

FIREBIRD BOLSTERS MANGANESE PORTFOLIO WITH HIGH GRADE WANDANYA PROJECT

Highlights

- Firebird strengthens its manganese project portfolio through the acquisition of the Wandanya Project (“Wandanya”), located 50km south-west of world class Woodie Woodie Manganese Operation
- Wandanya is an advanced exploration project and provides Firebird with a near-term, high grade, Direct Shipping Ore (DSO) opportunity
- A large amount of historical work completed across the Donkey, Crossroads and Wandanya Prospects, with a total of 113 holes for 1,975m. Drilling has delivered significant, near-surface drill intercepts, with key results outlined in the table below
- Significant rock chip results of up to 64.96% Mn at Wandanya and 55.2% at Crossroads yet to be drill tested
- Acquisition of Wandanya broadens the Company’s growth strategy and provides near-term DSO optionality while the flagship Oakover Project is progressed through the development stage
- Firebird to investigate a strategy at Wandanya that is focused on a crush, screen and shipping process for the DSO mineralisation
- Multiple significant shallow drill intercepts include:
 - 13m at 23.6% Mn from 1m – DKAT19, including 4m at 34.45% Mn from 6m
 - 9m at 25.2%Mn from 1m- DKRC041, including 3m at 39.9% Mn from 3m
 - 8m at 29.5% Mn from 10m- DKRC032
 - 8m at 24.0% Mn from 1m- DKRC1
 - 7m at 31.0% Mn from 11m- DKRC15
 - 6m at 29.8% Mn from surface- DKRC4
 - 5m at 40.8%Mn from surface, EOH in mineralisation- DKAT35
 - 5m at 35.0%Mn from surface- DKRC024
 - 6m at 30.8% Mn from surface- DKRC045, including 2m at 40.6% Mn from surface
 - 7m at 25.3% Mn from 2m, EOH in mineralisation- DKRC2
 - 6m at 28.8% Mn from surface- DKRC6
 - 4m at 36.2% Mn from 1m- DKRC7

Firebird Metals Limited (ASX: FRB, “Firebird” or “the Company”) is pleased to announce the acquisition of the Wandanya Manganese Project, which is located 50km to the south-west of the Woodie Woodie Manganese Operation in the Eastern Pilbara Region of Western Australia.

Wandanya is an advanced exploration project that provides Firebird with a near-term Direct Shipping Ore opportunity. A large amount of historical exploration work has been completed with 113 holes drilled for 1,975m. Drilling intersected near-surface, high-grade manganese, with mineralisation specifications in line with what is required for a DSO operation and Firebird is now focused on completing further drilling and development work to delineate a DSO Mineral Resource, which can be immediately supplied into a growing end user market for manganese.

Firebird will commence preparatory work for Wandanya in the new year ahead of targeting its maiden drill program mid-year.

The Company is successfully progressing its growth strategy which is focused on the rapid progression of the flagship Oakover Project towards production of manganese concentrate for the steelmaking industry and high-purity sulphate manganese, which is a critical product in the production of battery cathodes for the growing electric vehicle industry. The acquisition of Wandanya broadens this strategy and provides the Company with near-term potential DSO production and revenue upside, while Oakover continues to be progressed through the development cycle.

Commenting on the acquisition Managing Director, Mr Peter Allen said *“The acquisition of the Wandanya Project is an exciting development for the Company and our shareholders and importantly, further strengthens our manganese landholding in the Eastern Pilbara Region of Western Australia.*

“We are successfully progressing our flagship Oakover Project through the development cycle to produce both manganese concentrate and high-purity sulphate manganese and this remains our main priority. We continue to make very good progress with our recently completed infill drill program, necessary studies and work streams that support a mining lease application in the near term. However, the low-cost opportunity to acquire Wandanya was too good to pass on, as the Project diversifies our long-term growth strategy and provides the Company with an exciting near-term development and production opportunity.

“During the due diligence process what stood out to us was the high-grade nature of mineralisation, which is in line with specifications for direct shipping ore without the requirement of beneficiation. We still have work to do on this opportunity, however we believe there is a pathway for a simple, dig, crush and screen process pathway to extract the high-grade ore and supply this into a growing market through the Port of Port Headland/Dampier.

“We will look to hit the ground running at Wandanya and complete key pre-exploration workstreams ahead of commencing our maiden drill program which will be focused on proving up the DSO opportunity.

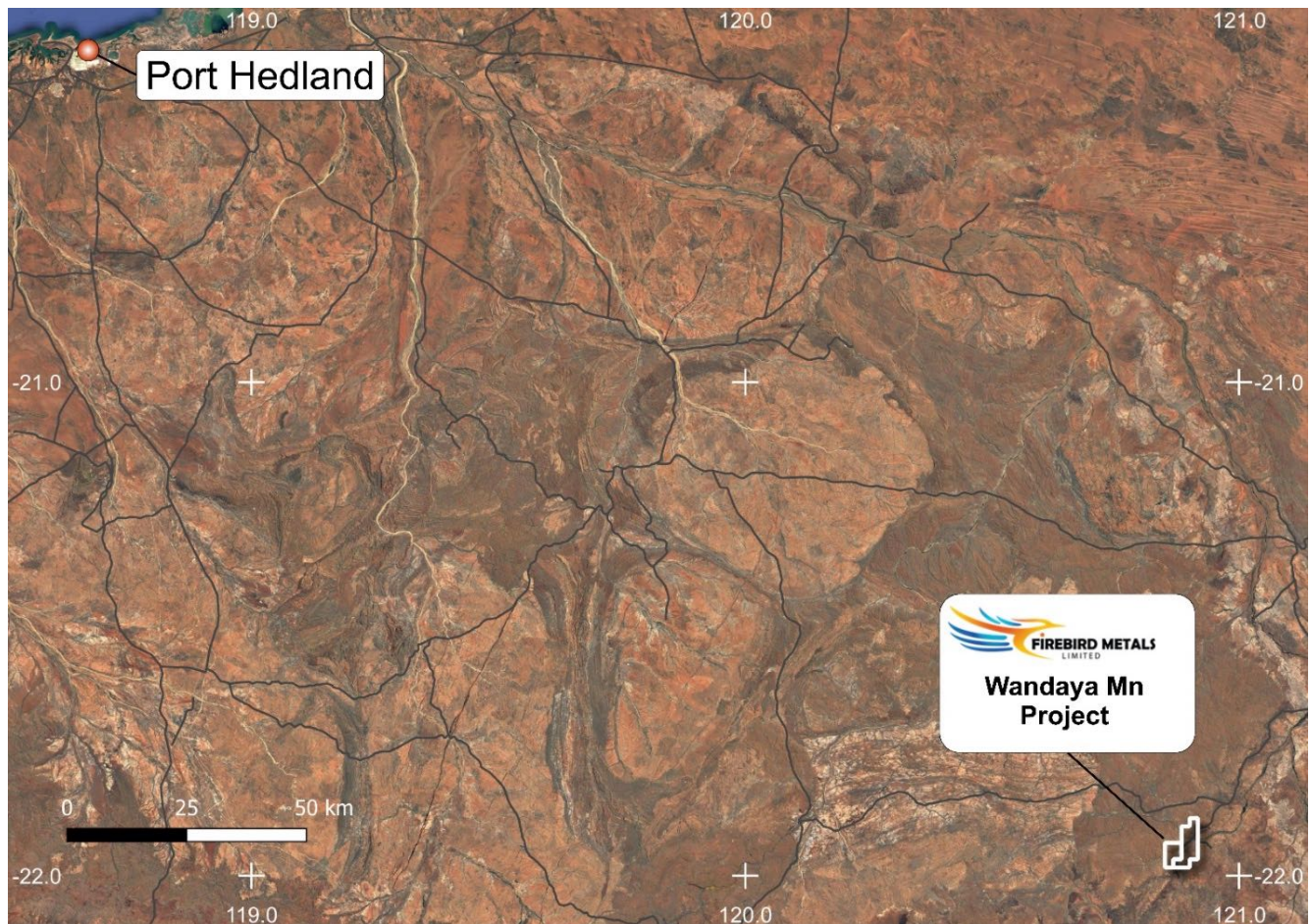


Figure 1: Regional location plan

Location, Access & Tenure

Wandanya is located 50km south-west of the Woodie Woodie manganese mine in the East Pilbara Region of Western Australia and approximately 300km southeast of Port Hedland. Access to the Project is via the all-weather Port Headland-Marble Bar-Ripon Hills-Nifty Road.

The Project consists of two exploration licence applications E46/1456 and E46/1457, which cover an area of 51Km².



Figure 2: Manganese outcrop at Wandanya

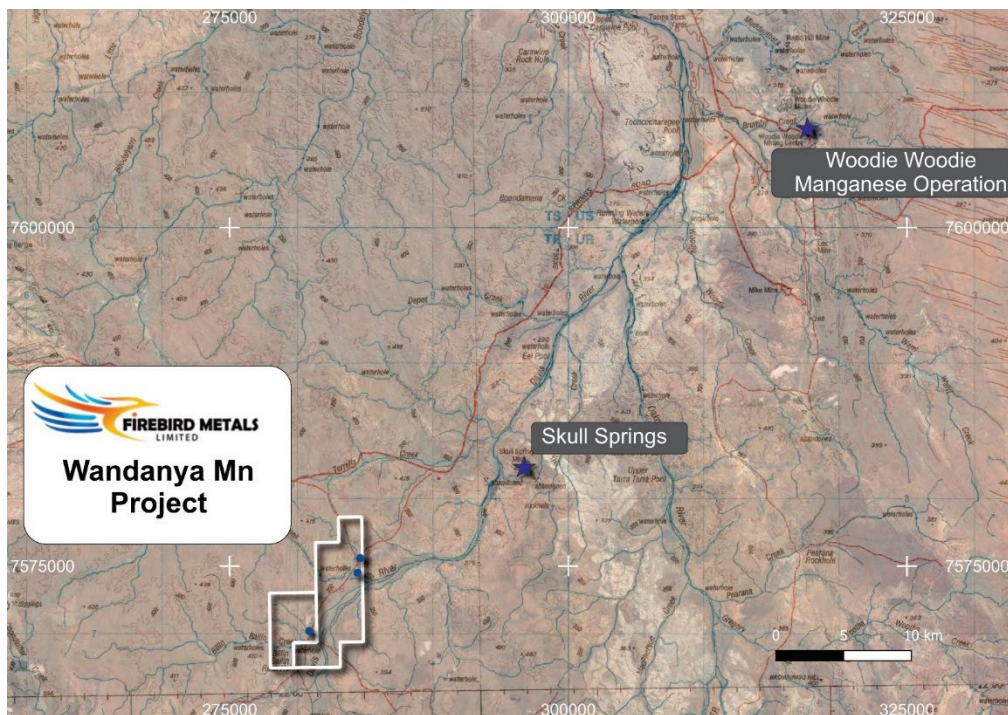


Figure 3: Wandanya Project Proximity to Woodie Woodie Manganese Operation

Donkey Prospect

The Donkey prospect is located near the junction of the Redmont Creek and Davis River.

Manganese mineralisation crops out in two discrete areas over a 500m long hill area adjacent to the river terrace of Redmont Creek.

Mineralisation appears to be hosted by chert breccia and occurs as a small-massive and ferruginous manganese area developed in the north and south of the prospect area. Maximum mineralised depth to bedrock was estimated at 13m.

Extensive drilling has been completed by Pilbara Manganese in 2014 over an area of approximately 390 by 320m. Within areas of high-grade surficial mineralisation, drilling was conducted on an approximate 10 by 10m spacing.

Multiple significant intercepts identified and key results including:

- **13m at 23.6% Mn from 1m – DKAT19**
 - Including 4m at 34.4% Mn from 6m
- **9m at 25.2%Mn from 1m- DKRC041**
 - Including 3m at 39.9% Mn from 3m
- **8m at 29.5% Mn from 10m- DKRC032**
- **8m at 24.0% Mn from 1m- DKRC1**
- **7m at 31.0% Mn from 11m- DKRC15**
- **7m at 20.9% Mn from 2m- DKRC9**
- **6m at 29.8% Mn from surface- DKRC4**
- **3m at 32.0% Mn from 2m EOH in mineralisation- DKAT13**
- **5m at 40.8%Mn from surface, EOH in mineralisation- DKAT35**
- **5m at 35.0%Mn from surface- DKRC024**
- **6m at 30.8% Mn from surface- DKRC045**
 - Including 2m at 40.6% Mn from surface
- **7m at 25.3% Mn from 2m, EOH in mineralisation- DKRC2**
- **7m at 23.5% Mn from surface- DKRC3**
- **6m at 28.8% Mn from surface- DKRC6**
- **4m at 36.2% Mn from 1m- DKRC7**



Figure 4: Donkey Prospect outcropping manganese mineralisation

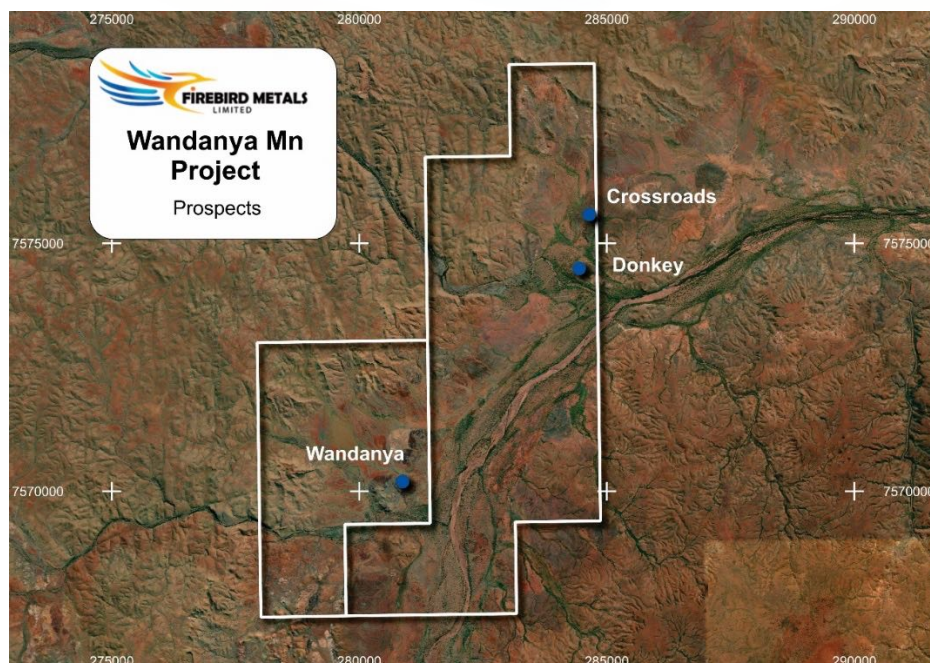


Figure 5: Prospects location plan

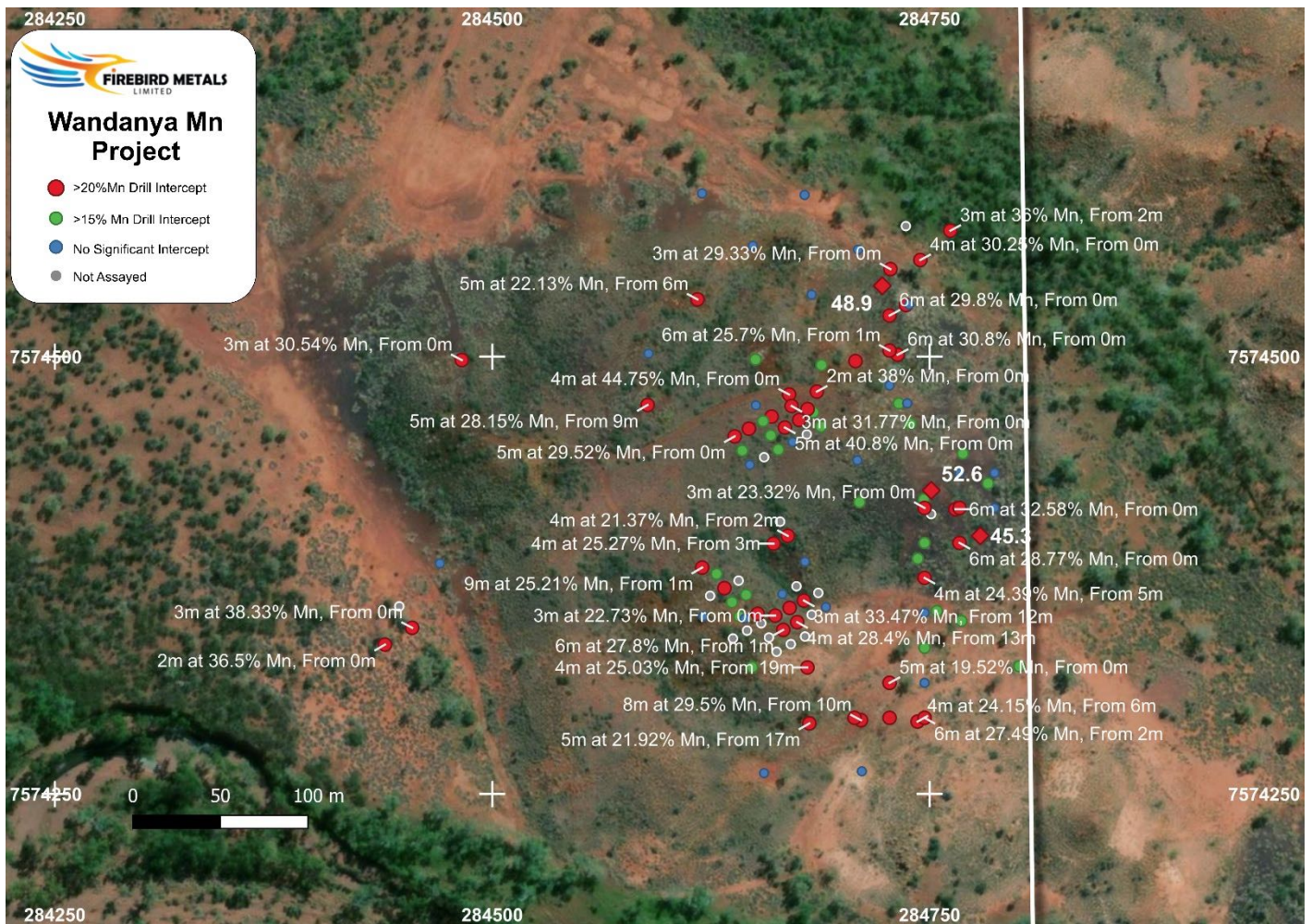


Figure 6: Donkey Prospect Drill Collar Plan

Crossroads Prospect

Crossroads consist of a flat-topped hill area located adjacent to the Nullagine-Ant Hill-Skull Springs cross roads.

The western edge of the prospect is marked by a 5 to 8m high scarp, with outcropping of rounded shiny black massive manganese occurring in a chert breccia. The hill is approximately 380m long and 80 to 220m wide. Outcropping away from the western edge of the hill is characterised by lateritic material and minor areas of manganese mineralised outcrop.

The prospect covers an area of approximately 1km north to south and is 300m wide. Exploration activities have included rock chip sampling, with significant results including 55.2% Mn and 53.3% Mn as illustrated in Figure 6.

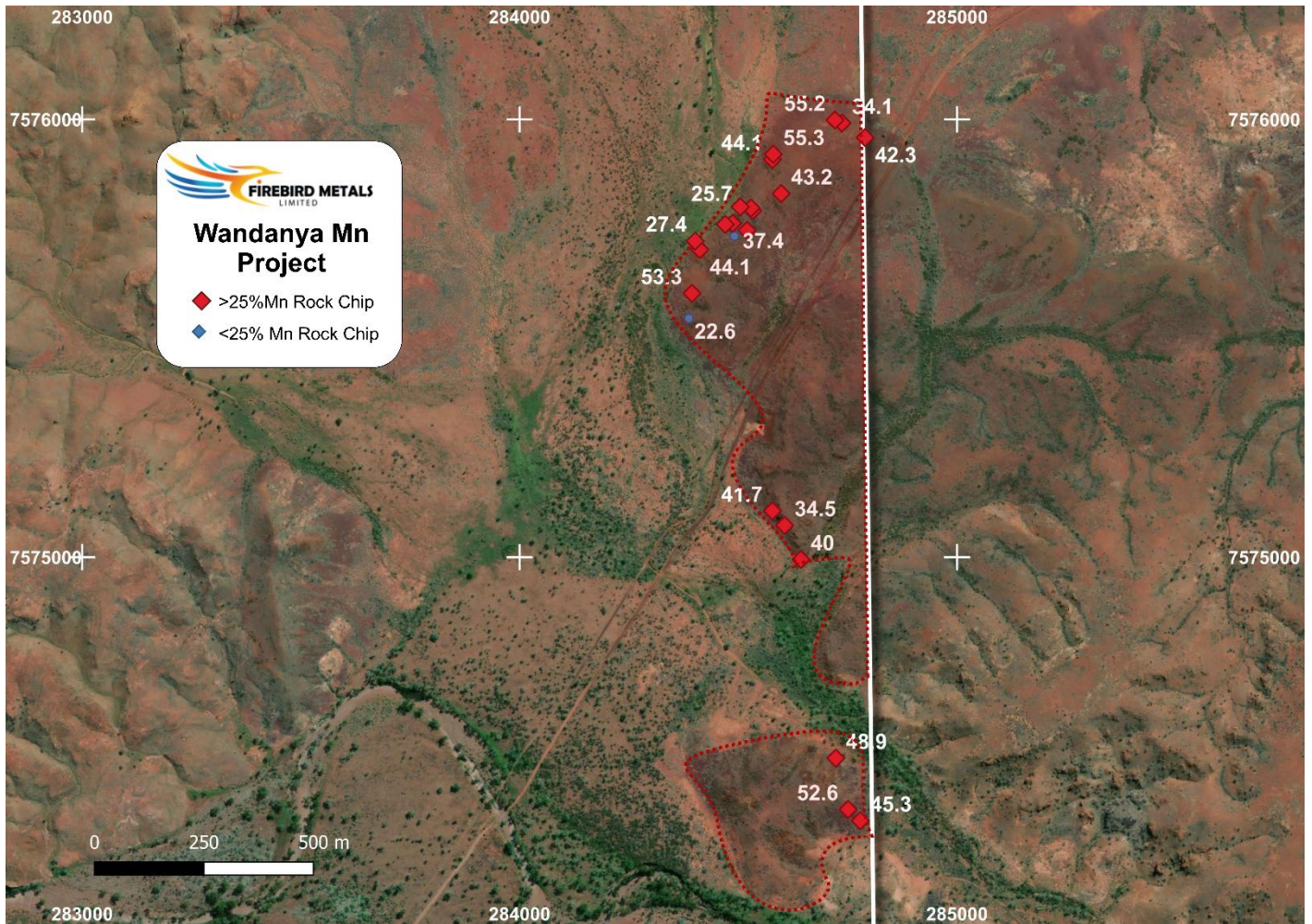


Figure 7: Crossroads Prospect- rock chip samples- Mn%

Wandanya Prospect

Extensive rock chip sampling has been completed across Wandanya Prospect by Shaw River Resources and Talisman Mining with grades of up to 64.96% Mn returned.

The southern zone has mineralisation defined over an area approximately 1,000 by 800m. No drilling has been completed to date across the Prospect.

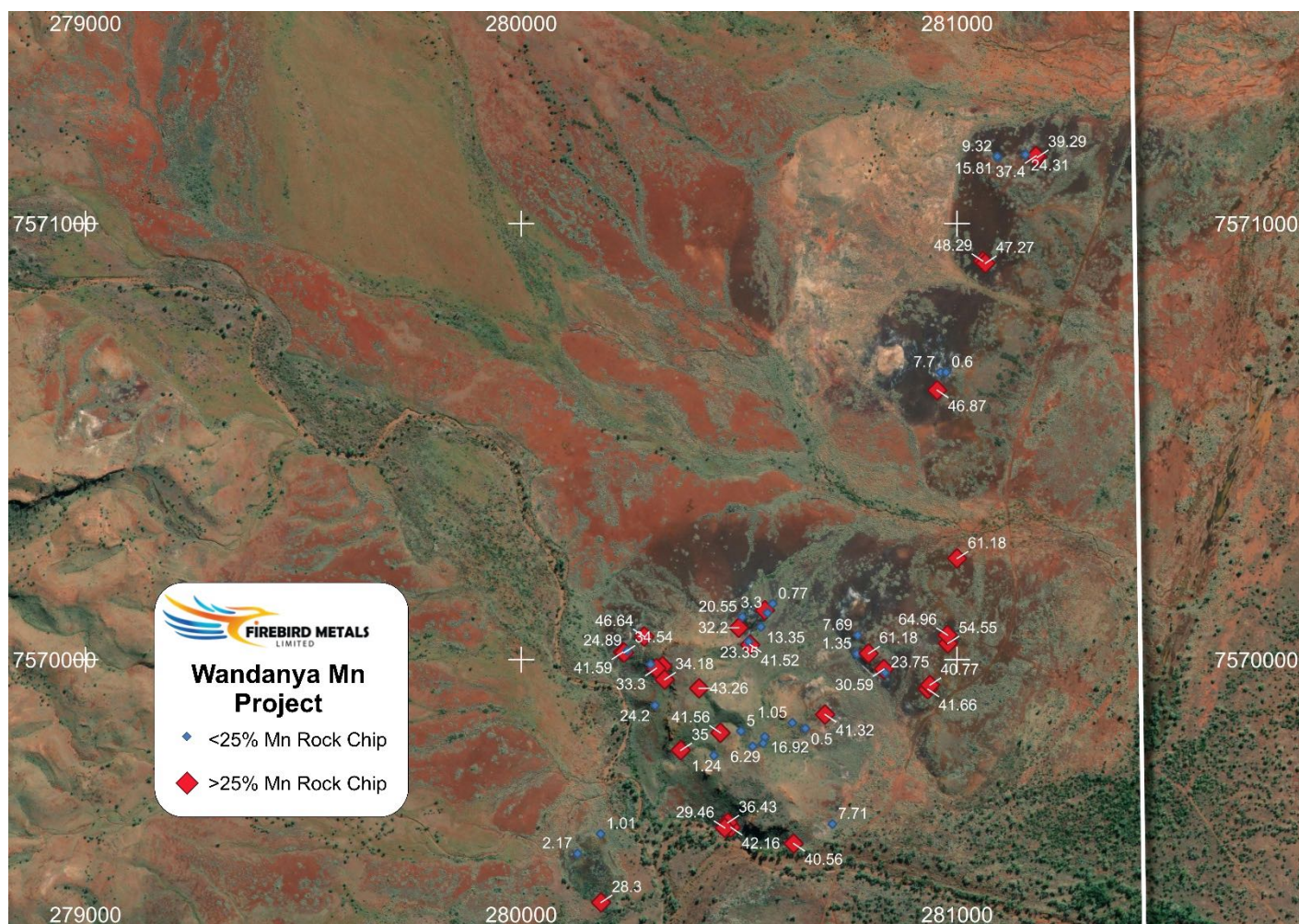


Figure 8: Rock Chip Sample Results Wandanya Prospect

Commercial Terms

Firebird is required to pay \$100,000 within 45 days of signing the binding agreement to acquire 100% of the Wandanya Project from Mining Equities Pty Ltd.

A further total shipment milestone consideration of up to \$500,000 is payable in lots per export shipment or mine gate sale whereby \$250,000 for shipments >10,000 wet metric tonnes or \$125,000 for shipments of <10,000 wet metric tonnes.

In the event that the maximum total milestone consideration of \$500,000 is reached a 1% royalty is payable calculated on a Free on Board (FOB) basis for export shipments or mine gate basis for domestic sales.

Other update

The company is pleased to advise that it has received registration confirmation for its R&D Tax incentive application with AusIndustry (Department of Industry, Science and Resources). This enables the Company to include total R&D claim within its 2021/22 Tax return, upon lodgment and finalisation the company expects it will be entitled to receive circa \$238,000 before costs.

ENDS-

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About Firebird Metals Limited

Firebird Metals Limited (ASX:FRB) is a West Australian company focused on the exploration and development of its 100% owned project portfolio, comprising of five highly prospective manganese projects in the renowned East Pilbara Manganese province of Western Australia:

- Oakover Manganese Project
- Wandanya Manganese Project
- Hill 616 Manganese Project
- Disraeli Manganese Project
- Raggard Hills Manganese Project

The Company's primary focus is on the development of the Oakover and Hill 616 Manganese Projects, which are located approximately 85 km east and southeast of Newman and together cover approximately 375 km². These two projects give the company a significant total Mineral Resource Estimate of 229.7 million tonnes:

- Oakover Project - 172.2 Mt @ 9.9% Mn
 - 58.7 Mt @ 10.4 % Mn Indicated Mineral Resource Estimate
 - 113.6 Mt at 9.6 % Mn Inferred Mineral Resource Estimate
- Hill 616 Project - 57.5 Mt @ 12.2% Mn Inferred Mineral Resource Estimate

The total Mineral Resources Estimate of 229.7 million tonnes provides a solid technical foundation for further development as the company targets production of manganese for two key markets:

- a) manganese sulphate for use in the growing lithium ion battery market that is used in electric vehicles, where manganese is a critical battery raw material; and
- b) manganese ore/concentrates for consumption in the global steel industries, where manganese plays an important and un-substitutable role in the strength and hardness of steel

Firebird is focused on creating and growing sustainable value for our stakeholders through the application of best practices in exploration and our commitment to protecting the health and wellbeing of our employees, the environment and the communities where we work.

Oakover Mineral Resource Estimate - March 2022

Area	Mineral Resource classification	Tonnes (Mt)	Mn (%)	Fe (%)	SiO ₂ (%)	Al ₂ O ₃ (%)	P (%)	LOI (%)
Sixty Sixer	Indicated	58.7	10.4	9.2	40.2	10.1	0.10	13.2
Sixty Sixer	Inferred	50.7	9.6	8.5	38.9	9.9	0.11	15.0
Sixty Sixer	Sub-Total	109.4	10.1	8.9	39.6	10.0	0.11	14.1
Jay Eye	Inferred	22.0	9.5	8.5	40.0	9.8	0.11	14.2
Jay Eye	Sub-Total	22.0	9.5	8.5	40.0	9.8	0.11	14.2
Karen	Inferred	40.9	9.5	9.3	42.7	10.5	0.11	12.0
Karen	Sub-Total	40.9	9.5	9.3	42.7	10.5	0.11	12.0
Oakover	Indicated	58.7	10.4	9.2	40.2	10.1	0.10	13.2
Oakover	Inferred	113.6	9.6	8.8	40.4	10.1	0.11	13.8
Oakover	Grand Total	172.3	9.9	8.9	40.4	10.1	0.11	13.6

Notes:

- Mineral Resources reported at a cut-off grade of 7% Mn.
- P₂O₅ converted to P% using a factor of 0.4364 calculated from atomic mass and molecular weight.
- Due to the effects of rounding, the total may not represent the sum of all components.

Refer ASX release; “Game Changing Resource Upgrade at Oakover” dated 10/3/2022.

Competent Persons Statement

The information in this report that relates to the Oakover Mineral Resources is based on information compiled by Mr Mark Pudovskis and Mr Aaron Meakin. Mr Mark Pudovskis is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Aaron Meakin is a full-time employee of CSA Global Pty Ltd and is a Member and Chartered Professional of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Mark Pudovskis and Mr Aaron Meakin have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Mark Pudovskis and Mr Aaron Meakin consent to the disclosure of the information in this report in the form and context in which it appears. Mr Mark Pudovskis assumes responsibility for matters related to Sections 1 and 2 of JORC Table 1, while Mr Aaron Meakin assumes responsibility for matters related to Section 3 of JORC Table 1.

The information in this report that relates to the Wandanya Exploration is based on information compiled by Mr Mark Pudovskis. Mr Mark Pudovskis is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Mark Pudovskis have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Mark Pudovskis consent to the disclosure of the information in this report in the form and context in which it appears. Mr Mark Pudovskis assumes responsibility for matters related to Sections 1 and 2 of JORC Table 1.

Wandanya Prospect Rock Chip Samples:

Sample	Easting	Northing	Mn %	Al ₂ O ₃ %	CaO %	Fe %	K ₂ O %	LOI %	MgO %	Na ₂ O %	P %	S %	SiO ₂ %	TiO ₂ %
RC010	280233	7570017	41.59	5.13	0.63	7.21	3.83	12.17	0.25	0.86	0.033	0.251	5.9	0.06
SJE1001	280933	7569932	41.66	1.01	0.34	13.97	1.62	11.86	0.13	0.12	0.054	0.086	4.15	0.02
SJE1002	280979	7570037	54.55	1.26	0.35	2.34	2.07	12.24	0.14	0.13	0.025	0.035	2.59	0.02
SJE1003	280962	7570659	7.7	2.24	0.34	44.15	0.62	9.37	0.18	0.25	0.106	0.312	10.59	0.14
SJE1004	281059	7570914	48.29	1.98	0.53	2.68	2.91	11.9	0.29	0.56	0.048	0.075	7.08	0.04
SJE1005	281094	7571151	15.81	1.73	0.09	37.87	0.6	10.2	0.16	0.19	0.03	0.142	8.17	0.06
SJE1006	281181	7571155	37.4	2.17	0.22	10.44	2.12	10.85	0.16	0.32	0.079	0.147	13.54	0.04
SJE1007	280835	7569970	23.75	2.84	0.19	25.71	1.38	11.16	0.28	0.14	0.059	0.114	10.8	0.08
SJE1008	280697	7569874	41.32	2.91	0.64	11.58	3.15	12.14	0.12	0.44	0.058	0.318	3.04	0.02
SJE1009	280559	7570113	38.04	3.01	0.39	6.1	3.35	10.53	0.38	0.65	0.02	0.217	18.02	0.03
SJE1010	280499	7570073	32.2	3.34	0.49	5.03	2.96	9.05	0.17	0.34	0.009	0.266	29.63	0.07
SJE1011	280282	7570053	46.64	5.41	0.22	2.63	4.07	12.21	0.21	0.33	0.021	0.019	7.95	0.07
SJE1012	280236	7570016	34.54	4.96	0.47	13.52	3.2	11.81	0.35	0.67	0.025	0.196	8.1	0.06
WD011	280652	7569842	0.5	3.83	2.41	27.84	0.47	5.63	1.21	0.08	0.072	0.151	46.55	0.12
WD012	280622	7569855	1.05	2.03	0.07	5.3	0.66	2.68	0.33	0.03	0.029	0.02	85.72	0.09
WD013	280559	7569823	16.92	3.44	0.11	11.43	0.98	5.48	0.11	0.05	0.039	0.012	49.57	0.16
WD014	280555	7569808	12.7	2.73	0.09	12.51	0.73	4.22	0.04	0.05	0.043	0.009	56.6	0.12
WD015	280531	7569801	6.29	2.66	0.09	17.13	0.38	2.97	0.03	0.03	0.062	0.048	61.81	0.09
WD016	280504	7569836	5	4	0.27	9.5	2.02	4.27	0.48	0.02	0.014	0.051	69.62	0.19
WD017	280408	7569934	43.26	5.49	0.25	3.5	2.89	11.66	0.28	0.43	0.03	0.008	10.77	0.14
WD018	280324	7569985	36.37	8.1	0.07	11.95	1.79	12.14	0.05	0.2	0.04	0.014	5.41	0.24
WD019	280243	7570020	24.89	5.53	0.23	21.3	2.57	10.93	0.39	0.32	0.041	0.069	11.54	0.13
WD020	280525	7570034	41.52	6.85	0.21	4.69	3.67	12.51	0.16	0.3	0.013	0.037	7.64	0.06
WD021	280522	7570041	23.35	2.76	0.39	6.45	2.1	7.44	0.06	0.23	0.008	0.25	44.42	0.06
WD022	280550	7570075	13.35	1.26	0.29	39.17	1.08	10.89	0.22	0.1	0.233	0.116	9.08	0.04
WD023	280565	7570107	3.3	2.19	0.2	49.46	0.64	10.66	0.23	0.07	0.192	0.125	9.2	0.08
WD024	280507	7570098	20.55	1.2	0.29	28.58	1.55	10.74	0.14	0.15	0.149	0.126	12.6	0.04
WD025	280577	7570128	0.77	1.67	0.08	6.12	0.11	1.93	0.05	0.03	0.017	0.071	88	0.09
WD026	280772	7570056	7.69	2.83	0.11	39.69	0.8	10.04	0.18	0.14	0.145	0.093	18.23	0.11
WD027	280770	7570013	1.35	2.12	0.21	58.52	0.2	5.19	0.15	0.03	0.041	0.196	5.9	0.05
WD028	280832	7569978	30.59	2.94	0.14	18.52	2.04	11.26	0.2	0.19	0.053	0.049	10.7	0.1
WD029	280975	7570659	0.6	2.21	0.29	51.85	0.31	9.01	0.12	0.23	0.162	0.328	12.51	0.09
WD030	280921	7570713	0.14	1.26	0.49	50.9	0.07	10.11	0.03	0.31	0.124	0.386	15.52	0.04
WD031	281065	7570909	47.27	2.39	0.57	1.7	3.2	12.25	0.32	0.67	0.041	0.069	6.53	0.05
WD032	281092	7571154	9.32	2.92	0.07	43.19	0.54	9.27	0.08	0.15	0.039	0.17	11.13	0.08
WD033	281157	7571158	24.31	2.23	0.13	29.69	0.92	9.59	0.08	0.19	0.038	0.139	6.65	0.04
WD034	281184	7571152	39.29	2.61	0.24	9.55	2.56	11.26	0.22	0.32	0.064	0.073	10.13	0.05
WD035	280297	7569989	7.71	1.46	0.08	5.24	0.62	3.08	0.02	0.08	0.014	0.049	77.74	0.02

Sample	Easting	Northing	Mn %	Al ₂ O ₃ %	CaO %	Fe %	K ₂ O %	LOI %	MgO %	Na ₂ O %	P %	S %	SiO ₂ %	TiO ₂ %
WD036	280310	7569980	33.3	3.52	0.28	11.61	1.64	11.92	0.25	0.15	0.081	0.023	5.91	0.05
WD037	280329	7569954	34.18	5.77	0.08	15.93	1.75	11.54	0.03	0.12	0.042	0.023	6.66	0.26
WD038	280307	7569895	24.2	5.63	0.06	6.73	1.79	8.15	0.04	0.34	0.018	0.013	39.62	0.2
WD039	280366	7569792	35	7.3	0.22	8.69	2.45	12.54	0.16	0.34	0.01	0.007	13.61	0.05
WD040	280129	7569555	2.17	13.17	0.02	41.85	0.24	9.99	0.03	0.03	0.057	0.059	13.82	0.77
WD041	280183	7569443	28.3	15.84	0.39	9.86	1.43	14.53	0.19	0.21	0.039	0.02	11.58	1.13
WD042	280182	7569600	1.01	19.31	0.04	33.53	0.15	12.46	0.1	0.02	0.061	0.052	18.76	1.14
WD043	280457	7569832	41.56	6.2	0.32	4.96	3.77	11.84	0.12	0.22	0.024	0.045	10.09	0.05
WD044	280442	7569780	1.24	1.12	0.08	2.79	0.21	1.48	0.07	0.02	0.003	0.022	92.55	0.04
WD045	280481	7569615	42.16	7.33	0.44	4.07	3.4	12.79	0.51	0.46	0.072	0.057	9	0.07
WD046	280714	7569623	7.71	1.64	0.34	50.62	0.69	3.45	0.03	0.07	0.038	0.187	11.17	0.07
WD047	280625	7569578	40.56	6.98	0.22	3.85	2.98	12.29	0.14	0.48	0.008	0.04	11.84	0.08
WD048	280467	7569614	29.46	3.47	3.34	11.2	2.52	13.93	1.89	0.66	0.078	0.041	15.91	0.03
WD049	280474	7569626	36.43	9.01	0.53	2.84	3.23	12.01	0.48	0.39	0.054	0.017	18.77	0.15

Donkey and Crossroads Rock Chip Results:

Sample	Easting	Northing	Al2O3%	CaO %	Fe %	K2O%	LOI%	MgO_pct	Mn_pct	SiO2 %	SO3_pct	TiO2%	V2O5%
DKJP056	284532	7575790	2.16	0.12	24.5	1.52	12.7	0.05	33.1	2.34	0.03	0.08	-0.01
DKJP057	284577	7575907	1.11	0.15	14.3	1.26	12.8	0.07	44.1	2.48	0.11	-0.01	-0.01
DY001	284736	7575990	2.35	0.83	21.1	1.34	14.1	0.56	34.1	4.2	0.12	0.09	0.02
DY002	284720	7575997	1.5	0.24	2.21	2.44	12.6	0.25	55.2	2.57	0.06	0.06	0.02
DY003	284789	7575957	2.39	0.81	13.6	0.94	14.1	0.5	42.3	3.28	0.11	0.04	0.02
DY004	284579	7575919	1.44	0.26	3.32	2.15	13	0.21	55.3	1.64	0.07	0.02	0.02
DY005	284597	7575829	6.67	0.13	8.8	1.37	13.7	0.15	43.2	5.18	0.09	0.58	0.05
DY006	284528	7575796	2.67	0.1	16.6	1.58	13.5	0.11	39.6	1.9	0.05	0.1	0.01
DY007	284519	7575745	1.95	0.09	7.87	1.05	13.1	0.06	50.9	1.4	0.06	0.04	0.02
DY008	284490	7575732	1.12	0.03	56.1	0.11	11.2	0.07	1.72	2.39	0.11	0.06	-0.01
DY009	284503	7575796	2.08	0.09	31.4	1.65	12.5	0.28	25.7	3.21	0.08	0.09	0.02
DY010	284486	7575761	4.02	0.07	17.6	2.07	13.5	0.15	37.4	3.53	0.08	0.15	0.03
DY011	284467	7575754	2.17	0.23	25.5	2.37	12.7	0.23	27.7	7.15	0.09	0.09	0.02
DY012	284399	7575726	6.47	0.04	25.6	1.59	13.6	0.09	27.4	3.99	0.1	0.34	0.03
DY013	284411	7575701	6.94	0.07	8.56	1.93	14.4	0.12	44.1	3.28	0.08	0.41	0.05
DY014	284393	7575601	3.75	0.13	3.03	2.29	13.4	0.14	53.3	1.1	0.05	0.07	0.03
DY015	284386	7575544	7.54	0.05	29.6	0.66	13.6	0.19	22.6	4.51	0.22	0.3	0.04
PM102326	284750	7574422	1.22	0.1	4.88	1.35	12.6	0.06	52.6	5	0.06	0.03	0.02
PM106821	284722	7574539	2.36	0.08	9.43	1.6	13	0.03	48.9	0.92	0.04	0.06	0.01
PM106822	284605	7575071	3.11	0.13	18	0.89	12.8	0.08	34.5	8.89	0.08	0.1	0.01
PM106823	284577	7575104	3.27	0.12	11.4	2.04	13.2	0.05	41.7	6.15	0.08	0.1	0.02
PM106824	284778	7574396	1.31	0.07	3.84	1.24	10.7	-0.01	45.3	17.3	0.06	0.03	0.01
PM106825	284642	7574993	1.26	0.09	18.6	1.05	13.2	0.04	40	2.43	0.05	0.04	-0.01

Hole	Type	Easting	Northing	Maximum Depth	Azimuth	Dip
DKAT1	AC	284727.6	7574550	6	0	-90
DKAT10	AC	284446.8	7574357	3	0	-90
DKAT11	AC	284438.7	7574335	3	0	-90
DKAT12	AC	284629.6	7574372	13	0	-90
DKAT13	AC	284634	7574363	6	0	-90
DKAT14	AC	284638.4	7574355	6	0	-90
DKAT15	AC	284642.7	7574347	6	0	-90
DKAT16	AC	284647	7574339	21	0	-90
DKAT17	AC	284655.1	7574343	6	0	-90
DKAT18	AC	284663.1	7574348	4	0	-90

Hole	Type	Easting	Northing	Maximum Depth	Azimuth	Dip
DKAT19	AC	284671.3	7574352	14	0	-90
DKAT2	AC	284744.7	7574555	6	0	-90
DKAT20	AC	284667.1	7574360	13	0	-90
DKAT21	AC	284679.5	7574356	19	0	-90
DKAT22	AC	284675.6	7574344	18	0	-90
DKAT23	AC	284662.1	7574389	9	0	-90
DKAT24	AC	284670.3	7574393	12	0	-90
DKAT25	AC	284665.9	7574401	12	0	-90
DKAT26	AC	284752.2	7574406	19	0	-90
DKAT27	AC	284748	7574414	9	0	-90
DKAT28	AC	284784.7	7574423	7	0	-90
DKAT29	AC	284740.5	7574457	6	0	-90
DKAT30	AC	284733.7	7574469	9	0	-90
DKAT31	AC	284755.5	7574350	15	0	-90
DKAT32	AC	284689.2	7574456	9	0	-90
DKAT33	AC	284685	7574464	6	0	-90
DKAT34	AC	284676.8	7574460	7	0	-90
DKAT35	AC	284668.6	7574455	8	0	-90
DKAT4	AC	284761.9	7574572	6	0	-90
DKAT5	AC	284736.5	7574575	6	0	-90
DKAT6	AC	284685.5	7574480	3	0	-90
DKAT7	AC	284669.7	7574478	5	0	-90
DKAT8	AC	284659.7	7574466	4	0	-90
DKAT9	AC	284454.2	7574345	8	0	-90
DKRC019	RC	284677.6	7574591	40	0	-90
DKRC020	RC	284681.6	7574534	34	0	-90
DKRC021	RC	284708.1	7574560	34	0	-90
DKRC022	RC	284737.3	7574528	34	0	-90
DKRC023	RC	284768	7574443	34	0	-90
DKRC024	RC	284763.8	7574411	28	0	-90
DKRC025	RC	284736.2	7574472	34	0	-90
DKRC026	RC	284742.3	7574383	22	0	-90
DKRC027	RC	284708.9	7574415	34	0	-90
DKRC028	RC	284767.2	7574347	28	0	-90
DKRC029	RC	284800.3	7574321	22	0	-90
DKRC032	RC	284709.8	7574291	34	0	-90
DKRC033	RC	284616.3	7574531	40	0	-90
DKRC034	RC	284588.3	7574500	34	0	-90
DKRC035	RC	284587.8	7574471	28	0	-90
DKRC036	RC	284707.7	7574439	28	0	-90

Hole	Type	Easting	Northing	Maximum Depth	Azimuth	Dip
DKRC037	RC	284706.7	7574496	28	0	-90
DKRC038	RC	284679.3	7574469	22	0	-90
DKRC039	RC	284649.5	7574497	28	0	-90
DKRC040	RC	284648	7574562	22	0	-90
DKRC041	RC	284619	7574378	34	0	-90
DKRC042	RC	284643.4	7574349	28	0	-90
DKRC043	RC	284677.8	7574381	22	0	-90
DKRC044	RC	284619.5	7574350	28	0	-90
DKRC045	RC	284730.7	7574500	22	0	-90
DKRC046	RC	284687.2	7574494	28	0	-90
DKRC047	RC	284649.7	7574471	22	0	-90
DKRC048	RC	284647.6	7574321	28	0	-90
DKRC049	RC	284679.2	7574321	28	0	-90
DKRC050	RC	284680.3	7574289	28	0	-90
DKRC051	RC	284654.4	7574260	28	0	-90
DKRC052	RC	284742.1	7574290	28	0	-90
DKRC053	RC	284710.3	7574261	22	0	-90
DKRC056	RC	284618.9	7574592	16	0	-90
DKRC057	RC	284481.6	7574497	22	0	-90
DKRC058	RC	284469.1	7574380	16	0	-90
DKRC1	RC	284726.3	7574292	18	0	-90
DKRC10	RC	284746.3	7574392	25	0	-90
DKRC11	RC	284746.3	7574412	22	0	-90
DKRC12	RC	284786.3	7574432	25	0	-90
DKRC13	RC	284746.3	7574332	25	0	-90
DKRC14	RC	284726.3	7574312	28	0	-90
DKRC15	RC	284706.3	7574292	33	0	-90
DKRC16	RC	284746.3	7574312	13	0	-90
DKRC17	RC	284746.3	7574352	13	0	-90
DKRC18	RC	284786.3	7574412	13	0	-90
DKRC2	RC	284746.3	7574292	30	0	-90
DKRC3	RC	284726.3	7574502	40	0	-90
DKRC4	RC	284726.3	7574522	22	0	-90
DKRC5	RC	284726.3	7574482	22	0	-90
DKRC6	RC	284766.3	7574392	25	0	-90
DKRC7	RC	284766.3	7574412	22	0	-90
DKRC8	RC	284766.3	7574432	25	0	-90
DKRC9	RC	284746.3	7574372	30	0	-90
DYAT1	AC	284642.1	7574368	6	0	-90
DYAT10	AC	284680.1	7574336	9	0	-90

Hole	Type	Easting	Northing	Maximum Depth	Azimuth	Dip
DYAT11	AC	284683.9	7574348	9	0	-90
DYAT12	AC	284692	7574353	9	0	-90
DYAT13	AC	284687.7	7574361	6	0	-90
DYAT14	AC	284675.2	7574364	12	0	-90
DYAT15	AC	284656.7	7574438	11	0	-90
DYAT16	AC	284664.8	7574443	9	0	-90
DYAT17	AC	284660.5	7574451	10	0	-90
DYAT18	AC	284656.2	7574459	9	0	-90
DYAT19	AC	284648	7574455	6	0	-90
DYAT2	AC	284646.5	7574360	12	0	-90
DYAT20	AC	284673	7574447	9	0	-90
DYAT21	AC	284681.1	7574451	10	0	-90
DYAT22	AC	284672.4	7574468	9	0	-90
DYAT23	AC	284639.9	7574450	9	0	-90
DYAT24	AC	284644.2	7574442	10	0	-90
DYAT25	AC	284648.6	7574434	9	0	-90
DYAT3	AC	284650.8	7574351	10	0	-90
DYAT4	AC	284638.9	7574335	9	0	-90
DYAT5	AC	284625.8	7574359	10	0	-90
DYAT6	AC	284659.5	7574335	9	0	-90
DYAT7	AC	284667.6	7574340	10	0	-90
DYAT8	AC	284663.8	7574327	9	0	-90
DYAT9	AC	284672	7574331	11	0	-90

Hole	From	To	Interval	Mn%	Fe%	SiO ₂ %	Al ₂ O ₃ %
DKAT11	0	2	2	36.5	11.2	11.05	3.8
DKAT10				Not assayed			
DKAT9	0	3	3	38.33	9.73	11.27	4.23
DKAT1	0	3	3	29.33	19.67	9.7	6.17
DKAT5				Not assayed			
DKAT2	0	4	4	30.25	25	5.28	4.32
DKAT4	2	5	3	36	14	10.33	6.13
DKAT6	0	2	2	38	6.65	17	5.4
DKAT7	0	4	4	44.75	6.37	13.4	2.1
DKAT8	1	3	2	50	4.5	6.25	1.75
DKAT12	0	1	1	24.4	10.6	28	4.2
DKAT13	2	5	3	32	19.4	10.33	2.33
DKAT14	3	4	1	20.6	18.5	18	6
DKAT15	2	3	1	30.9	8	21	5.6
DKAT18	0	3	3	22.73	18.57	20	4.56
DKAT19	1	2	1	28.3	8.2	25	5.3
DKAT19	3	14	11	24.65	7.59	31.9	4.06
DKAT2	0	4	4	30.25	25	5.27	4.32
DKAT20				No significant intercepts			
DKAT21	9	15	6	27.16	10.04	24	5.28
DKAT22	13	17	4	28.4	16.3	20.25	3.37
DKAT23	3	7	4	25.27	3.77	36.75	3.12
DKAT24	2	9	7	19.15	7.85	33.66	4.18
DKAT27	3	4	1	18.8	12.1	23	7.4
DKAT28	1	2	1	19.7	11.6	30	6.1
DKAT29	0	2	2	23.8	17.25	15.5	6.75
DKAT30	0	1	1	32	17.8	10	5.6
DKAT31	0	1	1	37.3	11.6	11	5.7
DKAT32	0	1	1	20.6	8.7	36	5.6
DKAT33	0	2	2	20.85	6.45	31.5	9.8
DKAT34	0	4	4	20.07	9.05	28.5	6.35
DKAT35	0	5	5	40.8	5.07	17.5	2.97
DKAT4	2	5	3	36	14	10.33	6.13
DKAT5				Not assayed			
DKAT6	0	2	2	38	6.65	17	5.4
DKAT7	0	4	4	44.75	6.37	13.4	2.1
DKAT8	1	3	2	50	4.5	6.25	1.75
DKAT9	0	3	3	38.33	9.73	11.27	4.23
DKRC019				No significant intercepts			
DKRC020				No significant intercepts			

Hole	From	To	Interval	Mn%	Fe%	SiO ₂ %	Al ₂ O ₃ %
DKRC021			No significant intercepts				
DKRC022			No significant intercepts				
DKRC023	2	3	1	20.53	13.68	26.87	6.99
DKRC024	0	6	6	32.58	10.89	17.99	5.64
DKRC025			No significant intercepts				
DKRC026	3	4	1	22.98	15.43	23.81	3.73
DKRC026	6	7	1	26.51	7.87	27.66	8.6
DKRC026	12	13	1	17.58	22.97	21.77	7.02
DKRC027	0	2	2	23.45	19.73	18.97	6.98
DKRC027	20	21	1	15.7	27.97	19.94	4.72
DKRC028	17	19	2	17.48	19.32	29.205	5.52
DKRC029	8	9	1	17.51	6.08	40.08	6.46
DKRC030	18	19	1	19.81	6.46	39.07	9.48
DKRC031			No significant intercepts				
DKRC032	10	18	8	29.5	16.3	15.23	4.22
DKRC033	6	11	5	22.13	15.47	24.85	8.2
DKRC034			No significant intercepts				
DKRC035	9	14	5	28.15	17.14	18.18	4.58
DKRC036			No significant intercepts				
DKRC037	0	6	6	22.35	16.46	22.19	8.16
DKRC038	2	4	2	24.39	13.94	19.97	7.96
DKRC039	11	12	1	18.25	17.79	33.24	4.66
DKRC039	14	16	2	18.15	19.15	25.28	8.93
DKRC040			No significant intercepts				
DKRC041	3	10	7	28.19	16.37	18.49	5.57
DKRC041	19	20	1	28.47	9.3	23.68	8.57
DKRC041	24	25	1	21.29	11.02	31.84	8.72
DKRC042			No significant intercepts				
DKRC043			No significant intercepts				
DKRC044			No significant intercepts				
DKRC045	0	6	6	30.8	19.06	8.98	5.32
DKRC046	7	8	1	20.58	17.75	21.74	8.31
DKRC047			No significant intercepts				
DKRC048	22	24	2	29.69	16.92	14.76	4.94
DKRC049	19	23	4	25.02	8.7	35.08	5.1
DKRC050	18	22	4	24.76	10.55	31.27	5.98
DKRC051	22	23	1	15.29	13.13	43.54	5.85
DKRC052	5	10	5	23.16	5.76	43.88	3.06
DKRC052	19	20	1	32.1	4.89	32	3.04
DKRC053			No significant intercepts				

Hole	From	To	Interval	Mn%	Fe%	SiO ₂ %	Al ₂ O ₃ %
DKRC054	1	9	8	21	20.36	19.17	3.79
DKRC055			No significant intercepts				
DKRC056			No significant intercepts				
DKRC057	0	3	3	30.54	13.3	12.77	9.48
DKRC058			No significant intercepts				
DKRC1	1	6	5	31.1	8.42	27.74	4.26
DKRC1	8	9	1	19.67	0.93	54.53	5.86
DKRC10	0	2	2	24.6	12.09	25.76	6.1
DKRC10	3	4	1	24.48	5.22	37.3	6.31
DKRC10	5	6	1	34.13	5.78	20.56	8.97
DKRC11	0	3	3	23.32	5.27	38.5	8.42
DKRC13	2	3	1	17.04	12.07	39.66	3.29
DKRC14	0	5	5	19.52	19.75	21.7	5.81
DKRC15	11	18	7	31.04	15.43	15.7	5.13
DKRC16			No significant intercepts				
DKRC17			No significant intercepts				
DKRC18			No significant intercepts				
DKRC2	2	8	6	27.49	4.5	40.12	3.11
DKRC3	1	7	6	25.69	21.85	11.18	7.05
DKRC4	0	6	6	29.8	19.75	8.78	6.54
DKRC6	0	6	6	28.77	9.29	30.43	3.67
DKRC7	1	5	4	36.25	6.89	18.43	6.35
DKRC8			No significant intercepts				
DKRC9	2	3	1	22.19	3.91	39.12	5.58
DKRC9	5	9	4	24.39	6.94	33.11	6.45
DYAT1			Not assayed				
DYAT10			Not assayed				
DYAT11			Not assayed				
DYAT12	4	6	2	22.75	10.35	31	5.25
DYAT13			Not assayed				
DYAT14			Not assayed				
DYAT15			Not assayed				
DYAT16	0	1	1	26.2	7.9	30	4.5
DYAT17	0	1	1	19.5	7.6	38	4.5
DYAT17	4	5	1	30.4	10.4	27	5
DYAT18	0	1	1	16.8			
DYAT18	3	4	1	31.8	13.5	18	3.8
DYAT19	0	3	3	21.07	11.23	29	5.83
DYAT2	7	8	1	24	3.5	52	3.6
DYAT20	0	1	1	24	6.8	33	5.6

Hole	From	To	Interval	Mn%	Fe%	SiO ₂ %	Al ₂ O ₃ %
DYAT21	Not assayed						
DYAT22	0	3	3	31.77	8.77	20.67	5.63
DYAT23	0	5	5	29.52	16.1	14.25	3.42
DYAT24	0	1	1	23.7	12.1	33	3.7
DYAT25	No significant intercepts						
DYAT3	1	8	7	18.41	26.73	42	3.8
DYAT4				Not assayed			
DYAT5				Not assayed			
DYAT6				Not assayed			
DYAT7	1	7	6	27.8			
DYAT8				Not assayed			
DYAT9				Not assayed			

JORC Code, 2012 Edition Table 1 – Wandanya Project

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> 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. 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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<p>Rock Chip Sampling:</p> <ul style="list-style-type: none"> Selective rock chip sampling was undertaken across the Wandanya, Donkey and Crossroads prospects by Talisman and Pilbara Manganese The quantity of sample collected and the representativity is unknown. Samples were dried, crushed, ring pulverised and analysed by X-Ray Fluorescence Spectrometry (XRF). The elements determined by XRF were Al₂O₃, Ba, CaO, Cr, Cu, Fe, K₂O, MgO, Mn, P, Pb, SO₃, SiO₂, TiO₂, V₂O₅, Zn. Loss on Ignition results were determined using a TGA system. Furnaces in the system were set to 1,000 degrees Celsius. The Competent Person (CP) considers that the sample techniques adopted were appropriate for the style of mineralisation and for reporting of an Exploration Result. <p>Aircore and RC Drilling:</p> <ul style="list-style-type: none"> Aircore and RC drill samples were collected on 1m intervals. The sample sizes or methods of sample splitting are unknown. The Competent Person (CP) considers that the sample techniques adopted were appropriate for the style of mineralisation and for reporting of an Exploration Result.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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). 	Both aircore and RC drilling have been conducted across the Project.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No records are available with respect to recoveries or specific sampling procedures
Logging	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Logging of RC and aircore drilling was of a qualitative and quantitative nature and is considered of sufficient quality for reporting an Exploration Result. All drill holes reported were logged
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Rock chip samples of manganese mineralisation was collected from outcropping dolomite. The sampling technique is appropriate as a first pass method to assess manganese anomalism at the surface however it is unknown whether the rock chip sampling methods were representative of the outcrop. No records are available with respect to sub sampling methods or sample weights submitted due to the drilling being historical in nature
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> 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 (eg standards, blanks, 	<ul style="list-style-type: none"> Pilbara Manganese submitted drill samples and rock chips to SGS Australia Pty Ltd at their Woodie Woodie mine site laboratory and analysed by XRF for Al₂O₃, Ba, CaO, Cr, Cu, Fe, K₂O, MgO, Mn, P, Pb, SO₃, SiO₂, TiO₂, V₂O₅, Zn. Loss on Ignition results were determined using a TGA system. Furnaces in the system were set to 1,000 degrees Celsius. The use of duplicate, standard and blank samples by the previous explorers and laboratory is not recorded in the data

Criteria	JORC Code explanation	Commentary
	<i>duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	<ul style="list-style-type: none"> The absence of QAQC is not considered a material risk for the reporting of Exploration Results.
Verification of sampling and assaying	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Primary data on rock chips including, project, sample number, co-ordinates, zone, sample type, sample date, lithology, tenement number and laboratory job number were collated in a Company database, as evidenced by the WAMEX metadata. There was no twin drilling.
Location of data points	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Rock chip sample locations and drill collars were located by handheld GPS. Expected accuracy is +/- 5m for northing and easting which is suitable for reporting an Exploration Result. GDA94 Zone 51 datum is used as the coordinate system. There is no digital terrain model.
Data spacing and distribution	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Rock chip sampling was completed along outcropping surficial manganese mineralisation on an irregular grid Drilling was completed on a variable space pattern - from broad targeted drilling through close spaced 10m by 10m grids across areas of interest.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Rock chip sample spacing, and orientation is considered suitable for regional geochemical exploration to define manganese targets. From a preliminary evaluation the drilling of vertical holes appears to be valid based on the flat lying to gently dipping mineralisation style
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> No records are available with respect to chain of custody of sample security
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> There is no record of any audits or reviews having been undertaken on the sampling data.

Section 2 Reporting of Exploration Results – Wandanya Manganese Project

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Wandanya Project consists of two exploration licence applications (E46/1456 and 1457) located 50km WSW of the Woodie Woodie Manganese mine in the Eastern Pilbara Region of Western Australia. The licence applications are by Mining Equities Pty Ltd. E46/1456 was applied for on the 31st March 2022 and covers 11 graticular blocks E46/1457 was applied for on the 4th April 2022 and covers an area of 5 graticular block
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Historical exploration of relevance has been undertaken by Pilbara Manganese Pty Ltd and Talisman Mining Ltd. Work completed within E46/1456 and 1457 consisted of rock chip sampling, aircore drilling and RC drilling.
Geology	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> Manganese mineralisation in the eastern Pilbara is hosted by the Jeerinah Formation, Carawine Dolomite and parts of the Manganese Subgroup.
Drill hole Information	<ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> All location information and available drillhole metadata has been included as an appendix to this release All information including those with no significant results is included

Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul style="list-style-type: none"> <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i> <i>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.</i> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	<ul style="list-style-type: none"> Length weighted averages of drill hole composites were calculated using a minimum cut-off grade of 15% Mn and maximum internal dilution of 1m No metal equivalents have been reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> The mineralisation appears to be flat lying to gently dipping and as such the results approximate true width intercepts
Diagrams	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> Refer to figures within the body of the release.
Balanced reporting	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> All results including those with no significant results have been reported
Other substantive exploration data	<ul style="list-style-type: none"> <i>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.</i> 	<ul style="list-style-type: none"> All exploration data has been included in relation to the Project
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Topographic survey to obtain survey control, detailed mapping and further sampling to define areas of interest. In addition, 3D geological modelling of the mineralisation based on available drilling

