ACCELERATE RESOURCES Ltd AX8

ASX Announcement

25th of Oct 2021

ASX: AX8

Accelerate Resources Exercises Option over High-Grade Manganese Project in East Pilbara

Highlights:

- **The Company has elected to exercise the Option to acquire the Manganese and iron ore rights to the Braeside West and Rippon Hills East Projects[1].**
- **The Projects comprise prospective manganese geology within the East Pilbara manganese province, ~70km to the north of the world class Woodie Woodie manganese mining operations.**
- **The Ripon Hills Project is located adjacent to the Ripon Hills Manganese Deposit.**
- **Historical drill results from Braeside West confirm near surface high-grade manganese mineralisation. Drill results include:**
  - **BX48 -11m @ 28.4% Mn from 1m**
  - **BX57 – 2m @ 41.8% Mn from surface**
  - **BX58 – 5m @ 37.3% Mn from surface**
  - **BX61 – 2m @ 39.3% Mn from surface**
  - **BX71 – 8m @ 37.4% Mn from surface**
  - **BX76 – 6m @ 39.9% Mn from surface**
- **Due diligence has confirmed historical drill hole locations and surface manganese mineralisation, including multiple historical rock chip samples with +50% Mn within the project area.**
- **Large zones of undrilled manganese outcropping at surface identified during initial reconnaissance mapping.**
- **Airborne high resolution photography and Lidar survey commencing in preparation for target generation and drilling.**

[1] ASX Announcement 27 July 2021: Accelerate actions manganese strategy and begins exploration of new East Pilbara Manganese Assets.

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Accelerate Resources Managing Director Yaxi Zhan commented:
"*We are excited by the opportunity to explore within a world class region for high-grade manganese, a critical mineral for battery and steel production with forecast demand shortfalls. The historical data review and the field trip demonstrate the potential for a large-scale high-grade manganese project. This timely, high value strategy is in a proven yet underexplored area with excellent infrastructure, and we believe there are significant opportunity for new discoveries.*

We look forward to reporting results from our ongoing field work."

Figure 1: Manganese outcropping on E51/5854 Braeside West

Accelerate Resources Limited (**ASX: AX8**, "**Accelerate**" or the **"Company"**) is pleased to announce following on from a recent field visit and historical data compilation, Accelerate has elected to exercise the Option with Pardoo Resources Pty Ltd (ACN 647 653 316) and Great Sandy Pty Ltd (ACN 139 440 403) to acquire the manganese and iron ore rights on Ripon Hills East and Braeside West Projects in the East Pilbara Manganese Field.

The Projects are situated 125km east of Marble Bar within 70km of the Woodie Woodie Manganese Mine and only 240km from the port of Port Hedland (Figure2). The historical data collation has identified multiple manganese targets throughout the tenements.

The site visit confirmed the extensive nature of the prospective Pinjian Chert - Carawine Dolomite interface on the tenements, with manganese mineralisation commonly exposed at

the surface at multiple locations (Figure 3).

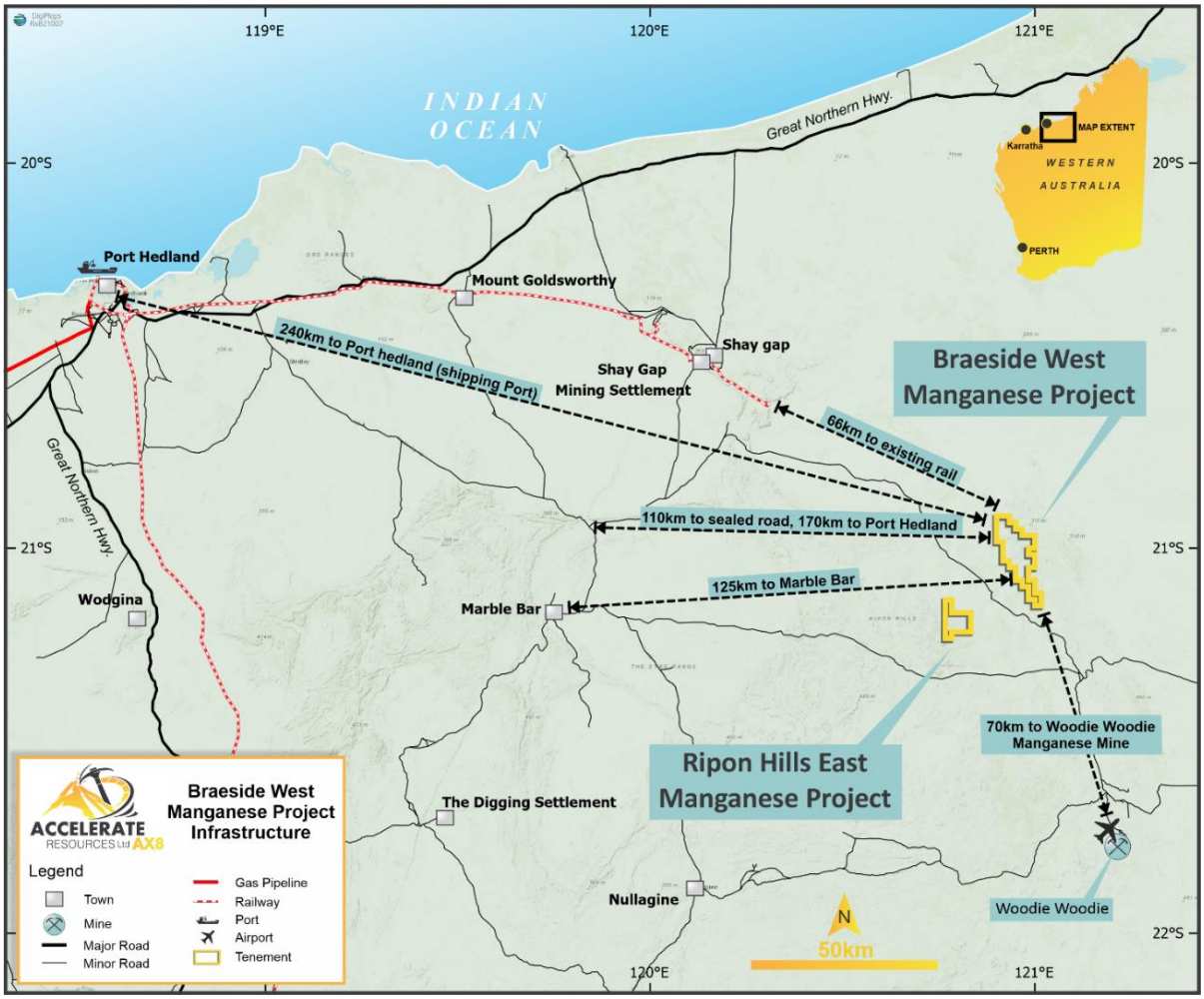

Figure 2: Braeside West and Ripon Hills East Manganese projects location

Braeside West Historical Data Review Results

The Braeside West Prospect (E45/5854) covers 139km^2 and offers the opportunity to identify manganese mineralisation of similar nature to the deposits of the nearby (~70km) Woodie Woodie Mine. (Figure 2).

The tenement area has undergone several exploration phases consisting of Geological mapping, rock chip sampling, VTEM geophysics and drilling. Jupiter Mines Limited (WAMEX: A090762_E45_2639_2011A_11693517) [2] was the last to work the area to complete a VTEM geophysical survey, collection of eight rock chip samples and geological mapping. The VTEM Survey partially covered the Application area with over 20 untested anomalies found to occur within the Project.

Pilbara Manganese Pty Ltd (WAMEX: A097228_C62_2005_2012A_16004449) also completed a Gravity geophysical survey and a limited five-hole RC drilling program in the

[2] WAMEX – Western Australia Mineral Exploration – Department of Mines, Industry Regulation and Safety

application area. Consolidated Minerals Limited (WAMEX: A057720) was also active in the area drilling eight aircore holes.

Drill Hole Results

Extensive searches of the WAMEX database and data digitised from historical tenement reports indicate that there is both shallow and deep potential across the project area.

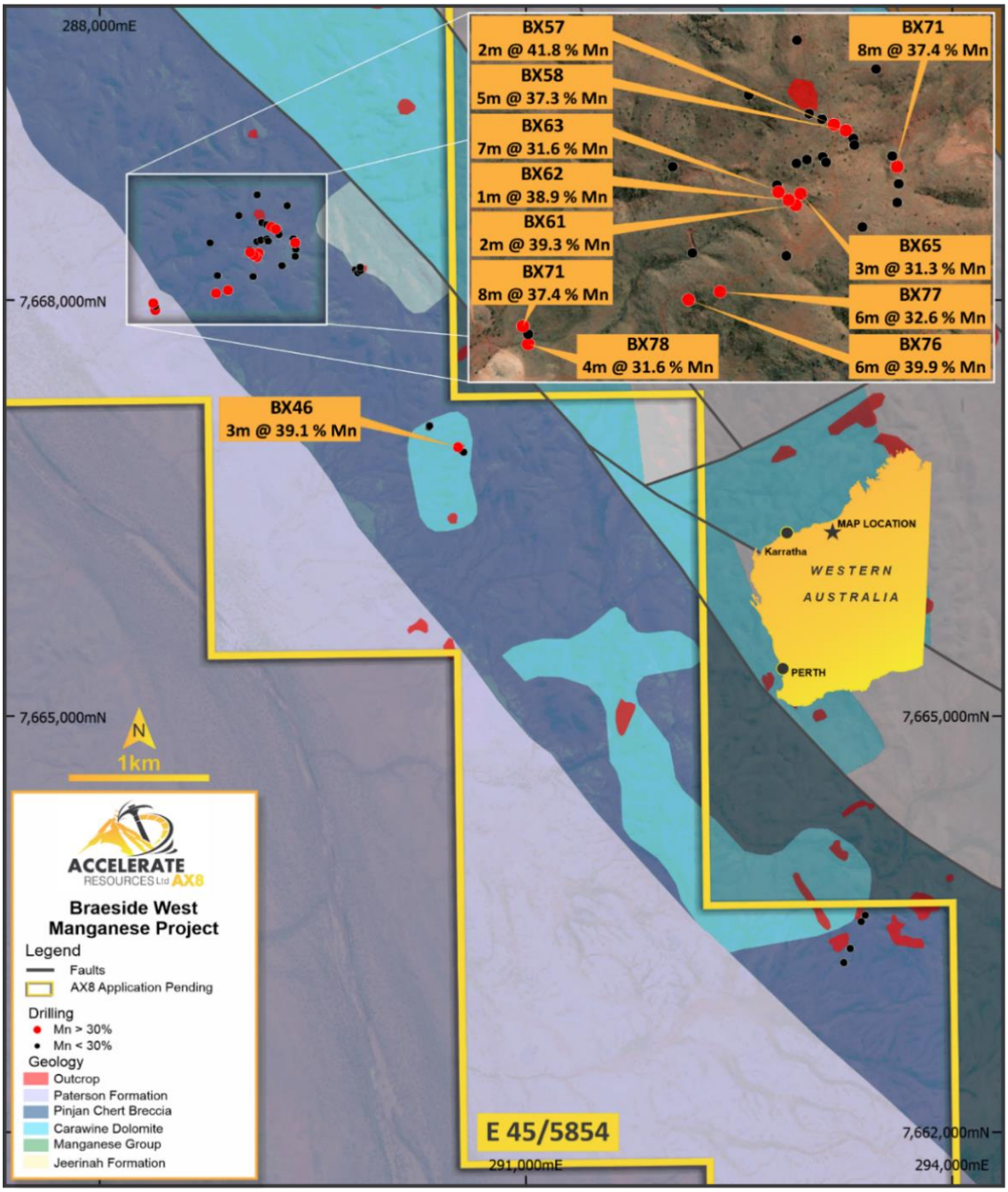

Figure 3: Historic drill results

Drilling

Valiant and Pilbara completed successive drill programs, and the best results include:

Table 1: Best drill results on E45/5854

Report Number	Hole ID	From	To	Intersection	Mn%	Fe%	SiO2%
A108909	BSRC005	40	44	4	17.1	4.2	59.7
A57720	BX46	0	3	3	39.1	1.4	31.9
A57720	BX47	0	5	5	26.1	1.6	55.6
A57720	BX48	1	12	11	28.4	1.9	50.5
A57720	BX49	0	3	3	18.2	2.5	68.5
A57720	BX51	0	4	4	27.1	20.8	20.8
A57720	BX52	0	2	2	20.3	26.2	8.2
A57720	BX53	0	2	2	21.1	26.1	16.7
A57720	BX54	3	11	8	20.1	23.2	15.8
A57720	BX57	0	2	2	41.8	15.3	5.2
A57720	BX58	0	5	5	37.3	17.8	9.9
A57720	BX59	0	3	3	25.1	22.9	20.9
A57720	BX60	1	2	1	20.6	27.1	21.8
A57720	BX61	0	2	2	39.3	4.8	18.8
A57720	BX62	12	13	1	38.9	6.7	13.1
A57720	BX63	0	7	7	31.6	8.9	27.5
A57720	BX65	0	3	3	31.3	9.5	21.6
A57720	BX70	0	2	2	24.7	12.2	41.0
A57720	BX71	0	8	8	37.4	12.6	16.8
A57720	BX75	0	3	3	21.7	13.4	41.7
A57720	BX76	0	6	6	39.9	16.8	8.3
A57720	BX77	0	6	6	32.4	28.1	6.6
A57720	BX78	0	4	4	31.6	28.3	6.3
A57720	BX79	0	3	3	34.9	15.4	19.6

Rock Chip Data

Excellent quality mapping has been recovered from the WAMEX reports and is in the process of being digitized. This mapping includes structural mapping and outcrop mapping with manganese observations. Valiant Consolidated Limited mapped the structures and documented a detailed Mn outcrop and occurrence map. Not all locations identified have been sampled and will be covered in the next phase of work. The previous explorers took excellent descriptive geological notes, and this data will be valuable for future interpretation.

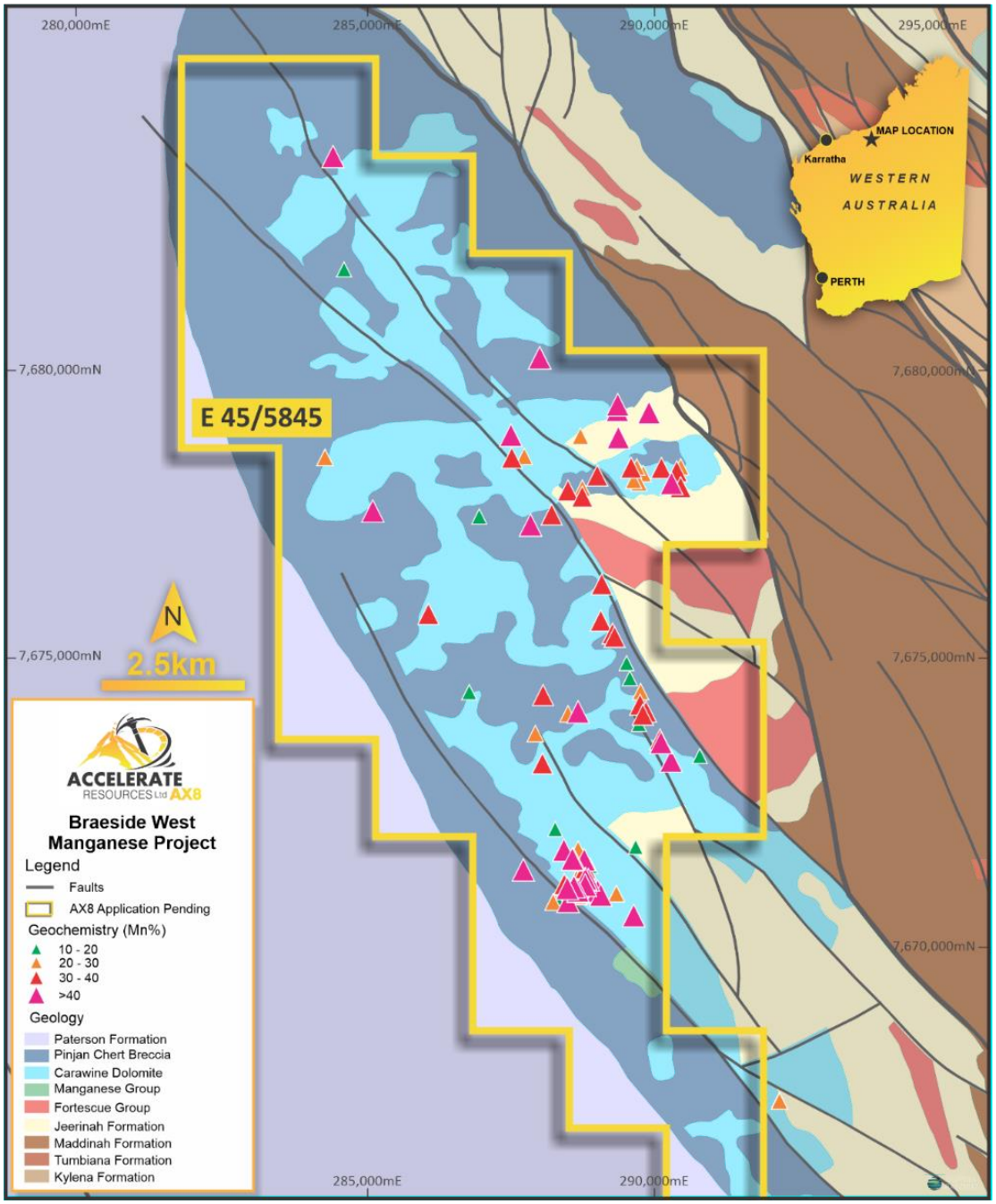

Figure 4: Rock Chip results from WAMEX A50605 recorded in WGS84 and converted to GDA94

Table 2 Historic Rock chip sampling >30% Mn

Sample ID	Northing	Easting	Mn%	Fe%	SiO2%
M012731	7668477	288830	55.4	3.18	0.62
M012730	7668381	288921	54.8	0.49	7.51
OKCE090001	7669112	288818	54.6	1.75	7.04
B311	7679475	289632	53.4	2.95	4.42
BSRK07	7668140	288709	53.3	3.93	1.88
B301	7678844	289661	50.64	0.96	9.85

M012732	7668441	288687	50.1	1.15	13.9
MO12821	7671825	290676	50.1	8.68	3.9
B292	7677806	290828	49.69	6.65	4.04
BSRK05	7669109	288814	47.3	1.9	17.7
J576403	7679602	289639	47.13	5.64	
B275	7678869	287331	47.09	4.1	7.87
M012725	7668642	289143	46.8	6.49	8.24
B318	7680660	287932	45.61	7.13	12.2
B318	7680660	287932	44.12	10.5	7.43
PM102305	7669116	288789	43.7	2.67	17
B302	7679428	290319	43.17	15.6	5.48
B292	7677806	290828	42.98	11.8	6.75
M012727	7668520	289073	42.4	7.11	14
BSRK01	7669100	289046	42.2	12.1	4.77
M012726	7668668	289078	41.2	16.2	2.46
M012738	7669004	289083	39.8	1.94	27.3
OKCE10096	7673647	289907	39.7	13.75	8.52
OKCE10098	7669412	290157	39.6	18.6	1.74
B279	7678020	290212	39.37	2.49	28.6
M012721	7668276	289033	39.2	7.12	21.8
BSRK09	7668126	288499	38.8	5.88	22.6
OKCE10094	7672512	290376	38.4	17.2	5.48
MO12820	7671526	291521	38.2	12.2	2.22
MO12826	7674243	289635	38.1	16.3	5.61
M012737	7668948	289060	38	6.7	22.2
BSRK04	7669803	288407	37.7	7.11	18.6
B364	7673300	289981	37.42	0.9	58.9
OKCE10101	7663625	293346	36.8	13.6	15.2
M012729	7668596	289019	36.4	2.2	32.4
M012724	7668588	289165	35.8	14.6	16.5
M012739	7668963	289177	34.4	3.87	33.8
B311	7679475	289632	33.44	23	6.66
OKCE090004	7669118	288811	30.7	3.22	40.6
PM102304	7672935	286504	30.5	8.33	32

The mineralisation model shown in Figure 5 aligns with mapped observations of Mn replacement in the Pinjian Chert, which overlies the majority of the area. Valleys expose the Carawine Dolomite sequence. Most importantly, the structures evident in the satellite photography (NS and NE-SW lineaments) and the Valliant Consolidated mapping could provide the structural setting for the Woodie Woodie style Mn mineralisation. Surface manganese mineralisation may be limited in-depth but have lateral extend,and could be targeted in its own right for high-grade manganese. The historical drilling intercepts of thicknesses support this up to 11m of Mn (BX48 -11m @28.4% Mn from 1m)

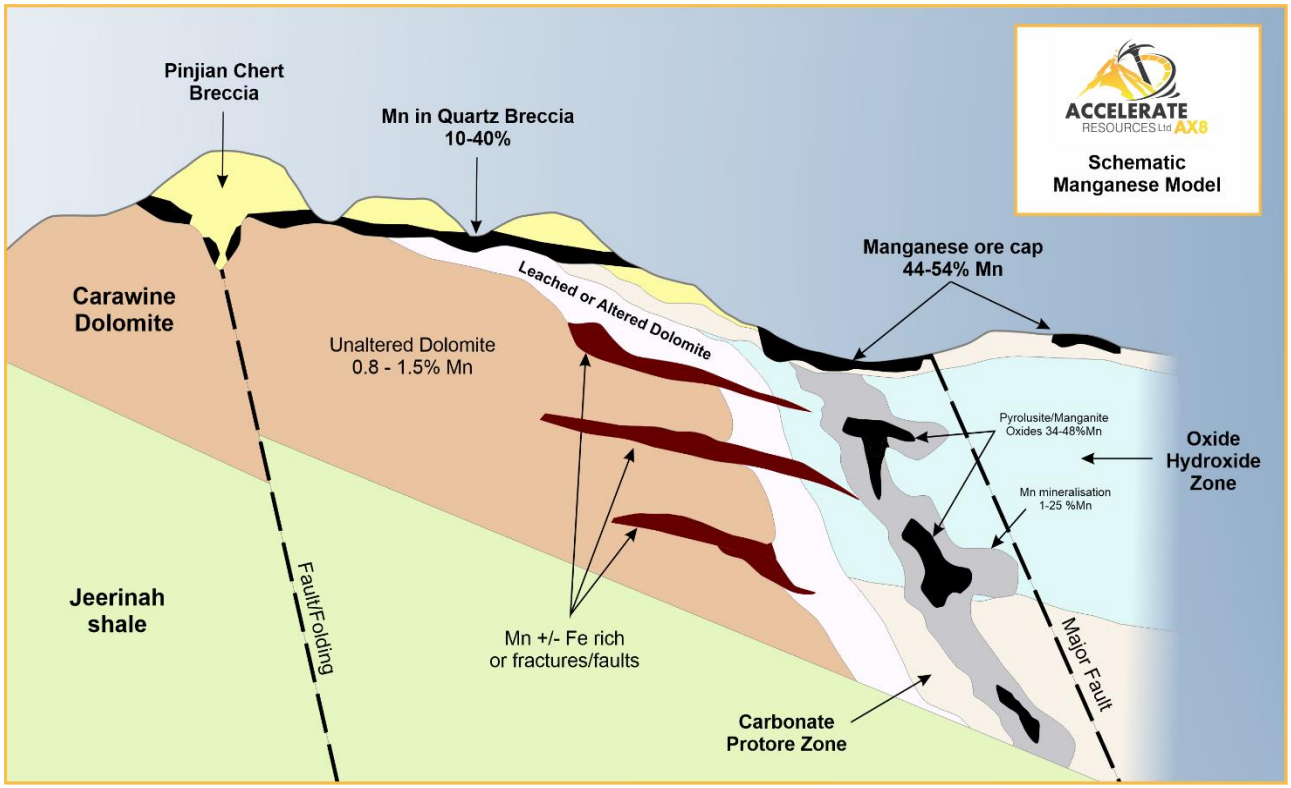

Figure 5: Manganese mineralisation model schematic

Ripon Hills East Prospect

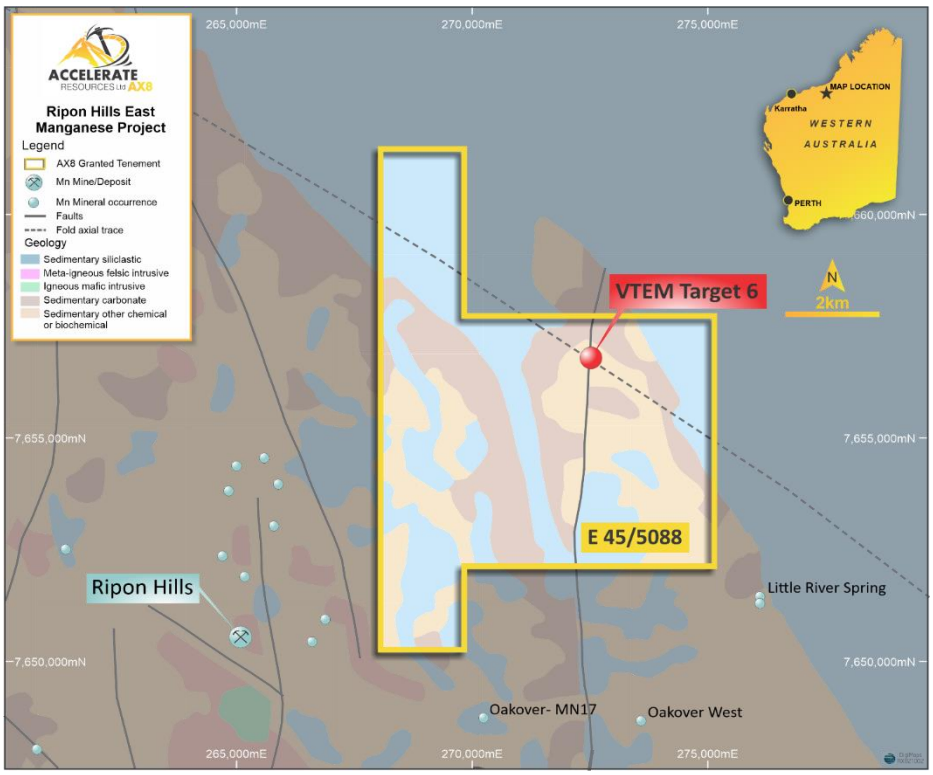

Figure 6: Ripon Hills manganese project location

Ripon Hills East Prospect (E45/5088) is situated 70 km northwest of the world class Woodie Woodie Manganese deposit (Consolidated Minerals') and immediately east of the Ripon Hills manganese deposit. The Project covers 48km^{2,} and records indicate very little historic exploration within the license area, despite the presence of favourable "Woodie Woodie" N-S structures and mappable surface manganese mineralisation.

Manganese Strategy

Accelerate has identified future supply disruption and metal shortfalls in the Mn market and has executed a high-grade manganese exploration strategy to supply the battery and steel production markets.

Manganese is a critical element used in steel production. The steel industry is poised to continue growing, providing a steady source of demand for manganese. New demand is arising from clean-energy applications. High purity manganese (HPM) is used as a cheaper substitute for cobalt in nickel-cobalt-manganese (NCM) battery cathodes.

Manganese is increasingly a critical link in the lithium-ion battery supply chain and has been added to the strategic minerals stockpile. There is a high probability of supply disruption from South African production and the winding down of dominant Northern Territory Groote Eyland Manganese Operations.

High-grade deposits capable of producing lump or fines product with grades in excess of 40% manganese are critical in steel and battery market supply chains.

Option Exercise

As announced on the 27th of July 2021[3], the Company can elect to exercise Option at any time during the 90 business days (**Option Period**) by:

- Pay $30,000 (plus GST) in immediately available funds to the Vendors; and
- Issue a total of 8,000,000 fully paid ordinary shares in AX8 to the Venders (or their nominees) subject to Tenements being granted and AX8 shareholder approval.

The Company has notified the Vendors of its intention to exercise the Option as of this Announcement date.

Next Steps

- Airborne high resolution photography and Lidar survey commencing to support target generation.

[3] ASX Announcement 27 July 2021: Accelerate actions manganese strategy and begins exploration of new East Pilbara Manganese Assets.

- Continued data capture of historical drilling, mapping and geochemistry merged with new high quality airborne imagery and digital terrain models to generate accurate new targets for sampling and drilling.
- Priority target generation for immediate follow-up and drill planning.
- Further preliminary fieldwork and earthworks planning in line with target generation outlined above.
- Planning of preliminary metallurgical test work on high-grade surface manganese samples

—ENDS—

Approved by the board of Accelerate Resources Limited.

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Forward Looking Statements
Statements contained in this release, particularly those regarding possible or assumed future performance, costs, dividends, production levels or rates, prices, resources, reserves or potential growth of Accelerate Resources Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factor.

Competent Persons Statement
The information in this announcement that relates to Exploration Results is based on information compiled by Mr Ashley Jones, Consultant with Kamili Geology Pty Ltd. Mr Jones is a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Jones is a consultant to Accelerate Resources Limited ("the Company"). Mr Jones has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Ashley Jones consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

APPENDIX 1

Drill Hole Results (10% Mn cutoff – 1m dilution)

Report	Hole ID	To	From	Intersection	Mn%	Fe%	SiO2%
A108909	BSRC001	128	130	2	11.3	3.5	71.3
A108909	BSRC002	2	8	6	16.9	8.7	54.3
A108909	BSRC003	30	32	2	15.3	2.8	67.8
A108909	BSRC004			0			
A108909	BSRC005	40	44	4	17.1	4.2	59.7
A57720	BX26	2	5	3	10.4	23.1	49.1
A57720	BX27			0	not sampled		
A57720	BX28			0	not sampled		
A57720	BX29			0	not sampled		
A57720	BX46	0	3	3	39.1	1.4	31.9
A57720	BX47	0	5	5	26.1	1.6	55.6
A57720	BX48	1	12	11	28.4	1.9	50.5
A57720	BX49	0	3	3	18.2	2.5	68.5
A57720	BX50	3	4	1	13.2	2.4	59.4
A57720	BX51	0	4	4	27.1	20.8	20.8
A57720	BX52	0	2	2	20.3	26.2	8.2
A57720	BX53	0	2	2	21.1	26.1	16.7
A57720	BX54	3	11	8	20.1	23.2	15.8
A57720	BX55			0	not sampled		
A57720	BX56			0	not sampled		
A57720	BX57	0	2	2	41.8	15.3	5.2
A57720	BX58	0	5	5	37.3	17.8	9.9
A57720	BX59	0	3	3	25.1	22.9	20.9
A57720	BX60	1	2	1	20.6	27.1	21.8
A57720	BX61	0	2	2	39.3	4.8	18.8
A57720	BX62	9	10	1	17.4	11.8	42.5
A57720	BX62	12	13	1	38.9	6.7	13.1
A57720	BX63	0	7	7	31.6	8.9	27.5
A57720	BX64			0	not sampled		
A57720	BX65	0	3	3	31.3	9.5	21.6
A57720	BX66			0	not sampled		
A57720	BX67			0	not sampled		
A57720	BX68			0	not sampled		
A57720	BX69			0	not sampled		
A57720	BX70	0	2	2	24.7	12.2	41.0
A57720	BX71	0	8	8	37.4	12.6	16.8
A57720	BX72			0	not sampled		
A57720	BX73			0	not sampled		
A57720	BX74	17	21	4	13.0	12.5	48.9
A57720	BX75	0	3	3	21.7	13.4	41.7
A57720	BX76	0	6	6	39.9	16.8	8.3
A57720	BX77	0	6	6	32.4	28.1	6.6
A57720	BX78	0	4	4	31.6	28.3	6.3
A57720	BX79	0	3	3	34.9	15.4	19.6
A50829	BX80				not sampled		

Drill Hole collars

Hole ID	Easting MGA94	Northing MGA94	RL	Dip	Azimuth
BSRC001	289108	7668760	255	-60	270
BSRC002	288979	7668610	255	-60	270
BSRC003	289319	7668681	235	-60	270
BSRC004	288776	7668414	234	-60	270
BSRC005	288829	7668178	230	-60	270
BX26	293387	7663565	300	-90	0
BX27	293359	7663519	300	-90	0
BX28	293282	7663325	300	-90	0
BX29	293236	7663223	300	-90	0
BX46	290521	7666940	300	-90	0
BX47	290538	7666921	300	-90	0
BX48	290561	7666904	300	-90	0
BX49	290317	7667085	300	-90	0
BX50	290321	7667094	300	-90	0
BX51	289799	7668219	300	-90	0
BX52	289815	7668198	300	-90	0
BX53	289833	7668212	300	-90	0
BX54	289833	7668237	300	-90	0
BX55	289140	7668559	300	-90	0
BX56	289174	7668544	300	-90	0
BX57	289206	7668529	300	-90	0
BX58	289238	7668513	300	-90	0
BX59	289258	7668491	300	-90	0
BX60	289261	7668473	300	-90	0
BX61	289104	7668309	300	-90	0
BX62	289085	7668323	300	-90	0
BX63	289058	7668345	300	-90	0
BX64	289054	7668364	300	-90	0
BX65	289117	7668340	300	-90	0
BX66	289106	7668423	300	-90	0
BX67	289134	7668433	300	-90	0
BX68	289176	7668441	300	-90	0
BX69	289185	7668426	300	-90	0
BX70	289362	7668443	300	-90	0
BX71	289375	7668414	300	-90	0
BX72	289379	7668367	300	-90	0
BX73	289375	7668316	300	-90	0
BX74	289282	7668249	300	-90	0
BX75	289079	7668170	300	-90	0

BX76	288818	7668050	300	-90	0
BX77	288902	7668072	300	-90	0
BX78	288390	7667929	300	-90	0
BX79	288376	7667978	300	-90	0
BX80	288390	7667956	300	-90	0

Surface Geochem Results

Sample ID	Northing	Easting	Mn_%	Fe_%	SiO2_%
M012731	7668477	288830	55.4	3.18	0.62
M012730	7668381	288921	54.8	0.49	7.51
OKCE090001	7669112	288818	54.6	1.75	7.04
B311	7679475	289632	53.4	2.95	4.42
BSRK07	7668140	288709	53.3	3.93	1.88
B301	7678844	289661	50.64	0.96	9.85
M012732	7668441	288687	50.1	1.15	13.9
MO12821	7671825	290676	50.1	8.68	3.9
B292	7677806	290828	49.69	6.65	4.04
BSRK05	7669109	288814	47.3	1.9	17.7
J576403	7679602	289639	47.13	5.64	
B275	7678869	287331	47.09	4.1	7.87
M012725	7668642	289143	46.8	6.49	8.24
B318	7680660	287932	45.61	7.13	12.2
B318	7680660	287932	44.12	10.5	7.43
PM102305	7669116	288789	43.7	2.67	17
B302	7679428	290319	43.17	15.6	5.48
B292	7677806	290828	42.98	11.8	6.75
M012727	7668520	289073	42.4	7.11	14
BSRK01	7669100	289046	42.2	12.1	4.77
M012726	7668668	289078	41.2	16.2	2.46
M012738	7669004	289083	39.8	1.94	27.3
OKCE10096	7673647	289907	39.7	13.75	8.52
OKCE10098	7669412	290157	39.6	18.6	1.74
B279	7678020	290212	39.37	2.49	28.6
M012721	7668276	289033	39.2	7.12	21.8
BSRK09	7668126	288499	38.8	5.88	22.6
OKCE10094	7672512	290376	38.4	17.2	5.48
MO12820	7671526	291521	38.2	12.2	2.22
MO12826	7674243	289635	38.1	16.3	5.61
M012737	7668948	289060	38	6.7	22.2
BSRK04	7669803	288407	37.7	7.11	18.6
B364	7673300	289981	37.42	0.9	58.9
OKCE10101	7663625	293346	36.8	13.6	15.2
M012729	7668596	289019	36.4	2.2	32.4
M012724	7668588	289165	35.8	14.6	16.5
M012739	7668963	289177	34.4	3.87	33.8
B311	7679475	289632	33.44	23	6.66
OKCE090004	7669118	288811	30.7	3.22	40.6
PM102304	7672935	286504	30.5	8.33	32
B279	7678020	290212	29.71	1.39	50.4
MO12812	7663595	293349	29	17.6	20.6
J576404	7678018	290951	28.71	26.99	
M012722	7668258	288939	28.2	2.53	47.5
M012735	7668679	288883	28	13.4	31.3
MWRK086	7677996	290909	27.7	9.43	36.9
BSRK08	7668122	288385	27.6	18.6	21.2
B278	7678052	290139	27.3	1.79	56.4

M012723	7668303	288968	26.7	4.73	43.1
MO12832	7678170	290069	26.6	2.53	52.5
MO12823	7672994	290219	26.1	28.6	7.43
B278	7678052	290139	25.93	26	14.4
BSRK06	7668330	289752	25.9	33.2	4.46
OKCE090002	7669132	288811	25.8	2.21	51
B297	7678306	283305	25.51	16.5	27.1
MWRK085	7679536	289638	25	24.7	15.1
BSRK03	7669342	288910	23	4.42	49
J576405	7678186	291023	22.85	29.66	
B297	7678306	283305	22.78	14.6	59.9
J576402	7668528	289060	20.93	16.45	
M012734	7668464	288620	20.4	37	10.7
B280	7677809	290121	20.22	8.78	50.1
B281	7677862	290006	20.22	8.78	50.1
B293	7677720	291027	19.93		5.7
J576293	7678155	289948	19.28	3.27	
M012736	7668906	289073	17.9	19.3	39.9
OKCE10091	7674623	289334	17.4	17.55	40.1
OKCE10092	7674325	289594	17.4	21.7	33.8
MO12825	7672534	290343	16.9	38.9	10.1
B291	7678085	290939	15.4	12.3	42.8
H001	7671311	288111	15.1	36.3	12.6
M012733	7668533	288622	15	38.4	18.7
MWRK087	7677964	289217	14.9	18.5	38
OKCE10093	7674250	289639	14.5	36.6	13.95
MO12822	7671900	290655	13.8	39.7	13.2
MO12824	7672694	290211	12.9	33.6	20.3
J576401	7668423	288792	12.28	28.37	
MO12827	7675461	289346	12.1	44.3	5.94
B288	7678158	290605	11.16	9.19	65.8
MO12830	7677475	288896	10.9	37.7	17.2
OKCE10095	7672466	290274	10.65	43	9.61

APPENDIX 2

JORC Code, 2012 Edition, Table 1 Exploration Results

Section 1 – Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling Techniques	*Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	Historic data, complied by AX8, have been accessed from the WA Mineral Exploration database (WAMEX). The WAMEX reports and raw data retrieved has been entered into a drilling and geochemical database. Historic data from Pilbara Manganese Pty Ltd and Valiant Consolidated Ltd contains Reverse Circulation (RC) and Rotary Air Blast (RAB) holes, respectively. Surface Geochem was completed by Pilbara Manganese Pty Ltd, Valiant Consolidated Ltd, Jupiter Mines Ltd, Fortescue Metals Group and CRA Exploration Pty Limited. Five holes were drilled by Pilbara Manganese Pty Ltd for 579 meters of RC core which were submitted for X-ray Fluorescence (XRF) assay. 39 holes were drilled by Valiant Consolidated Ltd totaling 521 meters of RAB core.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	There was no reference to the size of the holes, however this is not considered material to the outcome of the results reported. There is no record found to date of whether percussion samples were split, and if so, how they were split to form a small sub-sample of the drill cuttings. Presumably there must have been splitting performed on the rig or at the laboratory as the sample intervals are 1m intervals (1 metre), implying the full drill sample return would have been too large for processing at a laboratory.
	Aspects of the determination of mineralisation that are Material to the Public Report.	No historical records of QAQC measures for samples have been found to date
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.).*	The Pilbara Manganese Pty Ltd RC holes were drilled by Ausdrill Northwest Pty in November 2015. Valiant Consolidated Ltd contracted Murchison Exploration to drill 80 vertical RAB holes with a track mounted blasthole rig (Gardner-Denver) in March 1996.
Drill Sample Recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	No record has been found in the historical reports for assessment of core and chip sample recoveries, hence no assessment of recovery results.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No record has been found in the historical reports on measures to maximise sample recovery and ensure representivity 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.	No data or reporting from the historical work has been found to evaluate any relationship between sample recovery and grade, or whether sample bias may have occurred due to fraction size.

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.*	Extensive Geological logging has been found for the Pilbara Manganese Pty Ltd RC holes. Some logging has been located for Valiant Consolidated Ltd's RAB holes.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Geological logging was qualitative logging
	The total length and percentage of the relevant intersections logged.	
Sub-Sampling Techniques and Sample Preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	Unless stated otherwise it can be assumed that industry standard methods appropriate to the period were used. This involves collecting one-meter bulk sample bags via a cyclone for RC holes and vertical drilled holes via a track mounted blasthole rig for RAB
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	No sample splitting or moisture content information has been found in historical records for the percussion drilling.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	No information about the nature, quality, and appropriateness of the sample preparation technique for the historical drilling has been found in the reports.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	No information about quality control procedures for all sub-sampling stages for the historical drilling has been found in the reports.
	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.	No information about quality control procedures to ensure sample representivity for the historical drilling has been found in the reports.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	No information about sample sizes being appropriate to rock granularity to ensure sample representivity for the historical drilling has been found in the reports.
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.	No other tools or analysis were used for the drill dataset
	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.	No data for standards, blanks or duplicates have been found in the historical reports and it is uncertain whether any QAQC measures were taken.
Verification of	*The verification of significant intersections by either*	No record has been found in the historical reports of verification of significant intersections.

Criteria	JORC Code Explanation	Commentary
Sampling and Assaying	*independent or alternative company personnel.*	
	The use of twinned holes.	No
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Collars, assays and geology logs for Valiant's RAB holes have been retrieved straight from their typed drill log appendix. All other data was retrieved from their respective WAMEX data logs.
	Discuss any adjustment to assay data.	No historic assay data has been adjusted for drill logs. Various Geochem assays have been converted from ppm to percent and vice versa, and some were recorded as oxides, where appropriate conversions were completed.
Location of Data Points	*Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	The accuracy and quality of location drill hole data sourced from Pilbara Manganese Pty Ltd is assumed to be sufficient. The collars line up with pads seen on ESRI satellites and field validation of the drill holes has been undertaken by AX8 representatives. Inaccuracy with Valiant's collars was apparent with multiple downloads from different drill location files plotting in slightly different locations suggesting there was a grid transformation error in the WAMEX data. Georeferencing and using original grid coordinates were used to resolve the error, and some evidence of drilling and the geological expression of manganese outcrop that was the target of the drilling has given further confidence that the locations are correct given the location accuracy at the time of drilling The accuracy and quality of location data associated with the Geochem logs can be assumed to be sufficient due to the form and context the data was reported.
	Specification of the grid system used.	Grid projection used for the project area is MGA_GDA94, Zone 51. All collars and maps included in this report are referenced to this grid. Much of the original data was reported in WGS 84, and has been converted to MGA_GDA94, Zone 51. There were some inaccuracies with WAMEX digital data that appeared not in correct grids. Collar Data was checked against WAMEX pdf reports.
	Quality and adequacy of topographic control.	No work has been completed on topographic control.
Data Spacing and Distribution	*Data spacing for reporting of Exploration Results.*	Data spacing appears defined by observation. Outcrops were drilled and suitable for exploration of this type of mineralisation.
	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.	No Mineral Resource or Ore Reserve estimations have been applied.
	Whether sample compositing has been applied.	No Mineral Resource or Ore Reserve estimations have been applied.
	Whether the orientation of sampling achieves unbiased	Vertical holes were testing supergene enrichment of Manganese. It is considered

Criteria	JORC Code Explanation	Commentary
	sampling of possible structures and the extent to which this is known, considering the deposit type.	appropriate.
	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.	Historical drilling is oriented to intersect the geological units about perpendicular to the strike and dip of the geological units. It is not expected that this orientation would have produced biased results.
Sample Security	*The measures taken to ensure sample security.*	Sample security measures for the historic data are unknown.
Audits or Reviews	*The results of any audits or reviews of sampling techniques and data.*	No reviews or audits of sampling techniques are known of, and therefore no issues known.

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.*	Exploration is located within Leases E45/5854 and E45/5088. The tenements are pending grant and a heritage access agreement is being undertaken.
	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 tenement is in good standing.
Exploration Done by Other Parties	*Acknowledgment and appraisal of exploration by other parties.*	Activity with E45/5088 started with The Broken Hill Proprietary Co. Ltd drilling RC holes in 1979. A8782. No assay results have been found for these holes. CRA Exploration completed a stream sediment project in 1984. A15932 Activity within E45/5854 started with Valiant completing 380 anomaly logs with occasional rock chip sampling within their exploration Lease E45/1337, which they held between 1996 & 1997. In March 1996, Valiant drilled 80 RAB holes totalling 867 metres with 186 assay samples at various intervals. A50605 & A57720 Pilbara Manganese drilled 5 RC holes in 2015 totalling 579 metres. A108909 Geochemical exploration was conducted by Pilbara Manganese, Jupiter Mines and Fortescue Metals Group at various dates between 2009 and 2015

Criteria	JORC Code Explanation	Commentary
Geology	*Deposit type, geological setting and style of mineralisation.*	Geology and mineralisation has been described in the body of the release.
Drillhole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* *easting and northing of the drillhole collar* *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar* *dip and azimuth of the hole* *down hole length and interception depth hole length.*	A collar plan and tabulated collar locations and orientations is provided in this report, as Figure 3 and in Appendix 1. Significant assay intercepts have been reported at above 10% Mn.
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.*	Only length (1m) intervals are included in this text. Manganese intervals have been reported at 10% Mn cut off allowing 1m of dilution. Sampling was not extensive in the Valiant Consolidated drill holes and intervals logged as Mn were not sampled, hence the cut off is reliant on the geological interpretation of the sampler.
	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.	
Relationship Between Mineralisation Widths and Intercept Lengths	*If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.*	
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 drillhole collar locations and appropriate sectional views.*	Maps have been included in the body of this release.
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 assays are reported in the appendix, sampling was selective by observation in the Valiant Consolidated drilling.
Other Substantive Exploration Data	*Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations;*	Historical exploration only is available in WAMEX reports:

Criteria	JORC Code Explanation	Commentary
	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.	A8782 Temporary Reserve 7139H, Bunmardie Creek WA. The Broken Hill Proprietary Company Limited. October 1979. A15932 Final Report on Exploration Completed Within Licences 45/63, 45/64, 45/65. CRA Exploration Pty Limited. March 1985 A50605 Year 4 Partial Surrender E45/1337 Gingarrigan Well. Valiant Consolidated Limited. February 1997 A57720 Annual and Final Report E45/1337 Gingarrigan Well. Consolidated Minerals Limited. March 1999 A64433 Annual Report 2001 for C26/2000. Consolidated Minerals Limited. March 2002 A87453 Annual Report Oakover Mn Project 2009-2010. Jupiter Mines Limited. September 2010 A90762 Annual Report Oakover Mn Project 2010-2011. Jupiter Mines Limited. September 2011 A98580 Annual Report Oakover Mn Project 2012-2013. Jupiter Mines Limited. July 2013 A101644 Combined Annual Report for C62/2005 2013. Pilbara Manganese Pty Ltd. March 2013 A105240 Combined Annual Report for C62/2005 2014-2015. Pilbara Manganese Pty Ltd. March 2015 A108908 Surrender Report for E45/2369 2009-2016. Pilbara Manganese Pty Ltd. May 2015 A108909 Combined Surrender Report for C62/2005 2002-2016. Pilbara Manganese Pty Ltd. May 2016 A118288 Annual Report E45/4720 Oakover River 2017-2018. FMG Pilbara Pty Ltd. November 2018
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).*	Drilling and sampling are planned to confirm and add to the body of knowledge around the better intercepts
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	