Significant +60 % Fe Results from Pilbara Iron Exploration

Cooletha Project Highlights:

- **Nine very high grade Fe assays of 62%, 61.3%, 61.1%, 60.8%, 2 of 60.4%, 60.3%, 60.1%, 60% Fe**
- **Assay results confirm multiple Channel Iron Deposit (CID) mesas with Fe grades up to 62% Fe**
- **The size and consistency of Fe grades validate earlier results, with significant results including:**
    - **5% of samples exceed 60% Fe**
    - **63% of samples exceed 55% Fe**
    - **85% of samples exceed 50% Fe**
- **Very low Phosphorous content of 0.04% indicates the high-quality yield potential of the mineralisation**
- **CIDs sampled to date have a combined strike length of nearly 8 km at Cooletha**
- **Strike lengths of individual CIDs up to 3km with widths up to 300m**

Australian Critical Minerals (**ASX: ACM**, "**Australian Critical Minerals**" or "the **Company**") is pleased to report the assay results from the recent mapping and sampling program at its Cooletha Project in the Pilbara. The results are from sampling conducted during September and the Company would also like to provide an update on recent field sampling and mapping conducted during November.

Managing Director Dean de Largie said:

"We are delighted to receive further strong results from the Phase 2 sampling program completed at Cooletha which confirm multiple outcropping CIDs with significant and consistent results between 56% and 62% Fe. It has been established that the combined strike length of the CIDs is nearly 8km, supporting our confidence that Cooletha has the potential to develop into a valuable iron ore resource, surrounded by the rail infrastructure of the major iron ore producers. The combined Phase 1 and 2 results provide sufficient information to support drill programme planning which will provide a more comprehensive understanding of the Fe mineralisation at Cooletha and potentially lead to development decisions.

Cooletha Channel Iron Deposits

The sampling campaign at Cooletha was designed to deliver a comprehensive understanding of the channel iron deposits. The latest sampling results have brought to light multiple outcropping CIDs that exhibit significant and consistent high iron (Fe) concentrations ranging between 56% and 62%. Notably, 63% of the rock samples returned

Fe grade exceeding 55%, with an average phosphorous content of 0.04%. These findings are promising in terms of the quality of the material and the size extent of the deposits, which span a combined strike length of 7.7 kilometres (Figure 1).

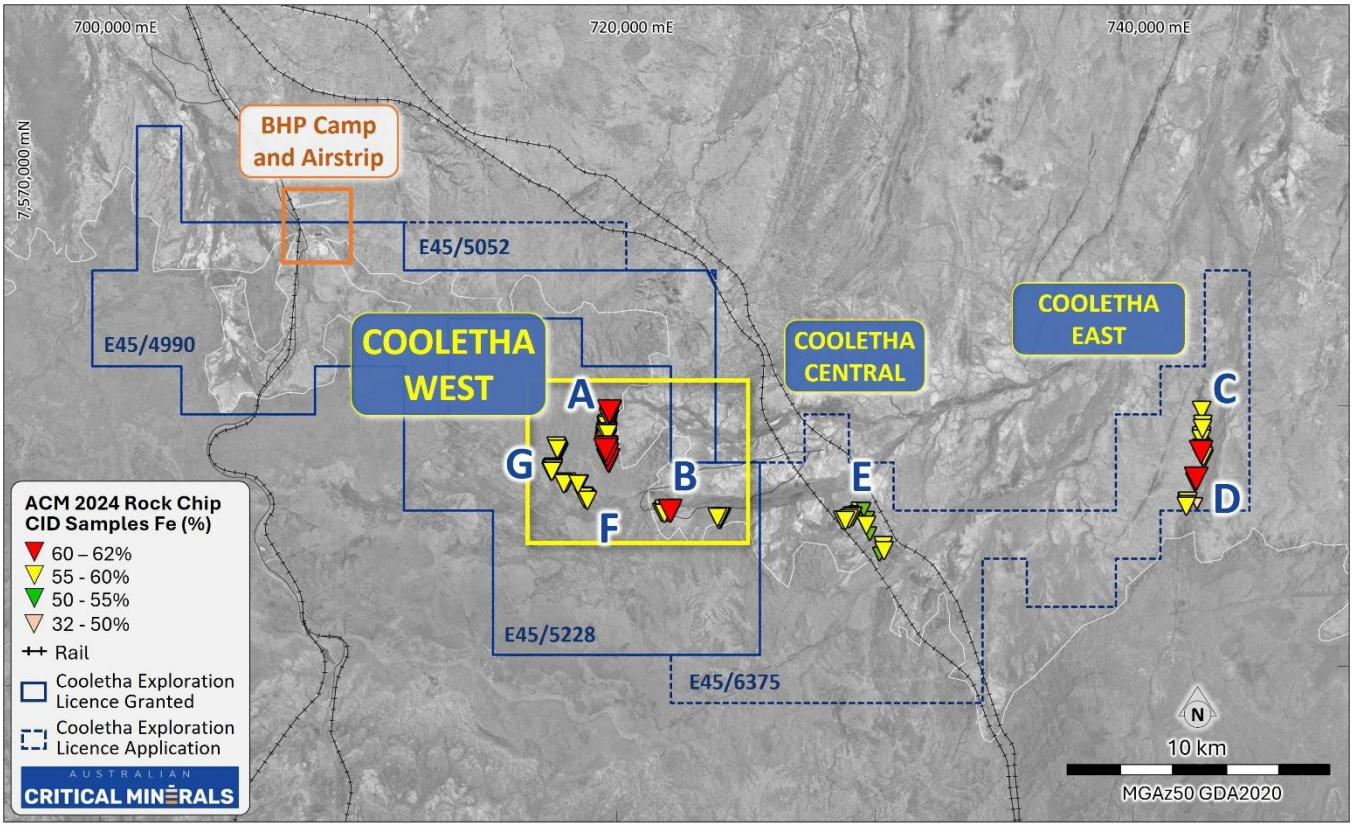

Figure 1 Overview of Cooletha named CIDs, results, and proximal rail, camp and airstrip infrastructure

Assay data show low levels of deleterious elements within the 90% of samples containing greater than 45% Fe. Table 1 shows the averages of key elements in this group. These are pre-beneficiation results and of note is that Phosphorus remains very low throughout the sample group and has only a slight inverse relationship to Fe grade (Appendix 1).

Table 1 Key Elements Averages +45% Fe group

Fe %	Al2O3 %	SiO2 %	P %
56.5	4.92	4.58	0.04

The uniformity and consistency in iron concentration, and the very low deleterious elements across the deposits provides a strong indicator of the reliability and potential high quality yield of the deposits. Regularity of iron content is a significant advantage as it simplifies the beneficiation process, ensuring a steady supply of high-grade ore for processing.

Cooletha's proximity to the rail transport infrastructure of Roy Hill, Fortescue Metals Group and BHP potentially enhances opportunities for future mine development via strategic relationships.

Cooletha West hosts several CIDs, including Mesa A which is a standout discovery. It features a significant 2km strike length, a width of up to 130m and it rises over 5m above the surrounding terrain. Mesa A averages 54% Fe and nine samples returned greater than 60% Fe with a peak grade of 62% Fe (Figures 2 and 3).

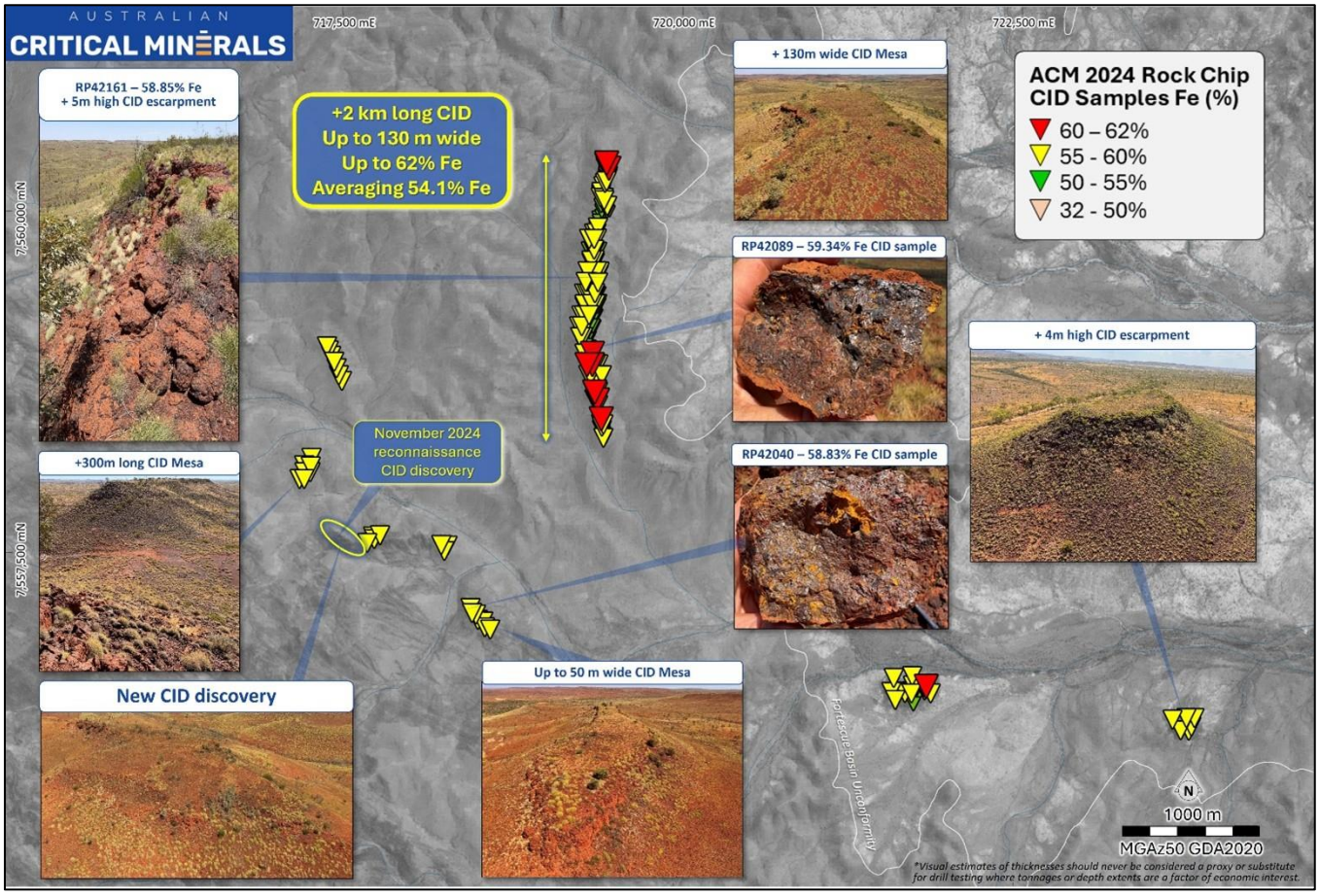

Figure 2 Cooletha West CIDs, results, aerial photography and select hand samples

During the recent site visit, an additional CID mesa was discovered. This adds to the several other mesas having a strike length of 300m to 1000m range at Cooletha to create a combined CID package with a significant strike length over the greater Cooletha tenements. (Figures 1 and 2).

Notably, the slopes of the mesas are covered by CID scree, obscuring the true thickness of the CIDs. Observations are largely limited to the exposed upper portions of the mesas which are not covered by scree. For example, Mesa A rises about 40m above the terrain but is largely covered by scree except for the upper 5m (Figure 3). Mesa E in Central Cooletha, like Mesa A, has significant dimensions with a strike length of 3km, a width of up to 300m and a thickness in excess of 10m (Figure 4). Field geologists have adopted a conservative approach in estimating the thickness of the mesas by limiting the values to what can be reasonably seen on site. The surface regolith extending

several kilometres north and south of Mesa A appears iron rich also and potentially presents an additional exploration target. A similar observation has been made on several mesas at Cooletha.

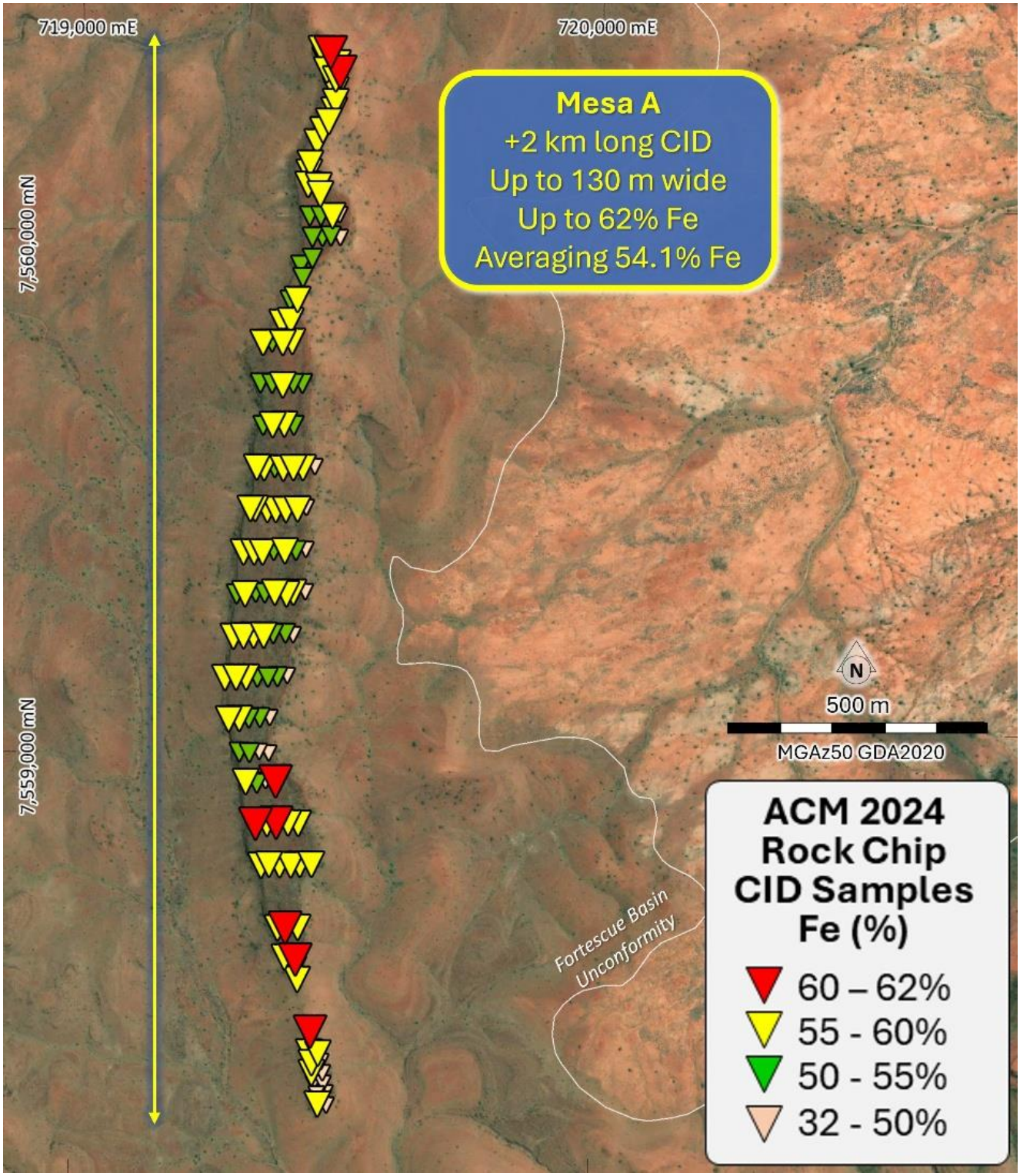

Figure 3 Mesa A: Fe assay thematic showing the extensive +55% Fe region

Figure 4 Mesa A: 2km long CID up to 130m wide, +5m thick

The results exceeding 60% Fe are located toward both the northern and southern ends of Mesa A. This may prove to be important in the future further study of the morphology of the surrounding regolith at Cooletha.

The following aerial Photographs of Mesas B through G show the scale of the channel iron occurrences. The mesas presented in the figures show both the continuous morphology and dissected morphology of the Cooletha mesas.

Figure 5 Mesa B: 340m long and up to 65m wide, +3m thick

Figure 6 CID Mesa F: 300m long and up to 30m wide, +3m thick

Figure 7 CID Mesa G: 330m long and up to 10m wide, +3m thick

Figure 8 CID Mesa E: 3km long and up to 300m wide, +10m thick

Figure 9 Mesa D: 1500m long, up to 15m wide, +10m thick initially part of a larger , now a dissected CID occurrence

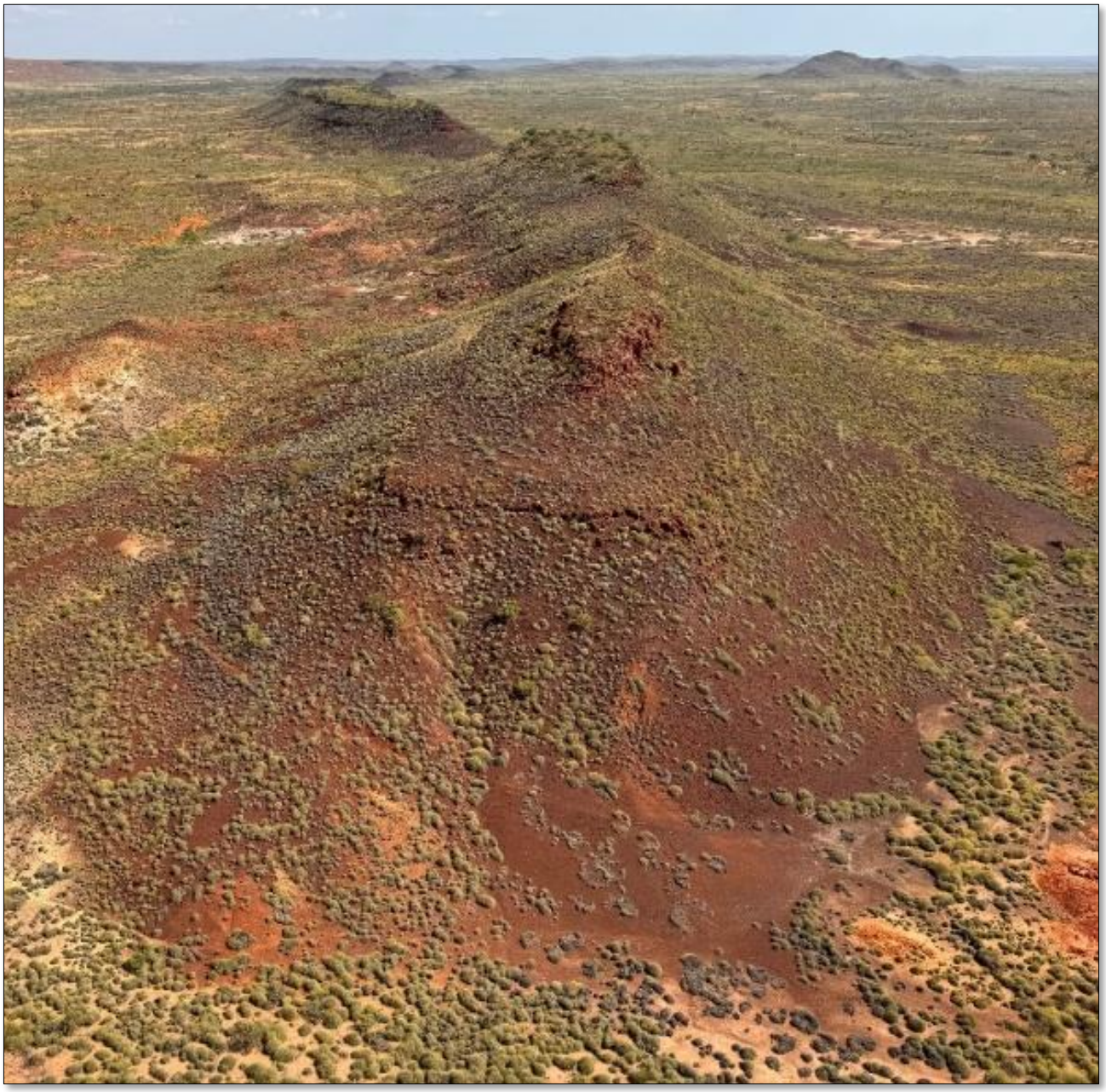

Figure 10 Mesa C: 600m long and up to 65m wide, +10m thick

Future Work

At Shaw, further sample traverses have been performed and results are expected to be reported to the market in late November to early December.

Exploration efforts at Shaw have identified a high-priority focus area within this large tenement. We expect to commence drill rig access planning to the focus area after results when surface sampling results are returned in the coming weeks. The focus area features steeply dipping BIF with a surface footprint of over 70,000 m^2.

At Cooletha, a Program of Works is being planned to construct drill access tracks and drill pads in the new year. Drilling is planned to initially commence in the Cooletha West region.

(Note 1 ASX Compliance Update no. 04/23 - 'Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.)

This announcement has been authorised for release by the Board of Australian Critical Minerals.

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About Australian Critical Minerals

Australian Critical Minerals is an exploration company focused on developing a quality portfolio of critical minerals projects in Western Australia. The key projects are the Cooletha (Pilbara) Lithium Project, the Cooletha and Shaw iron projects and the Rankin Dome (Southern Cross) Rare Earth Project.

Battery metals, including rare earths and lithium, are fundamental in the clean energy transition to net zero transmissions. ACM intends to be pivotal in delivering the processed minerals needed for a clean energy future.

ACM has established a highly experienced management team with a proven record of exploration and corporate success in the mining industry.

Competent Persons Statement

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr. Dean de Largie. Mr. de Largie is the Managing Director of Australian Critical Minerals Limited and is a Fellow of the Australian Institute of Geoscientists and has sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported 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. de Largie has verified the data disclosed in this release and consented to including the matters based on the information in the form and context in which it appears.

Forward Statement

This news release contains "forward-looking information" within the meaning of applicable securities laws. Generally, any statements that are not historical facts may contain forward-looking information. Forward looking information can be identified by the use of forward-looking terminology such as "plans", "expects", or "does not expect", "is expected", "budget" "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or indicates that certain actions, events or results "may", "could", "would", "might" or "will be" taken, "occur" or "be achieved." Forward-looking information is based on certain factors and assumptions management believes to be reasonable at the time such statements are made, including but not limited to continued exploration activities, commodity prices, the estimation of initial and sustaining capital requirements, the estimation of labour costs, the estimation of mineral reserves and resources, assumptions concerning currency fluctuations, the timing and amount of future exploration and development expenditures, receipt of required regulatory approvals, the availability of necessary financing for the project, permitting and such other assumptions and factors as set out herein.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: risks related to changes in commodity prices; sources and cost of power and water for the Project; the estimation of initial capital requirements; the lack of historical operations; the estimation of labour costs; general global markets and economic conditions; risks associated with exploration of mineral deposits; the estimation of initial targeted mineral resource tonnage and grade for the project; risks associated with uninsurable risks arising during the course of exploration; risks associated with currency fluctuations; environmental risks; competition faced in securing experienced personnel; access to adequate infrastructure to support exploration activities; risks associated with changes in the mining regulatory regime governing the Company and the Project; completion of the environmental assessment process; risks related to regulatory and permitting delays; risks related to potential conflicts of interest; the reliance on key personnel; financing, capitalisation and liquidity risks including the risk that the financing necessary to fund continued exploration and development activities at the project may not be available on satisfactory terms, or at all; the risk of potential dilution through the issuance of additional common shares of the Company; the risk of litigation.

Although the Company has attempted to identify important factors that cause results not to be as anticipated, estimated or intended, there can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. Forward-looking information is made as of the date of this announcement, and the Company does not undertake to update or revise any forward-looking information this is included herein, except in accordance with applicable securities laws.

Appendix 1 Cooletha Rock Chip Key Geochemistry

Sample ID	E	N	Fe %	Al2O3 %	SiO2 %	P %	LOI %
RP42035	718597	7556929	59.2	2.9	2.9	0.04	9.96
RP42036	718557	7556946	57.7	3.33	3.9	0.03	10.1
RP42037	718548	7556987	57.7	3.98	3.2	0.06	10.4
RP42038	718508	7557000	57.2	3.31	3.4	0.04	11.3
RP42039	718495	7557041	58.7	3.88	3.0	0.03	8.96
RP42040	718465	7557052	58.8	3.5	2.3	0.05	10.4
RP42041	718455	7557087	58.1	3.51	2.3	0.04	10.9
RP42042	718269	7557507	58.8	2.8	2.8	0.07	9.79
RP42043	718247	7557553	59.5	2.73	2.4	0.03	8.97
RP42044	718292	7557548	58.3	3.36	2.6	0.05	9.55
RP42045	717797	7557629	58.6	2.94	2.7	0.03	10.2
RP42046	717753	7557603	58.3	3.35	5.1	0.03	8.1
RP42047	717744	7557622	56.9	4.6	2.4	0.04	10.7
RP42048	717703	7557575	58.9	3.4	3.1	0.04	9.45
RP42049	717710	7557599	49.3	8.78	5.7	0.04	12
RP42050	717299	7558203	55.3	4.82	3.0	0.05	12.5
RP42051	717244	7558150	55.6	4.67	5.0	0.03	10.2
RP42052	717293	7558143	58.5	3.21	3.0	0.03	9.83
RP42053	717289	7558098	57.3	4.05	4.4	0.04	8.57
RP42054	717246	7558100	57.7	3.16	3.5	0.04	10
RP42056	717210	7558050	59.5	2.69	2.8	0.05	8.9
RP42057	717244	7558050	59.6	2.43	3.5	0.04	8.73
RP42059	719434	7558421	58.6	3.76	3.2	0.05	8.64
RP42060	719451	7558419	59.8	2.32	2.8	0.06	8.38
RP42061	719439	7558401	59.0	2.33	3.7	0.04	9.47
RP42062	719457	7558401	43.2	14.2	9.5	0.16	12.7
RP42063	719460	7558380	42.1	14.6	10.9	0.15	12.7

Sample ID	E	N	Fe %	Al2O3 %	SiO2 %	P %	LOI %
RP42064	719439	7558381	55.9	4.52	5.6	0.06	8.91
RP42065	719442	7558361	41.4	14.5	12.6	0.06	12.1
RP42066	719461	7558360	41.6	14.6	11.1	0.17	12.2
RP42067	719465	7558342	39.5	15.4	15.3	0.14	11.1
RP42068	719448	7558340	45.1	12	9.9	0.12	11.6
RP42069	719449	7558321	56.6	4.75	3.3	0.07	10.5
RP42070	719466	7558318	38.2	16.2	16.1	0.18	11.7
RP42072	719308	7558996	52.7	7.21	6.0	0.06	10.8
RP42073	719328	7558995	54.4	6.82	6.0	0.03	8.57
RP42074	719347	7558997	40.5	15.4	12.7	0.07	11.4
RP42075	719366	7558993	39.0	16.6	12.6	0.10	12.8
RP42076	719378	7558940	60.4	3.39	4.3	0.08	5.39
RP42077	719359	7558941	48.6	10.6	9.0	0.04	9.8
RP42078	719341	7558936	53.9	6.89	4.9	0.04	9.63
RP42079	719320	7558940	57.6	4.12	4.0	0.05	8.52
RP42080	719338	7558860	61.3	2.21	4.5	0.04	5.74
RP42081	719360	7558859	58.0	3	4.1	0.04	9.55
RP42082	719378	7558861	60.1	2.22	3.1	0.04	8.97
RP42083	719400	7558860	57.4	4.4	4.6	0.05	7.86
RP42084	719420	7558859	55.3	5.99	5.7	0.06	7.76
RP42085	719444	7558780	59.5	2.97	3.9	0.04	6.98
RP42086	719422	7558780	56.3	4.57	5.1	0.04	8.7
RP42087	719404	7558780	57.1	4.09	5.4	0.06	7.9
RP42088	719383	7558780	55.2	6.49	5.6	0.04	7.79
RP42089	719363	7558781	59.3	2.31	3.4	0.03	8.57
RP42090	719347	7558780	59.0	3.41	4.0	0.04	7.81
RP42091	719377	7558659	59.3	2.52	3.6	0.04	8.61
RP42092	719393	7558660	61.1	2.97	3.8	0.04	5.21
RP42093	719416	7558660	58.4	3.5	3.2	0.04	9.03
RP42094	719411	7558599	60.0	2.82	3.7	0.05	6.68
RP42095	719390	7558603	59.4	3.44	3.1	0.04	6.88
RP42096	719407	7558581	57.0	4.99	3.2	0.04	8.74
RP42097	719414	7558560	59.3	3.83	3.2	0.05	7.04
RP42098	719438	7558461	60.3	3.34	3.0	0.05	7.19
RP42102	719485	7560340	58.3	3.49	4.1	0.04	7.99
RP42103	719504	7560334	62.0	2.63	2.0	0.05	6.69
RP42104	719492	7560319	57.6	4.25	3.8	0.05	8.39
RP42105	719517	7560313	57.7	4.35	3.8	0.03	8.69
RP42106	719521	7560296	60.8	3.28	2.9	0.05	5.9
RP42107	719495	7560300	58.7	2.5	3.2	0.03	9.76
RP42108	719512	7560282	58.9	3.48	4.3	0.06	7.59
RP42109	719512	7560261	56.6	6.58	4.7	0.04	6.82
RP42110	719511	7560239	57.9	5.01	3.2	0.04	7.55
RP42111	719508	7560222	57.3	5.3	4.0	0.03	7.92
RP42112	719498	7560201	59.7	4.05	2.9	0.05	7.34
RP42113	719486	7560185	59.5	2.58	2.5	0.03	9.86
RP42114	719475	7560162	57.4	4.38	2.8	0.04	10.2
RP42115	719461	7560121	57.6	4.99	4.5	0.06	7.26
RP42116	719459	7560104	56.7	5.58	5.7	0.04	6.67
RP42117	719456	7560081	57.2	4.71	5.0	0.05	7.04
RP42118	719477	7560079	58.3	3.78	2.2	0.06	9.44
RP42119	719479	7560062	59.0	4.16	3.9	0.04	6.55
RP42120	719458	7560020	54.3	6.55	6.1	0.04	8.45
RP42121	719480	7560020	54.7	7.01	5.3	0.03	8.11
RP42122	719502	7560020	55.1	6.31	4.0	0.02	9.58
RP42123	719517	7560021	35.0	17.7	18.9	0.05	10.5
RP42124	719517	7559978	33.0	18.9	20.1	0.04	11.3
RP42125	719499	7559981	54.1	7.72	6.6	0.05	6.4
RP42126	719482	7559980	53.5	7.16	6.3	0.03	8.41
RP42127	719463	7559979	54.1	7.48	5.9	0.03	7.77
RP42128	719462	7559939	52.1	8.34	7.0	0.03	8.29
RP42129	719440	7559926	51.0	9.05	6.4	0.03	9.73

Sample ID	E	N	Fe %	Al2O3 %	SiO2 %	P %	LOI %
RP42130	719443	7559903	52.4	8.03	6.3	0.03	8.38
RP42131	719433	7559861	56.7	5.63	3.5	0.03	8.64
RP42132	719418	7559859	51.0	8.79	6.5	0.03	9.95
RP42133	719419	7559821	56.2	6.29	4.8	0.03	7.47
RP42134	719403	7559818	55.2	5.42	5.6	0.03	9.25
RP42135	719421	7559781	55.3	5.62	5.1	0.03	9.23
RP42136	719403	7559779	57.7	3.55	4.2	0.03	8.48
RP42137	719383	7559780	53.6	7.37	6.7	0.04	7.91
RP42138	719365	7559780	57.2	4.76	4.1	0.05	7.66
RP42139	719359	7559702	51.8	7	4.7	0.05	12.7
RP42140	719381	7559700	52.8	6.31	6.3	0.04	10.6
RP42141	719402	7559698	56.9	3.6	4.8	0.04	8.52
RP42142	719422	7559700	54.8	5.03	4.8	0.03	11
RP42143	719440	7559700	52.3	8.15	7.2	0.05	8.03
RP42145	719422	7559620	54.7	6.66	4.9	0.04	9.04
RP42146	719404	7559623	55.6	6.73	7.5	0.03	5.11
RP42147	719381	7559622	56.8	4.8	4.1	0.03	8.62
RP42148	719363	7559621	51.7	7.73	5.7	0.04	11.3
RP42149	719350	7559542	58.7	4.07	2.7	0.04	8.27
RP42150	719384	7559539	52.5	5.89	5.5	0.04	12
RP42151	719364	7559540	57.0	3.76	4.2	0.03	10.1
RP42152	719401	7559539	57.3	5.01	5.3	0.03	7.1
RP42153	719420	7559540	57.6	4.24	4.1	0.03	8.69
RP42154	719438	7559539	57.3	5.98	3.8	0.04	7.14
RP42155	719462	7559540	32.2	17.5	18.9	0.04	9.35
RP42156	719444	7559462	35.5	18	15.4	0.05	11.3
RP42157	719427	7559460	59.1	3.02	2.9	0.03	8.51
RP42158	719405	7559460	58.3	3.78	4.8	0.03	6.57
RP42159	719385	7559460	56.5	5.62	5.0	0.03	7.25
RP42160	719369	7559460	55.8	5.63	4.7	0.03	8.79
RP42161	719346	7559462	58.9	3.44	3.4	0.04	8.22
RP42162	719336	7559463	59.1	2.94	2.5	0.05	9.56
RP42163	719322	7559380	56.2	5.37	4.4	0.04	8.75
RP42164	719342	7559379	57.0	4.02	4.3	0.03	9.46
RP42165	719359	7559379	57.4	4.06	5.1	0.03	8.05
RP42166	719380	7559381	54.9	5.99	5.5	0.03	9.04
RP42167	719402	7559380	58.3	4.75	3.6	0.04	7.79
RP42168	719423	7559380	53.5	7.54	6.4	0.04	8.67
RP42169	719442	7559382	37.1	14.6	14.8	0.05	10.9
RP42170	719440	7559301	39.6	15.5	14.9	0.07	10.8
RP42171	719417	7559301	55.0	7.22	6.4	0.05	6.36
RP42172	719403	7559298	56.1	5.8	4.5	0.03	8.7
RP42173	719381	7559302	57.5	4.1	5.6	0.03	7.23
RP42174	719362	7559300	54.8	6.27	5.8	0.03	8.12
RP42175	719344	7559301	52.0	7.82	6.7	0.03	10.3
RP42176	719324	7559299	56.8	4.62	3.9	0.03	9.85
RP42177	719308	7559299	54.9	5.28	4.4	0.03	11
RP42178	719300	7559219	56.4	4.88	3.7	0.03	10.2
RP42179	719320	7559219	56.9	5.18	4.6	0.04	8.62
RP42180	719339	7559220	56.5	4.54	4.2	0.03	9.37
RP42181	719358	7559220	58.1	5.47	5.0	0.03	6.28
RP42182	719377	7559222	52.1	8.57	5.8	0.03	9.52
RP42183	719400	7559222	50.4	5.41	4.7	0.05	5.69
RP42184	719416	7559219	38.0	14.1	15.1	0.06	9.38
RP42185	719403	7559141	37.5	17.1	15.7	0.05	11.5
RP42186	719384	7559139	53.7	7.46	6.3	0.06	7.12
RP42187	719365	7559138	54.6	6.64	6.0	0.04	7.86
RP42188	719345	7559139	54.2	6.63	5.7	0.03	8.84
RP42189	719283	7559140	57.2	5.44	4.7	0.05	7.26
RP42190	719304	7559140	57.6	4.75	4.0	0.04	8.11
RP42191	719324	7559140	55.9	5.33	5.0	0.04	8.89
RP42192	719289	7559060	57.4	3.99	3.9	0.04	9.4

Sample ID	E	N	Fe %	Al2O3 %	SiO2 %	P %	LOI %
RP42193	719309	7559061	57.0	3.74	5.0	0.05	9.62
RP42194	719328	7559061	52.9	7.7	6.6	0.04	9.08
RP42195	719349	7559062	52.3	7.94	6.0	0.04	9.94
RP42196	719368	7559061	43.2	13.8	11.5	0.06	10.7
RP42197	723610	7556199	58.4	3.4	4.3	0.07	6.92
RP42198	723771	7556208	58.0	4	3.4	0.03	9.09
RP42199	723713	7556209	58.3	3.58	3.9	0.03	8.4
RP42200	723748	7556147	56.8	4.61	3.5	0.04	10.1
RP42201	723727	7556116	56.2	4.56	6.8	0.05	7.57
RP42202	723669	7556119	57.7	4.31	5.5	0.03	7.32
RP42203	721563	7556531	56.7	3.7	5.3	0.05	9.54
RP42204	721699	7556544	56.9	4.51	3.7	0.03	8.76
RP42205	721834	7556416	56.2	4.66	5.3	0.04	9.36
RP42206	721787	7556419	52.7	6.7	9.2	0.03	7.95
RP42207	721786	7556440	52.8	7.37	7.4	0.03	8.59
RP42208	721744	7556413	51.3	7.51	9.1	0.02	8.79
RP42209	721727	7556446	52.9	6.78	6.8	0.03	10.2
RP42210	721702	7556473	55.8	4.91	4.6	0.05	9.94
RP42211	721679	7556448	53.0	6.02	5.8	0.02	11.1
RP42212	721692	7556418	57.3	3.42	4.4	0.02	9.57
RP42213	721643	7556422	55.4	4.69	5.5	0.02	10.5
RP42214	721618	7556447	53.3	5.86	7.1	0.02	10.1
RP42215	721593	7556422	54.2	4.99	6.1	0.03	10.9
RP42216	721543	7556431	56.0	4.31	5.0	0.03	9.57
RP42217	721801	7556469	60.4	3.38	3.4	0.03	6.13
RP42218	717425	7559020	58.8	3.04	3.6	0.04	8.22
RP42219	717454	7558948	56.2	4.8	3.5	0.04	11.2
RP42220	717437	7558988	56.5	4.14	4.1	0.05	10.5
RP42221	717475	7558905	58.9	3.19	4.0	0.04	7.91
RP42222	717493	7558857	58.3	3.9	2.9	0.04	8.62
RP42223	717509	7558808	57.5	3.99	3.7	0.04	9.3
RP42224	717531	7558763	55.9	4.88	3.4	0.03	11.4
RP42235	721570	7556371	58.6	3.15	3.6	0.05	9.08
RP42236	721704	7556338	52.3	6.8	6.3	0.03	10.7
RP42242	730987	7662157	36.0	0.47	43.6	0.01	4.12
RP42243	731077	7661947	25.0	0.91	58.0	0.08	3.93
RP42244	731230	7661940	34.4	0.35	45.6	0.01	3.63
RP42245	731280	7661903	37.5	0.47	40.1	0.02	5.01
RP42246	731312	7661843	54.9	4.78	6.5	0.02	9.68
RP42247	731503	7661762	51.9	2.19	14.9	0.05	8.04
RP42248	731540	7661727	49.1	2.04	18.4	0.03	8.79
RP42249	730287	7662335	40.1	0.97	38.1	0.04	2.76
RP42250	730399	7662332	23.3	0.86	61.0	0.02	3.77
RP42251	730608	7662182	53.5	3.58	9.8	0.12	8.84
RP42252	737700	7662140	55.8	0.97	9.0	0.23	9.58
RP42253	730881	7662049	26.4	0.9	56.7	0.09	3.54
RP42254	730955	7662104	20.2	2.41	64.3	0.04	3.22
RP42255	731079	7662028	46.7	0.71	23.9	0.03	8.2
RP42256	731084	7661976	23.8	0.58	61.0	0.04	3.45

JORC CODE 2012 EDITION, TABLE 1

Section 1. Sampling Techniques and Data

This Table 1 refers to the 2024 mapping and rock chip sampling completed by Australian Critical Minerals (ACM) at the company's Cooletha and Shaw Projects

Criteria	JORC Code explanation	Commentary
Sampling techniques	▪ Nature and quality of sampling (e.g., cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. ▪ Include reference to measures taken to ensure sample representativity 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.	**ACM rock chip outcrop samples were taken at the discretion of the supervising geologist and given a sample number correlating with the observation point ID.** ▪ Outcrop samples were taken of Channel Iron Deposits (CID) at Cooletha and Banded Iron Formation (BIF) at Shaw project areas. ▪ Data spacing is variable due to the inherent irregular nature of outcrops and is determined by the supervising geologist. ▪ A total of 189 rock chip samples from Cooletha and 32 rock chip samples from Shaw are reported in this release. **ACM Cooletha and Shaw Rock Chip Assays** ▪ Samples were submitted to ALS, Perth, an ISO-certified contract laboratory in Perth. ▪ Sample preparation for the Cooletha and Shaw samples comprised crushing, splitting and pulverisation of a 750g sample to 85% passing 75µm prior to analysis (CRU-21, CRU-31, SPL-21, PUL-23, PUL-31h). ▪ All samples were assayed by fusion X-ray fluorescence spectroscopy (XRF) for elements Al2O3, As, Ba, CaO, Cl, Co, Cr2O3, Cu, Fe, K2O, MgO, Mn, Na2O, Ni, P, Pb, S, SiO2, Sn, Sr, TiO2, V, Zn, Zr (ME_XRF21u). Loss-on-Ignition (LOI) was calculated at 1000oC (GRA05). The XRF analysis is determined in conjunction with loss-on-ignition at 1000oC. The resulting data from both determinations are combined to produce a "total" calculation. **Sampling** ▪ Rock samples were taken by hammer and chisel of rock outcrop. ▪ Samples were localised, and care was taken to achieve a representative sample of each site. ▪ Samples were placed in a numbered calico sample bag. ▪ Secured in Polyweave sacks and delivered for assay by ACM personnel
Drilling techniques	▪ 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	▪ No drilling has been reported.

Criteria	JORC Code explanation	Commentary
	core is oriented and if so, by what method, etc).	
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.	▪ No drilling has been reported.
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.	**None of the information in this announcement is intended to support a Mineral Resource Estimate.** **ACM Cooletha and Shaw Rock Chip Sampling** ▪ Rock chip samples were logged in the field at the time the samples were collected by an appropriately experienced geologist. ▪ Geological information for rock chip samples was recorded qualitatively, including colour, rock type, weathering, dominant alteration mineral and mineralisation. ▪ Sample type was recorded as an outcrop, subcrop, float or continuous rock chip. ▪ Each sample was given a unique sample ID. ▪ Most samples were photographed on top of the sample bag with the sample ID showing.
Sub- sampling techniques and sample preparation	▪ If core, whether cut or sawn and whether quarter, half or all core taken. ▪ If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. ▪ For all sample types, the nature, quality, and appropriateness of the sample preparation technique. ▪ Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. ▪ Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.	**ACM Cooletha and Shaw Rock Chip Sampling** ▪ Outcrop samples were taken using a geopick and block hammer at the supervising geologist's discretion. ▪ Data spacing is variable due to the inherent irregular nature of outcrops and is determined by the supervising geologist. ▪ Samples range between 3-5kg in weight. ▪ Field duplicates were taken at a rate of 2 in every 100 samples. ▪ Certified Reference Material (CRM) materials were inserted into the sampling sequence at a rate of 4.2 in 100. ▪ Coarse Blanks were inserted into the sampling sequence at a rate of 3.3 in 100. ▪ ALS Perth, an ISO-certified contract laboratory, provided sample preparation. ▪ Sample preparation comprised crushing, splitting and pulverisation of a 750g sample to 85% passing 75µm prior to analysis (CRU-21, CRU-31, SPL-21, PUL-23, PUL-31h).

Criteria	JORC Code explanation	Commentary
	▪ Whether sample sizes are appropriate to the grain size of the material being sampled.	
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	**ACM Cooletha and Shaw Rock Chip Sampling** ▪ Most samples are photographed on top of the sample bag with the sample number displayed. ▪ Most QA/QC analytical standards are photographed, and the Standard ID is removed before it is placed into a sample bag. ▪ Samples were submitted to ALS, Perth, an ISO-certified contract laboratory in Perth. ▪ Sample preparation comprised crushing, splitting and pulverisation of a 750g sample to 85% passing 75µm prior to analysis (CRU-21, CRU-31, SPL-21, PUL-23, PUL-31h). ▪ All samples were assayed by fusion X-ray fluorescence spectroscopy (XRF) for elements Al2O3, As, Ba, CaO, Cl, Co, Cr2O3, Cu, Fe, K2O, MgO, Mn, Na2O, Ni, P, Pb, S, SiO2, Sn, Sr, TiO2, V, Zn, Zr (ME_XRF21u). Loss-on-Ignition (LOI) was calculated at 1000oC (GRAV05). The XRF analysis is determined in conjunction with loss-on-ignition at 1000oC. The resulting data from both determinations are combined to produce a "total" calculation. ▪ ALS quality control procedures include blanks, standards, pulverisation repeat assays, weights and sizings. **Insertion Rate** ▪ Batch PH24277866 has met the expected insertion rate for standards, blanks and duplicates. The QAQC insertion rate per 100 Samples to the batch is listed in table below **ALS Insertion Rate Per 100 Samples** Lab batch / Certified Reference Materials (CRMs) / Coarse Blank / Duplicates / #Orig / #Origh+QC #: # | # | % | # | % | # | % | # | # PH24277866: 9 | 4.2 | 7 | 3.3 | 4 | 1.9 | 214 | 234 **Standards** ▪ Certified CRMs were inserted at a rate of 4.2%. **Duplicates** ▪ All elements showed good repeatability, all returning under the acceptable 30 percent difference for field duplicates except for a very low-level P (0.055 VS 0.04ppm) which returned 31.5%. The extremely low-level P returning 31.5% is deemed acceptable since variability at low levels is high. **Blanks** ▪ The Coarse blanks returned results that were less than 10% above the expected values for all elements reviewed (Al2O3, Fe, P, SiO2, TiO2, and LOI), except for Fe, where one sample

Criteria	JORC Code explanation	Commentary
		returned above by 0.5%. There was no high Fe in the surrounding samples to cause any possible contamination, however since the values are very low and the material is not certified, the variations are likely due to natural variability in the source material. As a result, they were considered acceptable.
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, and data storage (physical and electronic) protocols. ▪ Discuss any adjustment to assay data.	**ACM Cooletha and Shaw Rock Chip Sampling** ▪ Location data was recorded using a Garmin 62 series GPS and transferred to a Microsoft Excel spreadsheet. ▪ All data is stored on a private cloud NAS server featuring multi-site replication (Resilio Connect), redundancy (RAID), and onsite and offsite backups (via tape and cloud backup). These servers are protected via FortiGate Firewalls with IPS/IDS, with least privilege access, regular security patching, and proactive security monitoring, including regular audits by the consultant IT team. ▪ Laboratory assays have not been adjusted/recalculated/normalised in any way. ▪ No drill intercepts are reported in this release.
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.	**ACM Cooletha and Shaw Rock Chip and Channel Sampling** ▪ The grid system used is GDA94 datum and MGA Zone 50 map projection for easting/northing/RL. ▪ Garmin GPSMAP 62 series handheld GPS was used to record observation and sample points with an accuracy of +/-4m. ▪ RLs were obtained using a Garmin GPSMAP 62 series handheld GPS which is adequate for the reconnaissance nature of the exploration.
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.	**ACM Cooletha and Shaw Rock Chip Sampling** ▪ Data spacing is variable due to the inherent irregular nature of outcrops and determined by the supervising geologist. ▪ No sample compositing has been applied. **No Mineral Resource and Ore Reserve estimate is reported in this release.**
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	**ACM Cooletha and Shaw Rock Chip Sampling** ▪ Rock chip sampling is conducted along strike of targeted structures or outcrops determined by the supervising geologist and assisted by GPS and GIS polygons. ▪ Sampling was also conducted perpendicular to the strike of the targeted structures to explore for parallel structures.

Criteria	JORC Code explanation	Commentary
	▪ mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	▪ The measures taken to ensure sample security.	▪ Sample security protocols adopted by ACM are documented. ACM site personnel with the appropriate experience and knowledge manage the chain of custody protocols for rock chip samples from site to laboratory.
Audits or reviews	▪ The results of any audits or reviews of sampling techniques and data.	▪ No audits or reviews undertaken.

Section 2. Reporting Exploration Results

(The criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	▪ Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. ▪ The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	**The Greater Cooletha exploration area is currently made up of two licences E45/4990 (Cooletha) and E45/5228 (Cooletha South)** **E45/4990 (Cooletha)** ▪ E45/4990 was granted to Proterozoic Gold, a 100% subsidiary of Great Southern Gold Pty, on the 24th of October 2019 for a period of 5 years. The licence at granting consisted of 39 blocks. ▪ On 27/03/2023, 100% of E45/4990 was acquired by Australian Critical Minerals Ltd (ACM). ▪ The licence is currently due to expire on the 23 October 2024 and a renewal application has been lodged. **E45/5228 (Cooletha South)** ▪ E45/5228 was granted to Proterozoic Gold, a 100% subsidiary of Great Southern Gold Pty, on 29 July 2019 for a period of 5 years. The licence at granting consisted of 40 blocks. ▪ On 27/03/2023, 100% of E45/4990 was acquired by Australian Critical Minerals Ltd (ACM). ▪ The licence is currently due to expire on the 28th of July 2029. **E45/5006 (Shaw)** ▪ E45/5006 was granted to Proterozoic Gold, a 100% subsidiary of Great Southern Gold Pty, on 4 July 2018 for a period of 5 years. An application was for renewal was accepted in 2023 for a further 5 year period. The licence currently consists of 29 blocks. ▪ On 27/03/2023, 100% of E45/4990 was acquired by Australian Critical Minerals Ltd (ACM). ▪ The licence is currently due to expire on the 3rd of July 2028. **Additionally, ACM has the following licences in applications.** ▪ E45/5052 (Cooletha North), consisting of 5 blocks, is currently in application. The application was submitted on 23 Oct 2017. ▪ E45/6375 (Cooletha East), consisting of 42 blocks, is currently in application. The application was submitted on 12 Oct 2022. ▪ No impediments to granted tenure exist.
Exploration done by other parties	▪ Acknowledgment and appraisal of exploration by other parties.	▪ Historical work conducted at Cooletha and Shaw that has been reported to DMIRS was documented in the ACM IPO prospectus – ASX:ACM 29 June 2023.
Geology	▪ Deposit type, geological setting, and style of mineralisation.	**Cooletha Project** ▪ Deposit types – Lithium Caesium Tantalum (LCT) pegmatite, Channel Iron Deposits. ▪ Geological Setting – The project area straddles the southern contact of the Pilbara craton and the Fortescue basin. The Split Rock Supersuite and East Pilbara granitoid rocks are proposed to be the likely source of the pegmatites that have been emplaced into the mafic sequences of the Pilbara Supergroup and Soansville group. ▪ Style of Mineralisation – Li and Ta mineralisation is targeted in highly fractionated pegmatites. Channel Iron Deposits above the

Criteria	JORC Code explanation	Commentary
		Fortescue Group and Conglomerate hosted gold and manganese shales at the base of the Fortescue Group. **Shaw Project** ▪ Deposit types – Banded Iron formation (BIF), Conglomerate hosted gold, Uranium. ▪ Geological Setting – The geology of the Shaw Project is dominated by volcanic and sedimentary rocks of the De Grey Supergroup, as well as domal granitic complexes, minor intrusions, and outliers of the Mount Bruce Supergroup (Fortescue Group). ▪ Style of Mineralisation – ACM is targeting multiple, stacked gold-bearing conglomerate reefs of similar style to Purdy's Reward and Loudens Patch on the outcropping NW edge of the Pilbara Craton, in the Archaean Lalla Rookh Sandstone Formation, within the Croydon Group of the De Grey Supergroup. Additionally, BIF iron deposits occuring west and south of the Lalla Rookh Sandstone Formation and potentially related to the Abydos Iron Ore Mine indicate potential for BIF development within the license.
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	▪ No drilling reported

Criteria	JORC Code explanation	Commentary
Data aggregation methods	▪ 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. ▪ 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.	▪ No weighting or averaging techniques have been used on this data as no drilling and no drill results are reported. ▪ No resource estimation is reported in this announcement.
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'). ▪ Appropriate maps and sections	▪ No drilling 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 drill hole collar locations and appropriate sectional views.	▪ Sample location maps are included in the announcement.

Criteria	JORC Code explanation	Commentary
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.	▪ No drilling reported
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.	▪ Refer to ACM news release dated 29th June 2023 – Prospectus ▪ Refer to ACM Company Presentation dated 13 December 2023 ▪ Refer to ACM news release dated 23rd November 2023 – Lithium Prospectivity Confirmed At Cooletha Project ▪ Refer to ACM news release dated 26th September 2023 – Cooletha Lithium Sampling and Rankin Dome Drilling Update ▪ Refer to ACM news release dated 28 August 2023 – Cooletha Exploration Update ▪ Refer to ACM news release dated 19 August 2024 – Outstanding Results from Pilbara Iron Ore Exploration Programs ▪ Refer to ACM news release dated 15 October 2024 – Shaw and Cooletha Iron Exploration Update
Further work	▪ The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions, or large-scale step-out drilling). ▪ Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Proposed work programs include: ▪ Reconnaissance rock chip sampling of interpreted BIF lithologies at the Shaw Western and Eastern BIF zones. ▪ Analysis and reconstruction of paleo-drainage systems at Cooletha to explore for concealed CID. ▪ Drill program scoping and access assessments at Shaw and Cooletha projects.