ASX ANNOUNCEMENT 11 MARCH 2024

HIGHER VANADIUM AND IRON CONCENTRATE GRADES HIGHLIGHTED IN TESTWORK

KEY POINTS

- **Following the recent merger, metallurgical testwork confirms the trend of higher vanadium and iron concentrate grades towards the south of the combined project and supports further investigation of a commercial scale ilmenite product.**
- **Vanadium concentrate grades for Block 70 average up to 1.6% V_2O_5, consistent with the results from the Yarrabubba deposit (Block 80).**
- **Higher iron grade in concentrate averages greater than 60% for Block 70.**
- **Results suggest a high-grade project can be optimised across an unconstrained southern strike extent, with potential for increased economic benefits.**

Australian Vanadium Limited (ASX: AVL, “the Company” or “AVL”) is pleased to announce progress on the work being undertaken by the Company to integrate the two adjoining projects located across one orebody, following the successful completion of its merger with Technology Metals Australia (TMT).[1]

Prior to the merger, TMT owned tenements at the northern end of the orebody and a small block at the southern end of the orebody, known as the Yarrabubba deposit. The Yarrabubba deposit was entirely surrounded by AVL’s tenements, significantly constraining development by TMT (see Figure 1 below).[2]

As part of the Optimised Feasibility Study (OFS) being conducted by AVL to inform the preferred project development pathway for the integrated project,[1] work has progressed to maximise the possible economic return through access to the high-grade southern area of the orebody, which previously straddled the two projects. This work has included metallurgical testwork on parts of the orebody adjoining the Yarrabubba deposit.

CEO, Graham Arvidson comments, *“This testwork bolsters our view that a long-life, high-grade integrated project at the southern areas of the combined project can be defined quickly based on*

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[1] See ASX announcement dated 1 February 2024 ‘*Successful implementation of AVL and TMT merger*’
[2] See pages 2, 94 and 95 of the Scheme Booklet contained in ASX announcement dated 5 December 2023 ‘*Scheme Booklet registered with ASIC*’

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historical work by removing the constraints from TMT's previously landlocked Yarrabubba deposit and adding to it similar mineralisation within the historical AVL deposit. The team will use this testwork within the broader integration studies, with the aim of improving the economics of the project via reduced capital and operating costs. This has the potential to deliver a material increase in value for our shareholders."

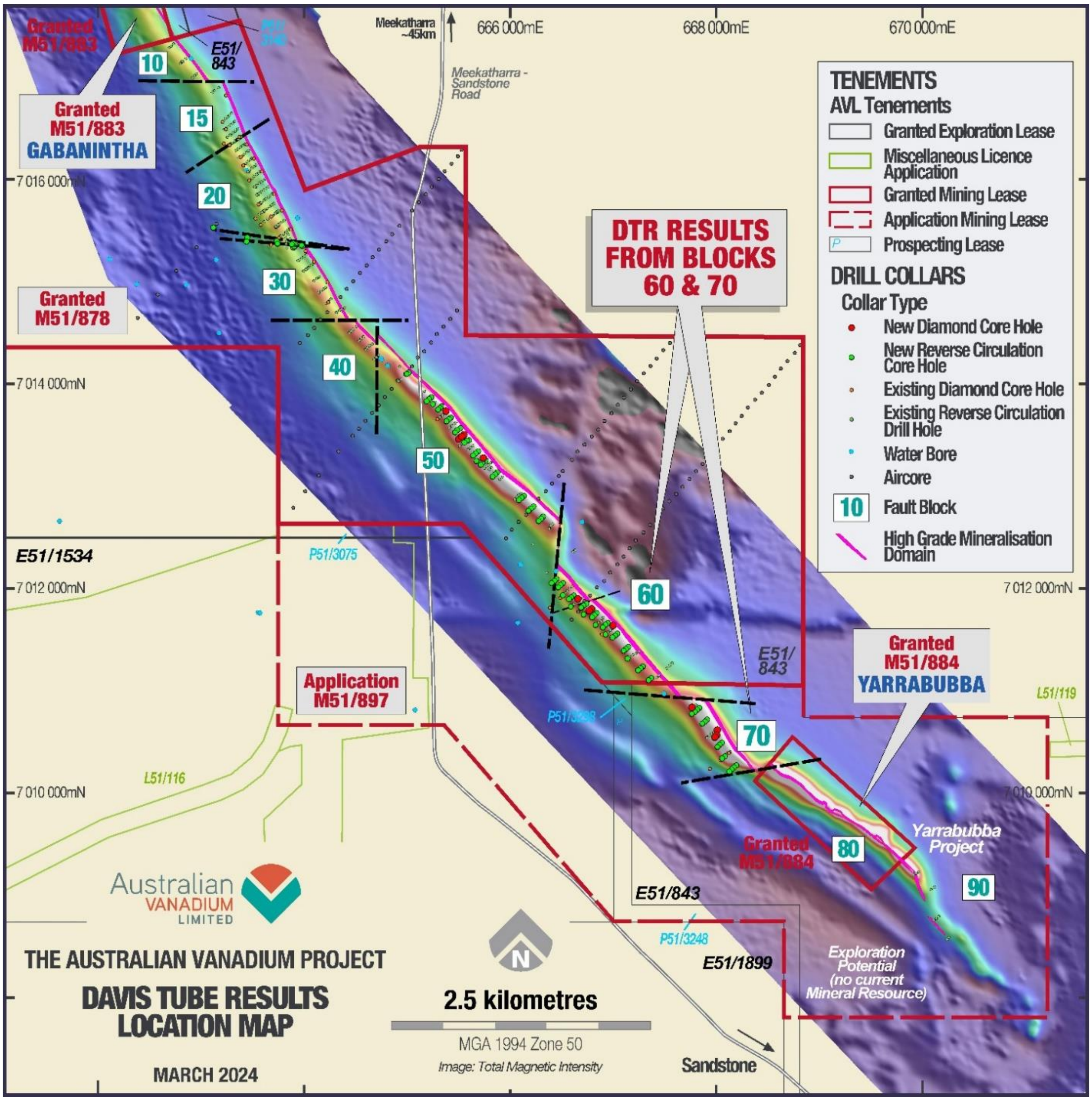

Figure 1 – Location map showing blocks of AVL's deposit

The combined project on one orebody is broken by several regional scale faults which split the deposit into a series of blocks. The Yarrabubba deposit has now become Block 80 of AVL's combined deposit and abuts AVL's Block 70 deposit (see Figure 1 above).

The Company has completed metallurgical testwork on fresh rock samples from high-grade mineralisation areas located in Block 70, adjoining Block 80. Davis Tube Recovery (DTR) testwork completed by AVL shows that magnetic vanadium concentrate grades in Block 70 range between 1.45% and 1.55% V_2O_5, comparable to the grades in Block 80 which generally range between 1.50% and 1.65% V_2O_5[3] (see Figure 2). For comparison, the AVL Bankable Feasibility Study used a vanadium concentrate grade of 1.39% V_2O_5[4] and TMT used a concentrate grade of 1.34% V_2O_5 in its Definitive Feasibility Study which was based on its northern Gabanintha deposit.[5]

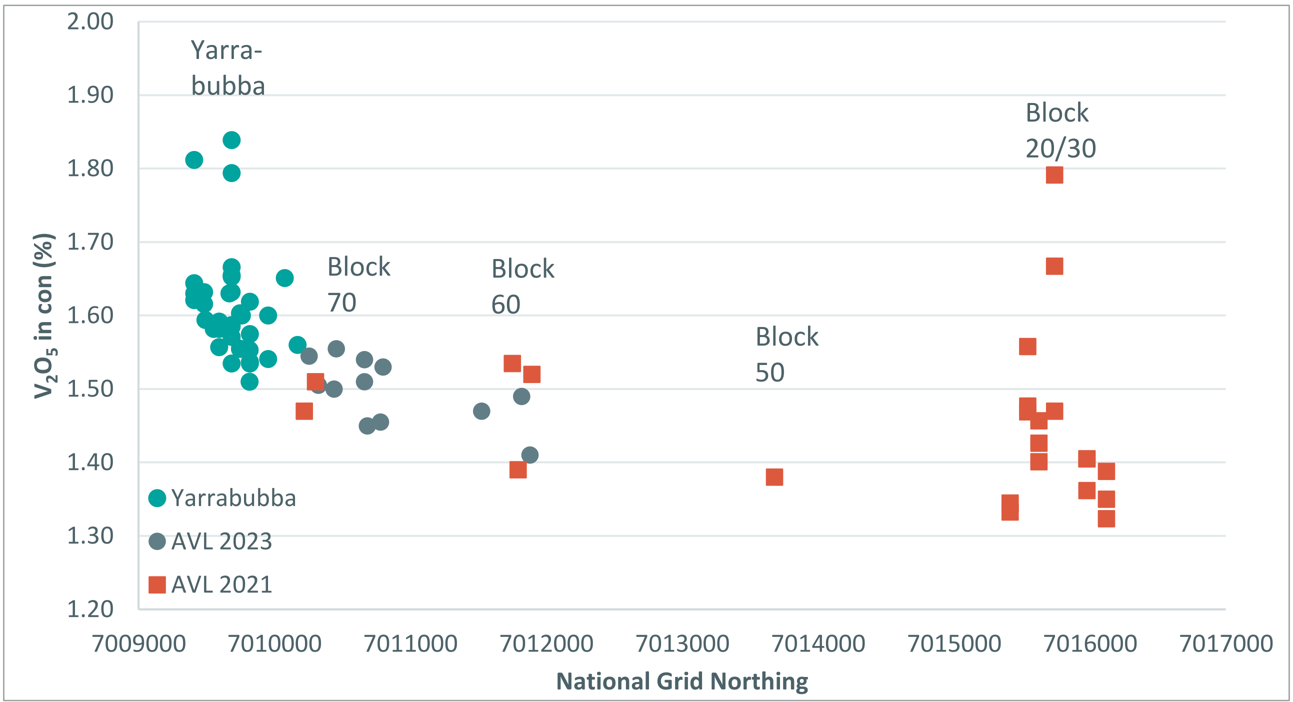

Figure 2 - V_2O_5 grades in DTR concentrate by northing

DTR testwork conducted on fresh high-grade (HG) samples from Block 60 and Block 70 has further supported the trend of improved separation of iron from titanium to the south, as reported by AVL in 2021.[6] With improved titanium rejection, there is a further possibility of concentrating a titanium product from the non-magnetic stream. This was also demonstrated with TMT's prior work on ilmenite concentration of the mineralisation of Block 80. Design of a testwork program to explore the potential of generating an ilmenite coproduct using samples sourced across Block 70 is under consideration.

Based on prior Block 80 testwork by TMT, the underlying reasoning for the improving DTR concentrate chemistry in the southern blocks is assumed to be related to a coarse ilmenite grain size; sufficiently coarse to be liberated at the minus 212 µm grind size being applied in DTR testing. To demonstrate the trend for high grade massive fresh rock mineralisation along strike, DTR data

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[3] See Technology Metals Australia ASX announcement dated 5 August 2022 *'MTMP Mine Life Increased to 25 Years'*
[4] See ASX announcement dated 6 April 2022 *'Bankable Feasibility Study for the Australian Vanadium Project'*
[5] See Technology Metals Australia ASX announcement dated 21 August 2019 *'Gabanintha Vanadium Project Definitive Feasibility Study'*
[6] See ASX announcement dated 21 September 2021 *'AVL Prepares for Vanadium Project Growth opportunity'*

from the recent Block 60 and Block 70 program is compared to historic DTR data in the following graphs. It is noted that the drill sampling method and DTR test method has not been consistent across all the samples reported, but there is reasonable confidence in the underlying trends discussed.

The trend of increasing iron grade in the DTR concentrate to the south is shown on the left-hand side of Figure 3 below. DTR concentrate iron (Fe%) grades are frequently over 60% in the Block 70 and Block 80[7] concentrates. By contrast, in the northern blocks the iron grades are more variable, mostly ranging from 50% to 57% and averaging about 55%.[4]

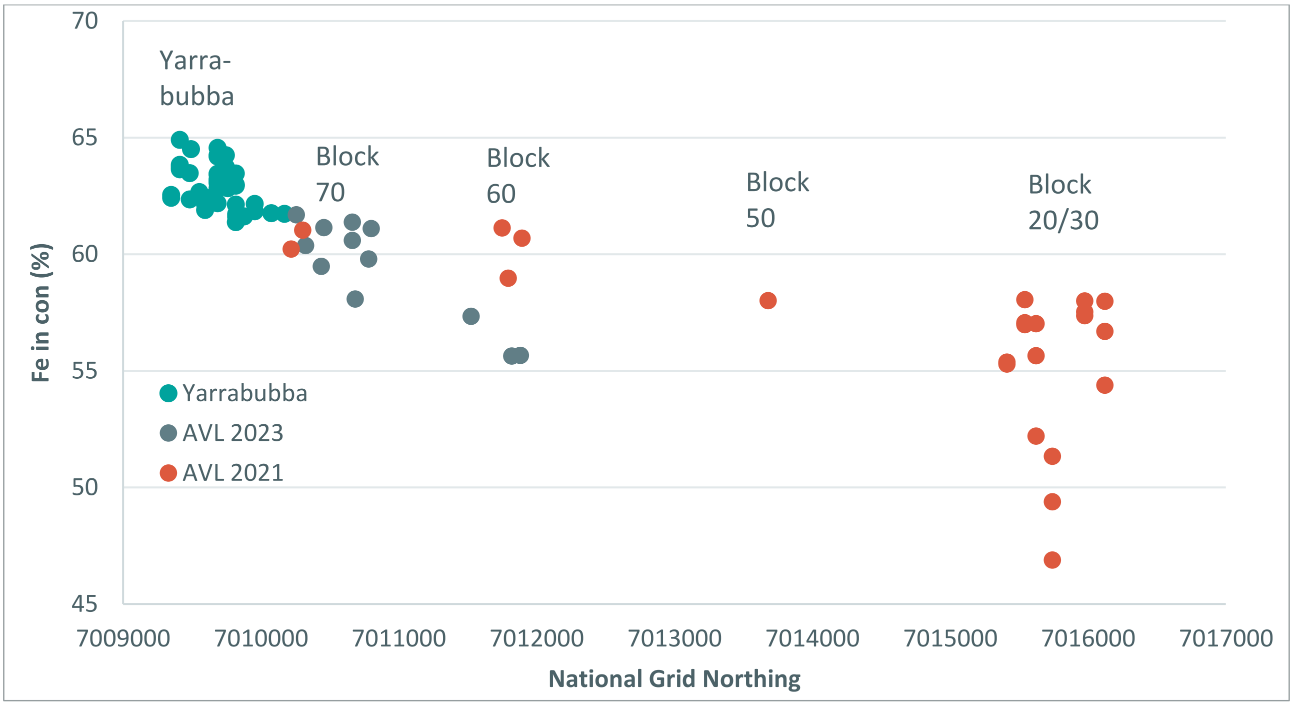


Figure 3 – Iron grades in DTR concentrate by northing

The percentage of titanium reporting to the DTR non-magnetics stream increases to the south, with Block 80 data[3] showing between 40% and 70% and Block 70 data 27% to 70% as shown in Figure 4. By contrast, in the north only 20% to 30% of feed titanium reports to the non-magnetics stream.

[7] See Technology Metals Australia ASX announcement dated 26 October 2020 *'Premium Iron-Vanadium Concentrate Produced.'*

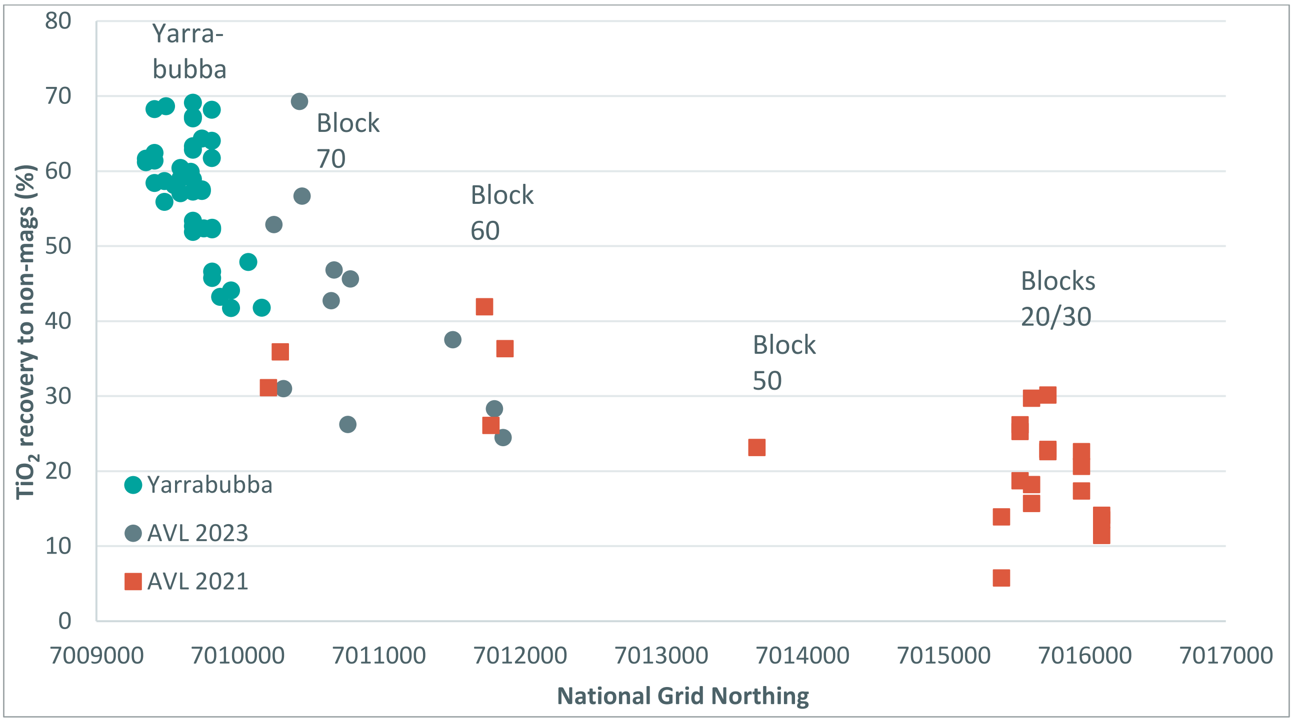
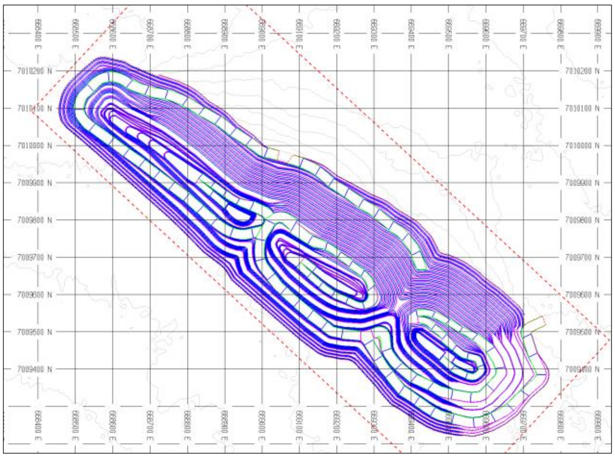


Figure 4 - Titanium deportment by northing

AVL is working to better understand the variation in fresh rock mineralogy along strike and to further define the potential of Block 70 for amenability to high iron and vanadium grades in the magnetic concentrate. The shallower depth of weathering in the southern part of the orebody delivers the potential for a simpler, cost-effective concentrator design.

Yarrabubba optimisation work by TMT was previously constrained by the tenement boundary (see Figure 5) which has now been unlocked post-merger. The merger is delivering the opportunity to optimise mining and processing of the southern blocks of the deposit to elevated vanadium and iron grades in concentrate and a potential ilmenite coproduct. The potentially higher vanadium, titanium and iron grades in the southern part of the orebody offer an opportunity for the OFS to test all scenarios over the whole orebody to optimise the project economics.



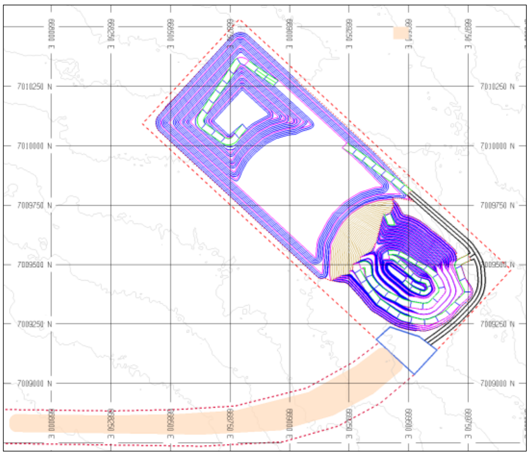


Figure 5 – Yarrabubba TMT Stage 3 Pit and As Mined Layouts.
Red dotted line shows previous tenement constraint.

Testwork is also being undertaken to determine the viability of ilmenite recovery from the non-magnetic tails using TMT's flowsheet, comprising Wet High Intensity Magnetic Separators (WHIMS), Low Intensity Magnetic Separators (LIMS), gravity separation and flotation.

For further information, please contact:

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This announcement has been produced in accordance with the Company's published continuous disclosure policy and has been approved by the Board.

ABOUT AUSTRALIAN VANADIUM LTD

AVL is a resource company focused on vanadium, seeking to offer investors a unique exposure to all aspects of the vanadium value chain – from resource through to steel and energy storage opportunities. AVL is advancing the development of its world-class Australian Vanadium Project in Western Australia.

VSUN Energy is AVL's 100% owned renewable energy and energy storage subsidiary which is focused on developing the Australian market for vanadium flow batteries for long duration energy storage. VSUN Energy was established in 2016 and is widely respected for its VFB expertise. AVL's vertical integration strategy incorporates processing vanadium to high purity, manufacturing vanadium electrolyte and working with VSUN Energy as it develops projects based on renewable energy generation and VFB energy storage.

COMPETENT PERSON STATEMENT – METALLURGICAL RESULTS

The information in this announcement that relates to Metallurgical Results is based on information compiled by independent consulting metallurgist Brian McNab (CP. BSc Extractive Metallurgy). Mr McNab is a Member of AusIMM. He is employed by Wood Mining and Metals. Mr McNab has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is undertaken, to qualify as a Competent Person as defined in the JORC 2012 Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr McNab consents to the inclusion in the announcement of the matters based on the information made available to him, in the form and context in which it appears.

ASX CHAPTER 5 COMPLIANCE AND CAUTIONARY AND FORWARD LOOKING STATEMENTS

ASX Listing Rules 5.19 and 5.23

ASX Listing Rule 5.19

The information in this announcement relating to production targets, or forecast financial information derived from a production target, is extracted from the announcement entitled 'Bankable Feasibility Study for the Australian Vanadium Project' released to the ASX on 6 April 2022 which is available on the Company's website www.avl.au.

The Company confirms that all material assumptions underpinning the production target, or the forecast financial information derived from a production target, in the original market announcement continue to apply and have not materially changed.

ASX Listing Rule 5.23

The information in this announcement relating to exploration results and mineral resource and ore reserve estimates for the Australian Vanadium Project is extracted from the announcement entitled 'Bankable Feasibility Study for the Australian Vanadium Project' released to the ASX on 6 April 2022 which is available on the Company's website www.avl.au.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement, and that all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the competent person's findings are presented have not been materially modified from the original market announcement.

Forward-Looking Statements

This release may contain certain forward-looking statements with respect to matters including but not limited to the financial condition, results of operations and business of AVL and certain of the plans and objectives of AVL with respect to these items.

These forward-looking statements are not historical facts but rather are based on AVL's current expectations, estimates and projections about the industry in which AVL operates and its beliefs and assumptions.

Words such as "anticipates," "considers," "expects," "intends," "plans," "believes," "seeks," "estimates", "guidance" and similar expressions are intended to identify forward looking statements and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those risks or uncertainties inherent in the industry in which AVL operates.

These statements are not guarantees of future performance and are subject to known and unknown risks, uncertainties, and other factors, some of which are beyond the control of AVL, are difficult to predict and could cause actual results to differ materially from those expressed or forecasted in the forward-looking statements. Such risks include, but are not limited to resource risk, metal price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the countries and states in which we sell our product to, and government regulation and judicial outcomes. For more detailed discussion of such risks and other factors, see the Company's Annual Reports, as well as the Company's other filings.

AVL cautions shareholders and prospective shareholders not to place undue reliance on these forward-looking statements, which reflect the view of AVL only as of the date of this release.

The forward-looking statements made in this announcement relate only to events as of the date on which the statements are made.

AVL will not undertake any obligation to release publicly any revisions or updates to these forward-looking statements to reflect events, circumstances or unanticipated events occurring after the date of this announcement except as required by law or by any appropriate regulatory authority.

APPENDIX 1

Table 1 - Sample Location Details: Collar Table (Co-ordinates are in MGA94 Zone 50)

Hole ID	North	East	RL	Dip	Azimuth	Hole ID	North	East	RL	Dip	Azimuth
GBDD039	7009953	668679	463	-60	040	GBDD059	7009409	669680	464	-60	040
GBDD039	7009953	668679	463	-60	040	GBDD059	7009409	669680	464	-60	040
GBDD037	7010169	668557	463	-60	090	19RRC017	7013678	665335	464	-60	050
GBDD041	7010169	669055	466	-60	040	19RRC033	7011749	666742	465	-60	050
GBDD042	7010169	669436	469	-60	040	GDH905	7011893	666487	465	-60	050
GBDD042	7010169	669436	469	-60	040	GDH906	7011793	666384	465	-60	050
GBDD042	7009953	669436	469	-60	040	GDH908	7010302	668049	464	-60	050
GBDD043	7009953	669248	466	-50	090	GDH909	7010219	667946	463	-60	050
GBDD044	7009984	669088	467	-50	090	GDH903	7015542	663557	466	-60	050
GBDD044	7009984	669088	467	-50	090	GDH903	7015542	663557	466	-60	050
GBDD044	7010169	669088	467	-50	090	GDH903	7015542	663557	466	-60	050
GBDD045	7010169	668975	466	-50	080	GDH902	7015623	663661	471	-60	050
GBDD045	7010169	668975	466	-50	080	GDH902	7015623	663661	471	-60	050
GBDD046	7009759	669102	465	-60	045	GDH911	7016120	663388	465	-60	050
GBDD046	7009593	669102	465	-60	045	GDH911	7016120	663388	465	-60	050
GBDD046	7009593	669102	465	-60	045	GDH912	7015976	663448	467	-60	050
GBDD046	7009593	669102	465	-60	045	GDH912	7015976	663448	467	-60	050
GBDD046	7009667	669102	465	-60	045	GDH912	7015976	663448	467	-60	050
GBDD046	7009745	669102	465	-60	045	GDH902	7015623	663661	471	-60	050
GBDD046	7009745	669102	465	-60	045	GDH914	7015411	663733	466	-60	050
GBDD046	7009745	669102	465	-60	045	GDH914	7015411	663733	466	-60	050
GBDD046	7009818	669102	465	-60	045	GDH911	7016120	663388	465	-60	050
GBDD046	7009818	669102	465	-60	045	GDH913	7015739	663538	468	-60	050
GBDD047	7009683	669345	466	-60	040	GDH913	7015739	663538	468	-60	050
GBDD048	7009683	669350	465	-60	040	GDH913	7015739	663538	468	-60	050
GBDD048	7009683	669350	465	-60	040	22ARC018	7011524	667022	465	-60	050
GBDD049	7009683	669525	464	-60	040	22ARC028	7011818	666714	465	-60	050
GBDD049	7009683	669525	464	-60	040	22ARC033	7011880	666575	465	-60	050
GBDD049	7009683	669525	464	-60	040	22ARC002	7010437	668021	464	-60	050
GBDD049	7009683	669525	464	-60	040	22ARC003	7010682	667901	464	-60	050
GBDD050	7009683	668945	465	-60	040	22ARC004	7010663	667877	464	-60	050
GBDD050	7009683	668945	465	-60	040	22ARC004	7010663	667877	464	-60	050
GBDD050	7009683	668945	465	-60	040	22ARC006	7010798	667820	464	-60	050
GBDD051	7009551	668559	463	-60	040	22ARC007	7010779	667798	464	-60	050
GBDD052	7009482	668841	464	-60	040	22ARC070	7010455	668042	464	-60	050
GBDD052	7009482	668841	464	-60	040	22ARC078	7010255	668208	463	-60	050
GBDD057	7009409	669573	467	-55	040	22ARC080	7010324	668072	463	-60	050
GBDD058	7009409	668958	467	-55	040						

Samples from holes with a collar prefix “GBDD” and “22ARC” underwent Davis tube testwork at 4,000 and 3,000 gauss (G) respectively, after preparation by stage pulverizing with a disc mill and passing through a 212 µm closing screen. All others were tested at 1,500 G after stage pulverising with a disc mill and passing through a 125 µm closing screen. A Davis tube angle of 45°, stroke frequency of 60/minute and wash water flow rate of 540 to 590 L/min was applied for all tests.

Table 2 - Results: Tabulated DTR Results

Comp ID	Hole ID	From	To	Head Fe%	Head V_2O_5%	Head TiO_2%	Mass Recov %	Mag Fe%	Mag V_2O_5%	Mag TiO_2%	Non Mag Fe%	Non Mag V_2O_5%	Non Mag TiO_2%
T52395D	GBDD039	131	137	52.9	1.25	13.4	78.2	62.2	1.46	9.6	21.8	0.25	24.8
T52401D	GBDD039	138	141	51.7	1.23	12.8	71.8	61.8	1.49	9.3	23.6	0.32	18.8
T52119D	GBDD037	51	55	51.3	1.22	13.0	76.7	61.7	1.44	9.8	22.0	0.35	23.1
T52557D	GBDD041	64	69	49.5	1.18	12.7	70.3	62.8	1.60	8.6	25.8	0.34	22.4
T52669D1	GBDD042	27	31	48.6	1.09	12.3	70.0	62.1	1.54	7.8	28.6	0.33	26.2
T52673D	GBDD042	31	35	54.6	1.30	14.3	74.8	61.9	1.56	7.6	25.7	0.30	30.0
T52678D	GBDD042	35	39	53.5	1.27	13.6	69.3	62.4	1.60	7.4	25.7	0.30	25.5
T52874D	GBDD043	76	80	37.2	0.76	8.6	36.0	62.3	1.56	8.8	19.2	0.20	7.4
T55388D	GBDD044	61	65	46.3	1.04	11.4	55.5	63.1	1.59	7.3	22.9	0.24	16.4
T55393D	GBDD044	65	69	54.6	1.30	13.9	76.1	63.7	1.58	7.0	26.6	0.32	30.0
T55429D1	GBDD044	93	98	46.8	1.10	11.8	67.1	64.2	1.63	8.0	24.5	0.31	22.1
T55594D	GBDD045	95	99	42.9	0.96	10.8	50.9	61.4	1.56	9.5	20.4	0.23	10.9
T55599D1	GBDD045	99	103	45.7	1.07	11.5	65.5	62.1	1.56	9.0	23.5	0.31	18.8
T52767D	GBDD046	83	87	41.4	0.92	10.9	50.3	64.2	1.60	7.9	20.2	0.22	13.7
T52771D	GBDD046	87	91	49.7	1.14	12.8	68.8	62.8	1.54	8.6	22.5	0.26	21.0
T52776D	GBDD046	91	94	54.2	1.29	13.9	71.0	64.6	1.62	7.1	25.6	0.32	29.4
T52781D	GBDD046	94	97	45.5	1.07	11.4	57.1	64.2	1.65	6.7	20.6	0.22	18.3
T52792D	GBDD046	104	108	51.2	1.26	13.8	71.1	63.4	1.66	7.8	25.2	0.31	27.6
T52796D	GBDD046	108	112	28.9	0.67	7.2	26.6	63.1	1.84	8.2	14.5	0.16	6.1
T52801D1	GBDD046	112	116	27.7	0.62	6.7	23.3	62.2	1.79	8.4	15.9	0.20	5.7
T52805D	GBDD046	116	120	50.2	1.21	13.0	69.2	63.0	1.63	8.3	25.8	0.29	24.9
T52809D	GBDD046	120	124	51.9	1.23	13.5	75.0	63.2	1.59	8.3	24.9	0.29	26.9
T52813D	GBDD046	124	128	51.6	1.27	13.6	71.1	63.4	1.67	8.8	26.4	0.28	24.9
T55110D	GBDD047	105	109	54.6	1.29	14.4	74.0	62.7	1.57	7.6	25.8	0.32	30.0
T55292D	GBDD048	148	150	53.8	1.23	13.4	72.8	62.3	1.54	8.1	23.6	0.27	27.6
T55296D	GBDD048	152	156	54.6	1.29	13.6	74.0	63.5	1.59	7.4	22.9	0.27	29.6
T56024D	GBDD049	104	108	51.4	1.19	13.2	67.6	63.6	1.58	7.2	25.8	0.29	25.0
T56030D	GBDD049	109	112	53.2	1.27	13.7	70.7	64.9	1.63	5.8	28.6	0.36	30.0
T56033D	GBDD049	112	116	53.3	1.28	13.6	72.4	63.7	1.62	7.5	25.8	0.33	27.5
T56054D	GBDD049	132	136	54.8	1.31	13.8	72.5	63.8	1.62	6.9	27.6	0.34	28.9
T56555D	GBDD050	93	96	50.7	1.22	13.4	67.1	63.5	1.63	7.1	23.4	0.31	25.7
T56559D1	GBDD050	97	101	34.5	0.80	8.8	35.1	63.0	1.81	8.0	17.4	0.20	9.2
T56564D	GBDD050	101	105	51.0	1.22	13.1	63.6	62.9	1.64	7.6	25.7	0.31	21.5
T56432D1	GBDD051	89	93	51.7	1.24	13.2	78.6	61.8	1.55	8.9	24.7	0.35	30.0
T56222D	GBDD052	138	141	52.9	1.26	13.6	79.5	61.7	1.51	9.1	22.7	0.32	29.9
T56226D1	GBDD052	141	145	51.2	1.23	12.9	75.0	61.6	1.55	9.3	23.5	0.30	24.4

Comp ID	Hole ID	From	To	Head Fe%	Head V_2O_5%	Head TiO_2%	Mass Recov %	Mag Fe%	Mag V_2O_5%	Mag TiO_2%	Non Mag Fe%	Non Mag V_2O_5%	Non Mag TiO_2%
T56308D	GBDD057	41	45	55.0	1.29	13.6	71.1	64.5	1.65	5.6	28.6	0.34	30.0
T55870D	GBDD058	34	38	54.3	1.30	14.0	80.1	61.6	1.54	8.8	23.6	0.29	27.1
T55731D	GBDD059	64	68	53.2	1.26	13.8	71.2	62.4	1.58	7.1	25.4	0.31	28.1
T55735D	GBDD059	68	72	43.3	0.99	10.5	51.3	62.5	1.59	7.6	19.9	0.23	12.6
	19RRC017	73	78	50.1	1.15	12.9	79.3	58.0	1.38	12.5	22.4	0.33	13.7
	19RRC033	97	101	44.2	1.01	10.7	58.3	61.1	1.54	10.7	19.9	0.26	10.3
	GDH905	122	127	49.5	1.15	12.3	70.6	60.7	1.52	11.1	24.4	0.29	15.5
	GDH906	209	214	50.1	1.13	12.7	76.3	59.0	1.39	12.3	23.1	0.26	14.7
	GDH908	111	116	51.4	1.20	12.9	74.5	61.0	1.51	11.1	23.5	0.34	17.8
	GDH909	202	207	54.0	1.27	13.8	83.8	60.2	1.47	11.3	22.5	0.30	27.0
	GDH903	191	199	40.5	1.00	11.9	61.9	57.0	1.48	14.2	14.4	0.22	7.6
	GDH903	199	209	53.4	1.34	14.7	87.9	58.1	1.47	13.6	20.0	0.43	24.6
	GDH903	209	215	36.2	0.86	9.3	50.2	57.1	1.56	13.9	16.2	0.19	4.5
	GDH902	106	111	45.8	1.07	12.2	69.8	55.6	1.40	14.3	25.5	0.37	8.2
	GDH902	111	117	48.6	1.18	12.9	66.7	57.0	1.46	13.6	33.7	0.66	11.7
	GDH911	99	106	49.8	1.13	12.8	79.6	56.7	1.35	13.9	24.0	0.24	8.9
	GDH911	108	113	53.1	1.24	13.6	86.5	58.0	1.39	13.5	24.4	0.29	15.5
	GDH912	124	129	43.6	0.97	10.9	63.9	57.5	1.41	13.2	19.7	0.28	6.8
	GDH912	129	134	49.2	1.14	13.0	77.0	57.4	1.36	13.4	24.0	0.41	12.5
	GDH912	134	141	52.5	1.24	13.6	85.2	58.0	1.41	13.2	23.4	0.37	17.0
	GDH902	98	106	45.8	1.07	12.2	69.8	55.6	1.40	14.3	25.5	0.37	8.2
	GDH914	108	114	53.2	1.27	14.6	94.0	55.3	1.33	14.6	19.9	0.34	14.1
	GDH914	114	121	40.3	0.90	10.2	62.6	55.4	1.35	14.0	15.1	0.16	3.8
	GDH911	106	108	49.8	1.13	12.8	79.6	56.7	1.35	13.9	24.0	0.24	8.9
	GDH913	128	133	25.3	0.62	7.3	34.2	49.4	1.47	16.5	12.9	0.18	2.5
	GDH913	133	140	45.0	1.58	18.1	69.7	46.9	1.67	18.2	40.8	1.39	18.0
	GDH913	140	145	42.1	1.52	13.8	65.8	51.3	1.79	16.3	24.4	0.99	9.0
	22ARC018	62	63	51.7	1.33	14.6	75.4	57.3	1.47	11.9	34.9	0.84	21.9
	22ARC028	66	67	52.0	1.41	15.3	81.0	55.6	1.49	13.4	35.5	0.90	22.5
	22ARC033	79	80	53.5	1.33	14.5	83.2	55.7	1.41	13.2	38.9	0.85	21.1
	22ARC002	79	80	53.5	1.31	13.7	40.9	61.5	1.52	9.8	49.8	1.21	15.4
	22ARC003	67	68	52.3	1.25	13.6	62.2	58.1	1.45	11.4	43.8	0.92	16.5
	22ARC004	103	104	54.9	1.32	14.3	84.3	60.6	1.51	10.3	27.5	0.40	>30.0
	22ARC004	106	107	52.8	1.26	13.7	75.8	61.4	1.54	10.1	27.5	0.40	>30.0
	22ARC006	93	94	54.3	1.31	13.8	73.6	61.1	1.53	9.8	37.4	0.72	22.9
	22ARC007	111	112	55.4	1.32	13.7	85.7	59.8	1.46	11.2	33.6	0.57	23.8
	22ARC070	58	59	54.0	1.30	14.0	67.7	61.1	1.56	8.6	40.1	0.76	23.5
	22ARC078	59	60	49.7	1.17	13.2	68.1	61.7	1.55	9.2	27.1	0.42	21.9
	22ARC080	90	91	53.0	1.28	13.5	80.4	60.4	1.51	11.5	23.9	0.36	21.1

APPENDIX 2

2012 JORC Code – Table 1

Section 1 - Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	Nature and quality of sampling (eg. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.	Sampling at the Project has consisted of drilling and associated diamond core or RC sampling, with various campaigns between 1998 and 2022. Prior to the Project being acquired by AVL (formerly Yellow Rock Resources), 17 RC drill holes were completed in 1998 by Intermin Resources (NL). These holes have not been used in any Mineral Resource estimate from 2015 onwards due to broad compositing of samples and uncertainty around survey control. Greater Pacific Gold drilled 31 RC holes in 2000, and these holes are used in the Mineral Resource where they intersect the relevant domains. One metre samples were submitted for assay. There is little data available for their sub-sampling techniques, and these holes are now supported by more recent drilling, verifying the historical results. Since 2007, all drilling completed at the Project has been completed by AVL (formerly Yellow Rock Resources). All RC samples were collected at 1m intervals from a cyclone splitter on the rig. Reject material was retained at the hole in a green bag until drill results were returned, with the exception of the 2022 drilling, where archive 1m calicos were collected and retained from the second cyclone chute for all drill metres. Diamond core drilled at the Project by AVL between 2009 and 2022 has been drilled at HQ or PQ diameter. HQ core was half core cut with an automated core saw to produce a half core laboratory sample. PQ core was quarter core cut with an automated core saw to produce a quarter core laboratory sample. Archive core has been retained for the entire hole in some instances, but in most cases used for extensive metallurgical testing programs of the high-grade (HG) domain. Full core photography has been captured and retained. Down hole magnetic susceptibility and density surveys have been completed, with compensated density data (in-hole sampling) used to develop regressions for density to Fe_2O_3 for the deposit. These 'samples' have been validated against Archimedes specific gravity measurements. DTR samples reported in this release are based on 1m archive RC sample retained from the 2022 infill drilling in blocks 70 and 60 at the Project.

Criteria	JORC Code Explanation	Commentary
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Down dip 2019 PQ core has not been sampled, though handheld XRF datapoints were captured, as well as magnetic susceptibility data. Handheld XRF machines being used to take ½ metre measurements on the core have been calibrated using pulps from previous drilling by the Company, for which there are known head assays. Handheld XRF data is not used in the Mineral Resource estimate; magnetic susceptibility data is used in the estimate. All diamond core has been sampled to geological boundaries, or defaulting to 1m intervals where consistent rock types exist in that metre. All RC drilling is sampled at one metre intervals, apart from the very earliest program in 1998 (resulting in exclusion of these holes from the Mineral Resource estimate). RC samples have been split with a cone splitter on the drill rig to obtain 2.5 – 3.5 kg of sample from each metre (nominally a 10% sample split). Field duplicates were collected for every 40th drill metre to check sample grade representation from the drill rig splitter during the 2015 drill program. During the October 2019 RC program, field duplicates were collected from the rig splitter for every 30th drill metre. During the December 2019 and 2022 RC programs, field duplicates were collected from the rig splitter for every 20th drill metre. From 2007, drilling had magnetic susceptibility recorded, with the first nine diamond holes (GDH901-GDH909) having readings taken on the core every 30 cm or so downhole. Holes GDH910 to GDH917 had readings every 50 cm and RC holes GRC0159 to GRC0221 had readings for each one metre green sample bag. Pulps from historic drill holes (pre 2015) have been measured for magnetic susceptibility where pulps were available, with calibration on results applied from control sample measurement of pulps from drill programs from 2015 onwards where measurements of the RC bags already exist. The grind size and gauss applied during testwork for DTR results that are the subject of this release were based on positive parameters identified in previous metallurgical testwork for the Yarrabubba HG material.
	Aspects of the determination of mineralisation that are Material to the Public Report.	All drill sample assaying has been completed using a standard iron ore suite of minerals by sodium-borate fused bead XRF, plus gravimetric Loss On Ignition (LOI) determination at a commercial laboratory. The same analysis has been applied to the magnetic and non-magnetic fractions of the DTR samples in this release to determine grade of the fractions and to back-calculate a head assay. Some check assays for primary drill samples have been completed using ICP methods to ensure full reporting of economic minerals is achieved. Results confirm good determination of the major elements and transition and base metals by XRF. Magnetic susceptibility is material to the project to determine oxidation of the bedrock geology, important for beneficiation parameters. Data for magnetic susceptibility of the drill samples has been verified through repeat measurement programs using hand held devices, in addition to down hole magnetic susceptibility surveys.

Criteria	JORC Code Explanation	Commentary
		Satmagan has been used to determine magnetite content for select samples from the HG domain. The satmagan results have a strong relationship with magnetic susceptibility results, validating both datasets. Down hole compensated density logs have been validated against an Archimedes density and metallurgy density records to verify accuracy of the Fe_2O_3 regressions used to populate the deposit density. Survey control has been consistently linked to established base stations for the Project, with consistent datum points used by all workers for collar pickups and aerial survey to create a topographic digital elevation model.
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.).	Diamond drill holes account for 12% of the drill metres in the block 10 – block 70 portion of the deposit and comprises HQ and PQ3 sized core. RC drilling (generally 135 mm to 140 mm face-sampling hammer) accounts for the remaining 88% of the drilled metres. 24 of the diamond holes have RC pre-collars (GDH911, GDH913 & GDH916, 18GEDH001, 002 and 003, 19MTDT001 – 018), otherwise all holes are drilled from surface. Where HQ sized holes did not achieve adequate core recovery, programs were switched to PQ diameter, which improved core recovery. All diamond core holes were oriented wherever possible with the exception of the vertical diamond tail holes drilled during 2019. Core orientation units were used since 2015 have been Reflex ACT™ units. The type of core orientation used for 2009 diamond core drilling is unknown. DTR samples in this release are from 1m archive RC sample from infill drilling completed in southern blocks 50, 60 and 70 during 2022.
Drill Sample Recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Diamond core recovery is measured when the core is recovered from the drill string. The length of core in the tray is compared with the expected drilled length and is recorded in the database. For the 2022, 2019, 2018 and 2015 drilling, RC chip sample recovery was judged by how much of the sample was returned from the cone splitter. This was recorded as good, fair, poor or no sample. The older drilling programs used a different splitter, but still compared and recorded how much sample was returned for the drilled intervals. All of the RC sample bags (non-split portion) from the 2018 program were weighed as an additional check on recovery. Records indicate all DTR samples in this release are from drill metres with recorded good recovery for that metre. Green bag weights were recorded for 10 percent of the 2022 RC drilling (on select holes that used green bags for the reject material for this purpose). Weights of the reject material do not suggest material issues with down hole concatenation on each rod or small sample return for the holes in any particular geological zone.

Criteria	JORC Code Explanation	Commentary
		Caliper data has been collected during down hole density and magnetic susceptibility logging. This data indicates low rugosity (ie, good hole integrity) in the HG domain.
	Measures taken to maximize sample recovery and ensure representative nature of the samples.	Core depths are checked against the depth given on the core blocks and rod counts are routinely carried out by the drillers. Recovered core was measured and compared against driller's blocks. 2019, 2020 and 2022 diamond core samples had a coarse split created at the laboratory for every 20th sample that was also assayed to evaluate laboratory splitting of the sample. RC chip samples were actively monitored by the geologist whilst drilling. Field duplicates have been taken at a frequency between every 20th and every 50th metre in every RC drill campaign, with a frequency of one in 20 for all programs since December 2019. All drill holes are collared with PVC pipe for the first metres, to ensure the hole stays open and clean from debris. RC drill sample is held in the cyclone for the entire metre, then dropped through the splitter at the end of the drilled metre to ensure representative splitting of heavy and fine fractions and clear separation of sample between drilled metres.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	No relationship between sample recovery and grade has been demonstrated. Two shallow diamond drill holes drilled to twin RC holes have been completed to assess sample bias due to preferential loss/gain of fine/coarse material in the northern block 20 during 2015. During 2022, in block 50, three diamond core holes were drilled as RC twins, with two of them sampled (the other being held for metallurgy material); in block 62 two diamond core holes were drilled as RC twins, with one assayed and one retained for metallurgy sample; in block 70 four diamond core holes were drilled, with one being an RC twin that was assayed, and the other three being assayed, but too far from existing RC holes to be considered twins. Results demonstrate repeatability of the RC assays with diamond core assaying. Twin RC holes were also drilled for three existing RC holes drilled in 2000, and 2007 to determine repeatability of the earliest RC drilling at the Project. Results demonstrate the historical holes are repeatable. AVL is satisfied that the RC holes have taken a sufficiently representative sample of the mineralisation and minimal loss of fines has occurred resulting in minimal sample bias.

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.	All diamond core and RC chips from holes in the AVL database were geologically logged. Diamond core was geologically logged using predefined lithological, mineralogical and physical characteristics (such as colour, weathering, fabric, texture) logging codes and the logged intervals were based on lithological intervals. RQD and recoveries were also recorded. Structural measurements were recorded (alpha and beta measurements using a kenometer) and have been saved to the database. The logging was completed on site by the responsible geologist. All of the drilling was logged onto paper then transferred to a SQL Server drill hole database using DataShed™ database management software. The database is managed by Mitchell River Group (MRG). Data was checked for accuracy when transferred to ensure that correct information was recorded. Any discrepancies were referred back to field personnel for checking and editing. All core trays were photographed wet and dry. RC chips were logged generally on metre intervals, with regolith, lithology, texture, alteration, weathering, hardness and colour recorded. All resource (vs geotechnical) diamond core and RC samples have been logged to a level of detail to support Mineral Resource estimation to and classification to Measured Mineral Resource at best. PQ diamond drill holes completed during 2019 were geologically and geotechnically logged in detail by the site geologists. PQ and HQ diamond drill holes completed during 2020 were geologically logged in detail by the site geologists, and geotechnically logged by consultants PSM. Five of the eight geotechnical holes drilled during 2020 were down hole ATV surveyed. ATV or OTV down hole logging was completed for geotechnical studies on 90 holes for 6,676.49 metres of RC and DDH drilling from programs between 2015 and 2022.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging was both qualitative and quantitative in nature, with general lithology information recorded as qualitative and most mineralisation records, magnetic susceptibility, density and geotechnical records being quantitative. Core photos were collected for all diamond drilling, and chip tray photos taken for all RC drilling since 2015.
	The total length and percentage of the relevant intersections logged.	All recovered intervals were geologically logged.

Criteria	JORC Code Explanation	Commentary
Sub-Sampling Techniques and Sample Preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	2022, 2020, 2018 and 2009 HQ diamond core were cut in half and the half core samples were sent to the laboratories for assaying. Sample intervals were marked on the core by the responsible geologist considering lithological and structural features. The 2015 PQ diamond core was cut in half and then the right-hand side of the core (facing downhole) was halved again using a powered core saw. Quarter core samples were sent to the laboratories for assaying. Sample intervals were marked on the core by the responsible geologist considering lithological and structural features. 14 of the 18 total vertical diamond PQ diamond drill holes from 2019 were quarter core sampled using an automated Almonte core saw to cut the samples. Sample intervals were marked on the core by the responsible geologist considering lithological and structural features. 2020 PQ core from the geotechnical drill program (20GDH002 and 003) were quarter core cut using an Almonte core saw. 2020 and 2022 HQ core was half core cut using an Almonte core saw.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	RC drilling was sampled by use of an automatic cone splitter on the rig for the 2022, 2019, 2018 and 2015 drilling programs; drilling was generally dry with a few damp samples and occasional wet samples at rod change in the deepest holes. Older drilling programs employed riffle splitters to produce the required sample splits for assaying.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Preparation prior to DTR for Samples in this Release: DTR samples from RC archive were crushed by Boyd crusher to maximum particle size of approximately 3.5mm. Sample was then stage pulverised in a ring mill to targeting 80% passing (P80) -150µm size fraction for the DTR analysis. For assay of the DTR product fractions (magnetic – ie, concentrate; non-magnetic – ie. Tails) the sample was then pulverised to 80% passing (P80) -75µm. The sample was then fused with 12:22 lithium borate to create the glass bead for XRF analysis. Preparation prior to assay for primary drill samples: The sample preparation techniques employed for RC and diamond core samples follow standard industry best practice. All samples were crushed by jaw and Boyd crushers and split if required to produce a standardised ~3kg sample for pulverising. All samples were pulverised to a nominal 90% passing 75 micron sizing and sub sampled for assaying and LOI determination tests. The remaining pulps for all programs since 2007 are stored at an AVL facility in Perth. The sample preparation techniques are of industry standard and are appropriate for the sample types and proposed assaying methods.

Criteria	JORC Code Explanation	Commentary
	Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.	Drill sample is retained within the rig cyclone for the entire drilled metre, then dropped in one batch to ensure mixing and even splitting of heavy and coarse fractions at the cyclone point of collection into calicos. Field blanks have been inserted at the start or end of each drill hole for all RC programs since 2015, with the exception of an October 2019 program at the fault between blocks 20 and 30. Typically, blanks inserted by AVL demonstrate little contamination for V2O5. Field duplicates for RC samples have increased in frequency from about 1:38 between 2015 and October 2019; increasing in frequency to 1:19 for December 2019 and 2022 RC drill programs. Field duplicates have generally performed well for all programs since 2015. For diamond samples, an additional coarse crush (3.5mm) split was taken for every 20th sample and analysed for the 2019, 2020 and 2022 core samples, to test splitting at the lab. No material issues were identified with the laboratory splitting. Less QAQC information is available for RC and DDH programs prior to 2015, however, the majority of drill metres in the Mineral Resource estimate are from the drill programs completed since 2015.
	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.	140mm diameter RC hammer was used to collect one metre samples and either HQ or PQ3 sized core was taken from the diamond holes. Given that the mineralisation at the Australian Vanadium Project is either massive or disseminated magnetite/martite hosted vanadium, which shows good consistency in interpretation between sections and occurs as percentage values in the samples, the sample sizes are representative. Core is not split for duplicates, but RC samples are split at the collection stage to get representative (2.5-3kg) duplicate samples. The entire core sample and all the RC chips are crushed and/or mixed before splitting to smaller sub-samples by the laboratory for assaying. Internal laboratory procedures are designed to test all stages of sub-splitting at the laboratory, and have been completed for all campaigns of drilling, with records retained in lab certificates for each batch. No material issues with laboratory sub-splitting techniques have been identified.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	As all of the variables being tested occur as moderate to high percentage values and generally have very low variances (apart from Cr_2O_3), the chosen sample sizes are deemed appropriate.
	The nature, quality and appropriateness of the assaying and laboratory procedures used and	All samples for the Australian Vanadium Project were assayed for the full iron ore suite by XRF (24 elements) on a lithium-borate fused bead, and for total LOI by thermo-gravimetric technique. The method used is designed to measure the total amount of each element in the sample. This same assay determination is applied for the magnetic and non-magnetic fractions of the DTR samples.

Criteria	JORC Code Explanation	Commentary
	whether the technique is considered partial or total.	Some 2015, 2018 and 2022 RC samples have SATMAGAN analysis on the pulps, that is a measure of the amount of total iron that is present as magnetite (or other magnetic iron spinel phases, such as maghemite or kenomagnetite). SATMAGAN analysis was conducted at Bureau Veritas (BV) Laboratory during 2018 and 2022. Samples are dried at 105˚C in gas fired ovens for 18-24 hours before RC samples being split 50:50. One portion is retained for future testing, while the other is then crushed and pulverised. Sub-samples are collected to produce a 66g sample that is used to produce a fused bead for XRF based analysing and reporting. Most of the AVL and laboratory standards used show an apparent underestimation of V_2O_5, with the results plotting below the expected value lines, however the results generally fall within 2 standard deviations of the expected values. The other elements show no obvious material bias. The laboratory XRF machine calibrations are checked once per shift using calibration beads made using exact weights and they performed repeat analyses of sample pulps at a rate of 1:20 (5% of all samples). The lab repeats compare very closely with the original analysis for all elements. ICP check analysis on select pulps in 2019 demonstrated repeatability of the degree of detection for all XRF elements, supporting the results by XRF are total detection. The nature, quality and appropriateness of the assaying and laboratory procedures is at acceptable industry standards.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Magnetic susceptibility geophysical readings are taken for the Australian Vanadium Project core and RC samples and recorded in the database. For the 2009 diamond and 2015 RC and diamond drill campaigns this was undertaken using an RT1 hand magnetic susceptibility meter (CorMaGeo/Fugro) with a sensitivity of 1 x 10^{-5} (dimensionless units). The first nine diamond holes (GDH901 – GDH909) were sampled at approximately 0.3m intervals, the last eight (GDH910 – GDH917) at 0.5m intervals and the RC chip bags for every green bagged sample (one metre). During 2018 and 2019 RC and diamond core has been measured using a KT-10 magnetic susceptibility metre, at 1 x 10^{-3} ssi unit. During 2019, where archive material was available, historical drilling was re-measured with a KT-10 magnetic susceptibility metre, and comparison studies were completed with most of the Fugro and RT1 data replaced by KT-10 data, in addition to infilling gaps in the dataset. All 2020 DDH and 2022 RC and DDH drilling has KT-10 magnetic susceptibility data, collected at 50cm intervals on 2020 core, 33cm intervals on 2022 core and 1m intervals on 2022 RC samples. In addition to the handheld magnetic susceptibility described above the 2019 diamond drilling included downhole magnetic susceptibility. This was taken using a Century Geophysical 9622 Magnetic Susceptibility tool. The 9622 downhole tool sensitivity is 20 x 10^{-5} with a resolution of 10cm.

Criteria	JORC Code Explanation	Commentary
		2019 diamond core was analysed using an Olympus Vanta pXRF with a 20 second read time. The unit is calibrated using pulp samples with known head assays from previous drill campaigns by the Company. Standard deviations for each element analysed are being recorded and retained. Elements being analysed are: Mg, Al, Si, P, S, K, Ca, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Rb, Sr, Y, Zr, Nb, Mo, Ag, Cd, Sn, Sb, W, Hg, Pb, Bi, Th, and U. Televiewer surveys using both Optical Televiewer (OTV) above the water table and Acoustic Televiewer (ATV) below the water table were completed on select drill holes from 2019 onwards. In total 6,676.5m of hole have been surveyed over 90 holes at the Project, with data used to inform geotechnical studies.
	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.	QAQC results from both the primary and secondary assay laboratories show no material issues with the main variables of interest for the recent assaying programs. Blanks, Field Duplicates, CRMs and secondary coarse crush splits of diamond samples have all been employed by AVL to determine accuracy of sub-sampling and subsequent analysis. No material issues with analysis or sub-splitting have been identified. CRMs tend to assay with a bias slightly lower than the certified values for V_2O_5 but are still within 2 standard deviations of the expected mean.
Verification of Sampling and Assaying	The verification of significant intersections by either independent or alternative company personnel.	Logging and assay results for significant intersections has been reviewed by internal AVL geologists including the Exploration Manager and Principal Geologist, including inspection of core holes and chip trays relative to assay results and the model interpretation. Independent Resource Consultant, Lauritz Barnes from Trepanier has visited site during 2019 and the Company core storage facility in Bayswater and reviewed the core trays for select diamond holes during 2018 and 2019.
	The use of twinned holes.	Two shallow diamond drill holes drilled to twin RC holes have been completed to assess sample bias due to preferential loss/gain of fine/coarse material in the northern block 20 during 2015. During 2022, in block 50, three diamond core holes were drilled as RC twins, with two of them sampled (the other being held for metallurgy material); in block 62 two diamond core holes were drilled as RC twins, with one assayed and one retained for metallurgy sample; in block 70 four diamond core holes were drilled, with one being an RC twin that was assayed, and the other three being assayed, but too far from existing RC holes to be considered twins. Results demonstrate repeatability of the RC assays with diamond core assaying. Twin RC holes were also drilled for three existing RC holes drilled in 2000, and 2007 to determine repeatability of the earliest RC drilling at the Project. Results demonstrate the historical holes are repeatable.

Criteria	JORC Code Explanation	Commentary
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Prior to October 2019 all primary geological data has been collected using paper logs and transferred into Excel spreadsheets. Since that time all geological logs have been collected digitally into library-attributed excel tables; then post 2019, directly into LogChief, that is a point of entry validation field data program. Data was validated by the Company geologists, then loaded to the Company Database, hosted by external database consultants. All the primary data have been collated and imported into a Microsoft SQL Server relational database, keyed on borehole identifiers and assay sample numbers. The database is managed using DataShed™ database management software. The data was verified as it was entered and checked by the database administrator (MRG) and AVL personnel. Native lab files and certificates are retained for all programs of drilling, with the exception of the earliest 1998 and 2000 era drilling.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data, including DTR results, apart from resetting below detection limit values to half positive detection values.
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.	For the drilling from 2018 onwards, all collars were set out using a handheld GPS or DGPS. After drilling they were surveyed using a Trimble RTK GPS system. The base station accuracy on site was improved during the 2018 survey campaign and a global accuracy improvement was applied to all drill holes in the Company database. For the 2015 drilling, all of the collars were set out using a Trimble RTK GPS system. After completion of drilling all new collars were re-surveyed using the same tool. Historical drill holes were surveyed with RTK GPS and DGPS from 2008 to 2015, using the remaining visible collar location positions. Only five of the early drill holes, drilled prior to 2000 by Intermin, had no obvious collar position when surveyed and a best estimate of their position was used based on planned position data. Downhole surveys were completed for all diamond holes, using gyro surveying equipment, as well as the RC holes drilled in 2015 (from GRC0159). Some RC drill holes from the 2018 campaign do not have gyro survey as the hole closed before the survey could be done. These holes have single shot camera surveys, from which the dip readings were used with an interpreted azimuth (nominal hole setup azimuth). The holes with interpreted azimuth are all less than 120m depth. All other RC holes were given a nominal -60° dip measurement. These older RC holes were almost all 120m or less in depth, limiting the possibility of significant deviation by the end of the hole.
	Specification of the grid system used.	The grid projection used for the Australian Vanadium Project is MGA/GDA94, Zone 50. A local grid has also been developed for the project and is used for mineral resource estimates so blocks are square to the strike of the deposit. The grid is a 40 degree rotation in the clockwise direction from MGA north.

Criteria	JORC Code Explanation	Commentary
	Quality and adequacy of topographic control.	High resolution Digital Elevation Data was captured by Arvista for the Company in June 2018 over the M51/878 tenement area using fixed wing aircraft, with survey captured at 12 cm GSD using an UltraCam camera system operated by Aerometrex. The data has been used to create a high-resolution Digital Elevation Model on a grid spacing of 5m x 5m, which is within 20 cm of all surveyed drill collar heights, once the database collar positions were corrected for the improved ground control survey, that was also used in this topography survey. The vertical accuracy that could be achieved with the 12 cm GSD is +/- 0.10 m and the horizontal accuracy is +/- 0.24m. 0.5m contour data has also been generated over the mining lease application. High quality orthophotography was also acquired during the survey at 12cm per pixel for the full lease area, and the imagery shows excellent alignment with the drill collar positions. Outside M51/878, high resolution Digital Elevation Data was supplied by Landgate. The northern two thirds of the elevation data is derived from ADS80 imagery flown September 2014. The data has a spacing of 5M and is the most accurate available. The southern third is film camera derived 2005 10M grid, resampled to match it with the 2014 DEM. Filtering was applied and height changes are generally within 0.5M. Some height errors in the 2005 data may be +/- 1.5M when measured against AHD but within the whole area of interest any relative errors will mostly be no more than +/- 1M. In 2015 a DGPS survey of hole collars and additional points was taken at conclusion of the drill program. Trepanier compared the elevations the drill holes with the supplied DEM surface and found them to be within 1m accuracy. An improved ground control point has been established at the Australian Vanadium Project by professional surveyors. This accurate ground control point was used during the acquisition of high quality elevation data. As such, a correction to align previous surveys with the improved ground control was applied to all drill collars from pre-2018 in the Company drill database. Collars that were picked up during 2018 and subsequently are already calibrated against the new ground control.
Data Spacing and Distribution	Data spacing for reporting of Exploration Results.	Drill spacing from the 2022 diamond and RC programs infilled portions of blocks 50 and 60 to at least 70m spaced sections with 30m centres on sections throughout early mine-life portions of previous BFS pit optimisations (April 2022 study). In areas of BFS pit optimisation in the southern blocks that were Inferred in blocks 50 and 60, and in block 70 that has never been optimised, drill sections were infilled to at least 140m spaced sections with 30m spaced drill centres on section. Overall, the deposit between blocks 10 and 70 is now drilled to 70m spaced sections in the bested drilled areas of blocks 15, 20, 50, and 60; 140m spaced sections through blocks 30, 40, 70, and parts of 50 and 60; and up to 280m and in a single instance 350m spaced sections in blocks 10 and small sections of block 50 in the north of the block where the Meekatharra – Sandstone road corridor is located. All drill sections have 25 - 30m spaced drill centres, with the number of drill holes per section ranging from 2 to 11, testing HG mineralisation to between 60m to 300m vertical depth.

Criteria	JORC Code Explanation	Commentary
	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.	The degree of geological and grade continuity demonstrated by the data density is sufficient to support the definition of Mineral Resources and the associated classifications applied to the Mineral Resource estimate as defined under the 2012 JORC Code. Variography studies have shown very little variance in the data for most of the estimated variables and primary ranges in the order of several hundred metres.
	Whether sample compositing has been applied.	All assay results have been composited to one metre lengths before being used in the Mineral Resource estimate for the Project. This was by far the most common sample interval for the diamond drill hole and RC drill hole data. No compositing has been applied for the DTR results, with all samples being 1m samples from RC drilling.
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.	The grid rotation is approximately 45° to 50° magnetic to the west, with the holes dipping approximately 60° to the east. The drill fences are arranged along the average strike of the HG mineralised horizon, which strikes approximately 310° to 315° magnetic south of a line at 7015000mN and approximately 330° magnetic north of that line. The mineralisation is interpreted to be moderate to steeply dipping, approximately tabular, with stratiform bedding striking approximately north-south and dipping to the west. The drilling is nearly all conducted perpendicular to the strike of the main mineralisation trend and dipping 60° to the east, producing approximate true thickness sample intervals through the mineralisation. The exceptions are 18 RC pre-collar, diamond tail holes drilled vertically to intersect the deposit at depth, and 12 down-dip diamond holes drilled from surface down-dip in the HG domain to gain metallurgical sample, drilled during 2019 (these holes do not contribute assay data to the estimation) and geotechnical diamond core holes drilled in blocks 50 and 60 during 2020 that are drilled towards 050 degrees at -70 or -80 degrees.
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	The orientation of drilling with respect to mineralisation is not expected to introduce any sampling bias. Drill holes intersect the mineralisation at an angle of approximately 90 degrees, with rare exceptions. Typically, holes intersect the HG from the top of the domain to the bottom of the domain, representing the full zone. The 2019 PQ diamond holes are deliberately drilled down dip to maximise the amount of metallurgy sample collected for the pilot study, with all material used for metallurgy purposes (hence not being available for assay). They are not intended to add material to the resource estimation, or to define geological boundaries, though where further control on geological contacts is intercepted, this will be used to add more resolution to the geological model.

Criteria	JORC Code Explanation	Commentary
Sample Security	The measures taken to ensure sample security.	Samples were collected onsite under supervision of a responsible geologist. The samples were then stored in lidded core trays and closed with straps before being transported by road to the BV core shed in Perth (or other laboratories for the historical data). RC chip samples were transported in bulk bags to the assay laboratory and the remaining green bags are either still at site or stored in Perth. RC and core samples were transported using only registered public transport companies. Sample dispatch sheets were compared against received samples and any discrepancies reported and corrected.
Audits or Reviews	The results of any audits or reviews of sampling techniques and data.	A review of the sampling techniques and data was completed by Mining Assets Pty Ltd (MASS) and Schwann Consulting Pty Ltd (Schwann) in 2008 and by CSA in 2011. Neither found any material error. AMC also reviewed the data in the course of preparing a Mineral Resource estimate in 2015. The database has been audited and rebuilt by AVL and MRG in 2015. In 2017 geological data was revised after missing lithological data was sourced. The data integrity and consistency of the drill hole database shows sufficient quality to support resource estimation.

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.	Following a decision by the Federal Court the Yugunga-Nya native title claim (WC1999/46) was not accepted for registration. Subsequent to the grant of M51/878, native title claim WCD2021/008 has become the NTT registration for the Yugunga Nya People covering the proposed mine site. AVL are working collaboratively with the Public Body Corporate for Yugunga-Nya People, and the Traditional Owner group to progress surveys and heritage agreements for the Project. Mining Lease M51/878 covering most of E 51/843 and P51/2567, and all of P51/2566 and E51/1396 was granted by DMIRS during 2020. The remainder of the deposit resource area within blocks 10 to 70 is covered by Mining Lease Application MLA51/897 that overlies a portion of E51/843, P51/3076 and E51/1534 that are held by AVL. Miscellaneous licence applications have been submitted for a haul and access road plus water pipeline corridor connecting the project through to the Great Northern Highway (Application L 51/116) to the west, and for borefields (Application L 51/119). All tenure in the name of KOP Ventures is now owned by AVL following the successful Scheme of Arrangement for AVL to acquire all TMT shares. This tenure consists of approved mining leases over the Gabanintha (M 51/883) and Yarrabubba (M 51/884) portions of the deposit. The tenure also includes granted and pending exploration leases and miscellaneous leases as part of the overall tenement package. AVL has no joint venture, environmental, national park or other ownership agreements on the lease area. A Mineral Rights Agreement has been signed with Bryah Resources Ltd for base metals and gold exploration on select AVL tenements (E 51/843; M 51/878; E 51/1534; E 51/1899). Bryah Resources Limited (ASX: BYH) holds the Mineral Rights for all minerals except V/U/Co/Cr/Ti/Li/Ta/Mn & iron ore which are retained 100% by AVL. AVL owns shares in BYH and holds a 0.75% Net Smelter Return royalty upon commencement of production by BYH.
	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.	At the time of reporting, there are no known impediments to obtaining a licence to operate in the area and the tenements are in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The Australian Vanadium deposit was identified in the 1960s by Mangore P/L and investigated with shallow drilling, surface sampling and mapping.

Criteria	JORC Code Explanation	Commentary
		In 1998, Drilling by Intermin Resources confirmed the down dip extent and strike continuation under cover between outcrops of the vanadium bearing horizons. Additional RC and initial diamond drilling was conducted by Greater Pacific NL and then AVL up until 2022. Previous Mineral Resource estimates have been completed for the deposit in 2001 (Mineral Engineering Technical Services Pty Ltd (METS) and Bryan Smith Geosciences Pty Ltd. (BSG)), 2007 (Schwann), 2008 (MASS & Schwann), 2011 (CSA), 2015 (AMC), 2017 (Trepanier) and 2018 (Trepanier). Technology Metals Limited has completed extensive resource development drilling and studies on the Gabanintha and Yarrabubba extensions of the block 10 to 70 portion of the deposit between 2016 and 2023, developing additional and separate mineral resources of the strike extensions of the same orebody.
Geology	Deposit type, geological setting and style of mineralisation.	The Australian Vanadium Project at Gabanintha is located approximately 40kms south of Meekatharra in Western Australia and approximately 100kms along strike (north) of the Windimurra Vanadium Mine. The mineralisation is hosted in the same geological unit as Windimurra, which is part of the northern Murchison granite greenstone terrane in the north west Yilgarn Craton. The project lies within the Gabanintha and Porlell Archaean greenstone sequence oriented approximately NW-SE and is adjacent to the Meekatharra greenstone belt. Locally the mineralisation is massive or bands of disseminated vanadiferous titano-magnetite hosted within the gabbro. The mineralised package dips moderately to steeply to the west and is capped by Archaean acid volcanics and metasediments to the west. The footwall is a talc carbonate altered ultramafic unit. The host sequence is disrupted by late stage dolerite and granite dykes and occasional east and northeast -southwest trending faults with apparent minor offsets. The mineralisation ranges in thickness from several metres to up to 20 to 30m in thickness. The oxidized and partially oxidised weathering surface extends 30 to 80m below surface and the magnetite in the completely oxidised zone is altered to hematite (Martite). The variable DTR iron con grades reported for blocks 20 and 30 are due to variable titanium deportment in the feed. This results in a greater spread of data for the concentrates.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the	Tabulated collar details and sample intervals with results are provided in Appendix 1 of this report.

Criteria	JORC Code Explanation	Commentary
	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.	
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.	DTR head assays are created from weighted average back calculations of assays of the magnetic and non-magnetic fraction assays. No cutting of high grades or cut-off grades were applied to the DTR results, however they were selected from known HG samples within the geology model.
	Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	No aggregate intercepts are reported in this release.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used.

Criteria	JORC Code Explanation	Commentary
Relationship between mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Drill holes intersect the mineralisation at an angle of approximately 90 degrees. Diamond PQ holes in the 2019 program were drilled vertically (-90 degrees) and 2020 geotechnical diamond core was drilled at -70 or -80 degrees. This decreases the angle of intersection with the mineralisation for those holes.
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.	The location of the samples is shown in Figure 1 in this release, and provided in Appendix 1 that tabulates full sample location and results.
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.	Comprehensive reporting of drilling details has been provided in the body of this announcement and previous announcements for Mineral Resource updates.
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.	All meaningful & material exploration data has been reported

Criteria	JORC Code Explanation	Commentary
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).	Shallow intercept drilling and extensional resource drilling to very southern-most end of the deposit (Block 90) are under consideration prior to updated mining studies.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Figure 1 in this report shows total magnetics imagery over the strike extent of the project, with existing drill collars. The entire strongly magnetic trend is considered prospective for massive magnetite V-Ti mineralisation.