Cobalt confirmed at Gabanintha

Gabanintha drilling review confirms multiple significant cobalt intercepts

31 March 2017

ASX ANNOUNCEMENT

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Projects:

Gabanintha - Vanadium
Blesberg,South Africa - Lithium/Tantalum
Nowthanna Hill – Uranium/Vanadium

Highlights:

- **Significant Cobalt mineralisation confirmed in the Gabanintha RC and diamond drilling data.**
- **26 separate drillholes report intersections above 500ppm Co, at an average of 537ppm Co.**
- **309 intersections in 99 drillholes report above 200ppm Co at an average of 253ppm Co.**
- **Maximum assay of 0.18% (1,828ppm) Co recorded in GRC102 (42m-43m).**
- **Wide intersections of up to 61m at 239ppm Co from 154m to 215m in GDH 903.**
- **Higher grade intersections include; 14m at 362ppm Co from 54m including 2m at 970 ppm from 55m in GDH 911 and ; 6m at 612ppm Co from 39m including 2m at 1,272 ppm Co in GRC102**
- **Earlier metallurgical testwork results indicate that most Cobalt is in the non-magnetic fraction in the transitional ore.**
- **Mineralogy microprobe work confirms that Cobalt occurs with sulphides in the massive vanadium ore.**
- **Further modelling of the resource for Cobalt is planned.**
- **Potential to produce Cobalt by-product.**

Australian Vanadium Limited (ASX:AVL, "the Company" or AVL") has confirmed a potential new battery metal opportunity at the Gabanintha Vanadium Project. During a review of data from previous drill programs, significant cobalt assays were identified (refer to ASX announcement dated 16th March 2017).

Cobalt is currently undergoing a massive re-rating as a strategic battery metal. The increasing use of cobalt, as well as the demand from consumers for ethically sourced cobalt, has contributed to a price rise to over US$52,000 per metric tonne.

Previous work by the Company at Gabanintha has focused on the vanadium-titanium-iron mineral resource with no major analysis conducted of the cobalt potential to date.

Cobalt in drilling

Cobalt has been found in the layered mafic igneous sequence (Lady Alma Igneous Complex) at Gabanintha, distributed within the magnetite rich layers which form the bulk of the vanadium resource. The cobalt is likely to be present in a non-magnetic sulphide component present in the ore.

The review of drilling and metallurgical testwork data identified the following key information:

- The resource database contains 10,979 x 1m cobalt assay results (RC and diamond) from previous drilling.
- Of these, 1,270 x 1m samples assayed over 200ppm Co with an average of 275ppm Co.
- 14 drill holes had intercepts averaging over 5,000 grade metres (ppm x m) of cobalt with the largest down hole interval being 61 metres at 239.18 ppm Co in GDH903 from 154m to 215m (14,590 grade metres).
- 26 separate drillholes report intersections above 500ppm Co, at an average of 537ppm Co (see Table 1).
- 309 intersections in 99 drillholes report above 200ppm Co at an average of 253ppm Co (detailed in Appendix 1)
- Maximum assay of 0.18% (1,828ppm) Co recorded in GRC102 (42m-43m).
- Wide intersections of up to 61m at 239ppm Co from 154m to 215m in GDH 903.
- Higher grade intersections include;
    - 14m at 362ppm Co from 54m including 2m at 970 ppm from 55m in GDH 911 and ;
    - 6m at 612ppm Co from 39m including 2m at 1,272 ppm Co in GRC102
- A close association of cobalt exists with the existing vanadium horizons, but appears located in the non-magnetic fraction, indicating a by-product opportunity.
- A review of the November 2015 beneficiation program indicates cobalt reporting to the non-magnetic fraction in Davis Tube Recovery (DTR), Low Intensity Magnetic Separator (LIMS) and Wet High Intensity Magnetic Separator (WHIMS) test work in the transitional material.
- Cobalt appears to be mostly absent from the oxidised material, providing an excellent proxy for the base of oxidation.

Drilling in the Gabanintha vanadium resource area has produced 28 intercepts exceeding 1m at 500ppm cobalt. Figure 1 shows a schematic long section of cobalt grade shells and Figure 2 is a map of the locations of intercepts above 500ppm Co. A list of intercepts at +5,000 grade metres cobalt is seen on Table 1.

The cobalt assays have been modelled using Leapfrog software and demonstrates a consistent distribution within parts of the overall deposit (see Figure 1 below).

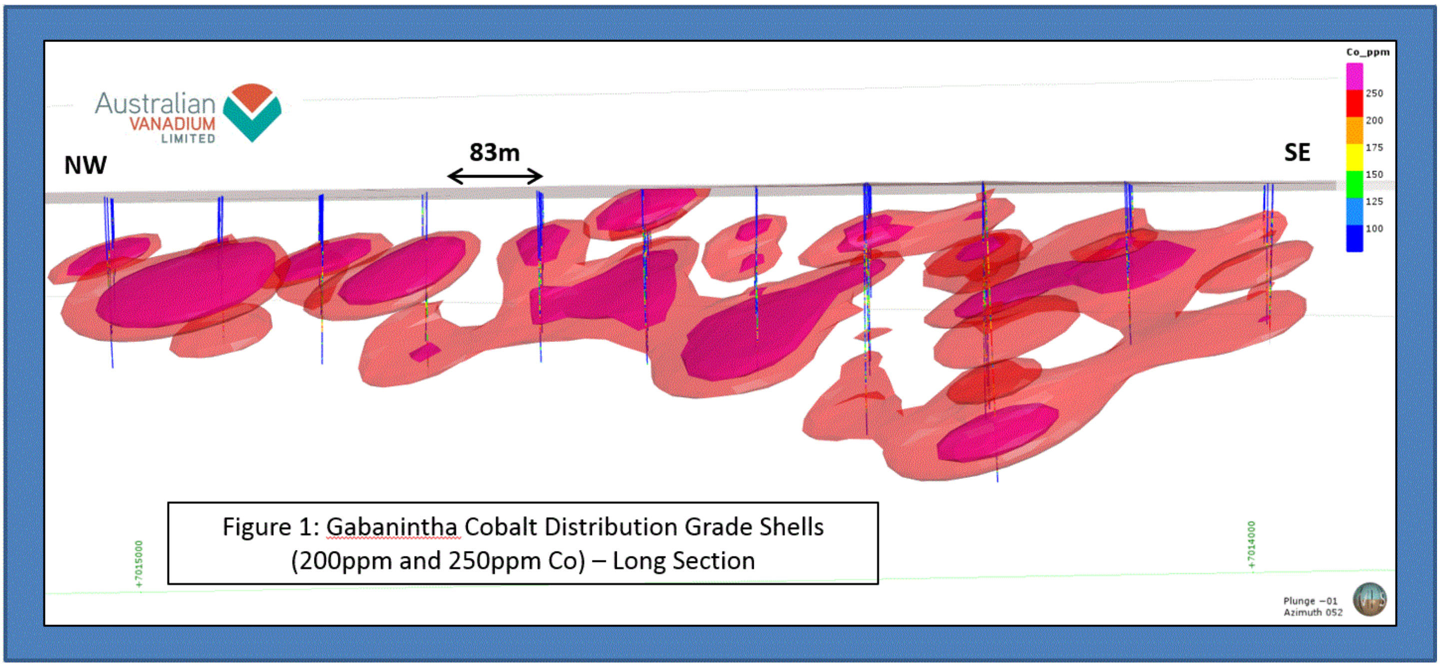

Figure 1: Gabanintha Cobalt Distribution Grade Shells (200ppm and 250ppm Co) – Long Section

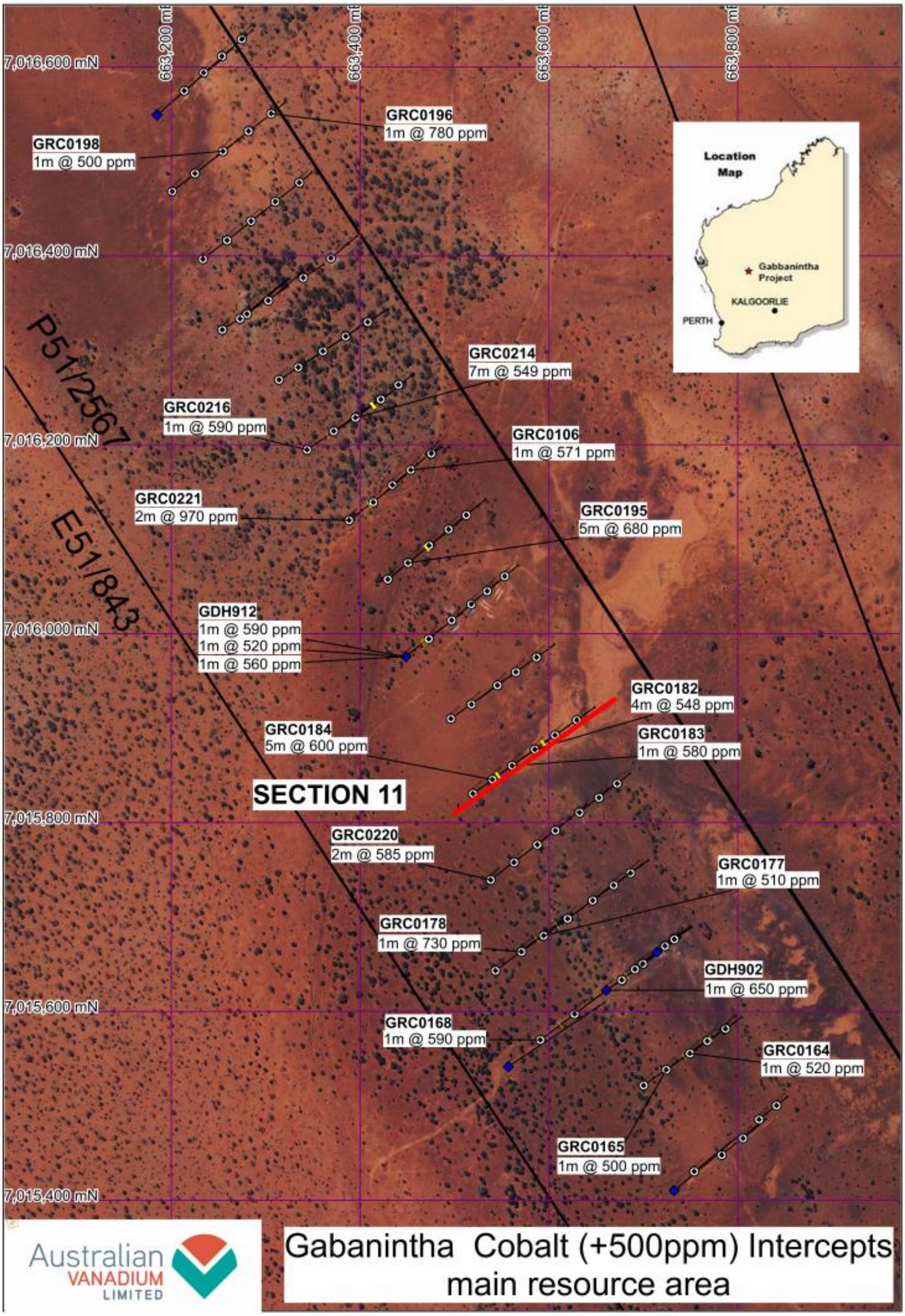

Figure 2: Location of +500ppm Co drill intercepts at Gabanintha resource area

Table 1: Intercepts exceeding 5000 cobalt grade metres

Hole ID	GDA Z50 M East	GDA Z50 M North	RL(m)	From (m)	To (m)	Interval Width (m)	Co ppm	Intercept Description	Grade (Co ppm x metres)
GDH903	663557.06	7015541.67	467.3	154	215	61	239.18	61m @ 239 ppm	14,590
GDH905	666487.33	7011892.66	465.96	85	128	43	246.74	43m @ 247 ppm	10,610
GDH907	668131.67	7010371.53	464.8	24	54	30	267.33	30m @ 267 ppm	8,020
GDH908	668049.02	7010302.52	464.68	85	118	33	212.42	33m @ 212 ppm	7,010
GDH902	663660.82	7015622.57	471.7	50	79	29	238.28	29m @ 238 ppm	6,910
			incl.	*52*	*53*	*1*		*1m @ 650 ppm*	
GRC0184	663540.13	7015845.59	467.83	9	24	15	428	15m @ 428 ppm	6,420
			incl.	*12*	*17*	*5*		*5m @ 600 ppm*	
GDH912	663448.35	7015975.8	467.64	41	62	21	305.71	21m @ 306 ppm	6,420
			incl.	*46*	*47*	*1*		*1m @ 590 ppm*	
GDH904	666565.89	7011966.09	466.28	26	48	22	275.91	22m @ 276 ppm	6,070
GRC0177	663594.45	7015680.22	470.97	31	50	19	305.79	19m @ 306 ppm	5,810
			incl.	*36*	*37*	*1*		*1m @ 510 ppm*	
GDH913	663538.18	7015739.31	468.94	125	145	20	290.5	20m @ 291 ppm	5,810
			incl.	*133*	*135*	*2*		*2m @ 585 ppm*	
GDH902	663660.82	7015622.57	471.7	98	117	19	284.21	19m @ 284 ppm	5,400
GRC0173	663606.67	7015791.49	469.32	30	50	20	264.5	20m @ 265 ppm	5,290
GDH911	663388.39	7016120.08	466.34	54	68	14	361.82	14m @ 362 ppm	5,065
			incl.	*55*	*57*	*2*		*2m @ 970 ppm*	
GDH909	667946.01	7010218.59	464.25	193	211	18	279.44	18m @ 279 ppm	5,030

See Appendix 1 for full table of intercepts above 200ppm Co and Appendix 2 for JORC Table 1 and Reporting of Exploration Results information.

A typical cross section showing the occurrence of the cobalt mineralisation and its strong correlation to the Vanadium mineralisation is shown in Figure 3.

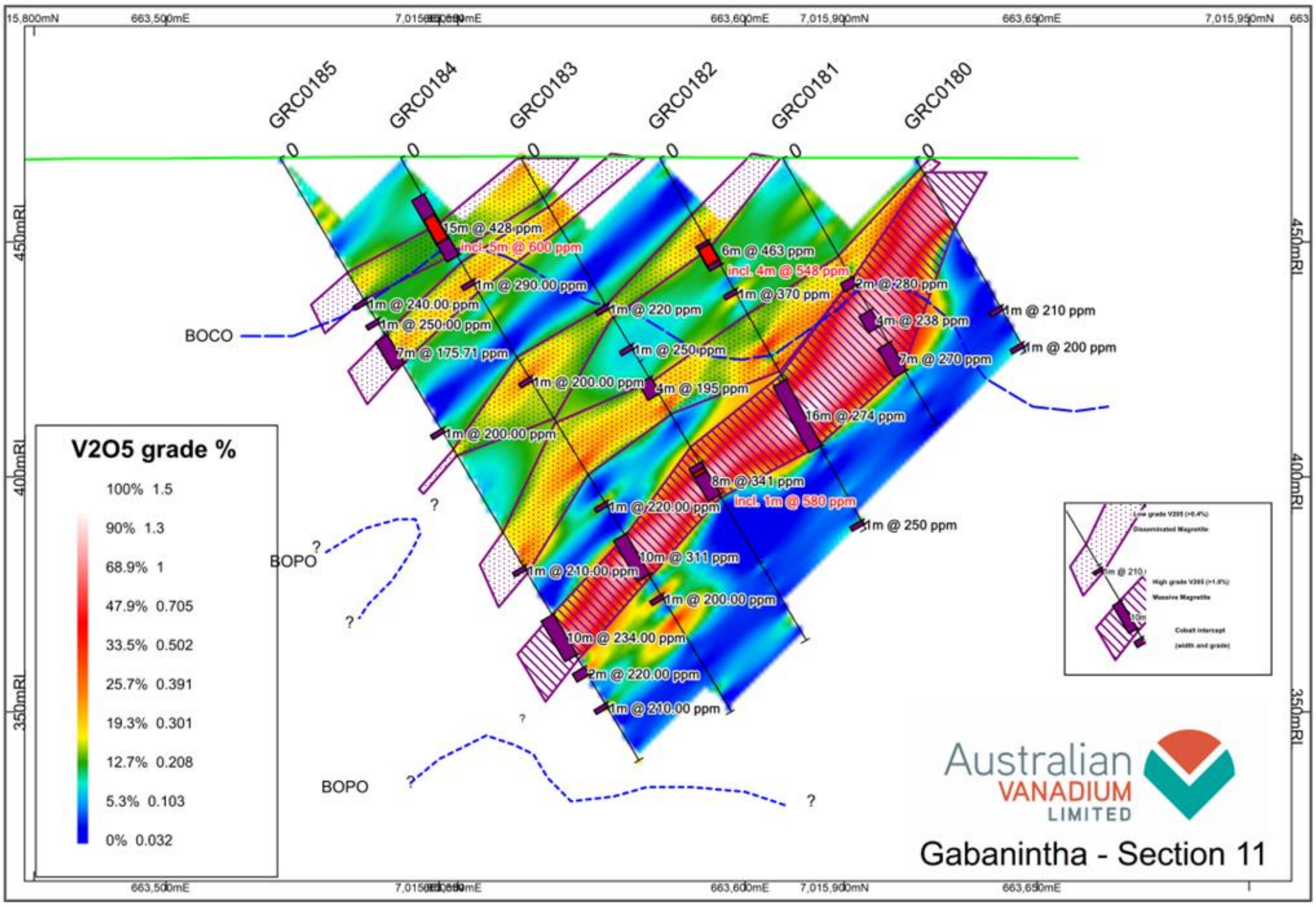

Figure 3: Cross Section 11 at Gabanintha showing cobalt intercepts and ore zones.
(For location see Figure 2).

Recovery of Cobalt

Metallurgical work completed for the Gabanintha vanadium deposit by Bureau Veritas in November 2015 included size analysis, magnetic separation and various other tests to review ore beneficiation.

Although not specifically investigating for cobalt, the beneficiation trials using DTR, LIMS and WHIMS methods for vanadium indicated the following:

- Size analysis for High Grade feed shows that approximately 79% of the cobalt is in the +75 micron size fraction in Transition ore, while Fresh ore has about 76% recovered in that fraction.
- In High Grade Transition material, using 3000 gauss magnetic separation at 75 micron grind size, the recovery of cobalt is approximately 61% in the non-magnetic and 39% within the magnetic portion.
- In Low Grade Transition, using 3000 gauss magnetic separation at 75 micron grind size, the recovery of cobalt is about 88% in the non-magnetic portion and 12% in the magnetic portion
- Oxide feed had only trace amounts of cobalt which only reported to the non-magnetic portion.

Mineralogy of Cobalt

The mineralogy results from the Centre for Exploration Targeting (UWA) 2015 study completed for Gabanintha ore, confirm that within the massive vanadium titano-magnetite unit, cobalt occurs with sulphide minerals. However, more work on the presence of cobalt-bearing sulphides needs to be conducted. Scanning Electron Microscope (SEM) probes on diamond core indicated that when higher cobalt occurred it was accompanied by higher iron and sulphur content. This is illustrated in the samples below:

Sample Number	Hole ID/Depth	Cobalt Co% in probe sample	Sulphur S% in probe sample	Iron Fe% in probe sample
912-140	GDH912 140m	2.59	50.9	41.6
903-149.43	GDH903 149.43m	20.4	26.2	13.3
913-92.2	GDH913 92.2m	16.1	40.7	

The Company is currently undertaking a more detailed review of the available information on cobalt and other minor metals in the resource and identifying possible recovery pathways for them.

AVL recognises the importance of analysing the cobalt content further as part of the Gabanintha project studies that are currently underway due to it potentially being a commercially viable by-product. This will involve a Cobalt resource estimation and full review of metallurgical results generated as part of the beneficiation test work conducted in 2015. Additional specific testwork will be undertaken on cobalt as required.

Competent Person Statement – Exploration Results

The information in this statement that relates to Exploration Results is based on information compiled by independent consulting geologist Brian Davis BSc DipEd who is a Member of The Australian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists and is employed by Geologica Pty Ltd.

Brian Davis 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 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr. Davis consents to the inclusion in the report of the matters based on the information made available to him, in the form and context in which it appears.

Competent Person Statement – Mineral Resource Estimation

The information relating to the Gabanintha Project 2015 Mineral Resource estimate reported in this announcement is based on information compiled by Mr John Tyrrell. Mr Tyrrell is a Member of The Australian Institute of Mining and Metallurgy (AusIMM) and a full-time employee of AMC (AMC Consultants Pty Ltd). Mr Tyrrell has more than 25 years' experience in the field of Mineral Resource Estimation. He has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and in resource model development to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr. Tyrrell consents to the inclusion in the report of the matters based on the information made available to him, in the form and context in which it appears.

The information is extracted from the report entitled "Substantial high-grade vanadium resource highlights Gabanintha's world-class potential" released to ASX on 10 November 2015 and is available on the company website at australianvanadium.com.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, in the case of estimates of Mineral Resource or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant 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 has not been materially modified from the original market announcement

Gabanintha Vanadium Deposit

The Gabanintha Project is hosted in a gabbroic layered igneous complex containing bands of massive and disseminated titano-magnetite in a sequence over 200m in thickness. The style of mineralisation is similar to a number of deposit types around the world with the most similarity to vanadium deposits of the Bushveld Complex of South Africa.

The Gabanintha vanadium project is currently one of the highest-grade vanadium projects being advanced globally with existing Measured Resources of 7.0Mt at 1.09% grade V_2O_5, Indicated Resources of 17.8Mt at 0.68% grade V_2O_5 and Inferred Resources of 66.7Mt at 0.83% grade V_2O_5, a total of 91.4Mt, grading 0.82% V_2O_5 and containing a discrete high-grade zone of 56.8Mt, grading 1.0% V_2O_5 reported in compliance with the JORC Code 2012 (see YRR ASX Announcement 10 November 2015). See Appendix 3 for details of JORC Table 1 information.

The updated Mineral Resource estimate incorporated 97% of the historical drilling data including data from the Company's 2009 and 2015 RC and diamond drilling programs. This included 233 RC and 17 Diamond Core holes for 20,086 metres over a 12 kilometre strike length. Of these holes 19,431metres were used in the grade estimate.

AVL Strategic Objectives

AVL's vertical integration strategy, which is focused on vanadium and other battery metals, includes four pillars of activity to drive cashflow generation and shareholder value. These are:

- Progressing the Company's flagship Gabanintha vanadium project in Western Australia, through the identification of cornerstone investors and the completion of additional studies.
- Growing AVL's subsidiary, VSUN Energy Pty Ltd to deliver additional vanadium battery sales into the many niches being identified in the commercial energy storage sector across Australia.
- The planned production and sale of high-purity vanadium electrolyte – a core component of flow batteries, to be achieved through the development of an Australian vanadium electrolyte plant.
- Investigation of other potential battery metal projects around the world, with the latest acquisition being the Blesberg lithium-tantalum project (see ASX Announcement dated 4 November 2016).

The Company is broadening its strategic focus to encompass the wider energy storage minerals market by this initial acquisition of a quality lithium asset at Blesberg in South Africa. It is apparent that there is exceptional growth underway in energy storage markets, including storage raw materials. AVL intends to utilise its knowledge and structure to generate additional shareholder wealth by the development of a project pipeline. This strategy offers both diversification and opportunity to shareholders.

For further information, please contact:

Vincent Algar, Managing Director

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Appendix 1 - Drill results for Cobalt assays above 200ppm Co

Hole_ID	GDA_mEast	GDA_mNorth	mFrom	mTo	Intercept Description
GDH903	663557	7015542	154	215	61m @ 239 ppm
GDH905	666487	7011893	85	128	43m @ 247 ppm
GDH907	668132	7010372	24	54	30m @ 267 ppm
GDH908	668049	7010303	85	118	33m @ 212 ppm
GDH902	663661	7015623	50	79	29m @ 238 ppm
		incl.	**52**	**53**	**1m @ 650 ppm**
GRC0184	663540	7015846	9	24	15m @ 428 ppm
		incl.	**12**	**17**	**5m @ 600 ppm**
GDH912	663448	7015976	41	62	21m @ 306 ppm
		incl.	**46**	**47**	**1m @ 590 ppm**
		and incl.	**50**	**51**	**1m @ 520 ppm**
		and incl.	**54**	**55**	**1m @ 560 ppm**
GDH904	666566	7011966	26	48	22m @ 276 ppm
GRC0177	663594	7015680	31	50	19m @ 306 ppm
		incl.	**36**	**37**	**1m @ 510 ppm**
GDH913	663538	7015739	125	145	20m @ 291 ppm
		incl.	**133**	**135**	**2m @ 585 ppm**
GDH902	663661	7015623	98	117	19m @ 284 ppm
GRC0173	663607	7015791	30	50	20m @ 265 ppm
GDH911	663388	7016120	54	68	14m @ 362 ppm
		incl.	**55**	**57**	**2m @ 970 ppm**
GDH909	667946	7010219	193	211	18m @ 279 ppm
GRC0175	663563	7015758	107	123	16m @ 309 ppm
GDH903	663557	7015542	119	140	21m @ 230 ppm
GRC0214	663395	7016229	43	54	11m @ 412 ppm
		incl.	**44**	**51**	**7m @ 549 ppm**
GRC0160	663823	7015486	21	40	19m @ 234 ppm
GDH908	668049	7010303	22	43	21m @ 211 ppm
GRC0195	663451	7016075	49	59	10m @ 441 ppm
		incl.	**50**	**55**	**5m @ 680 ppm**
GRC0182	663585	7015878	54	70	16m @ 274 ppm
GRC0165	663724	7015539	73	90	17m @ 252 ppm
GDH911	663388	7016120	95	113.2	18.2m @ 235 ppm
GDH912	663448	7015976	124	141	17m @ 244 ppm
GRC0166	663700	7015522	93	113	20m @ 206 ppm
GDH901	663715	7015663	38	54	16m @ 246 ppm
GDH906	666384	7011793	200	215	15m @ 261 ppm
GRC0102	664440	7014499	39	45	6m @ 612 ppm
		incl.	**42**	**44**	**2m @ 1,272 ppm**
GRC0219	663496	7015910	104	119	15m @ 242 ppm
GRC0113	662893	7016977	55	60	5m @ 717 ppm
		incl.	**55**	**60**	**5m @ 717 ppm**
GRC0179	663543	7015643	167	182	15m @ 229 ppm
GDH910	663185	7016549	83	103	20m @ 172 ppm
GRC0189	663545	7015945	47	61	14m @ 245 ppm

Hole_ID	GDA_mEast	GDA_mNorth	mFrom	mTo	Intercept Description
GDH914	663732	7015411	106	121	15m @ 225 ppm
GRC0165	663724	7015539	40	53	13m @ 258 ppm
		incl.	**47**	**48**	**1m @ 500 ppm**
GRC0186	663518	7015925	79	92	13m @ 256 ppm
GRC0188	663565	7015960	31	42	11m @ 294 ppm
GRC0190	663473	7015994	93	108	15m @ 211 ppm
GRC0184	663540	7015846	93	103	10m @ 311 ppm
GDH909	667946	7010219	118	132	14m @ 208 ppm
GRC0163	663768	7015569	40	52	12m @ 240 ppm
GRC0171	663646	7015718	64	73	9m @ 310 ppm
GRC0182	663585	7015878	20	26	6m @ 463 ppm
		incl.	**21**	**25**	**4m @ 548 ppm**
GRC0164	663749	7015556	54	62	8m @ 344 ppm
		incl.	**55**	**56**	**1m @ 520 ppm**
GRC0183	663561	7015860	75	83	8m @ 341 ppm
		incl.	**77**	**78**	**1m @ 580 ppm**
GRC0204	663233	7016397	97	108	11m @ 245 ppm
GRC0174	663588	7015777	93	102	9m @ 296 ppm
GRC0116	662706	7017306	33	39	6m @ 422 ppm
		incl.	**33**	**35**	**2m @ 530 ppm**
GRC0185	663519	7015831	113	123	10m @ 234 ppm
GRC0106	663454	7016174	38	47	9m @ 246 ppm
		incl.	**41**	**42**	**1m @ 571 ppm**
GRC0168	663591	7015570	50	57	7m @ 307 ppm
		incl.	**52**	**53**	**1m @ 590 ppm**
GRC0092	664019	7015118	40	42	2m @ 1,074 ppm
		incl.	**41**	**42**	**1m @ 1,700 ppm**
GDH909	667946	7010219	152	162	10m @ 211 ppm
GRC0162	663787	7015582	20	30	10m @ 211 ppm
GRC0194	663473	7016093	68	77	9m @ 226 ppm
GRC0170	663669	7015734	54	63	9m @ 221 ppm
GRC0161	663754	7015431	91	100	9m @ 215 ppm
GRC0098	664191	7014926	33	36	3m @ 637 ppm
		incl.	**34**	**36**	**2m @ 790 ppm**
GRC0181	663606	7015893	45	52	7m @ 270 ppm
GRC0168	663591	7015570	156	163	7m @ 266 ppm
GDH903	663557	7015542	75	83	8m @ 231 ppm
GDH902	663661	7015623	21	29	8m @ 229 ppm
GRC0219	663496	7015910	57	66	9m @ 199 ppm
GDH906	666384	7011793	219	225	6m @ 288 ppm
GDH905	666487	7011893	52	60	8m @ 214 ppm
GDH914	663732	7015411	51	58	7m @ 241 ppm
GRC0193	663494	7016110	53	59	6m @ 273 ppm
GDH905	666487	7011893	28	37	9m @ 180 ppm
GRC0118	662663	7017272	67	74	7m @ 230 ppm

Hole_ID	GDA_mEast	GDA_mNorth	mFrom	mTo	Intercept Description
GDH915	663786	7015581	22	29	7m @ 229 ppm
GRC0174	663588	7015777	62	67	5m @ 318 ppm
GDH916	663254	7016322	151	157	6m @ 258 ppm
GDH908	668049	7010303	59	66	7m @ 219 ppm
GRC0178	663571	7015663	140	147	7m @ 219 ppm
GDH903	663557	7015542	101	108	7m @ 216 ppm
GRC0176	663620	7015698	98	105	7m @ 211 ppm
GRC0192	663512	7016126	40	47	7m @ 211 ppm
GDH901	663715	7015663	58	65	7m @ 200 ppm
GRC0115	662789	7017140	74	80	6m @ 233 ppm
GRC0177	663594	7015680	124	130	6m @ 223 ppm
GRC0174	663588	7015777	84	89	5m @ 264 ppm
GRC0167	663627	7015597	124	129	5m @ 256 ppm
GDH906	666384	7011793	136	142	6m @ 210 ppm
GRC0185	663519	7015831	44	51	7m @ 176 ppm
GRC0099	664169	7014908	39	41	2m @ 614 ppm
		incl.	**40**	**41**	**1m @ 861 ppm**
GRC0091	664930	7014030	18	23	5m @ 237 ppm
GDH916	663254	7016322	139	144	5m @ 236 ppm
GRC0214	663395	7016229	73	78	5m @ 236 ppm
GRC0178	663571	7015663	40	42	2m @ 580 ppm
		incl.	**41**	**42**	**1m @ 730 ppm**
GDH914	663732	7015411	96	102	6m @ 193 ppm
GRC0211	663314	7016269	42	49	7m @ 161 ppm
GDH903	663557	7015542	234	240	6m @ 188 ppm
GRC0118	662663	7017272	60	63	3m @ 376 ppm
GDH903	663557	7015542	45	50	5m @ 222 ppm
GRC0167	663627	7015597	48	53	5m @ 222 ppm
GRC0195	663451	7016075	90	95	5m @ 222 ppm
GRC0167	663627	7015597	39	44	5m @ 218 ppm
GRC0210	663335	7016282	85	90	5m @ 214 ppm
GRC0176	663620	7015698	90	94	4m @ 265 ppm
GDH908	668049	7010303	9	14	5m @ 210 ppm
GRC0119	665783	7013193	43	48	5m @ 209 ppm
GRC0216	663344	7016195	53	55	2m @ 505 ppm
		incl.	**54**	**55**	**1m @ 590 ppm**
GDH904	666566	7011966	51	55	4m @ 250 ppm
GRC0196	663306	7016551	25	27	2m @ 495 ppm
		incl.	**25**	**26**	**1m @ 780 ppm**
GRC0206	663429	7016057	111	116	5m @ 198 ppm
GRC0115	662789	7017140	38	42	4m @ 247 ppm
GRC0175	663563	7015758	54	58	4m @ 243 ppm
GRC0181	663606	7015893	37	41	4m @ 238 ppm
GRC0118	662663	7017272	14	16	2m @ 472 ppm
		incl.	**15**	**16**	**1m @ 612 ppm**

Hole_ID	GDA_mEast	GDA_mNorth	mFrom	mTo	Intercept Description
GRC0193	663494	7016110	38	43	5m @ 184 ppm
GRC0095	663699	7015651	71	75	4m @ 227 ppm
GRC0104	663632	7015811	53	57	4m @ 223 ppm
GRC0176	663620	7015698	56	61	5m @ 178 ppm
GDH906	666384	7011793	162	166	4m @ 220 ppm
GDH909	667946	7010219	176	180	4m @ 220 ppm
GDH906	666384	7011793	192	196	4m @ 218 ppm
GRC0167	663627	7015597	82	86	4m @ 218 ppm
GRC0162	663787	7015582	33	38	5m @ 172 ppm
GRC0194	663473	7016093	80	84	4m @ 215 ppm
GRC0211	663314	7016269	120	125	5m @ 164 ppm
GDH902	663661	7015623	88	92	4m @ 203 ppm
GRC0193	663494	7016110	46	50	4m @ 203 ppm
GDH916	663254	7016322	123	127	4m @ 200 ppm
GDH906	666384	7011793	253	256	3m @ 263 ppm
GRC0102	664440	7014499	85	89	4m @ 196 ppm
GRC0183	663561	7015860	54	58	4m @ 195 ppm
GRC0205	663201	7016468	89	93	4m @ 195 ppm
GRC0205	663201	7016468	103	107	4m @ 193 ppm
GDH909	667946	7010219	79	83	4m @ 183 ppm
GRC0117	662684	7017288	5	6	1m @ 725 ppm
		incl.	**5**	**6**	**1m @ 725 ppm**
GDH909	667946	7010219	224	227	3m @ 240 ppm
GRC0096	663806	7015466	52	55	3m @ 240 ppm
GRC0113	662893	7016977	75	78	3m @ 238 ppm
GDH903	663557	7015542	58	61	3m @ 237 ppm
GRC0212	663441	7016264	17	21	4m @ 178 ppm
GRC0206	663429	7016057	62	65	3m @ 230 ppm
GRC0217	663254	7016322	64	66	2m @ 340 ppm
GDH914	663732	7015411	37	40	3m @ 223 ppm
GRC0091	664930	7014030	10	14	4m @ 167 ppm
GDH906	666384	7011793	93	96	3m @ 220 ppm
GRC0190	663473	7015994	62	65	3m @ 220 ppm
GRC0215	663372	7016214	79	82	3m @ 220 ppm
GRC0097	663783	7015448	21	24	3m @ 219 ppm
GDH909	667946	7010219	33	36	3m @ 213 ppm
GDH909	667946	7010219	111	114	3m @ 210 ppm
GRC0216	663344	7016195	66	69	3m @ 210 ppm
GRC0179	663543	7015643	48	50	2m @ 310 ppm
GDH916	663254	7016322	91	94	3m @ 203 ppm
GRC0168	663591	7015570	65	68	3m @ 203 ppm
GRC0177	663594	7015680	73	76	3m @ 203 ppm
GDH903	663557	7015542	64	67	3m @ 200 ppm
GDH906	666384	7011793	171	174	3m @ 197 ppm
GRC0099	664169	7014908	59	62	3m @ 196 ppm

Appendix 2 - JORC 2012 Table 1 Exploration Results

JORC 2012 TABLE 1 – CHECKLIST OF ASSESSMENT AND REPORTING CRITERIA GABANINTHA VANADIUM PROSPECT – MAY 2015

CRITERIA		EXPLANATION
SECTION 1 - SAMPLING TECHNIQUES AND DATA		
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 1m 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.	Reverse Circulation (RC) drilling was used to obtain 1.0m downhole interval chip samples. The samples were collected through a cone splitter to obtain a nominal 2.0-5.0kg sample at an approximate 10% split ratio. One 2-5kg (average) sample taken for each one metre sample length and collected in pre-numbered calico sample bags. Sample was dried, crushed and pulverised (total prep) to produce a sub sample for laboratory analysis using XRF and total LOI by TGA. Quality of sampling continuously monitored by field geologist during drilling. To monitor the representivity of the sample, 5 duplicates are taken for every 200 samples (1:40). Sampling carried out under company protocols and QAQC procedures as per industry best practice. Sampling of core is conducted by marking up in the field, then detailed logging on log sheets and first pass geotechnical logging and photography of each core tray. The digital photos are retained in the database. Core then transported to Bureau Veritas Mineral Laboratory secure warehouse facility in Canning Vale, Perth, where detailed geotechnical logging was undertaken, before selected intervals cut as quarter core. Sample intervals identified based on predominantly 1 metre intervals. Submission of samples to the laboratory for XRF analysis for the full iron ore suite of 24 elements which included cobalt, copper and nickel. Use of standards and blanks in core assay every 10^{th} sample.
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.).	Reverse Circulation (RC) drilling employing a 140mm diameter face sampling hammer. A nominal drill spacing of 75mN by 25mE has been completed. Diamond drilling was completed at PQ3 size and 8 holes were completed
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.	RC sample recovery is recorded by the geologist and is based on how much of the sample is returned from the cone splitter. This is recorded as good, fair, poor or no sample. To ensure maximum sample recovery and the representivity of the samples, an experienced company geologist is present during drilling and monitors the sampling process. Any issues are immediately rectified. No significant sample recovery issues were encountered in the RC drilling. Where core loss occurred, the interval was logged and the loss calculated at a percentage of the drilled interval, and recorded in the database. No twin RC holes have been completed to assess sample bias due to preferential loss/gain of fine/coarse material or due to wet drilling. Two shallow diamond drill holes were drilled to twin RC have been completed to assess sample bias due to preferential loss/gain of fine/coarse material. AVL is a satisfied that the RC holes have taken a sufficiently representative sample of the mineralisation and minimal loss of fines has occurred in the RC drilling resulting in minimal sample bias. No relationship between sample recovery and grade has been demonstrated.

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.	Logging of lithological intervals by collecting chips or clay sample every 1m corresponding with 1m sampled interval. This level of detail supports appropriate Mineral Resource estimation, mining studies and metallurgical studies. RC logging is both qualitative and quantitative in nature. RC logging records the abundance/proportions of specific minerals and material types, lithologies, weathering, colour and physical hardness is estimated by chip recovery and properties (friability, angularity). The entire length of RC holes were logged on lithological intervals, 100% of the drilling was logged. Where no sample was returned due to cavities/voids it is recorded as such. Diamond drill core was also logged on lithological intervals, with estimations of magnetite content, crystal size and weathering recorded. Drilled intervals were recorded, with core loss and RQD calculated for those intervals. An estimate of rock hardness was made based on friability and scratchability. Each tray of drill core was weighed within 3 days of drilling and this weight was utilised to estimate bulk Specific Gravity for where rock types were the same in that tray. The only geophysical data collected from available RC holes is Magnetic Susceptibility collected by RT1 hand magnetic susceptibility meter on the outside of the green bags (1m intervals). Diamond core was tested at 0.5m intervals on all available core. Results are recorded and downloaded onto the computer at the end of the day.
Sub-sample 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 14aximize 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.	Sampling technique: RC Chip Samples: ~4kg RC chip samples are collected via cone splitter for each 1m interval drilled in a pre-numbered calico bag. Samples are kept dry where possible. Diamond Drill Core Samples: ¼ drill core sample cut by diamond saw using right hand rule (cut in half approximately 1cm to the right of the bottom of core orientation line, then the right hand half core cut in half again, the right hand piece being taken for sample and the remaining ¾ core returned to the tray. Sample intervals collected were determined by observed mineralisation in the lithology, and the assay values in adjacent RC holes. The sample sizes are considered to be appropriate to correctly represent the mineralisation based on the style of mineralisation (massive magnetite/martite), the thickness and consistency of intersections, the sampling methodology and percent value assay ranges for the primary elements. • Quality Control Procedures Duplicated sample: 5 every 200 samples for RC (1:40), and none for diamond core. Certified Reference Material were prepared for the company by Quantum Analytical Services in Perth containing a range of vanadium values. The assay standards were inserted: 5 in every 100 samples (1:20) for RC and diamond samples. Blank washed sand material: 5 every 200 samples (1:40) for RC and 5 every 100 for diamond samples. Overall QAQC insertion rate of 1:10. Sample weights recorded for all samples. The recorded weight included the entire sample (large green bag ~20kg) and the ~4kg calico bag Lab duplicates taken where large samples required splitting down by the lab. Lab repeats taken and standards inserted at predetermined level specified by the lab. Sample preparation in the laboratory: Sample dried *at 105°C for 18-24 hrs.* *RC Sample split* 50:50. One portion retained for future testing (metallurgical) Second portion crushed to nominal -3mm by Boyd crusher. Pulverised to 90% passing at 75µm using a LM2 mill. Sub-sample pulp to produce a 66 gram sample for analysis

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.	All samples reported from the 2015 drilling program were submitted to Quantum Analytical Services in Perth and Bureau Veritas in Perth and assayed for the full iron ore suite by XRF (24 elements) and for total LOI by thermos-gravimetric technique. The method used is designed to measure the total amount of each element in the sample. Laboratory procedures are in line with industry standards and appropriate for iron ore deposits. Samples are dried at 105^{o}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 to a nominal -3mm size by Boyd crusher, then pulverised to 90% passing 75 micron using a LM2 mill. Sub-samples are collected to produce a 0.66g sample that is dried further, fused at 110OC for 10 minutes poured into a platinum mould and placed in the XRF machine for analysing and reporting. A total LOI is measured by Thermo-gravimetric methods (TGA). Certified Reference Material assay standards, field duplicates and umpire laboratory analysis are used for quality control. There were no discernable issues with sample representivity and all duplicate samples were within 10% of the original sample value. Acceptable levels of precision have been achieved with all standard assays reporting within 2 standard deviations of the certified mean grade for the 12 main elements of interest. Certified Reference Material assay standards having a good range of values were inserted at predefined intervals by the company and randomly by the lab at set levels. Results highlight that sample assay values are accurate and precise. Analysis of field duplicate and lab pulp repeat samples reveals that greater than 90% of pairs have less than 10% difference and the precision of samples is within acceptable limits, which concurs with industry best practice. The lab also inserts its own standards at set frequencies and monitors the precision of the XRF analysis. These results also reported well within the specified 2 standard deviations of the mean grades for all 12 main elements of interest. XRF calibrations are checked once per shift using calibration beads made using exact weights. The Laboratory performs repeat analyses of sample pulps at a rate of 1:20 (5% of all samples) these compare very closely with the original analysis for all elements.
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 independently verified by alternative company personnel. The Competent Person has visited site and inspected the sampling process in the field and also inspected the Laboratory. All primary data are captured on paper logs and entered into excel templates. All paper copies have been scanned and both digital and paper copies stored. All data is sent to Perth and stored in the secure, centralised Datashed SQL database which is managed by a database administrator. Documentation related to data custody, validation and storage are maintained on the company's server. No adjustments or calibrations were made to any assay data, apart from resetting below detection values to half positive detection.
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 Collars were initially surveyed by MHR Surveyors, Surveyed using Trimble RTK GPS then company personnel shifted pegs into straight lines by sight as a variation on planned drill hole location. MHR Surveyors then picked up final hole coordinates using Trimble RTK GPS with expected relative accuracy of 0.03m E,N and 0.05m RL The grid system for Gabanintha Vanadium prospect is MGA_GDA94 Zone 50. Topographic data collected by Fugro Airborne Surveys Pty Ltd based on 2m vertical contour interval resolution derived from 5m DTM. Aerial survey flown in September 2011. Data supplied in projection MGA_GDA94 Zone 50. Downhole gyroscopic surveys are attempted on all RC and diamond holes by McKay Drilling or their subcontractors. Readings are taken at 10 m intervals downhole using a Reflex Gyro E723 survey tool with a stated accuracy of +/-1^{o} in azimuth and +/-0.1^{o} in inclination. QC of the gyro tool involved calibration testing on the 27/04/2014 by Reflex Technology International.

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.	Drill spacing on an approximate 75m by 25m grid, however due to variable previous drilling this is sometimes not achievable. Pre-2015 drillhole spacing of 200m-500m along strike and 100m across strike This drill spacing is sufficient to establish the degree of geological and grade continuity applied under the 2012 JORC code and is suitable for this style of deposit. Sample compositing has not been applied to the RC samples; all RC samples are collected at 1m intervals.
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 attitude of the lithological units is dominantly west-south-westerly dipping from 40-80 degrees and is drilled to the northwest with drill holes inclined at -60 degrees towards perpendicular to the strike of the orientation of the lithological units. Due to locally varying intersection angles between drill holes and lithological units all results are defined as downhole widths. No drilling orientation and sampling bias has been recognized at this time and is not considered to have introduced a sampling bias.
Sample security	The measures taken to ensure sample security.	Samples are packed into polyweave bags and then placed inside sealed Bulka bags. Samples are delivered to a 3rd party despatch point in Meekathara by company staff. Chain of custody is managed by the company. Samples are transported to the relevant Perth laboratory by courier (TOLL). Once received at the laboratory, samples are stored in a secure yard until analysis. Drill core stacked on pallets, strapped with steel bands and shrink plastic wrapped, before being loaded onto a dedicated courier trailer for transport to Perth and delivery to Diamond core samples cut and collected by Yellow Rock personnel in secure Bureau Veritas Mineral Processing Laboratory, and transported to the assay laboratory by Bureau Veritas personnel. The lab receipts received samples against the sample dispatch documents and issues a reconciliation report for every sample batch. Sample security was not considered a significant risk to the project.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	The company database has been compiled from primary data by independent database consultants Mitchell River Group based on original assay data and historical database compilations. The Datashed database, managed by Mitchell River Group is considered to be of sufficient quality for use in reporting of assay results, QA/QC results and for use in Mineral Resource estimation. A regular review of the data and sampling techniques is carried out internally. Mitchell River Group (completed an audit of the existing database prior to the new compilation into a Datashed SQL database in April 2015. Following the construction of a new database, a QA/QC audit was completed on all historical data and the current drilling results reported in this release.

SECTION 2 - REPORTING OF EXPLORATION RESULTS		
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership include 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.	• Exploration Prospects are located wholly within Lease P51/2567 and E51/843. The tenements are 100% owned by Australian Vanadium. • The tenements lie within the Yugunga Nya Native Title Claim (WC1999/046). A Heritage survey was undertaken prior to commencing drilling which only located isolated artefacts but no archaeological sites *per se.* • At the time of reporting, there are no known impediments to obtaining a licence to operate in the area and the tenement is in good standing. • Mining Lease Application M51/878 covering most of E51/1843 and the vanadium project is currently under consideration by the Department of Mines and Petroleum.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• The Gabanintha deposit was identified in the 1960's by Mangore P/L and investigated with shallow drilling, surface sampling and mapping. In 1998, Drilling by Intermin Resources confirmed the down dip extent and strike continuation under cover between outcrops of the vaniderfous horizons. • Additional RC and initial diamond drilling was conducted by Greater Pacific NL and then Yellow Rock Resources up until 2011. • Mineral Resource estimates have been conducted on the deposit
Geology	• Deposit type, geological setting and style of mineralisation.	• The vanadium resource is located in a massive to disseminated ad cumulate titaniferous magnetite layer as part of a differentiated gabbroic sill.

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.
		• Refer to Appendix 1 above.

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.	• A nominal 200ppm lower cobalt cut is applied to the existing sample database to identify potentially significant intervals. These criteria have been selected to most appropriately represent the mineralisation, taking into account overall deposit grade and geological continuity. • The total number of drill samples, and total number of cobalt assays are referred to in the report. • Aggregation has been applied to the reported intervals in this report. Table1 contain aggregates with a m x grade (ppm Co) composite value above 5000 Co in ppmM.. Appendix 1 contains all intersections that on a length weighted basis exceed 200ppm Co. • All sample intercepts above 200ppm are shown in Appendix 1

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 attitude of the lithological units is dominantly west-south-westerly dipping from 40-70 degrees and is drilled to the northeast with drillholes inclined at -60 degrees toward the orientation of the lithological units. Due to locally varying intersection angles between drill holes and lithological units all results are defined as downhole widths. • The drilled downhole depths are taken to be well correlated to the true width due to the relative orientations.
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.	• Collar plan and sections through the deposit with stratigraphic and Vanadium mineralisation interpretations are available. Likewise initial interpretations of the Cobalt assays are available.
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.	• All cobalt results are reported above a cutoff of 200ppm. • Cobalt assays (10,979 samples) from the resource database have been assessed. 1,270 samples are above a 200ppm cutoff and show a consistent occurrence throughout the Vanadium orebody at Gabanintha. Modelling and further estimations of distribution, grades and volumes of Cobalt are in progress. • Composite intervals are shown in Table 1 and Appendix 1.
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.	• Surface Geological (simple regolith, lithological and structural) mapping of the Gabanintha Vanadium prospect where possible has been completed by AVL geologists. • Routine multi-element analysis of potential deleterious or contaminating substances such as Arsenic, Lead, Phosphorus and Sulphur is completed for all samples.
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).	• Compile database and recalculate the resource model for cobalt. • Undertake further metallurgical test work to incorporate cobalt into the feasibility study • Additional drilling will be conducted as required by feasibility study investigations

Appendix 3 - Gabanintha Project – Mineral Resource estimate using a 0.3% V_2O_5 cutoff for low grade and 0.7% V_2O_5 cutoff for high grade (total numbers may not add up due to rounding)

Material	JORC Resource Class	Million Tonnes	In situ bulk density	V_2O_5 %	Fe%	TiO_2 %	SiO_2 %	Al_2O_3 %	LOI%
High grade	**Measured**	7.0	3.73	1.09	43	12	10	8	3.4
	Indicated	4.3	3.29	1.07	41	12	12	9	4.6
	Inferred	45.5	3.67	0.97	42	11	12	8	2.8
Subtotal		**56.8**	**3.65**	**1.00**	**42**	**11**	**12**	**8**	**3.0**
Low grade	**Indicated**	13.4	2.39	0.55	24	7	27	19	8.7
	Inferred	21.1	2.48	0.53	25	7	27	17	7.0
Subtotal		**34.6**	**2.45**	**0.53**	**25**	**7**	**27**	**18**	**7.6**
Subtotal	**Measured**	7.0	3.73	1.09	43	12	10	8	3.4
Subtotal	**Indicated**	17.8	2.61	0.68	28	8	23	16	7.7
Subtotal	**Inferred**	66.7	3.29	0.83	37	10	17	11	4.1
	TOTAL	**91.4**	**3.19**	**0.82**	**35**	**10**	**18**	**11**	**4.8**