a 30g charge with an AAS finish.

Mineral Resource Estimation Methodology

A block model with block sizes 5m (X) x 10m (Y) x 10m (Z) was constructed for each deposit, with the individual blocks assigned to the local geological domains (mineralisation and weathering) and each interpolated with a Cu, Zn, Au and Ag grade. The block size adopted corresponds to approximately half the drill hole spacing. Drill samples were flagged by mineralisation and weathering domains, and the drill samples composited to 1m length intervals. Composited sample data were statistically reviewed to determine appropriate top-cuts, with top-cuts applied for Zn, Cu, Ag and Au where required. Variograms were modelled for Cu and Zn from top cut and composited sample data within their respective mineralisation domains. Low to moderate relative nugget effects were modelled across all mineralisation domains, with short ranges of approximately 50 m observed for both Zn and Cu.

Grade interpolation was caried out via Ordinary Kriging ('**OK**') for the Sandiego deposit, and via Inverse Distance Squared ('**IDS**') for the Onedin deposit. All sub-blocks were assigned the grade of their parent block. Sample search ellipse radii varied according to deposit and grade variable, with a sample search ellipse of up to 60m by 30m by 20m (perpendicular to strike) used for Cu and Zn interpolation at Sandiego, with a minimum of 8 samples and maximum of 24 samples used to interpolate grade into any one block. A maximum of 4 samples per drill hole was used for grade interpolation for each block. Search radii were increased, and the minimum number of minimum samples reduced in subsequent sample searches if cells were not interpolated in the first pass. Octant searches were not used. The interpolated grades were validated by way of review of cross sections (block model and drill samples presented with same colour legend); swath plots, and comparison of mean grades from drillhole data with block model grades.

Mineral Resource Cut-Off Grades

The Mineral Resources have been reported above Cu and Zn cut-off grades of 0.8% Cu and 3% Zn (Sandiego), and 0.4% Cu and 1% Zn (Onedin). The basis for the selection of the cut-off grades reflects the anticipated mining methods for the respective deposits, with underground operations (such as is anticipated for Sandiego) requiring higher reporting cut-off grades than would be used for an open pit Mineral Resource. The cut-off grades used to report the Sandiego Mineral Resource are the same as have been historically used for reporting earlier Mineral Resource estimates.

For both Mineral Resources, in the case of overlapping Zn and Cu zones, the Zn block grade has been preferentially reported over the Cu block grade.

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Figure 12 – **Sandiego Mineral Resource block model looking southwest illustrating block distribution by copper (left) and zinc (right) grade for the respective copper and zinc zones.**

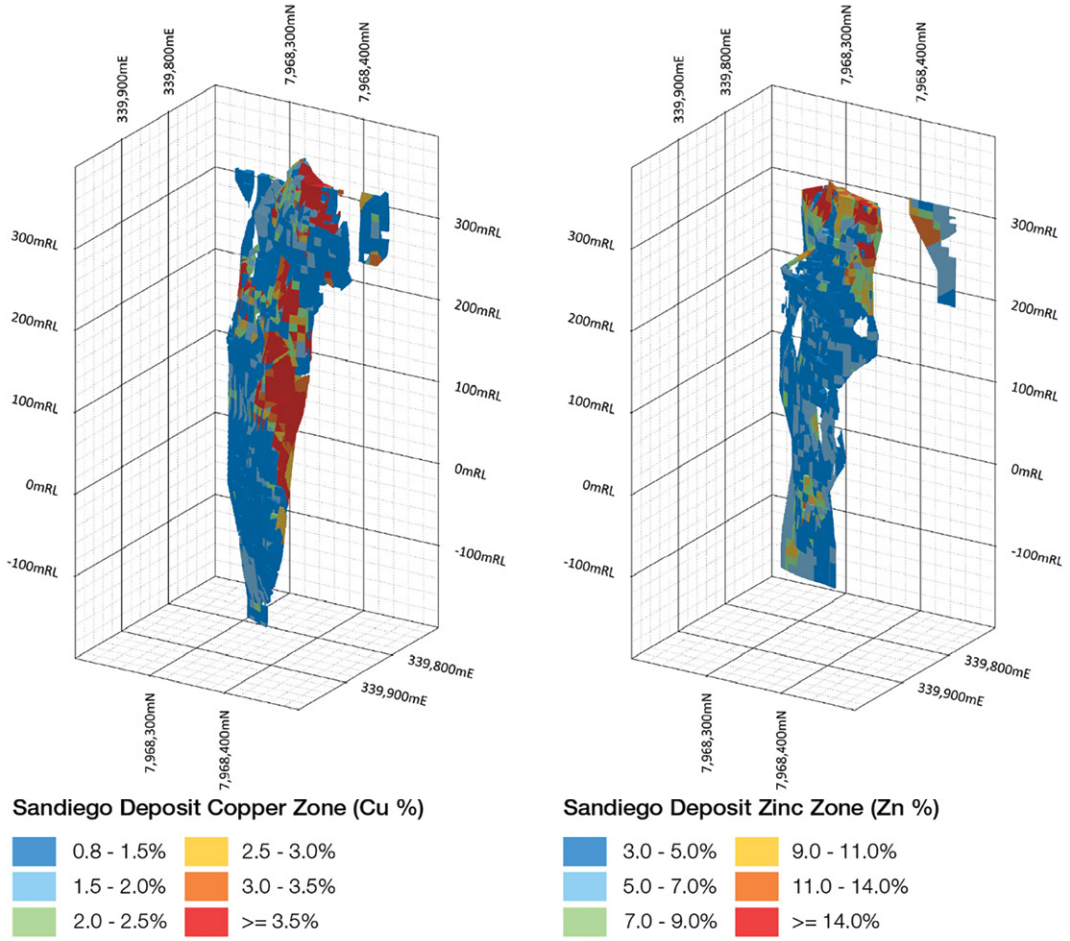
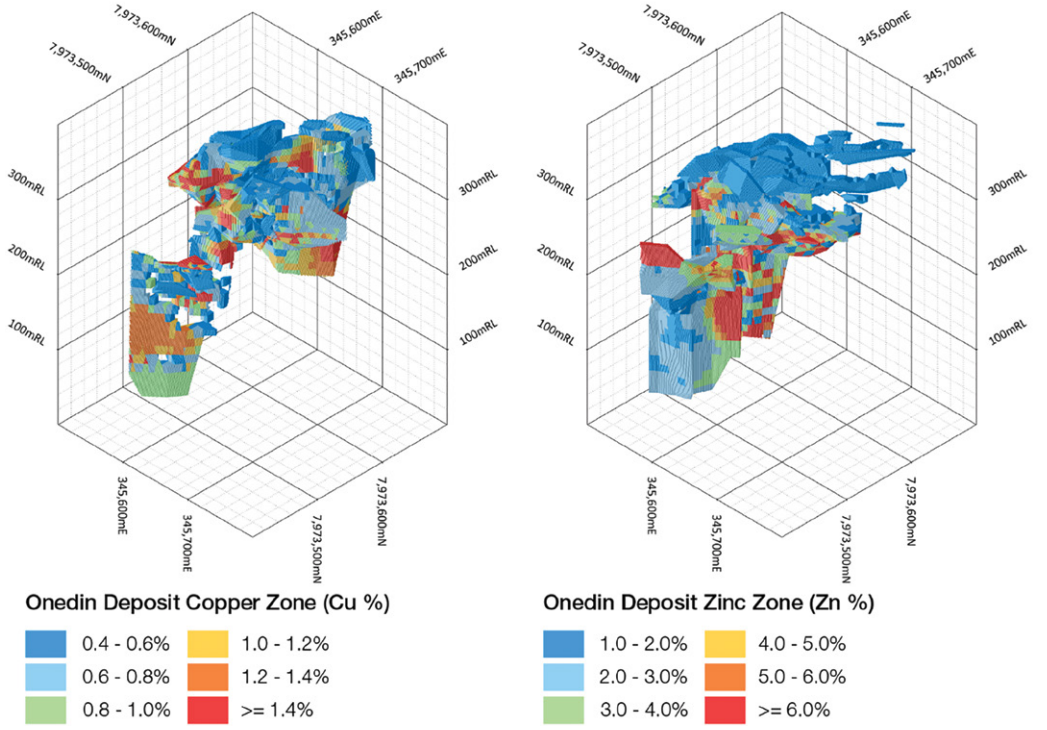


Figure 13 – **Onedin Mineral Resource block model looking southwest illustrating block distribution by copper (left) and zinc (right) grade for the respective copper and zinc zones.**



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Mining and Metallurgical Methods and Modifying Factors

The Halls Creek Project (inclusive of the Sandiego and Onedin Mineral Resources) was the subject of a Scoping Study completed in May 2023 ('2023 Scoping Study') by Wave International on behalf of AKN. The Mineral Resource estimates were independently prepared by ERM (formerly CSA Global) and were originally released to ASX on 7 April 2022 by AKN.

A summary of modifying factors considered at the time of the Mineral Resource estimation and subsequently subject to further assessment during completion of the 2023 Scoping Study is provided below.

Mining Method and Parameters

In 2022, at the time of the Mineral Resource estimation, it was anticipated that the Onedin deposit would be mined using open cut methods, while the Sandiego deposit would be mined largely as an underground operation. On that basis, different cut-off grades for the individual deposits and discrete copper and zinc zones were applied.

The mining study completed for the 2023 Scoping Study demonstrated that:

- the Onedin deposit is amendable to open cut mining; and
- the Sandiego deposit is amendable to underground mining.

Processing Method and Parameters

Anglo Australian Resources completed extensive metallurgical testwork to inform Feasibility Studies between 2008 and 2011. The testwork considered a range of mineralisation types from the Sandiego and Onedin deposits. The results of the testwork demonstrated sulphide mineralisation at Sandiego and Onedin can be concentrated at satisfactory metallurgical recoveries to produce commercial grade concentrates. Comparatively, processing of oxide-transition material was regarded as challenging.

For the purposes of the 2023 Scoping Study, the process flowsheet contemplated inclusion of a sulphidisation plant as a 'base-case' for treatment of oxide-transition material, while other processing methodologies were investigated. Further testwork is required to identify the most appropriate processing pathway for the oxide-transition material.

Other Material Modifying Factors

Tenure

The Sandiego and Onedin deposits are hosted within existing Mining Leases M 80/276 and M 80/277 respectively—the Mining Leases expire in 2031.

Environmental

Project development has the potential for environmental impacts caused by the generation of acid mine drainage ('AMD') and depletion of groundwater resources. The Sandiego and Onedin deposits comprise both sulphidic mineralisation and waste rock which has the potential to oxidise when exposed to air and water. Further characterisation of mineralised and waste material (waste rock and tailings) will be required to inform the development of a long-term closure strategy as part of future studies.

Other key environmental factors will need to be considered in future studies including though not limited to biodiversity, groundwater, surface water, air quality, social and community.

Cultural Heritage and Native Title

Mining Leases M 80/276 and M 80/277 are located within the Koongie and Lamboo Elvire Native Title Claims. The Mining Leases are unencumbered by Native Title Agreements as the tenements were granted prior to the *Native Title Act 1993 (Cth).*

Competent Person's Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Heath Porteous, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Porteous is employed by Xploremore Pty Ltd and engaged on a full-time basis by the Group as Exploration Manager. Mr Porteous has had sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Minerals Resources and Ore Reserves (2012 JORC Code). Mr Porteous consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Mineral Resource estimates is based on, and fairly reflects, information compiled by Mr David Williams. Mr Williams (B. Sc. Hons) is a full-time employee of ERM and is a Member of the Australian Institute of Geoscientists (RPGeo). Mr Williams is fully independent of Cobalt Blue Holdings Limited. David Williams has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves ('JORC Code'). David Williams consents to the disclosure of the information in this report in the form and context in which it appears.

Cobalt Blue Background

Cobalt Blue is a mining and mineral processing company focussed on the development of the Halls Creek Project in Western Australia, a Cobalt-Nickel Refinery in Western Australia, the Broken Hill Cobalt Project in New South Wales and ReMine+ globally (with a view to global opportunities contained in mine waste). The Company intends to seek shareholder approval to rename the Company to Core Blue Minerals Limited.

Forward Looking Statements

This announcement contains "forward-looking statements". All statements other than those of historical facts included in this announcement are forward-looking statements. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include but are not limited to the ability to reach binding agreement on the proposed terms or at all, cobalt metal price volatility, timely completion of project milestones, funding availability, government and other third-party approvals. Readers should not place undue reliance on forward-looking statements. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement".

This announcement was authorised for release to the ASX by the board of Cobalt Blue Holdings Limited.

For further information, please contact:

Joe Kaderavek
Chief Executive Officer
Cobalt Blue Holdings

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info@cobaltblueholdings.com

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JORC Code 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	▪ *Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* ▪ *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* ▪ *Aspects of the determination of mineralisation that are Material to the Public Report.* ▪ *In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.*	**Sandiego – Diamond Drilling** **1995–1996** ▪ Diamond drilling was used to obtain core from which intervals averaging 1m in length were sawn to produce samples (typically quarter (25%) core). These samples were crushed, split and pulverised for analysis via atomic absorption spectroscopy ('**AAS**') reporting a limited and variable suite of elements (nominally Cu, Pb, Zn and Ag). Au was variably analysed by fire assay. Details of sub-sampling, lab preparation and digestion techniques are not recorded. **2006–2011** ▪ Diamond drilling was used to obtain core from which intervals averaging 1m in length were sawn to produce quarter (25%) core or half (50%) core samples from HQ or NQ core respectively. These samples were crushed, split and pulverised to produce a sample for mixed-acid digestion and analysis via Inductively Coupled Plasma – Mass Spectrometry ('**ICP-MS**') or Inductively Coupled Plasma – Optical Emission Spectroscopy ('**ICP-OES**') reporting a variable suite of elements. Au was typically analysed by fire assay using a 40 - 50g charge with an AAS finish. Details of sub-sampling and lab preparation techniques are not recorded. ▪ The remaining core was retained for archival purposes. **2021** ▪ Diamond drilling was used to obtain core from which intervals averaging 0.95m in length were sawn to produce half (50%) core samples. These samples were crushed passing -10mm, riffle split and pulverised to produce a sample for mixed-acid digestion and analysis via ICP-OES for a suite of 39 elements. Au was analysed by fire assay using a 30g charge with an AAS finish. ▪ The remaining core was retained for archival purposes or metallurgical testwork. **Sandiego – RC Drilling** **1995–1996** ▪ RC drilling was used to obtain 1m samples by means of a riffle splitter which were composited into 4m intervals for analysis via AAS reporting a limited suite of elements (nominally Cu, Pb, Zn and Ag). Au was variably analysed by fire assay. Composite samples returning Cu, Pb or Zn >1%, and or Au >1g/t were typically re-assayed at 1m intervals. Details of sample compositing, sub-sampling and lab preparation techniques are not recorded. **2006–2008** ▪ RC drilling was used to obtain 4m composite samples by means of a sample 'spear'. These samples were crushed, split and pulverised to produce a sample for mixed-acid digestion and analysis via ICP-MS or ICP-OES reporting a variable suite of elements. Au was typically analysed by fire assay using a 40 - 50g charge with an AAS finish. Details of sub-sampling and lab preparation techniques are not recorded. **2010–2011** ▪ RC drilling was used to obtain 1m samples by means of a cone splitter. These samples were crushed, split and pulverised to produce a sample for mixed-acid digestion and analysis via ICP-OES reporting a variable suite of elements. Au was typically analysed by fire assay using a 50g charge with an AAS finish. Details of sub-sampling and lab preparation techniques are not recorded.

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Criteria	JORC Code Explanation	Commentary
Sampling techniques *(continued)*		**2021** ▪ RC drilling was used to obtain 1m samples by means of a cone splitter from which up to 3.5kg was pulverised to produce a sample for mixed-acid digestion and analysis via ICP-OES for a suite of 39 elements. Au was analysed by fire assay using a 30g charge with an AAS finish. ▪ Unmineralised zones were infrequently composited into 4m intervals for analysis as described above. **Onedin – Diamond Drilling** **1995–1996** ▪ Diamond drilling was used to obtain core from which intervals averaging 1m in length were sawn to produce samples (typically quarter (25%) core). These samples were crushed, split and pulverised for analysis via atomic absorption spectroscopy ('AAS') reporting a limited and variable suite of elements (nominally Cu, Pb, Zn and Ag). Au was variably analysed by fire assay. Details of sub-sampling, lab preparation and digestion techniques are not recorded. **2006–2008** ▪ Diamond drilling was used to obtain core from which intervals averaging 1m in length were sawn to produce quarter (25%) core or half (50%) core samples from HQ or NQ core respectively. These samples were crushed, split and pulverised to produce a sample for mixed-acid digestion and analysis via ICP-MS or ICP-OES reporting a variable suite of elements. Au was typically analysed by fire assay using a 40 - 50g charge with an AAS finish. Details of sub-sampling and lab preparation techniques are not recorded. ▪ The remaining core was retained for archival purposes. **2021** ▪ Diamond drilling was used to obtain core from which intervals averaging 0.96m in length were sawn to produce quarter (25%) core or half (50%) core samples from PQ3 / HQ3 or HQ core respectively. These samples were crushed passing -10mm, riffle split and pulverised to produce a sample for mixed-acid digestion and analysis via ICP-OES for a suite of 39 elements. Au was analysed by fire assay using a 30g charge with an AAS finish. ▪ The remaining core was retained for archival purposes or metallurgical testwork. **Onedin – RC Drilling** **1995–1996** ▪ RC drilling was used to obtain 1m samples by means of a riffle splitter which were composited into 4m intervals for analysis via AAS reporting a limited suite of elements (nominally Cu, Pb, Zn and Ag). Au was variably analysed by fire assay. Composite samples returning Cu, Pb or Zn >1%, and or Au >1g/t were typically re-assayed at 1m intervals. Details of sample compositing, sub-sampling and lab preparation techniques are not recorded. **2006–2008** ▪ RC drilling was used to obtain 4m composite samples by means of a sample 'spear'. These samples were crushed, split and pulverised to produce a sample for mixed-acid digestion and analysis via ICP-MS or ICP-OES reporting a variable suite of elements. Au was analysed by fire assay using a 40–50g charge. Details of sub-sampling and lab preparation techniques are not recorded. **2021** ▪ RC drilling was used to obtain 1m samples by means of a cone splitter from which up to 3.5kg was pulverised to produce a sample for mixed-acid digestion and analysis via ICP-OES for a suite of 39 elements. Au was analysed by fire assay using a 30g charge with an AAS finish. ▪ Unmineralised zones were infrequently composited into 4m intervals for analysis as described above.

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Criteria	JORC Code Explanation	Commentary
Drilling techniques	▪ *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	**Sandiego** ▪ The Sandiego drilling database comprises drill holes completed from 1995 including 3 diamond drill holes, 53 RC drill holes and 42 diamond drill holes with RC pre-collars ('RCDD') of varying depths. In addition, the database includes 35 drill holes (27 diamond drill holes and 8 RC drill holes) for which no information regarding the date of drilling or details related to drilling techniques is recorded. ▪ Between 1995 and 1996, diamond drill holes generally utilised RC pre-collars to an average depth of 141m. Diamond tails were typically completed using HQ3 triple tube, reducing to standard NQ2 on intersection of competent rock. RC drilling utilised standard hole diameters (typically 4.75 – 5.625") though details of bit types were not recorded. Core orientation was completed , where possible, using a Van-Ruth Orientation device. ▪ Between 2006 and 2011, diamond drill holes generally utilised RC pre-collars to an average depth of 144m. Diamond tails were typically completed using standard HQ2. RC drilling utilised standard hole diameters (typically 5.25") though details of bit types were not recorded. Core orientation surveys were undertaken as frequently as possible (generally every 12m) though were difficult to maintain in broken ground. Core orientation methods were not recorded. ▪ During 2021, diamond drill holes generally utilised RC pre-collars to an average depth of 120m. Diamond tails were typically completed using standard HQ2, reducing to NQ2 to hole completion. RC drilling utilised standard hole diameters (typically 5.5") face-sampling bit. Core was orientated though orientation methods were not recorded. ▪ The Mineral Resource block model was prepared using data available as of 7 March 2022 using drilling completed since 1995. Rotary Air Blast ('RAB') and other rotary percussion drill holes were not used in the estimates due to a lack of documentation supporting samples. ▪ Two drill holes completed in 2022 are also excluded having been completed post completion of the estimates. These drill holes do not intersect the mineralised domains used to constrain the estimate and therefore are not regarded as material to the estimate. ▪ A summary of drill holes and drilling techniques is provided in the following table.

	No. Drill Holes				No. Metres			Drilling Diameters	
Year	Diamond	RC	RCDD	Total	Diamond	RC	Total	Diamond	RC
1995	–	4	5	9	630.6	1,096.65	1,727.25	NQ2–HQ3	4.75–5.625"
1996	–	6	8	14	1,427.6	1,928.1	3,355.7		
2006	–	–	4	4	912.65	520.75	1,433.4	NQ2–HQ2	5.25"
2008	–	22	11	33	2,289.8	5,208.4	7,498.2		
2010	2	11	10	23	1,220.1	3,193.9	4,414		
2011	–	3	–	3	–	648	648		
2021	1	7	4	12	1,742.58	1,431.33	3173.91	NQ2–HQ2	5.5"
Total	**3**	**53**	**42**	**98**	**8,223.33**	**14,027.13**	**22,250.46**	**–**	**–**

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Criteria	JORC Code Explanation	Commentary
Drilling techniques	▪ *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	**Onedin** ▪ The Onedin drilling database comprises drill holes completed from 1995 including 8 diamond drill holes, 41 RC drill holes and 21 diamond drill holes with RC pre-collars ('**RCDD**') of varying depths. In addition, the database includes 21 diamond drill holes for which no information regarding the date of drilling or details related to drilling techniques is recorded. ▪ Between 1995 and 1996, diamond drill holes generally utilised RC pre-collars to an average depth of 154m. Diamond tails were typically completed using HQ3 triple tube, reducing to standard NQ2 on intersection of competent rock. RC drilling utilised standard hole diameters (typically 4.75 – 5.625") though details of bit types were not recorded. Core orientation methods were not recorded. ▪ Between 2006 and 2008, diamond drill holes generally utilised RC pre-collars to an average depth of 132m. Diamond tails were typically completed using standard HQ2 or NQ2. RC drilling utilised standard hole diameters (typically 5.25") though details of bit types were not recorded. Core orientation surveys were undertaken as frequently as possible (generally every 12m) though were difficult to maintain in broken ground. Core orientation methods were not recorded. ▪ During 2021, diamond drill holes were typically cored from surface using PQ3 triple tube reducing to HQ3 triple tube when intersecting the lower contact of mineralisation. RC drilling utilised standard hole diameters (typically 5.5") face-sampling bit. Core was orientated though orientation methods were not recorded. ▪ The Mineral Resource block model was prepared using data available as of 7 March 2022 using drilling completed since 1995. RAB and other rotary percussion drill holes were not used in the estimates due to a lack of documentation supporting samples. ▪ Two drill holes completed in 2022 are also excluded having been completed post completion of the estimates. These drill holes do not intersect the mineralised domains used to constrain the estimate and therefore are not regarded as material to the estimate. ▪ A summary of drill holes and drilling techniques is provided in the following table.

	No. Drill Holes				No. Metres			Drilling Diameters	
Year	Diamond	RC	RCDD	Total	Diamond	RC	Total	Diamond	RC
1995	–	22	10	32	759.2	3,918.9	4,678.1	NQ2–HQ3	4.75–5.625"
1996	–	5	6	11	1,004.72	1,661.08	2,665.8		
2006	1	1	2	4	558.9	383.1	942	NQ2–HQ2	5.25"
2008	–	4	2	6	322.3	1,054	1,376.3		
2021	7	9	1	17	1,627	1,577.7	3,204.7	HQ2/HQ3–PQ3	5.5"
Total	**8**	**41**	**21**	**70**	**4,272.12**	**8,594.78**	**12,866.9**	**–**	**–**

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Criteria	JORC Code Explanation	Commentary
Drill sample recovery	▪ *Method of recording and assessing core and chip sample recoveries and results assessed.* ▪ *Measures taken to maximise sample recovery and ensure representative nature of the samples.* ▪ *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	**Diamond Drilling** ▪ Between 1995 and 1996, core recoveries were quantified through measurement of actual core recovered versus drilled intervals. Diamond drilling typically used a HQ3 triple tube configuration to maximise recovery through strongly weathered rock, reducing to standard NQ2 on intersection of competent rock. Core recoveries are recorded for approximately 46% of metres drilled during the respective period and averaged 99%. ▪ Between 2006 and 2010, core recoveries were quantified through measurement of actual core recovered versus drilled intervals. Diamond drilling typically used standard HQ2 and NQ2 configurations with core loss generally attributed to fault zones characterised by a high fracture frequency. Core recoveries are recorded for approximately 91% of metres drilled during the respective period and averaged 95%. ▪ During 2021, core recoveries were quantified through measurement of actual core recovered versus drilled intervals. Diamond drilling typically used standard HQ2 / NQ2 and PQ3 / HQ3 triple tube configurations. Core recoveries are recorded for approximately 88% of metres drilled during the year and averaged 94%. ▪ No relationship between sample recovery and grade has been observed. **RC Drilling** ▪ Between 1995 and 1996, sample recoveries achieved by RC drilling were typically estimated through observation of the volume of the bulk samples. Where recorded the estimates denoted recovery as a range between 0 and 100%. Accepting the inherent subjectivity of the estimates, recoveries generally averaged 100%. Estimated recoveries are recorded for approximately 65% of the RC metres drilled during the respective period. ▪ Between 2006 and 2011, sample recoveries achieved by RC drilling were estimated through observation of the volume of the bulk samples. Where recorded the estimates denoted recovery as a range between 0 and 100%. Accepting the inherent subjectivity of the estimates, recoveries generally averaged 100%, however estimates are only recorded for a relatively insignificant (1%) proportion of the RC metres drilled during the respective period. ▪ During 2021, sample recoveries achieved by RC drilling were qualitatively assessed through observation of the volume of the bulk samples. Quantitative estimates were not recorded, with reports indicating recoveries were acceptable. ▪ No relationship between sample recovery and grade has been observed.

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Criteria	JORC Code Explanation	Commentary
Logging	▪ *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* ▪ *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* ▪ *The total length and percentage of the relevant intersections logged.*	▪ A qualified geoscientist has logged all drill holes (core and chip samples) pertaining to the reported Mineral Resources and exploration results presented herein. The total proportion of logging recorded in the database represents 97% of metres drilled since 1995 (i.e., 33,968m of 35,117m). This logging has been completed to a level of detail considered to accurately support Mineral Resource estimation. The parameters logged include lithology, mineralisation and oxidation. These parameters are both qualitative and quantitative in nature. ▪ All diamond drill core sampled up to 2006 was relogged by an independent consultant from ERM Australia Consultants Pty Ltd ('formerly CSA Global) to ensure consistency. The same geological logging template was used for subsequent diamond drilling up to 2010. ▪ Diamond drilling completed since 2006 has typically been subject to geotechnical logging with parameters recorded including rock quality indices (e.g., rock quality designation ('RQD')) and geotechnical defects such as fracture frequency. ▪ Digital core photography for drilling completed in 2021 is retained in both wet and dry states. Core photographs from drilling completed prior to 2021 are available in historical reports (typically in PDF format) though the completeness of these records is unknown. ▪ Core which was not sampled for geochemical, geotechnical and or metallurgical purposes is retained. The overall condition of this core is unknown. ▪ Representative reference trays of chips from RC drilling completed in 2021 have been retained. Select reference trays of chips from RC drilling completed prior to 2021 have been retained though the completeness of these records is unknown.
Sub-sampling techniques and sample preparation	▪ *If core, whether cut or sawn and whether quarter, half or all core taken.* ▪ *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* ▪ *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* ▪ *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* ▪ *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/ second-half sampling.* ▪ *Whether sample sizes are appropriate to the grain size of the material being sampled.*	**Sandiego – Diamond Drilling** **1995–1996** ▪ All core samples (NQ2 – HQ3) were sawn with quarter (25%) core typically submitted for analysis. ▪ No second half samples were submitted for analysis. ▪ Quality Assurance and Quality Control ('**QAQC**') procedures adopted for sub-sampling are not recorded though are expected to have been undertaken in accordance with standard industry practice for the respective period. **2006–2011** ▪ All core samples were sawn with quarter (25%) core or half (50%) core typically submitted for analysis from HQ2 or NQ2 core respectively. ▪ No second half samples were submitted for analysis. ▪ QAQC procedures adopted for sub-sampling are not recorded though are expected to have been undertaken in accordance with standard industry practice for the respective period. **2021** ▪ All core samples (NQ2 – HQ2) were sawn with half (50%) core typically submitted for analysis. These samples were crushed (passing -10mm), riffle split and pulverised (80% passing -75µm) to produce a sample for analysis. ▪ The 'cut-line' was observably defined with reference to the core orientation line, typically retained on the portion of core reserved for archival purposes. This ensured that the portion of core selected for analysis remained generally consistent downhole. ▪ No second half samples were submitted for analysis.

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Criteria	JORC Code Explanation	Commentary
		Sandiego – RC Drilling **1995–1996** ▪ RC drilling was used to obtain 1m samples by means of a riffle splitter which were composited into 4m intervals for analysis. Composite samples returning Cu, Pb or Zn >1%, and or Au >1g/t were typically re-assayed at 1m intervals. ▪ QAQC procedures adopted for sample compositing and sub-sampling are not recorded though are expected to have been undertaken in accordance with standard industry practice for the respective period. ▪ Details of field duplicates, if collected are not recorded. **2006–2008** ▪ RC drilling was used to obtain 1m samples which were speared to produce 4m composite samples for analysis. ▪ QAQC procedures adopted for sample compositing and sub-sampling are not recorded though are expected to have been undertaken in accordance with standard industry practice for the respective period. Sub-sampling with a sample spear to produce composite samples can introduce bias and reduce sample representativity, particularly in heterogeneous materials, where particle segregation and inconsistent sampling can lead to inaccurate assay results. The composite sample intervals are typically external of the mineralised domains and thus are not considered to have introduced any material bias. ▪ Details of field duplicates, if collected are not recorded. **2010–2011** ▪ RC drilling was used to obtain 1m samples by means of a cone splitter for analysis. ▪ QAQC procedures adopted for sample compositing and sub-sampling are not recorded though are expected to have been undertaken in accordance with standard industry practice for the respective period. ▪ Details of field duplicates, if collected are not recorded. **2021** ▪ RC drilling was used to obtain 1m samples by means of a cone splitter from which up to 3.5kg was pulverised (80% passing -75µm) to produce a sample for analysis. Samples >3.5kg were riffle split and pulverised (80% passing -75µm) to produce a sample for analysis. ▪ Unmineralised zones were infrequently composited into 4m intervals for analysis as described above. ▪ Sample condition was typically recorded by means of qualitative observation and generally designated 'dry', 'damp' or 'wet' samples. Records indicate samples were usually 'dry'. Wet samples were typically sampled using a sample spear. ▪ During RC drilling completed in 2021 duplicate samples were collected at the time of drilling at an average rate of 1:100 samples. The method used to obtain duplicate samples is not recorded. **Onedin – Diamond Drilling** **1995–1996** ▪ All core samples (NQ2 – HQ3) were sawn with quarter (25%) core typically submitted for analysis. ▪ No second half samples were submitted for analysis. ▪ Quality Assurance and Quality Control ('QAQC') procedures adopted for sub-sampling are not recorded though are expected to have been undertaken in accordance with standard industry practice for the respective period. **2006–2008** ▪ All core samples were sawn with quarter (25%) core or half (50%) core typically submitted for analysis from HQ2 or NQ2 core respectively.

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		▪ No second half samples were submitted for analysis. ▪ QAQC procedures adopted for sub-sampling are not recorded though are expected to have been undertaken in accordance with standard industry practice for the respective period. **2021** ▪ All core samples were sawn with quarter (25%) core or half (50%) core samples from PQ3 / HQ3 or HQ core respectively submitted for analysis. These samples were crushed (passing -10mm), riffle split and pulverised (80% passing -75µm) to produce a sample for analysis. ▪ The 'cut-line' was observably defined with reference to the core orientation line, typically retained on the portion of core reserved for archival purposes. This ensured that the portion of core selected for analysis remained generally consistent downhole. ▪ No second half samples were submitted for analysis. **Onedin – RC Drilling** **1995–1996** ▪ RC drilling was used to obtain 1m samples by means of a riffle splitter which were composited into 4m intervals for analysis. Composite samples returning Cu, Pb or Zn >1%, and or Au >1g/t were typically re-assayed at 1m intervals. ▪ QAQC procedures adopted for sample compositing and sub-sampling are not recorded though are expected to have been undertaken in accordance with standard industry practice for the respective period. ▪ Details of field duplicates, if collected are not recorded. **2006–2008** ▪ RC drilling was used to obtain 1m samples which were speared to produce 4m composite samples for analysis. ▪ QAQC procedures adopted for sample compositing and sub-sampling are not recorded though are expected to have been undertaken in accordance with standard industry practice for the respective period. Sub-sampling with a sample spear to produce composite samples can introduce bias and reduce sample representativity, particularly in heterogeneous materials, where particle segregation and inconsistent sampling can lead to inaccurate assay results. The composite sample intervals are typically external of the mineralised domains and thus are not considered to have introduced any material bias. ▪ Details of field duplicates, if collected are not recorded. **2021** ▪ RC drilling was used to obtain 1m samples by means of a cone splitter from which up to 3.5kg was pulverised (80% passing -75µm) to produce a sample for analysis. Samples >3.5kg were riffle split and pulverised (80% passing -75µm) to produce a sample for analysis. ▪ Unmineralised zones were infrequently composited into 4m intervals for analysis as described above. ▪ Sample condition was typically recorded by means of qualitative observation and generally designated 'dry', 'damp' or 'wet' samples. Records indicate samples were usually 'dry'. Wet samples were typically sampled using a sample spear. ▪ During RC drilling completed in 2021 duplicate samples were collected at the time of drilling at an average rate of 1:100 samples. The method used to obtain duplicate samples is not recorded. Results suggest good precision and repeatability, with minimal variation between original and duplicate assays. ▪ Where recorded, the sample preparation techniques are considered to be appropriate and of sufficient quality to support Mineral Resource estimation. ▪ The sample sizes submitted for analysis are considered to be appropriate for the mineralisation grain size, texture and style.

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Criteria	JORC Code Explanation	Commentary

Quality of assay data and laboratory tests	▪ *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*
	▪ *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*
	▪ *Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*
		▪ The nature and quality of all assaying and laboratory procedures employed for samples obtained through drilling (diamond and reverse circulation) are considered 'industry standard' for the respective periods.
		1995–1996
		▪ Analysis was primarily conducted via AAS for Cu, Pb, Zn, and Ag, with Au variably analysed by fire assay.
		▪ Samples were crushed, split, and pulverised before analysis; however, details on lab preparation and digestion techniques were not recorded.
		▪ AAS is a well-established method for base metals, but it is a partial digestion technique and may not completely dissolve resistant mineral phases, potentially leading to under-reporting of some elements.
		2006–2011
		▪ Analysis was primarily conducted via mixed-acid digestion followed by ICP-MS or ICP-OES. Au was analysed by fire assay with a 40–50g charge and AAS finish.
		▪ Samples were crushed, split, and pulverised; however, details of lab preparation techniques were not recorded.
		▪ Mixed-acid digestion is a strong, near-total digestion method capable of dissolving most sulphide minerals but may not fully capture elements hosted in refractory silicates.
		2021
		▪ Analysis was primarily conducted via mixed-acid digestion and ICP-OES for a suite of 39 elements, with Au analysed by fire assay using a 30g charge and AAS finish.
		▪ Samples were crushed to pass -10mm, riffle split, and pulverised before analysis.
		▪ The use of mixed-acid digestion and ICP-OES is appropriate for base metals and provides near-total digestion. The reduced Au charge (30g vs. 40–50g in previous campaigns) may slightly impact detection accuracy but remains industry standard.
		▪ To monitor the accuracy of assay results from drilling completed in 2021, Certified Reference Material samples ('**CRMs**') and blanks were inserted into the sample stream:
		  ▪ A total of 30 blank samples were inserted into the sample sequence to monitor potential contamination. Results indicated generally acceptable levels of accuracy, but instances of contamination in high-grade zones require further review.
		  ▪ A total of 113 CRMs from Geostats Pty Ltd and OREAS were included across 25 assay batches, covering a range of expected copper and zinc values. Performance varied, with multiple failures outside ±3 standard deviations ('**SD**'), particularly for zinc assays. he high failure rate, particularly in zinc assays, raises concerns regarding systematic biases in laboratory analysis. While some results may be attributed to CRM misallocation, the overall frequency of failures suggests potential issues with laboratory accuracy.
		  ▪ No umpire laboratory checks were conducted.
		▪ The Competent Person preparing the Mineral Resource estimates reviewed the QAQC data and determined that while sampling and assaying results pose a low to moderate risk to confidence levels in the Mineral Resource estimate, systematic issues with CRM performance warrant further investigation. As such, the Company intends to undertake a comprehensive audit of historical drilling, sampling, sub-sampling and analytical data to inform development of the forward work program for the Project.

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Criteria	JORC Code Explanation	Commentary
Verification of sampling and assaying	▪ *The verification of significant intersections by either independent or alternative company personnel.* ▪ *The use of twinned holes.* ▪ *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* ▪ *Discuss any adjustment to assay data.*	▪ Significant intersections have been verified by alternative company personnel. ▪ Validation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols is ongoing and forms part of the Company's audit process (see 'Audits or reviews'). ▪ The drilling database is currently managed by Newexco Exploration; a Perth based exploration consultancy group. All drilling data resides on their NXDB database management system. Newexco is responsible for uploading all analytical and other drilling data and producing audited downloaded data for use in various mining software packages. The NXDB system has stringent data entry validation routines. ▪ Twinned drilling has not yet been undertaken. ▪ The Company is not aware of any adjustments having been made to assay data.
Location of data points	▪ *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* ▪ *Specification of the grid system used.* ▪ *Quality and adequacy of topographic control.*	▪ All data is recorded in the GDA2020 datum; UTM Zone 52 (MGA52). ▪ Local exploration grids were previously established at the Sandiego and Onedin deposits. Detailed survey work has previously cross-referenced the local grids to the Zone 52 MGA (GDA 2020) coordinate system. ▪ During 1995 – 1996 drill hole collars were located and surveyed by an independent surveyor using a Trimble Global Positioning system in Real Time Kinematic mode with a reported accuracy of ±0.03m horizontally and ±0.05m vertically. Downhole surveys were completed using an Eastman Downhole Camera at approximately 50m intervals. ▪ The method used to survey drill collars between 2006 and 2011 is not recorded though is expected to have been standard industry practice for the respective periods. Downhole surveys were typically completed at 30 – 50m intervals. ▪ During 2021 drill hole collars were located and surveyed using a differential GPS ('DGPS'). Set-up collar azimuths and inclinations have been established using a compass and clinometer. Downhole surveys were typically completed at 30m intervals using a north-seeking gyroscopic tool. ▪ Anglo Australian Resources NL previously obtained photogrammetric coverage of the tenement areas which provides good control in respect of elevation data.
Data spacing and distribution	▪ *Data spacing for reporting of Exploration Results.* ▪ *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* ▪ *Whether sample compositing has been applied.*	▪ Drilling at the Sandiego deposit is generally completed on sections between 20 and 40m spacing with drill holes typically intersecting mineralisation between 30 and 40m on section. ▪ Drilling at the Onedin deposit is generally completed on sections averaging 20m spacing with drill holes typically intersecting mineralisation between 30 and 40m on section. ▪ The data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation procedures and classifications applied. ▪ Sample compositing has been applied to select samples obtained through RC drilling that were considered unmineralised. These composite samples represent approximately 18% of all samples used to inform the Mineral Resource estimates.

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Orientation of data in relation to geological structure	▪ *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* ▪ *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	▪ The Sandiego deposit was drilled towards 115°, and the Onedin deposit drilled towards 140°, both at angles ranging from –50° to –90° (typically -60°) to intersect the mineralised zones as close to perpendicular as possible. ▪ The orientation of both RC and diamond drillholes at Sandiego and Onedin is orthogonal to the perceived strike of mineralisation and limits the amount of geological bias in drill sampling as much as possible.
Sample security	▪ *The measures taken to ensure sample security.*	▪ Sample security procedures are considered to be 'industry standard' for the respective periods. ▪ Samples obtained during drilling completed in 2021 were transported from Halls Creek to the laboratory by an independent local courier service. ▪ The Company considers that risks associated with sample security are limited given the nature of the targeted mineralisation.
Audits or reviews	▪ *The results of any audits or reviews of sampling techniques and data.*	▪ All diamond drill core sampled up to 2006 was relogged by an independent consultant from ERM Australia Consultants Pty Ltd ('formerly CSA Global) to ensure consistency. ▪ No audits or reviews are understood to have been carried out for any of the previous sampling programmes. ▪ The Company intends to undertake a comprehensive audit of historical drilling, sampling, sub-sampling and analytical data to inform development of the forward work program for the Project.

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Section 2 Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	▪ *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* ▪ *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	▪ The Sandiego and Onedin deposits are hosted within existing Mining Leases M 80/276 and M 80/277 respectively—the Mining Leases expire in 2031. ▪ The Mining Leases are located 25km and 17km southwest of Halls Creek township and approximately 300km south-southwest of Kununurra, WA. ▪ The Onedin deposit is located approximately 1.8km north north-east of the Lamboo Gunian Aboriginal community. The Sandiego deposit is located approximately 6km southwest of the Lamboo Gunian Aboriginal community. ▪ The Sandiego and Onedin deposits are located adjacent to the Great Northern Highway. ▪ Both mining licences M80/277 and M80/276 were granted in 1989 and therefore prior to the Native Title Act 1993 (Cth) ('NTA') The Koongie-Elvire Native Title Claim WC 1999/040 was also registered after grant of the mining licences and they are not subject to the future act provisions under the NTA. ▪ The Project is located approximately 100km southwest of the nearest National Park, being the Purnululu National Park. ▪ There are two existing agreements with respect to the Project, the 'Precious Metals Agreement' and the 'Royalty Agreement'. The Precious Metals Agreement is between AKN and Astral Resources NL ('Astral') who has the right to carry out exploration for gold and platinum group element minerals on the Project, excluding the two Mining Leases where the Onedin and Sandiego deposits are situated and E80/4957 where the Emull deposit is located. The Royalty Agreement provides for a 1% net smelter return royalty payable to Astral in the event of mining activities commencing at the Project. ▪ Pursuant to this announcement, the Project is subject to an Earn-in agreement between the Company and AKN. Details of the agreement are outlined in the main body of this announcement. ▪ The Company is not aware of any impediments to obtaining a licence to operate in the area.

Exploration done by other parties	▪ *Acknowledgment and appraisal of exploration by other parties.*	▪ The Project area has been explored for base and precious metals on an intermittent basis since 1972.
		▪ All exploration is considered to have been completed to a reasonable standard however documentation pertaining to historical drilling, sampling, sub-sampling and analytical data is incomplete. Where sufficient confidence cannot be established as to data quality, it cannot be used to inform Mineral Resource estimation. Notwithstanding this the cumulative advancement of geological knowledge provided by historical exploration is significant.
		▪ A summary of historical exploration is provided below:
		  ▪ **1972–1977:** Kennecott pegged tenements over known copper-lead-zinc-silver gossans as part of its Gordon Downs 3 project. Work included geological and structural mapping, rock chip and soil sampling, diamond and percussion drilling. This work outlined significant base metal mineralisation hosted by chert, banded iron formations and carbonate-rich assemblages at Onedin, Sandiego, Hanging Tree and Gosford. Drilling immediately followed at these four prospects, with 29 RC holes with diamond tails, with the most significant deposit defined from this work at Sandiego.
		  ▪ **1978–1979:** Newmont continued testing the known mineralisation, using extensive trenching, percussion and diamond drilling, detailed geophysics including ground magnetic surveys and low-level aeromagnetic surveys, which failed to locate significant extensions of the mineralisation in the known prospects.

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Exploration done by other parties *(continued)*		▪ **1980:** North Broken Hill concentrated on testing the supergene enriched zone at the base at Sandiego. ▪ **1983–1988:** Asarco Australia Ltd carried out RAB drilling in the Mimosa sub-member, along strike of the known mineralisation, locating several significant geochemical anomalies, although not of sufficient grade to support a Mineral Resource estimate. The drilling was to fixed depth and only the bottom of the hole was sampled. Asarco also completed limited work on the supergene gold and base metal potential at Sandiego. ▪ **1988–1989:** BP Minerals and RTZ Mining went into a joint venture (JV) with Asarco and continued testing the gold potential by re-assaying split core samples for gold, which did not identify any significant base metal mineralisation. RTZ Mining sold the property to AAR in 1989. ▪ **1989–1994:** Billiton Australia and Anglo Australian Resources NL ('AAR') identified extensions of known mineralisation at Onedin. Billiton carried out a broad-based exploration programme including limited RC and diamond drilling. A grade-tonnage estimate for the Onedin was prepared, for 1 Mt @ 11 % Zn, 1 % Cu and 1 % Pb. ▪ **1995–2002:** Lachlan Resources and AAR concentrated on identifying shallow resources at Sandiego and Onedin with percussion and diamond drilling programmes. Two polygonal Mineral Resources were estimated for Sandiego in 1996 and 1997. AAR was sole tenure holder of the properties between 2002 and 2020. AAR drilled 245 RC and diamond drillholes encompassing 50,417 m, focusing on Mineral Resource, metallurgical and geotechnical drilling at the Sandiego and Onedin base metal deposits. Since 2011, AAR has focused on gold exploration, with little exploration for base metals occurring on the property. AAR reported Mineral Resources for Onedin in 2006, 2008 and 2009. ▪ **2021:** AKN's Joint Venture Agreement with AAR commenced in June 2021 and AKN assumed management and control of the exploration activities on the property with additional drilling completed in 2021 and 2022. AKN completed Mineral Resource estimates for the Sandiego and Onedin deposits in 2022 and delivered a Scoping Study in 2023.
Geology	▪ *Deposit type, geological setting, and style of mineralisation.*	▪ Rocks of the Halls Creek Project are assigned to the Lamboo Province, of Palaeoproterozoic age (1910–1805 Ma), which formed within the northeast trending Halls Creek Orogen. ▪ The Central Zone of the Lamboo Province comprises turbiditic metasedimentary and mafic volcanic and volcaniclastic rocks of the Tickalara Metamorphics, deposited by 1865 Ma. These rocks were intruded by tonalitic sheets and deformed and metamorphosed between 1865–1856 Ma and 1850–1845 Ma. ▪ A younger succession of rocks comprising the sedimentary rocks and mafic and felsic volcanic rocks of the Koongie Park Formation ('KPF') were deposited in a possible rifted arc setting at around 1843 Ma. Layered mafic-ultramafic bodies were intruded into the Central Zone at 1856 Ma, 1845 Ma and 1830 Ma. Large volumes of granite and gabbro of the Sally Downs Supersuite intruded the Central Zone during the Halls Creek Orogeny at 1835–1805 Ma. Researchers interpret the Central Zone to be an arc-like domain developed on a continental fragment. ▪ The KPF within the Project area is broadly characterised as a low metamorphic-grade sequence composed of mafic and felsic volcanics and associated sedimentary facies including sandstone, mudstone, carbonate, chert and ironstone intruded by rhyolitic to rhyodacitic sills, dolerite bodies and basalt dykes.

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Criteria	JORC Code Explanation	Commentary
		▪ The KPF hosts numerous base metal occurrences and two significant base metal deposits, Onedin and Sandiego. ▪ The upper unit of the KPF composes felsic volcanic units, carbonate, ironstone, chert, mudstone, quartz-bearing volcaniclastic beds and lithic sandstone. Currently known base metal prospects are concentrated in the upper KPF (i.e., the trend which includes Sandiego and Onedin deposits). ▪ Both, the Sandiego and Onedin deposits are situated within the limbs of intensely folded, higher order, double-plunging anticlinal structures that have been interpreted from magnetic images. The axial planes of the fold structures appear to be upright to south-southeast dipping. They trend northeast, sub-parallel to the regional transcurrent and anastomosing fault systems that dominate the Halls Creek Orogen ▪ The massive sulphide deposits of the Project have been traditionally classified as volcanogenic massive sulphide ('**VMS**') deposits. A PhD study concluded in 2002 proposed that the best model for the base metal occurrence is as a sub-horizontal basin floor replacement VMS. ERM concurs and considers the weight of evidence supports their interpretation as VMS deposits. Thus, the deposits are interpreted to have been formed around the time of deposition of the host volcanic and sedimentary strata in which they are bound and generally in bedding parallel lenses. Hydrothermal fluids associated with volcanic activity are interpreted to have been the source of the metals and other constituents of the mineralisation. ▪ Sphalerite is the main sulphide in the primary mineralisation at Onedin with subordinate pyrrhotite-pyrite-chalcopyrite-galena. Sphalerite chiefly occurs as fine-grained masses. In general, the sulphides exhibit replacement textures and show evidence of mobilisation, which is a result of deformation and metamorphism subsequent to initial formation. ▪ The mineralogy of the primary mineralisation at Sandiego is pyrite-sphalerite-pyrrhotite-chalcopyrite ± galena, which is largely hosted in the magnetite-rich exhalative suite of rocks where it occurs as a massive conformable wedge-shaped lens 200 m in length with a maximum thickness of 75 m. Weak to moderate sulphide vein and stringer mineralisation occur at the base of the exhalite package in the underlying tuffs. Mineralisation is relatively rare in the carbonate zone but may extend into the talc-chlorite schists. Overall, there is poor spatial correlation between copper and zinc mineralisation at Sandiego. However, discrete zinc-rich and copper-rich zones have been identified from core logging and assay results in the vertical dimension. ▪ The KPF exhibits a deep weathered profile at Sandiego and particularly Onedin, resulting in three weathering domains – oxidised zone at surface, primary zone at depth, and the transition zone in between. Each zone has very different mineral assemblages and consequently very different metallurgical properties. ▪ The oxidised zone consists of completely oxidised material, above the base of complete oxidation ('**BOCO**') surface. This surface is on average about 100 m below ground level. It is undulating and deepens significantly in the vicinity of steeply dipping faults. Gossans are developed at surface above the mineral deposits. ▪ The transition zone consists of partially oxidised material and is located between BOCO and the top of fresh rock ('**TOFR**'). Supergene mineralisation is comprised of secondary mineralisation hosted in the oxidised and transition zones.

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Criteria	JORC Code Explanation	Commentary
Drill hole Information	▪ *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ▪ *easting and northing of the drill hole collar* ▪ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ▪ *dip and azimuth of the hole* ▪ *down hole length and interception depth* ▪ *hole length.* ▪ *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	▪ See drill hole summary below. All coordinates are reported in the GDA2020 datum; UTM Zone 52 (MGA52).

Hole ID	Easting	Northing	RL	Max Depth (m)	Hole Type	Dip	Azimuth	Year	Deposit
SRC01	339741.8	7968471.4	422.6	100.00	RC	-60	113.7	1995	Sandiego
SRC02	339768.4	7968330.2	424.9	100.00	RC	-61	113.7	1995	Sandiego
SRC06	339696.8	7968403.7	419.5	129.50	RC	-61	114.7	1995	Sandiego
SRC09	339704.2	7968271.4	418.9	131.00	RC	-60	113.7	1995	Sandiego
SRCD03	339757.4	7968421.1	426.1	184.00	RCDD	-60	113.7	1995	Sandiego
SRCD04	339717.1	7968438.5	421.2	307.75	RCDD	-60	113.7	1995	Sandiego
SRCD05	339748.5	7968381.5	423.8	193.90	RCDD	-60	113.7	1995	Sandiego
SRCD07	339681.6	7968368.2	417.5	393.70	RCDD	-60	113.7	1995	Sandiego
SRCD08	339721.4	7968306.7	419.6	187.50	RCDD	-60	114.7	1995	Sandiego
SRC11	339645.0	7968385.6	418.3	46.00	RC	-60	113.7	1996	Sandiego
SRC12	339667.5	7968287.1	418.9	196.00	RC	-58	107.7	1996	Sandiego
SRC17	339812.6	7968661.0	421.6	102.00	RC	-55	113.7	1996	Sandiego
SRC18	339764.3	7968507.1	423.2	119.00	RC	-60	113.7	1996	Sandiego
SRC19	339726.9	7968523.1	421.0	168.00	RC	-60	113.7	1996	Sandiego
SRC20	339779.6	7968543.6	425.0	96.00	RC	-60	117.7	1996	Sandiego
SRCD01	339741.8	7968471.4	424.0	303.70	RCDD	-60	113.7	1996	Sandiego
SRCD10	339691.8	7968386.1	419.9	208.90	RCDD	-60	113.7	1996	Sandiego
SRCD11A	339646.7	7968384.0	418.0	429.80	RCDD	-61	113.7	1996	Sandiego
SRCD11B	339645.0	7968386.4	418.0	494.80	RCDD	-61	107.7	1996	Sandiego
SRCD13	339631.6	7968303.4	418.4	217.90	RCDD	-58	107.7	1996	Sandiego
SRCD14	339715.1	7968396.1	420.6	280.30	RCDD	-58	113.7	1996	Sandiego
SRCD15	339675.9	7968455.3	418.3	369.80	RCDD	-58	107.7	1996	Sandiego
SRCD16	339597.6	7968318.0	418.0	323.50	RCDD	-58	116.7	1996	Sandiego
SRCD21	339697.8	7968406.6	420.1	366.00	RCDD	-58	113.7	2006	Sandiego
SRCD22	339660.6	7968421.2	418.7	440.70	RCDD	-58	113.7	2006	Sandiego
SRCD23	339692.1	7968539.7	418.7	294.00	RCDD	-60	113.7	2006	Sandiego
SRCD24	339699.2	7968408.8	420.2	332.70	RCDD	-52	113.7	2006	Sandiego
SRC026	339577.2	7968328.7	418.1	265.00	RC	-60	115.8	2008	Sandiego

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Hole ID	Easting	Northing	RL	Max Depth (m)	Hole Type	Dip	Azimuth	Year	Deposit
SRC027	339667.0	7968332.7	418.7	162.00	RC	-60	115.8	2008	Sandiego
SRC028	339648.8	7968342.0	418.5	204.00	RC	-60	115.8	2008	Sandiego
SRC029	339700.2	7968362.7	419.7	144.00	RC	-60	115.8	2008	Sandiego
SRC033	339656.5	7968555.9	418.0	252.00	RC	-60	115.8	2008	Sandiego
SRC034	339724.6	7968613.9	418.4	180.00	RC	-60	115.8	2008	Sandiego
SRC035	339738.4	7968564.4	419.3	222.00	RC	-60	115.8	2008	Sandiego
SRC036	339759.6	7968642.3	419.6	138.00	RC	-60	115.8	2008	Sandiego
SRC037	339798.1	7968582.5	423.8	120.00	RC	-60	115.8	2008	Sandiego
SRC038	339774.7	7968675.9	419.1	102.00	RC	-63	115.8	2008	Sandiego
SRC039	339792.0	7968712.0	419.2	216.00	RC	-62	111.0	2008	Sandiego
SRC040	339835.1	7968742.1	419.6	94.00	RC	-60	110.0	2008	Sandiego
SRC041	339539.4	7968341.8	418.0	301.00	RC	-60	110.0	2008	Sandiego
SRC043	339941.7	7968910.3	416.0	103.00	RC	-60	290.0	2008	Sandiego
SRC044	339978.1	7968894.3	416.0	103.00	RC	-60	293.6	2008	Sandiego
SRC045	340014.5	7968878.3	417.0	103.00	RC	-60	293.6	2008	Sandiego
SRC046	339925.0	7968873.5	417.0	103.00	RC	-60	293.6	2008	Sandiego
SRC047	339961.9	7968857.6	417.0	103.00	RC	-60	293.6	2008	Sandiego
SRC048	339909.5	7968837.0	420.0	103.00	RC	-60	293.6	2008	Sandiego
SRC049	339945.8	7968821.0	420.0	103.00	RC	-60	293.6	2008	Sandiego
SRC050	339857.0	7968816.3	418.0	103.00	RC	-60	293.6	2008	Sandiego
SRC051	339893.3	7968800.3	419.0	103.00	RC	-60	293.6	2008	Sandiego
SRCD025	339631.7	7968305.1	418.5	450.60	RCDD	-61	113.4	2008	Sandiego
SRCD027A	339668.2	7968332.1	418.7	312.90	RCDD	-56	114.2	2008	Sandiego
SRCD028A	339648.0	7968340.9	418.5	360.70	RCDD	-60	109.8	2008	Sandiego
SRCD029A	339699.7	7968361.6	419.7	252.80	RCDD	-58	112.8	2008	Sandiego
SRCD030	339650.8	7968382.6	418.8	357.70	RCDD	-60	115.8	2008	Sandiego
SRCD031	339750.8	7968427.2	425.3	224.00	RCDD	-60	115.8	2008	Sandiego
SRCD032	339685.5	7968499.7	418.2	339.40	RCDD	-60	115.8	2008	Sandiego
SRCD042	339591.4	7968410.0	421.0	649.50	RCDD	-61	111.2	2008	Sandiego
SRCD052	339638.7	7968477.3	423.0	403.50	RCDD	-60	115.8	2008	Sandiego
SRCD053A	339608.4	7968446.4	422.0	557.00	RCDD	-60	115.8	2008	Sandiego
SRCD054	339704.2	7968579.4	419.0	264.50	RCDD	-60	115.8	2008	Sandiego
SRC056	339685.2	7968279.2	420.0	160.00	RC	-58	115.8	2010	Sandiego
SRC057	339701.5	7968315.8	421.0	208.00	RC	-58	115.8	2010	Sandiego
SRC060	339725.5	7968371.1	423.0	204.00	RC	-60	115.8	2010	Sandiego
SRC061	339731.9	7968390.4	424.0	200.00	RC	-58	115.8	2010	Sandiego
SRC062	339728.6	7968432.8	424.0	204.00	RC	-55	115.8	2010	Sandiego
SRC065	339767.2	7968464.1	427.0	168.00	RC	-60	115.8	2010	Sandiego
SRC066	339746.2	7968515.5	423.0	180.00	RC	-58	115.8	2010	Sandiego
SRC067	339762.1	7968552.3	423.0	150.00	RC	-58	115.8	2010	Sandiego
SRC068	339778.1	7968588.5	423.0	160.00	RC	-60	115.8	2010	Sandiego
SRC076	339744.2	7968405.1	425.0	180.00	RC	-58	115.8	2010	Sandiego
SRC077	339753.5	7968442.2	427.0	180.00	RC	-58	115.8	2010	Sandiego
SRCD058	339727.7	7968326.2	422.0	142.20	RCDD	-58	115.8	2010	Sandiego
SRCD059	339707.8	7968378.9	421.0	276.00	RCDD	-58	115.8	2010	Sandiego
SRCD063	339999.6	7968316.0	419.0	346.70	RCDD	-60	295.8	2010	Sandiego
SRCD064	340050.1	7968293.9	418.0	450.60	RCDD	-60	295.8	2010	Sandiego

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Hole ID	Easting	Northing	RL	Max Depth (m)	Hole Type	Dip	Azimuth	Year	Deposit
SRCD069	339924.6	7968750.5	424.0	27.10	DD	-60	157.8	2010	Sandiego
SRCD070	339928.9	7968740.9	425.0	27.10	DD	-60	157.8	2010	Sandiego
SRCD071	339901.6	7968665.4	429.0	51.00	RCDD	-60	115.8	2010	Sandiego
SRCD072	339877.7	7968566.7	431.0	66.00	RCDD	-60	115.8	2010	Sandiego
SRCD073	339852.7	7968468.4	430.0	81.10	RCDD	-60	115.8	2010	Sandiego
SRCD074	339830.8	7968368.8	428.0	90.30	RCDD	-60	115.8	2010	Sandiego
SRCD075	339811.0	7968289.9	423.0	111.30	RCDD	-60	115.8	2010	Sandiego
SRCD078	340095.5	7968274.0	417.0	750.60	RCDD	-65	295.8	2010	Sandiego
SRC079	340020.6	7968348.5	416.0	228.00	RC	-65	295.8	2011	Sandiego
SRC080	340017.7	7968391.8	420.0	220.00	RC	-65	295.7	2011	Sandiego
SRC081	340013.6	7968440.8	419.0	200.00	RC	-64	295.7	2011	Sandiego
ASRC001	339826.7	7968189.9	419.2	158.00	RC	-65	296.8	2021	Sandiego
ASRC002	339648.0	7968032.1	419.5	210.00	RC	-59	292.5	2021	Sandiego
ASRD001	339950.2	7968229.7	418.3	120.53	RC	-60	295.1	2021	Sandiego
ASRD002	340033.0	7968215.3	417.4	218.60	RCDD	-61	291.5	2021	Sandiego
ASRD002A	340033.0	7968215.3	417.4	621.51	DD	-61	291.5	2021	Sandiego
ASRD003	339957.4	7968247.8	418.3	436.50	RCDD	-65	292.9	2021	Sandiego
ASRD004	340012.0	7968289.1	417.8	549.00	RCDD	-66	294.6	2021	Sandiego
ASRD005	339996.9	7968339.6	418.1	531.70	RCDD	-65	292.2	2021	Sandiego
ASRD006	339979.9	7968195.7	417.9	120.00	RC	-67	293.9	2021	Sandiego
ASRD007	340010.9	7968264.7	417.7	120.00	RC	-65	292.4	2021	Sandiego
ASWB01	340144.3	7969049.4	415.2	102.00	RC	-90	0.0	2021	Sandiego
ASWB02	339640.2	7968301.9	418.5	120.00	RC	-90	0.0	2021	Sandiego
ORC03	345747.0	7973564.3	446.0	100.00	RC	-61	140.2	1995	Onedin
ORC04	345722.2	7973595.2	445.8	142.00	RC	-61	140.2	1995	Onedin
ORC05	345716.0	7973539.6	446.1	151.00	RC	-61	140.2	1995	Onedin
ORC07	345746.8	7973501.4	452.1	124.00	RC	-61	140.2	1995	Onedin
ORC08	345764.5	7973477.2	456.9	100.00	RC	-61	140.2	1995	Onedin
ORC09	345684.7	7973514.1	445.9	151.00	RC	-61	140.2	1995	Onedin
ORC14	345764.6	7973605.3	446.5	70.00	RC	-61	140.2	1995	Onedin
ORC15	345777.7	7973589.7	446.5	60.00	RC	-61	140.2	1995	Onedin
ORC16	345783.9	7973645.8	447.3	96.00	RC	-61	140.2	1995	Onedin
ORC17	345796.3	7973630.6	447.4	70.00	RC	-61	140.2	1995	Onedin
ORC18	345760.1	7973675.1	452.0	119.00	RC	-61	140.2	1995	Onedin
ORC19	345780.6	7973617.9	447.0	70.00	RC	-61	140.2	1995	Onedin
ORC20	345767.8	7973633.1	446.9	96.00	RC	-61	140.2	1995	Onedin
ORC21	345754.6	7973648.7	447.3	114.00	RC	-62	140.2	1995	Onedin
ORC22	345759.8	7973548.2	446.4	96.00	RC	-62	140.2	1995	Onedin
ORC23	345648.2	7973433.3	449.3	96.00	RC	-62	140.2	1995	Onedin
ORC24	345679.9	7973457.8	448.9	120.00	RC	-62	140.2	1995	Onedin
ORC25	345710.8	7973483.2	450.8	102.00	RC	-62	140.2	1995	Onedin
ORC29	345573.1	7973525.3	444.5	149.00	RC	-62	140.2	1995	Onedin
ORC30	345623.3	7973463.7	444.1	203.00	RC	-62	140.2	1995	Onedin
ORC32	345637.6	7973633.8	445.3	173.00	RC	-60	140.2	1995	Onedin
ORCD01	345750.9	7973619.5	446.6	158.00	RC	-61	140.2	1995	Onedin
ORCD02	345727.3	7973650.9	446.9	158.10	RCDD	-61	140.2	1995	Onedin
ORCD06	345690.9	7973570.6	445.0	192.70	RCDD	-61	140.2	1995	Onedin

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Hole ID	Easting	Northing	RL	Max Depth (m)	Hole Type	Dip	Azimuth	Year	Deposit
ORCD10	345659.6	7973544.7	444.5	202.40	RCDD	-61	140.2	1995	Onedin
ORCD11	345654.2	7973488.9	444.8	177.80	RCDD	-61	140.2	1995	Onedin
ORCD12	345628.8	7973519.4	444.2	225.60	RCDD	-61	140.2	1995	Onedin
ORCD13	345697.1	7973626.2	446.3	201.70	RCDD	-61	140.2	1995	Onedin
ORCD26	345633.0	7973576.4	444.8	258.80	RCDD	-62	140.2	1995	Onedin
ORCD27	345665.7	7973601.9	445.5	224.70	RCDD	-62	140.2	1995	Onedin
ORCD28	345602.4	7973551.0	444.3	288.40	RCDD	-62	140.2	1995	Onedin
ORCD31	345598.2	7973494.3	443.2	265.00	RCDD	-62	140.2	1995	Onedin
ORC35	345549.9	7973554.9	443.7	178.00	RC	-62	140.2	1996	Onedin
ORC39	345621.8	7973749.5	448.1	144.00	RC	-60	140.2	1996	Onedin
ORC40	346097.1	7974053.7	447.8	100.00	RC	-60	140.2	1996	Onedin
ORC41	345846.9	7973754.1	448.7	96.00	RC	-60	140.2	1996	Onedin
ORC43	345786.2	7973701.7	448.2	119.00	RC	-60	140.2	1996	Onedin
ORCD29A	345569.4	7973528.1	442.6	361.60	RCDD	-65	140.2	1996	Onedin
ORCD33	345583.9	7973636.6	446.2	348.40	RCDD	-62	140.2	1996	Onedin
ORCD34	345552.0	7973611.9	447.8	441.90	RCDD	-65	140.2	1996	Onedin
ORCD36	345671.2	7973657.9	444.1	263.30	RCDD	-62	140.2	1996	Onedin
ORCD37	345567.3	7973468.0	445.6	315.80	RCDD	-62	140.2	1996	Onedin
ORCD38	345440.7	7973335.3	439.8	297.80	RCDD	-58	133.2	1996	Onedin
ORCD45	345759.4	7973549.1	448.0	398.70	DD	-60	227.0	2006	Onedin
ORCD46	345731.5	7973708.5	453.0	192.50	RCDD	-60	137.0	2006	Onedin
ORCD47	345700.3	7973682.4	452.0	224.80	RCDD	-60	137.0	2006	Onedin
ORCD48	345593.3	7973437.4	445.0	126.00	RC	-60	137.0	2006	Onedin
ORC049	345633.4	7973445.9	450.0	79.00	RC	-60	53.3	2008	Onedin
ORC052	345458.0	7973300.2	439.7	301.00	RC	-60	53.3	2008	Onedin
ORC053	345574.8	7973523.8	444.3	199.00	RC	-60	143.3	2008	Onedin
ORC054	345573.7	7973587.8	444.8	205.00	RC	-60	143.3	2008	Onedin
ORCD050	345604.0	7973421.3	444.8	234.70	RCDD	-60	53.3	2008	Onedin
ORCD051	345557.8	7973383.0	443.0	357.60	RCDD	-60	53.3	2008	Onedin
AORC001	345651.5	7973459.7	446.4	192.00	RC	-60	139.1	2021	Onedin
AORC002	345680.6	7973488.2	446.7	138.00	RC	-63	141.0	2021	Onedin
AORC003	345709.0	7973517.4	447.0	138.00	RC	-61	142.8	2021	Onedin
AORC004	345720.2	7973566.5	445.6	174.00	RC	-61	138.7	2021	Onedin
AORC005	345651.7	7973619.9	446.1	358.50	RCDD	-70	138.4	2021	Onedin
AORC006	345597.4	7973464.3	442.5	278.00	RC	-60	141.8	2021	Onedin
AORD001	345685.5	7973549.8	445.0	155.00	DD	-60	139.7	2021	Onedin
AORD002	345660.1	7973516.6	444.3	174.80	DD	-60	139.8	2021	Onedin
AORD003	345638.0	7973477.8	444.3	215.30	DD	-67	140.5	2021	Onedin
AORD004	345696.9	7973601.8	445.7	196.20	DD	-60	139.1	2021	Onedin
AORD005	345613.7	7973516.2	443.9	268.00	DD	-63	139.7	2021	Onedin
AORD006	345630.6	7973546.4	444.5	243.80	DD	-60	140.4	2021	Onedin
AORD007	345662.0	7973572.2	445.0	183.10	DD	-60	139.4	2021	Onedin
AOWB01	345604.0	7973421.2	444.9	114.00	RC	-90	0.0	2021	Onedin
AOWB02	345820.8	7973630.0	448.0	120.00	RC	-90	0.0	2021	Onedin
AOWB03	345716.7	7973544.6	445.9	132.00	RC	-90	0.0	2021	Onedin
AOWB04	345721.7	7973539.6	446.2	126.00	RC	-90	0.0	2021	Onedin

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Criteria	JORC Code Explanation	Commentary
Data aggregation methods	▪ *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.* ▪ *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* ▪ *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	▪ Drill hole intercept grades are reported as downhole length-weighted averages, ensuring each sample contributes proportionally to the final reported grade. ▪ Length-weighted averages were calculated using the standard industry formula: **Weighted Average Grade =** $(L_1 \times G_1) + (L_2 \times G_2) + (L_n \times G_n) / L_1 + L_2 + L_n$ where L is the sample interval length and G is the corresponding grade. **Example:** For an interval comprising 4 metres at 2.0% Cu and 6 metres at 3.0% Cu, the weighted average grade is: $(4 \times 2.0) + (6 \times 3.0) / 4 + 6 = 2.6\%$ Cu ▪ A nominal cut-off grade of 500 ppm Co was applied for reporting significant cobalt intercepts at the Sandiego deposit. Intervals meeting or exceeding this threshold were included in the reported aggregation. Internal dilution within aggregated intervals did not exceed 1 metre. ▪ A nominal cut-off grade of 0.4% Cu was applied for reporting significant copper intercepts at the Onedin deposit. Due to the complex nature of mineralisation, where copper is interspersed with zinc, internal dilution was generally accepted. However, consecutive internal dilution within aggregated intercepts did not exceed 12 metres. ▪ Within low-grade intervals reported at the 0.4% Cu cut-off, high-grade sub-intervals were identified using a 1.0% Cu cut-off. Internal dilution was assessed within the geological context of copper-zinc mineralisation, with consecutive internal dilution in high-grade sub-intervals limited to 2 metres. ▪ Reported intercepts were aggregated using a hierarchical approach, first identifying broader mineralised intervals at the lower cut-off grade (e.g., 0.4% Cu), and then defining high-grade sub-intervals at the 1.0% Cu threshold. ▪ This methodology ensures that significant high-grade zones are reported within broader mineralised envelopes, maintaining geological and economic relevance. ▪ Internal dilution was minimised, and where included, was subject to constraints based on geological continuity and mineralisation style.
Relationship between mineralisation widths and intercept lengths	▪ *These relationships are particularly important in the reporting of Exploration Results.* ▪ *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* ▪ *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').*	▪ The geometry of mineralisation with respect to the drill hole intersections reported from the Sandiego deposit is well established and thus estimated true widths are provided, in addition to downhole lengths, in the table below. ▪ At the Onedin deposit, true widths of mineralisation through the oxide-transition zone are difficult to establish due to the extensive oxidation profile creating diffuse mineralisation patterns that complicate the interpretation of mineralisation geometry. Thus, only downhole lengths are reported.

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Hole ID	Downhole Interval (m)	Estimated True Width (m)	From (m)	To (m)	Cu (%)	Pb (%)	Zn (%)	Co (%)	Ag (g/t)
Onedin Deposit									
AORD004	**55.1**	**True Width Not Known**	**94**	**149.1**	**3.5**	**1.2**	**0.8**	**–**	**103**
including	10.4	True Width Not Known	99.6	110	1.2	2.7	1.3	–	4
and	16.6	True Width Not Known	130	146.6	10.2	0.5	1.0	–	316
AOWB03	**118**	**True Width Not Known**	**14**	**132**	**1.1**	**1.6**	**1.1**	**–**	**52**
including	25	True Width Not Known	58	83	1.2	1.5	1.2	–	–
and	21	True Width Not Known	93	114	2.1	–	–	–	66
Sandiego Deposit									
SRCD031	**22**	**9.5**	**100**	**122**	**12.6**	**1.3**	**8.0**	**0.17**	**121**
and	12.9	4.4	149.5	162.4	12.2	0.1	2.8	0.27	37
SRCD064	**10.37**	**7.2**	**393.73**	**404.1**	**9.9**	**–**	**–**	**0.46**	**19**

Criteria	JORC Code Explanation	Commentary
Diagrams	▪ *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	▪ Appropriate maps and diagrams are presented in the body of this announcement.
Balanced reporting	▪ *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	▪ Only mineralised drill hole intersections regarded as highly anomalous and of economic interest are reported. The proportion of each hole represented by the reported intervals can be ascertained from the sum of the reported intervals divided by the total drill hole depth. ▪ All assay results for drill holes included in the Mineral Resources estimates have been considered and comprise results not necessarily regarded as anomalous.
Other substantive exploration data	▪ *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	▪ Density measurements were taken from 1,197 diamond core billets (Sandiego) and 459 billets (Onedin) over the life of the project. Samples were selected from every 1 m or 5 m downhole. Density measurements were carried out by field staff at the Halls Creek sample yard. During AAR's ownership, core billets were initially wrapped in cling film, and density was determined using a conventional sample weight in air and then water. Samples with measured density values of >4.7 were discarded from the density database as these were considered too high for the style of mineralisation.
Further work	▪ *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).* ▪ *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	▪ The Company intends to undertake a comprehensive audit of historical drilling, sampling, sub-sampling and analytical data to inform development of the forward work program for the Project. The nature and scale of planned further work will not be known until this audit has been completed.

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Section 3 Estimation and Reporting of Mineral Resources - Onedin

Criteria	JORC Code Explanation	Commentary
Database integrity	▪ *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* ▪ *Data validation procedures used.*	▪ Drill data is captured in a relational database prepared and maintained by Newexco, which contains relevant information for drill hole collars, drill samples, assays, down hole surveys and density data. Other information also provided relates to soil sampling, termite mound sampling, structural geology and magnetic susceptibility. ▪ All drilling data resides on Newexco's NXDB database management system. Newexco is responsible for uploading all analytical and other drilling data and producing audited downloaded data for use in various mining software packages. The NXDB system has stringent data entry validation routines. ▪ Drill hole data tables were imported into Datamine software by CSA Global during the preparation of the Mineral Resource estimates. Minor issues were resolved by AuKing and Newxco prior to CSA Global progressing with the Mineral Resource estimates. ▪ The Competent Person considers the database integrity to be appropriate to support the reporting of a Mineral Resource.
Site Visits	▪ *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* ▪ *If no site visits have been undertaken indicate why this is the case.*	▪ The Competent Person (Mineral Resources) has not visited the Halls Creek project. Travel restrictions imposed by the W.A. government in response to the Covid-19 pandemic prevented travel into the state at that time. ▪ Alternate personnel from CSA Global visited the site during 2006 as part of managing the drilling programme. The CSA geologists carried out daily inspections of the drilling rig and associated sampling equipment, supervised the sampling programmes, geologically logged all RC hips and diamond core, including relogging of historical drill samples, and geologically mapped the project area. ▪ All work conducted was to industry standards and the Competent Person is satisfied all geological work carried out can be used to support the Mineral Resource.
Geological Interpretation	▪ *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* ▪ *Nature of the data used and of any assumptions made.* ▪ *The effect, if any, of alternative interpretations on Mineral Resource estimation.* ▪ *The use of geology in guiding and controlling Mineral Resource estimation.* ▪ *The factors affecting continuity both of grade and geology.*	▪ The Competent Person regards the geological understanding of the Onedin deposit to be of a high standard, with regards to the quantity and quality of drill sampling and geophysics supporting the geological interpretations. ▪ Surface geological mapping and geological logs of diamond drill core, and RC chips, along with sample assays were all used to assist with the geological interpretation. ▪ Alternative interpretations were not considered, with the interpretation used considered to best represent the geological knowledge of the deposit. ▪ The geological models control the interpolation of the grades into the resource model to prevent smearing of grades into the country rock. ▪ Mineralisation is hosted within both the weathered and fresh rock profiles, and the continuity is determined by the proto-mineralogy within the supergene profile, and lithology and structural controls within the primary rock profile. ▪ Supergene mineralisation at Onedin is well developed as the bulk of former primary mineralisation is located in the oxidised and transition zones. In particular, copper seems especially prone to supergene enrichment as reflected by the range of secondary copper minerals recorded at Onedin. Lead is also relatively enriched in gossans above the TOFR surface. ▪ The bulk of primary mineralisation is associated with the carbonate zone. There is also a strong structural control on mineralisation, and it appears to be concentrated in the core and limbs of the fold structure with some degree of remobilization.

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Criteria	JORC Code Explanation	Commentary
Geological Interpretation *(continued)*		▪ The geological interpretation was guided firstly by geology, and secondly by grade envelopes to constrain mineralisation. Zinc domains were based upon a lower cut-off grade of 1.5 % Zn, and below the TOFR interface; copper domains were based upon a lower cut-off of 0.4 % Cu. Internal dilution was permitted during the interpretation of the mineralisation domains. Some overlap of the zinc and copper zones occurs.
Dimensions	▪ *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	▪ The Onedin Mineral Resource extends along strike 300 m, across strike by 200 m and has a depth extent below surface of 400 m.
Estimation and Modelling Techniques	▪ *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* ▪ *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* ▪ *The assumptions made regarding recovery of by-products.* ▪ *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* ▪ *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* ▪ *Any assumptions behind modelling of selective mining units.* ▪ *Any assumptions about correlation between variables.* ▪ *Description of how the geological interpretation was used to control the resource estimates.* ▪ *Discussion of basis for using or not using grade cutting or capping.* ▪ *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	▪ Datamine Studio was used for the geological modelling, block model construction, grade interpolation and validation. GeoAccess Professional and Snowden Supervisor software were used for geostatistical analyses. ▪ A block model with block sizes 5 m (X) x 10 m (Y) x 10 m (Z) was constructed. Sub-celling was used. The block sizes are approximately half the tightest drill spacing. Blocks were flagged according to the weathering and mineralisation envelopes. ▪ Drill sample data were flagged by the mineralisation and weathering domain envelopes, with variables MZONE and WEATH used. Drillholes were sampled at 1 m intervals and the drill samples were accordingly composited to 1 m lengths. Composited sample data were statistically reviewed to determine appropriate top-cuts, with top-cuts applied for Zn, Cu, Pb, Ag and Au where required. Log probability plots were used to determine the top-cuts, and the very high-grade samples were reviewed in Datamine by the Competent Person to determine if they were clustered with other high-grade samples. ▪ Grades interpolated were Cu, Zn, Au, Ag, Co, Mo, Sb, As, S and Fe. ▪ Sample populations were split by the Cu and Zn mineralisation domains, as supported by a statistical analysis of assay data. ▪ The composited drill samples were input into variogram modelling. Downhole and directional variograms were modelled for Zn and Cu within the combined mineralisation domains and by weathering profile. Moderate relative nugget effects were modelled, with short ranges approximately 50 m for Zn and Cu. ▪ Grade interpolation used Inverse Distance squared (IDS) for the grade variables. All subblocks were assigned the grade of their parent block. Cell discretisation was used in each estimate. A sample search ellipse of 100 m by 100 m by 30 m (perpendicular to strike) was used, with a minimum of 8 samples and maximum of 24 samples used to interpolate grade into any one block. A maximum of 4 samples per drill hole was used for grade interpolation. Search radii were increased, and the minimum number of minimum samples reduced in subsequent sample searches if cells were not interpolated in the first pass. Octant searches were not used. ▪ Grades were estimated into the waste domains using IDS. ▪ The Mineral Resource was an update of the 2008 Mineral Resource estimate, with additional drill holes incorporated. ▪ The interpolated grades were validated by way of review of cross sections (block model and drill samples presented with same colour legend); swath plots, and comparison of mean grades from drillhole data with block model grades. ▪ The Competent Person considers the procedures used to construct the block model and interpolate grades are appropriate for the style of mineralisation and reflect industry accepted practices.

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Moisture	▪ *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	▪ Tonnages are estimated on a dry basis.
Cut-off parameters	▪ *The basis of the adopted cut-off grade(s) or quality parameters applied.*	▪ The Onedin Mineral Resource is reported above a cut-off grade of 1 % Zn for the Zn and Mixed Zn-Cu zones, and above a cut-off of 0.4 % Cu for the Cu zone. The cut-off grades are considered suitable by the Competent Person for the method of mining considered to be appropriate for Onedin.
Mining factors or assumptions	▪ *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	▪ Previous owners of the Project, Anglo Australian Resources (AAR) commissioned a preliminary mining assessment of the Sandiego and Onedin deposits. This study established 2 potential mining operations: Underground only at both Sandiego and Onedin; and an open pit operation at Onedin. No major mining problems were identified in this study, however, further work was subject to metallurgical recoveries. ▪ In 2008 internal mining study work by AAR focussed on underground mining of the sulphide and transition zones at Sandiego, with construction of a 500 tpa processing plant (using flotation technologies) with a 4–5-year operating life with Onedin development having the capacity to extend project life to 8 years mining Sandiego transition and sulphide ore. A conceptual study was also completed on open pit mining of Onedin based on conceptual metallurgical recoveries. ▪ No further mining studies for Onedin have been completed to date.
Metallurgical factors or assumptions	▪ *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	▪ Significant metallurgical testwork has been undertaken on the Halls Creek deposits by various explorers since the 1970's. Early work was effectively superseded by a major metallurgical testwork campaign undertaken by AAR from 2006. The metallurgical testwork established that saleable copper and zinc concentrates could be produced from the sulphide mineralisation at Sandiego and Onedin but work on the transitional material (using conventional flotation techniques) was challenging. The 2007 testwork included 96 metallurgical sample tests on different ore types from Onedin and Sandiego to underpin a mineral processing flowsheet for economic study work. ▪ In 2009, AAR commissioned a review of the more than 300 metallurgical tests that had then been completed over the various ore-types at Sandiego and Onedin, with a focus on the application of flotation recovery techniques. This study concluded: The metallurgy of the Sandiego transition and primary zones, whilst complex, is amenable to established flotation technology. The Onedin primary zone is amenable to the same flotation technology and can be processed through the same plant with minor modifications. The Onedin transition zone contains most of it's value in the form of zinc oxide minerals and is not amenable to conventional flotation recovery but extraction by hydrometallurgy is possible. The Onedin oxide zone contains copper in the form of malachite which may be amenable to hydrometallurgy. Conventional flotation flowsheets were designed for processing the Onedin and Sandiego sulphide mineralisation. Project economics are very sensitive to metal recoveries and the grade of concentrate achieved. The O'Brien study recommended: Further testwork focussed on being as near to actual plant operating conditions as possible. Further testwork should encompass a continuous pilot scale test facility. ▪ AAR engaged several metallurgical/mineral processing specialists to review the possibilities of implementing novel treatment processes to treat the problematic transitional and oxide ores of Halls Creek during period 2009 to 2012. Meaningful trials recommended were not implemented. No further metallurgical test work was undertaken since 2012, before the recent commencement by AKN of its initial metallurgical testwork program on the Onedin oxide and transitional ores.

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Environmental factors or assumptions	▪ *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	▪ The project is not located in an environmentally sensitive area. Several scoping studies have been undertaken, with no major environmental or other factors identified which would prevent the project from proceeding. ▪ It has been assumed that environmental factors can be effectively managed to allow the project to be bought into production. ▪ Anthropological, ethnographic surveys and environmental surveys have been undertaken prior to surface disturbance associated with exploration activities, with clearance being achieved over the majority of the deposit footprints. Identified sites have been placed in the public record.
Bulk Density	▪ *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* ▪ *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* ▪ *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	▪ The method for density measurements is discussed in Section 2 "Reporting of Exploration Results'. ▪ Diamond core billets from earlier drilling programmes were wrapped in cling film prior to immersion in water to prevent filling of cavities with water. ▪ A drill hole file was generated in Datamine capturing the density data, and this drill file was flagged by weathering and mineralisation domain in the same manner as the drill hole assays. The flagged density population was statistically analysed, with average density values determined for each mineralisation zone within each weathering zone. The following density values were applied per combination of domain: ▪ Oxide zone: Zn zone (Density = 2.31 t/m3); Cu zone (2.25); Overlap zone (2.73) ▪ Transitional zone: Zn zone (2.52); Cu zone (2.61); Overlap zone (2.82) ▪ Fresh zone: Zn zone (3.15); Cu zone (2.98); Overlap zone (3.05) ▪ The Competent Person considers the procedures used to measure sample bulk density, and the density values assigned to the Mineral Resource, are appropriate for the style of mineralisation.
Classification	▪ *The basis for the classification of the Mineral Resources into varying confidence categories.* ▪ *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* ▪ *Whether the result appropriately reflects the Competent Person's view of the deposit.*	▪ The Mineral Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC 2012 Table 1. ▪ The Mineral Resources were classified based upon drill hole spacing, quality of sampling and sample analyses, quantity of density measurements, and the relative confidence in the geological interpretation. This Mineral Resource is supported by a high level of confidence in the geological interpretations, sufficient to assume geological and grade continuity to satisfy an Indicated classification. ▪ All blocks within the Onedin Mineral Resource are classified as Indicated (RESCAT = 2). ▪ Waste blocks are recorded as unclassified (RESCAT=4). ▪ The final classification strategy and results appropriately reflect the Competent Person's view of the deposit.
Audits or Reviews	▪ *The results of any audits or reviews of Mineral Resource estimates.*	▪ The Mineral Resource estimate was internally peer reviewed by CSA Global. CSA Global reviewed the data collection, QAQC, geological modelling, statistical analyses, grade interpolation, density measurements and resource classification strategies. The Competent Person relies upon the opinions of the peer reviewers when classifying the Mineral Resource, and is satisfied that the reviews were impartial and provided useful critique where necessary. ▪ No other audits or reviews are known to have occurred.

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Discussion of relative accuracy / confidence	▪ *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* ▪ *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* ▪ *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	▪ Relevant tonnages and grade above nominated cut-off grades for Cu and Zn are provided in the CSA Global (now ERM) Mineral Resource report. Tonnages were calculated by filtering all blocks above the cut-off grade and sub-setting the resultant data into bins by mineralisation domain. The volumes of all the collated blocks were multiplied by the dry density value to derive the tonnages. ▪ The Mineral Resource is a local estimate, whereby the drill hole data was geologically domained above nominated cut-off grades. ▪ The Mineral Resource does not provide a calculated tonnage and grade, rather it provides the reader with estimated 'median' values about which can be inferred a range based upon the resource classification.

Section 3 Estimation and Reporting of Mineral Resources – Sandiego

Criteria	JORC Code Explanation	Commentary
Database integrity	▪ *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* ▪ *Data validation procedures used.*	▪ Drill data is captured in a relational database prepared and maintained by Newxco Exploration, which contains relevant information for drill hole collars, drill samples, assays, down hole surveys and density data. Other information also provided relates to soil sampling, termite mound sampling, structural geology and magnetic susceptibility. ▪ Drill hole data tables were imported into Datamine software by CSA Global during the preparation of the Mineral Resource estimates. Minor issues were resolved by AuKing and Newxco prior to CSA Global progressing with the Mineral Resource estimates. ▪ The Competent Person considers the database integrity to be appropriate to support the reporting of a Mineral Resource.
Site Visits	▪ *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* ▪ *If no site visits have been undertaken indicate why this is the case.*	▪ The Competent Person (Mineral Resources) has not visited the Halls Creek project. Travel restrictions imposed by the W.A. government in response to the Covid-19 pandemic prevented travel into the state at that time. ▪ Alternate personnel from CSA Global visited site during 2006 as part of managing the drilling programme. The CSA geologists carried out daily inspections of the drilling rig and associated sampling equipment, supervised the sampling programmes, geologically logged all RC hips and diamond core, including relogging of historical drill samples, and geologically mapped the project area. ▪ All work conducted was to industry standards and the Competent Person is satisfied all geological work carried out can be used to support the Mineral Resource.

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Criteria	JORC Code Explanation	Commentary
Geological Interpretation	▪ *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* ▪ *Nature of the data used and of any assumptions made.* ▪ *The effect, if any, of alternative interpretations on Mineral Resource estimation.* ▪ *The use of geology in guiding and controlling Mineral Resource estimation.* ▪ *The factors affecting continuity both of grade and geology.*	▪ The Competent Person regards the geological understanding of the Sandiego deposit to be of a high standard, with regards to the quantity and quality of drill sampling and geophysics supporting the geological interpretations. ▪ Surface geological mapping and geological logs of diamond drill core, and RC chips, along with sample assays were all used to assist with the geological interpretation. ▪ Alternative interpretations were not considered, with the interpretation used considered to best represent the geological knowledge of the deposit. ▪ The geological models control the interpolation of the grades into the resource model to prevent smearing of grades into the country rock. ▪ Mineralisation is hosted within both the weathered and fresh rock profiles, and the continuity is determined by the proto-mineralogy within the supergene profile, and lithology and structural controls within the primary rock profile. ▪ Supergene mineralisation at Sandiego is well developed as the bulk of former primary mineralisation is located in the oxidised and transition zones. In particular, copper seems especially prone to supergene enrichment as reflected by the range of secondary copper minerals recorded at Sandiego. ▪ The bulk of primary mineralisation is associated with the carbonate zone. There is also a strong structural control on mineralisation, and it appears to be concentrated in the core and limbs of the fold structure with some degree of remobilization. ▪ The geological interpretation was guided firstly by geology, and secondly by grade envelopes to constrain mineralisation. Zinc domains were based upon a lower cut-off grade of 1 % Zn; copper domains were based upon a lower cut-off of 0.5 % Cu. Internal dilution was permitted during the interpretation of the mineralisation domains. Some overlap of the zinc and copper zones occurs. ▪ Three zones of copper mineralisation were modelled, and two Zn domains were modelled. ▪ Geological interpretations and 3D models were provided by AuKing prior to preparation of the Mineral Resource.
Dimensions	▪ *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	▪ The Sandiego Mineral Resource extends along strike 300 m, across strike by 200 m and has a depth extent below surface of 600 m.

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Estimation and Modelling Techniques	▪ *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* ▪ *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* ▪ *The assumptions made regarding recovery of by-products.* ▪ *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* ▪ *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* ▪ *Any assumptions behind modelling of selective mining units.* ▪ *Any assumptions about correlation between variables.* ▪ *Description of how the geological interpretation was used to control the resource estimates.* ▪ *Discussion of basis for using or not using grade cutting or capping.* ▪ *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	▪ Datamine Studio was used for the geological modelling, block model construction, grade interpolation and validation. GeoAccess Professional and Snowden Supervisor software were used for geostatistical analyses. ▪ A block model with block sizes 5 m (X) x 10 m (Y) x 10 m (Z) was constructed. Sub-celling was used. The block sizes are approximately half the tightest drill spacing. Blocks were flagged according to the weathering and mineralisation envelopes. ▪ Drill sample data were flagged by the mineralisation and weathering domain envelopes, with variables MZONE and WEATH used. Drillholes were sampled at 1 m intervals and the drill samples were accordingly composited to 1 m lengths. Composited sample data were statistically reviewed to determine appropriate top-cuts, with top-cuts applied for Zn, Cu, Pb, Ag and Au where required. Log probability plots were used to determine the top-cuts, and the very high-grade samples were reviewed in Datamine by the Competent Person to determine if they were clustered with other high-grade samples. ▪ Grades interpolated were Cu, Zn, Au, Ag, Co, Mo, Sb, As, S and Fe. ▪ Sample populations were split by the Cu and Zn mineralisation domains, as supported by a statistical analysis of assay data. ▪ The composited drill samples were input into variogram modelling. Downhole and directional variograms were modelled for Zn and Cu within the combined mineralisation domains and by weathering profile. Moderate relative nugget effects were modelled, with short ranges approximately 50 m for Zn and Cu. ▪ Grade interpolation used Ordinary Kriging (OK) for the grade variables. All subblocks were assigned the grade of their parent block. Cell discretisation was used in each estimate. Sample search ellipses used variable radii length, with the Cu and Zn search volumes using of 60 m by 30 m by 20 m (perpendicular to strike) was used, with a minimum of 8 samples and maximum of 24 samples used to interpolate grade into any one block. A maximum of 4 samples per drill hole was used for grade interpolation. Search radii were increased, and the minimum number of minimum samples reduced in subsequent sample searches if cells were not interpolated in the first pass. Octant searches were not used. ▪ Grades were estimated into the waste domains using IDS. ▪ The interpolated grades were validated by way of review of cross sections (block model and drill samples presented with same colour legend); swath plots, and comparison of mean grades from drillhole data with block model grades. ▪ The Competent Person considers the procedures used to construct the block model and interpolate grades are appropriate for the style of mineralisation and reflect industry accepted practices.
Moisture	▪ *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	▪ Tonnages are estimated on a dry basis.
Cut-off parameters	▪ *The basis of the adopted cut-off grade(s) or quality parameters applied.*	▪ The Sandiego Mineral Resource is reported above a cut-off grade of 3 % Zn for the Zn and Mixed Zn-Cu zones, and above a cut-off of 0.8 % Cu for the Cu zone. The cut-off grades are considered suitable by the Competent Person for the method of mining considered to be appropriate for Sandiego.

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Mining factors or assumptions	▪ *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	▪ Previous owners of the Project, Anglo Australian Resources (AAR) commissioned a preliminary mining assessment of the Sandiego and Onedin deposits. This study established 2 potential mining operations: Underground only at both Sandiego and Onedin; and an open pit operation at Onedin. No major mining problems were identified in this study, however, further work was subject to metallurgical recoveries. ▪ In 2008 internal mining study work by AAR focussed on underground mining of the sulphide and transition zones at Sandiego, with construction of a 500tpa processing plant (using flotation technologies) with a 4–5-year operating life with Onedin development having the capacity to extend project life to 8 years mining Sandiego transition and sulphide ore. A conceptual study was also completed on open pit mining of Onedin based on conceptual metallurgical recoveries. ▪ In 2010 AAR commissioned a preliminary geotechnical model for Sandiego based on geotechnical diamond drilling results. The geotechnical assessment involved construction of a 3D Mining Rock Mass Model for the prospect and determination of preliminary geotechnical parameters for use in mine design studies. Raw data for the project comprised geotechnical and structural logging of 23 diamond holes. For the underground project, the rock mass has been classified into three geotechnical domains based on estimated Q' values. Preliminary inter ramp slope angles (excluding ramps) for the prospect were developed for use is pit design studies. ▪ In 2011 AAR commissioned a scoping study on mining the Sandiego deposit. It concluded that: Exploitation of the Sandiego deposit by open pit and underground mining methods using an on-site concentrator and off-site smelting is potentially viable. Copper concentrates and zinc concentrated produced would be trucked to a suitable port facility such as Wyndham and stored until shipped to overseas smelters. A PFS level study was recommended. ▪ No further mining studies for Sandiego have been completed to date, however, AKN has identified the greater likelihood for mining is on the basis of an open pit operation at Onedin and an underground mine at Sandiego. For this reason, the different cut-off grades have been applied to the two deposits in the resource estimate.

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Metallurgical factors or assumptions	▪ *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	▪ Significant metallurgical testwork has been undertaken on the Halls Creek deposits by various explorers since the 1970s. Early work was effectively superseded by a major metallurgical testwork campaign undertaken by AAR from 2006. The metallurgical testwork established that saleable copper and zinc concentrates could be produced from the sulphide mineralisation at Sandiego and Onedin but work on the transitional material (using conventional flotation techniques) was challenging. The 2007 testwork included 96 metallurgical sample tests on different ore types from Onedin and Sandiego to underpin a mineral processing flowsheet for economic study work. ▪ In 2009, AAR commissioned a review of the more than 300 metallurgical tests that had then been completed over the various ore-types at Sandiego and Onedin, with a focus on the application of flotation recovery techniques. This study concluded: The metallurgy of the Sandiego transition and primary zones, whilst complex, is amenable to established flotation technology. The Onedin primary zone is amenable to the same flotation technology and can be processed through the same plant with minor modifications. The Onedin transition zone contains most of it's value in the form of zinc oxide minerals and is not amenable to conventional flotation recovery but extraction by hydrometallurgy is possible. The Onedin oxide zone contains copper in the form of malachite which may be amenable to hydrometallurgy. Conventional flotation flowsheets were designed for processing the Onedin and Sandiego sulphide mineralisation. Project economics are very sensitive to metal recoveries and the grade of concentrate achieved. The O'Brien study recommended: Further testwork focussed on being as near to actual plant operating conditions as possible. Further testwork should encompass a continuous pilot scale test facility. ▪ AAR engaged several metallurgical/mineral processing specialists to review the possibilities of implementing novel treatment processes to treat the problematic transitional and oxide ores of Halls Creek during period 2009 to 2012. Meaningful trials recommended were not implemented. No further metallurgical test work was undertaken since 2012, before the recent commencement by AKN of its initial metallurgical testwork program on the Onedin oxide and transitional ores.
Environmental factors or assumptions	▪ *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	▪ The project is not located in an environmentally sensitive area. Several scoping studies have been undertaken, with no major environmental or other factors identified which would prevent the project from proceeding. ▪ It has been assumed that environmental factors can be effectively managed to allow the project to be bought into production. ▪ Anthropological, ethnographic surveys and environmental surveys have been undertaken prior to surface disturbance associated with exploration activities, with clearance being achieved over the majority of the deposit footprints. Identified sites have been placed in the public record.

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Criteria	JORC Code Explanation	Commentary
Bulk Density	▪ *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* ▪ *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* ▪ *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	▪ The method for density measurements is discussed in Section 2 "Reporting of Exploration Results'. ▪ Diamond core billets from earlier drilling programmes were wrapped in cling film prior to immersion in water to prevent filling of cavities with water. ▪ A drill hole file was generated in Datamine capturing the density data, and this drill file was flagged by weathering and mineralisation domain in the same manner as the drill hole assays. The flagged density population was statistically analysed, with average density values determined for each mineralisation zone within each weathering zone. The following density values were applied per combination of domain: ▪ Oxide zone: Zn zone (Density = 3.1 t/m3); Cu zone (3.1); Overlap zone (3.1). ▪ Transitional zone: Zn zone (3.18); Cu zone (3.22); Overlap zone (3.24). ▪ Fresh zone: Zn zone (3.33); Cu zone (3.24); Overlap zone (3.34). ▪ The Competent Person considers the procedures used to measure sample bulk density, and the density values assigned to the Mineral Resource, are appropriate for the style of mineralisation.
Classification	▪ *The basis for the classification of the Mineral Resources into varying confidence categories.* ▪ *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* ▪ *Whether the result appropriately reflects the Competent Person's view of the deposit.*	▪ The Mineral Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC 2012 Table 1. ▪ The Mineral Resources were classified based upon drill hole spacing, quality of sampling and sample analyses, quantity of density measurements, and the relative confidence in the geological interpretation. This Mineral Resource is supported by a high level of confidence in the geological interpretations, sufficient to assume geological and grade continuity to satisfy an Indicated classification. ▪ All blocks within the Sandiego Mineral Resource are classified as a combination of Indicated (RESCAT = 2) and Inferred (RESCAT=3). ▪ Polygons were digitised in the longitudinal section of the mineralisation to define the classification envelopes, and a cookie cutter approach was used to stamp the classification schema onto the block model. ▪ Waste blocks are recorded as unclassified (RESCAT=4). ▪ The final classification strategy and results appropriately reflect the Competent Person's view of the deposit.
Audits or Reviews	▪ *The results of any audits or reviews of Mineral Resource estimates.*	▪ The Mineral Resource estimate was internally peer reviewed by CSA Global. CSA Global reviewed the data collection, QAQC, geological modelling, statistical analyses, grade interpolation, density measurements and resource classification strategies. The Competent Person relies upon the opinions of the peer reviewers when classifying the Mineral Resource, and is satisfied that the reviews were impartial and provided useful critique where necessary. ▪ No other audits or reviews are known to have occurred.

Criteria	JORC Code Explanation	Commentary
Discussion of relative accuracy / confidence	▪ *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* ▪ *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* ▪ *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	▪ Relevant tonnages and grade above nominated cut-off grades for Cu and Zn are provided in the CSA Global (now ERM) Mineral Resource report. Tonnages were calculated by filtering all blocks above the cut-off grade and sub-setting the resultant data into bins by mineralisation domain. The volumes of all the collated blocks were multiplied by the dry density value to derive the tonnages. ▪ The Mineral Resource is a local estimate, whereby the drill hole data was geologically domained above nominated cut-off grades. ▪ The Mineral Resource does not provide a calculated tonnage and grade, rather it provides the reader with estimated 'median' values about which can be inferred a range based upon the resource classification.

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