

ANNOUNCEMENT | 19 JUNE 2024 | ASX: E25

## INFILL DRILLING COMPLETED AT BUTCHERBIRD TARGETING RESERVE EXTENSION TO SUPPORT EXPANSION

Element 25 Limited (**E25** or **Company**) (ASX: E25; OTCQX: ELMTF) is pleased to advise that resource infill drilling has been completed at the Company's 100%-owned Butcherbird Manganese Project (**Butcherbird** or **Project**). E25 recently completed a Feasibility Study (FS) to support the Butcherbird Expansion Project, which is targeting a nominal 1.1 million tonnes per annum of manganese concentrate production<sup>1</sup>.

Current reserves are based around mineral resources within granted mining lease M52/1074, of which less than half has been drilled to a sufficient density to meet the requirements for measured and indicated classifications. The balance is classified as inferred. The additional drilling will provide infill data to better define and potentially convert these areas to indicated or measured categories to support the re-estimation of mine reserves. The increase in the "reserve tail" will support project financing activities with NAIF and other potential financiers who are currently undertaking project expansion due diligence<sup>2</sup>.

### HIGHLIGHTS

- 207 percussion drill holes have been completed for 6,202m targeting infill of existing inferred resources.
- All samples have been dispatched to Bureau Veritas for assay with results pending.



Figure 1: Aerial photograph of the resource infill drilling rig with support vehicles and personnel.

<sup>1</sup> Reference: ASX Company Release dated 23 January 2024

<sup>2</sup> Reference: ASX Company Release dated 8 April 2024

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The Project hosts a global resource of over 260Mt of manganese ore<sup>3</sup> however the current reserves are limited to the areas which have been drilled out to measured and indicated classifications which are required as the basis for a statement of reserves. The current drilling programme was designed to infill existing inferred resources to a sufficient data density, based on variographic analysis, to convert the inferred resources within granted mining lease M52/1074 to indicated and/or measured.

The additional drilling information, combined with historical data, will be used to recalculate the resource base to support a recalculation of the proved and probable reserves to support project financing activities for the Butcherbird Expansion Project by increasing the “reserve tail”. Samples have been submitted for assay with results pending.

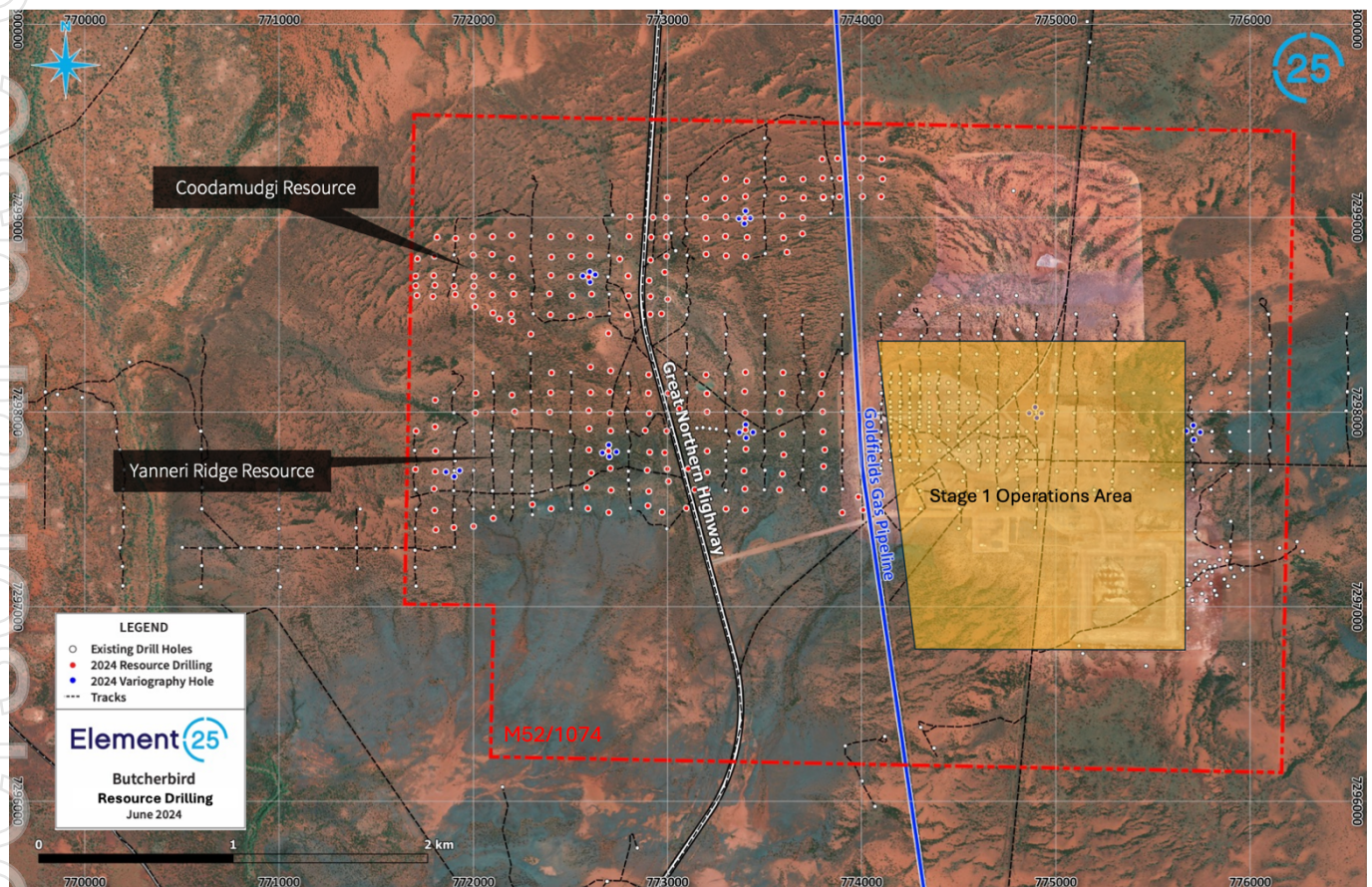


Figure 2: Drillhole collar location plan summarising existing and proposed drillhole collar locations.

**Element 25 Managing Director Justin Brown said:**

*“This drilling programme will allow the global resource at Butcherbird to be recalculated with a higher degree of certainty which is expected to result in a signification conversion of inferred resources to measured and indicated classifications to increase the reserve tail in support of the planned ramp up to 1.1Mt production rates.”*

**Note:** There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

<sup>3</sup> Reference: ASX release dated 29 September 2023.



## ABOUT ELEMENT 25

Element 25 is an ASX-listed company (**ASX: E25**) that operates the world-class 100%-owned Butcherbird Manganese Project in Western Australia and is currently undertaking activities to expand production to approximately 1.1Mtpa of medium-grade high silica manganese ore for use in traditional and new energy markets.

E25 is also commercialising innovative proprietary technology to produce battery-grade high-purity manganese sulphate monohydrate (**HPMSM**) for use in Electric Vehicle (**EV**) battery manufacturing. The Company plans to build its first HPMSM refinery in Louisiana, USA, to produce raw materials for the US EV market, in partnership with General Motors LLC (**GM**) and Stellantis N.V. (**Stellantis**). E25 aims to become an industry-leading, world-class, low-carbon battery materials manufacturer.

Company information, ASX announcements, investor presentations, corporate videos, and other investor material in the Company's projects can be viewed at: [www.element25.com.au](http://www.element25.com.au).

This announcement is authorised for market release by Element 25 Limited's Board of Directors.

### Justin Brown

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## Competent Persons Statement

The company confirms that in the case of estimates of Mineral Resource or Ore Reserves, all material assumptions and technical parameters underpinning the estimates in the market announcement dated 29 September 2023 continue to apply and have not materially changed. The company confirms that the form and context in which the competent person's findings are presented has not been materially modified from the original market announcement.

The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Mr Justin Brown who is a member of the Australasian Institute of Mining and Metallurgy. At the time that the Exploration Results and Exploration Targets were compiled, Mr Brown was an employee of Element 25 Limited. Mr Brown is a geologist and 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'. Mr Brown consents to the inclusion of this information in the form and context in which it appears in this report.

## APPENDIX 1 - DRILLHOLE COLLAR LOCATIONS

Hole ID	Easting	Northing	Collar RL	Depth	Azimuth	Dip
BBAC00207	775,707.735	7,297,931.531	626.665	24	0	-90
BBAC00208	775,670.940	7,297,902.996	620.475	30	0	-90
BBAC00209	775,742.867	7,297,896.150	608.895	12	0	-90
BBAC00210	775,709.822	7,297,857.117	621.574	18	0	-90
BBAC00211	774,005.430	7,299,107.414	626.925	36	0	-90
BBAC00212	774,101.752	7,299,106.865	627.067	36	0	-90
BBAC00213	774,108.285	7,299,197.518	625.886	30	0	-90
BBAC00214	773,995.636	7,299,203.811	626.158	30	0	-90
BBAC00215	774,005.283	7,299,303.276	624.688	24	0	-90
BBAC00216	774,104.708	7,299,300.334	624.788	30	0	-90
BBAC00217	773,876.669	7,299,302.902	618.915	30	0	-90
BBAC00218	773,889.102	7,299,201.232	624.224	30	0	-90
BBAC00219	773,886.631	7,299,105.845	626.233	36	0	-90
BBAC00220A	773,803.510	7,299,101.370	627.328	6	0	-90
BBAC00220B	773,803.077	7,299,105.364	627.915	42	0	-90
BBAC00221	773,800.289	7,299,202.080	632.967	36	0	-90
BBAC00222	773,797.927	7,299,299.669	631.503	36	0	-90
BBAC00223	773,699.079	7,299,196.293	630.221	36	0	-90
BBAC00224	773,595.058	7,299,197.760	634.764	36	0	-90
BBAC00225	773,596.583	7,299,098.635	630.383	36	0	-90
BBAC00226	773,700.566	7,299,100.931	633.996	36	0	-90
BBAC00227	773,697.142	7,298,998.028	635.382	42	0	-90
BBAC00228	773,592.384	7,299,008.383	631.900	36	0	-90
BBAC00229	773,597.682	7,298,894.551	638.721	42	0	-90
BBAC00230	773,696.279	7,298,917.020	626.899	30	0	-90
BBAC00231	773,616.451	7,298,821.142	629.523	30	0	-90
BBAC00232	773,402.346	7,298,798.597	635.129	42	0	-90
BBAC00233	773,409.543	7,298,897.441	627.030	36	0	-90
BBAC00234	773,425.782	7,298,996.545	633.623	42	0	-90
BBAC00235	773,398.287	7,298,997.192	653.659	42	0	-90
BBAC00236	773,395.794	7,298,968.309	636.810	42	0	-90
BBAC00237	773,367.887	7,298,994.568	632.315	36	0	-90
BBAC00238	773,401.624	7,299,033.156	628.836	42	0	-90
BBAC00239	773,401.039	7,299,107.206	620.039	42	0	-90
BBAC00240	773,407.465	7,299,187.334	633.062	30	0	-90
BBAC00241	773,298.375	7,299,199.434	620.937	30	0	-90
BBAC00242	773,295.926	7,299,099.271	631.171	42	0	-90
BBAC00243	773,299.933	7,299,002.542	629.300	36	0	-90
BBAC00244	773,298.598	7,298,902.813	631.692	42	0	-90
BBAC00245	773,301.832	7,298,802.652	636.524	42	0	-90
BBAC00246	773,199.068	7,298,811.302	626.578	36	0	-90
BBAC00247	773,199.028	7,298,892.884	626.008	36	0	-90
BBAC00248	773,195.019	7,299,000.038	626.435	36	0	-90
BBAC00249	773,196.202	7,299,097.224	624.065	30	0	-90
BBAC00250	772,992.927	7,299,000.304	624.744	30	0	-90
BBAC00251	772,998.047	7,299,101.845	623.624	24	0	-90
BBAC00252	772,995.034	7,298,899.839	626.250	30	0	-90
BBAC00253	772,995.249	7,298,800.963	627.882	30	0	-90
BBAC00254	772,985.736	7,298,719.018	628.919	30	0	-90
BBAC00255	773,000.796	7,298,579.727	625.178	30	0	-90
BBAC00256	772,969.304	7,298,505.521	626.608	24	0	-90
BBAC00257	772,911.490	7,298,502.323	627.928	18	0	-90
BBAC00258	772,912.657	7,298,593.963	628.565	36	0	-90
BBAC00259	772,905.929	7,298,676.010	628.469	24	0	-90
BBAC00260	772,913.150	7,298,781.059	623.367	24	0	-90
BBAC00261	772,915.924	7,298,898.050	622.869	30	0	-90
BBAC00262	772,925.621	7,299,000.059	622.912	30	0	-90
BBAC00263	772,806.316	7,299,003.481	622.326	36	0	-90
BBAC00264	772,802.412	7,298,901.805	625.512	30	0	-90
BBAC00265	772,754.588	7,298,786.125	624.184	30	0	-90
BBAC00266	772,797.875	7,298,699.606	628.940	30	0	-90
BBAC00267	772,799.551	7,298,597.487	627.783	30	0	-90

Hole ID	Easting	Northing	Collar RL	Depth	Azimuth	Dip
BBAC00268	772,794.901	7,298,499.040	627.283	30	0	-90
BBAC00269	772,696.733	7,298,404.183	627.901	30	0	-90
BBAC00270	772,600.539	7,298,500.043	627.913	24	0	-90
BBAC00271	772,508.460	7,298,598.926	623.211	18	0	-90
BBAC00272	772,608.485	7,298,606.184	625.990	24	0	-90
BBAC00273	772,600.040	7,298,667.759	622.858	30	0	-90
BBAC00274	772,563.094	7,298,699.618	622.488	30	0	-90
BBAC00275	772,593.434	7,298,693.929	627.567	30	0	-90
BBAC00276	772,627.269	7,298,706.131	633.694	24	0	-90
BBAC00277	772,599.036	7,298,720.866	626.896	30	0	-90
BBAC00278	772,600.120	7,298,803.095	627.008	30	0	-90
BBAC00279	772,601.928	7,298,896.273	635.233	24	0	-90
BBAC00280	772,499.150	7,298,903.813	627.931	24	0	-90
BBAC00281	772,503.629	7,298,799.977	621.876	24	0	-90
BBAC00282	772,501.497	7,298,695.275	619.193	30	0	-90
BBAC00283	772,502.738	7,298,492.073	632.683	24	0	-90
BBAC00284	772,396.217	7,298,500.344	628.824	30	0	-90
BBAC00285	772,392.604	7,298,607.155	634.258	24	0	-90
BBAC00286	772,399.626	7,298,702.564	628.457	30	0	-90
BBAC00287	772,401.756	7,298,796.628	626.873	24	0	-90
BBAC00288	772,397.995	7,298,901.119	623.936	24	0	-90
BBAC00289	772,197.973	7,298,908.868	620.966	30	0	-90
BBAC00290	772,197.982	7,298,788.498	620.633	30	0	-90
BBAC00291	772,200.264	7,298,696.783	626.162	36	0	-90
BBAC00292	772,206.540	7,298,606.997	627.673	30	0	-90
BBAC00293	772,194.291	7,298,503.922	625.194	24	0	-90
BBAC00294	772,295.723	7,298,400.763	627.885	24	0	-90
BBAC00295	772,100.912	7,298,509.391	625.454	24	0	-90
BBAC00296	772,098.255	7,298,602.879	623.554	24	0	-90
BBAC00297	772,101.194	7,298,701.916	625.511	42	0	-90
BBAC00298	772,096.194	7,298,810.639	626.062	24	0	-90
BBAC00299	772,098.759	7,298,901.368	621.059	24	0	-90
BBAC00300	771,997.277	7,298,902.450	618.697	30	0	-90
BBAC00301	771,998.980	7,298,807.095	621.121	24	0	-90
BBAC00302	772,002.847	7,298,697.390	620.925	36	0	-90
BBAC00303	772,002.184	7,298,647.308	617.521	24	0	-90
BBAC00304	771,899.766	7,298,647.404	625.644	24	0	-90
BBAC00305	771,908.367	7,298,892.752	623.973	24	0	-90
BBAC00306	771,812.544	7,298,897.820	619.715	24	0	-90
BBAC00307	771,799.309	7,298,801.202	621.187	24	0	-90
BBAC00308	771,795.656	7,298,701.621	622.266	36	0	-90
BBAC00309	771,801.296	7,298,651.854	612.815	24	0	-90
BBAC00310	771,703.197	7,298,649.542	621.569	48	0	-90
BBAC00311	771,702.632	7,298,699.100	619.248	36	0	-90
BBAC00312	771,711.948	7,298,787.143	618.094	24	0	-90
BBAC00313	771,803.475	7,298,061.587	624.444	30	0	-90
BBAC00314	772,011.639	7,298,097.564	621.795	24	0	-90
BBAC00315	772,009.272	7,297,996.416	625.146	36	0	-90
BBAC00316	771,802.654	7,297,924.603	627.303	30	0	-90
BBAC00317	771,704.990	7,297,902.327	626.794	18	0	-90
BBAC00318	771,701.774	7,297,704.759	621.753	30	0	-90
BBAC00319	771,804.812	7,297,799.974	620.924	36	0	-90
BBAC00320	771,859.160	7,297,692.396	623.434	36	0	-90
BBAC00321	771,928.920	7,297,699.361	622.088	36	0	-90
BBAC00322	771,803.266	7,297,694.146	624.522	30	0	-90
BBAC00323	771,901.225	7,297,668.420	626.073	24	0	-90
BBAC00324	771,796.982	7,297,605.040	625.528	42	0	-90
BBAC00325	771,800.432	7,297,494.907	625.003	36	0	-90
BBAC00326	771,806.718	7,297,395.032	624.582	36	0	-90
BBAC00327	771,899.301	7,297,406.424	629.323	30	0	-90
BBAC00328	772,000.812	7,297,412.662	627.519	18	0	-90
BBAC00329	772,102.203	7,297,454.040	624.368	24	0	-90
BBAC00330	772,303.325	7,297,525.183	625.082	23	0	-90
BBAC00331	772,399.828	7,297,503.467	618.240	24	0	-90
BBAC00332	772,211.985	7,298,002.246	630.967	30	0	-90

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Hole ID	Easting	Northing	Collar RL	Depth	Azimuth	Dip
BBAC00333	772,198.619	7,298,087.849	628.721	18	0	-90
BBAC00334	772,401.904	7,298,202.068	623.364	30	0	-90
BBAC00335	772,397.704	7,298,100.398	629.552	30	0	-90
BBAC00336	772,392.916	7,297,999.956	633.137	36	0	-90
BBAC00337	772,707.111	7,298,212.110	631.022	30	0	-90
BBAC00338	772,603.042	7,298,231.308	626.656	42	0	-90
BBAC00339	772,703.282	7,298,103.780	627.664	36	0	-90
BBAC00340	772,602.740	7,298,100.854	630.786	30	0	-90
BBAC00341	772,594.235	7,298,007.582	630.085	30	0	-90
BBAC00342	772,595.874	7,297,914.439	634.286	30	0	-90
BBAC00343	772,707.110	7,297,903.417	634.627	30	0	-90
BBAC00344	772,704.740	7,297,995.682	638.036	30	0	-90
BBAC00345	772,698.087	7,297,830.874	637.137	30	0	-90
BBAC00346	772,696.673	7,297,799.647	643.718	30	0	-90
BBAC00347	772,665.337	7,297,790.723	635.969	30	0	-90
BBAC00348	772,737.289	7,297,795.310	636.601	30	0	-90
BBAC00349	772,700.883	7,297,770.634	638.212	28	0	-90
BBAC00350	772,706.015	7,297,711.120	638.260	22	0	-90
BBAC00351	772,606.896	7,297,687.114	638.727	28	0	-90
BBAC00352	772,594.684	7,297,805.724	629.676	28	0	-90
BBAC00353	772,583.812	7,297,611.517	641.384	28	0	-90
BBAC00354	772,590.452	7,297,503.876	635.079	16	0	-90
BBAC00355	772,709.610	7,297,598.326	633.607	28	0	-90
BBAC00356	772,698.261	7,297,483.937	622.258	16	0	-90
BBAC00357	772,903.965	7,297,592.341	631.597	22	0	-90
BBAC00358	772,899.181	7,297,518.610	619.477	16	0	-90
BBAC00359	772,972.537	7,297,485.596	622.146	15	0	-90
BBAC00360	773,096.757	7,297,505.898	620.911	10	0	-90
BBAC00361	773,004.839	7,297,643.580	638.811	26	0	-90
BBAC00362	772,908.493	7,297,793.871	634.816	22	0	-90
BBAC00363	772,985.893	7,297,791.596	633.460	28	0	-90
BBAC00364	772,998.663	7,297,707.100	630.185	25	0	-90
BBAC00365	772,896.129	7,297,700.898	629.200	28	0	-90
BBAC00366	772,885.487	7,297,905.491	638.383	34	0	-90
BBAC00367	772,902.103	7,298,097.375	639.238	34	0	-90
BBAC00368	772,906.280	7,297,993.544	627.886	34	0	-90
BBAC00369	772,996.065	7,297,902.683	629.843	28	0	-90
BBAC00370	772,903.740	7,298,192.220	625.473	34	0	-90
BBAC00371	773,001.865	7,298,096.542	638.329	32	0	-90
BBAC00372	773,000.102	7,298,199.332	632.256	31	0	-90
BBAC00373	773,198.798	7,298,191.698	636.605	28	0	-90
BBAC00374	773,203.015	7,298,095.290	639.085	28	0	-90
BBAC00375	773,203.816	7,298,000.843	637.368	28	0	-90
BBAC00376	773,061.533	7,298,017.462	635.018	28	0	-90
BBAC00377	773,204.464	7,297,799.203	638.320	28	0	-90
BBAC00378	773,399.229	7,297,996.819	633.651	31	0	-90
BBAC00379	773,397.291	7,298,105.810	635.104	28	0	-90
BBAC00380	773,401.542	7,298,204.488	638.069	28	0	-90
BBAC00381	773,402.501	7,297,935.455	641.514	33	0	-90
BBAC00382	773,369.546	7,297,895.422	633.192	32	0	-90
BBAC00383	773,404.632	7,297,867.470	644.405	32	0	-90
BBAC00384	773,440.204	7,297,895.933	650.064	32	0	-90
BBAC00385	773,400.768	7,297,908.890	634.016	32	0	-90
BBAC00386	773,403.507	7,297,809.630	634.059	35	0	-90
BBAC00387	773,393.711	7,297,697.541	624.506	19	0	-90
BBAC00388	773,397.996	7,297,604.680	627.190	12	0	-90
BBAC00389	773,578.169	7,297,600.392	641.393	8	0	-90
BBAC00390	773,578.695	7,298,002.747	640.080	27	0	-90
BBAC00391	773,593.903	7,297,887.171	635.996	28	0	-90
BBAC00392	773,599.245	7,297,780.994	635.598	31	0	-90
BBAC00393	773,593.166	7,297,682.463	638.872	25	0	-90
BBAC00394	773,591.830	7,298,098.372	640.507	34	0	-90
BBAC00395	773,595.993	7,298,202.924	641.316	30	0	-90
BBAC00396	773,798.425	7,298,194.438	641.060	28	0	-90
BBAC00397	773,794.258	7,298,094.977	641.047	32	0	-90

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Hole ID	Easting	Northing	Collar RL	Depth	Azimuth	Dip
BBAC00398	773,799.750	7,298,001.767	642.856	31	0	-90
BBAC00399	773,801.297	7,297,899.093	647.168	28	0	-90
BBAC00400	773,810.760	7,297,806.242	647.587	27	0	-90
BBAC00401	773,805.111	7,297,721.311	643.071	32	0	-90
BBAC00402	773,204.001	7,297,603.481	630.702	10	0	-90
BBAC00403	773,205.483	7,297,691.266	632.326	22	0	-90
BBAC00404	773,106.434	7,297,708.359	635.014	22	0	-90
BBAC00405	773,140.340	7,297,601.340	630.088	13	0	-90
BBAC00406	773,400.122	7,297,497.101	628.369	4	0	-90
BBAC00407	773,301.162	7,297,502.497	629.846	10	0	-90
BBAC00408	773,901.444	7,297,483.366	638.844	26	0	-90
BBAC00409	773,806.081	7,297,603.314	642.135	28	0	-90
BBAC00410	773,984.088	7,297,564.354	631.352	22	0	-90
BBAC00411	774,008.489	7,297,497.297	629.025	19	0	-90
BBAC00412	774,863.169	7,297,995.281	627.942	22	0	-90
BBAC00413	774,894.470	7,298,025.270	622.046	22	0	-90
BBAC00414	774,927.312	7,297,995.180	619.064	22	0	-90
BBAC00415	774,902.305	7,297,970.242	622.251	22	0	-90
BBAC00416	771,709.438	7,298,599.120	623.734	40	0	-90
BBAC00417	771,792.282	7,298,594.103	624.823	24	0	-90
BBAC00418	771,906.135	7,298,605.470	625.451	22	0	-90
BBAC00419	771,998.489	7,298,596.068	623.321	27	0	-90
BBAC00420	772,008.059	7,298,541.282	624.616	22	0	-90
BBAC00421	772,134.017	7,298,479.055	619.149	16	0	-90
BBAC00422	772,200.080	7,298,467.102	621.861	16	0	-90

Table 1. Butcherbird resource infill drilling programme drillhole details.

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## APPENDIX 2: JORC CODE, 2012 EDITION – TABLE 1: BUTCHERBIRD RESOURCE INFILL DRILLING

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Sampling has been carried out using reverse circulation (RC) drilling.</li> <li>RC samples are collected as drill chips from the drill rig utilizing a cyclone unit with a static Ox Engineering designed Static Cone Splitter to produce a 3-5kg sample for each metre drilled collected in a numbered calico bag.</li> <li>Samples were visually assessed by the geologist to determine whether they are mineralised. Mineralised 1m samples were collected in a suitable calico bag for analysis.</li> <li>Sample collection is carried out according to Element 25 sampling and QAQC protocols including standards and blanks at regular intervals.</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse Circulation (RC) Drilling rig owned and operated by Strike Drilling. Holes are drilled using a 143mm diameter face sampling drill bit. RC holes are drilled between 4 and 48m depths.</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>RC – The majority of RC samples collected are dry with wet or moist samples identified during sampling and recorded in the spreadsheet. RC recovery is visually estimated, and recoveries are recorded in the spreadsheet with recovery generally considered to be good. Face sampling drill bits are used to maximize sample recovery and samples are collected via a cyclone with a cone splitter. The cyclone is cleaned at the end of every rod to prevent material accumulating within it and the cyclone level is checked before drilling commences to ensure that it is collecting unbiased samples.</li> <li>No significant sample bias or material loss has been observed to have taken place and there is not considered to be any relationship between sample recovery and grade.</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>All RC holes are fully geologically logged by geologists using the Element 25 logging scheme.</li> <li>Logging records lithology, mineralogy and weathering.</li> <li>All RC holes have every metre wet sieved and representative drill chips are collected and placed into a chip tray. Almost every chip tray has been photographed and then kept in storage at the Element 25 storage facility in Perth.</li> <li>The level of logging detail is considered sufficient for mineral resource estimation and technical studies.</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative</li> </ul>	<ul style="list-style-type: none"> <li>RC samples are collected as drill chips from the drill rig to produce a 3-5kg sample for each metre drilled. Only mineralised samples were collected for assay</li> <li>The sample bags were pre-prepared so that at every 25 metres either a standard, blank or field duplicate was inserted. That way the likelihood was high that as many holes as possible have one standard/blank and</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p><i>of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></p> <ul style="list-style-type: none"> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<p>duplicate since only mineralised samples were submitted for assay.</p> <ul style="list-style-type: none"> <li>• Assaying is being conducted by Bureau Veritas at their Perth laboratory using XRF fusion method to analyse for Manganese and Nickel. XRF involves pulverising the sample meeting 90% passing through a 75µm screen.</li> <li>• The sample sizes are considered appropriate for this style of mineralisation.</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The assaying techniques and laboratory procedures are considered to be appropriate for the style of mineralisation.</li> <li>• The laboratory is NATA certified and inserts regular lab blanks and standards to check the accuracy and precision of their laboratory processes.</li> <li>• Element 25's QAQC procedure is to submit certified standards, blanks or field duplicates at a rate in 1 in 25 samples for XRF assay. This QAQC procedure is considered to be appropriate for the style of mineralisation being targeted.</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• All significant assay results are checked by both the geologists and the Exploration Manager who is an employee of Element 25.</li> <li>• No twin holes have been drilled as part of this programme however close spaced holes have been drilled in several areas to improve variographic analysis.</li> <li>• No adjustments are made to any assay data.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Holes are set out for drilling using a handheld GPS with an accuracy of 5m.</li> <li>• All holes are vertically drilled.</li> <li>• At the completion no downhole survey was completed.</li> <li>• Grid projection is GDA2020, MGA Zone 50.</li> <li>• RL is assigned to the holes using the DGPS pick up data.</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The majority of the drilling was completed on a 100m x 100m drill spacing, some drill holes were on a 50m grid to close off mineralisation.</li> <li>• Close spaced drilling "Variography" was also undertaken at various locations based on 50m grid diamond shapes surrounding the central drill hole.</li> <li>• The data spacing is considered to be appropriate for the style of mineralisation being targeted.</li> <li>• No Samples compositing has been done. No compositing of assay results has been undertaken.</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The orientation of drilling is vertical and, therefore, is approximately perpendicular to the strike and dip of both the geology and mineralisation.</li> <li>• No sampling bias has been introduced by the drilling or sampling orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples for analysis are collected in pre-numbered calico bags which are placed into polywoven bags (approx. 5 calicos per bag). The polywoven bags are sealed by a cable tie, placed in bulky bags and then sent to the laboratory in Perth by a courier.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No audits have been conducted on the sampling techniques or data but all work practices are considered to be industry standard.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Butcherbird Project consists of granted exploration license E52/2350 and Mining Lease Application M52/1074.</li> <li>The tenure is 100% owned by Element 25 Ltd.</li> <li>The security of the tenure has no known impediments at the time of reporting.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The historical exploration data has been collected by Element 25 Limited and has been reported to high standards.</li> <li>The methods of exploration and techniques used are considered appropriate for the deposit types sought (Mn) and at depth and is still considered a viable gold target.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Butcherbird is a stratiform sedimentary manganese deposit.</li> <li>The deposits are hosted within the Ilgarari Formation which is generally flat lying with gentle open folding in places.</li> <li>The manganese mineralisation within the ore zones is divided into three distinctive units – a high-grade manganiferous cap, supergene enriched manganiferous laterite and basal shale.</li> </ul>
<b>Drill hole information</b>	<ul style="list-style-type: none"> <li>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"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>See historical ASX releases regarding the Butcherbird Mineral Resources.</li> <li>See drill hole location plan Figure 6 and Table 3 in technical drill report 2024</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were visually assessed by the geologist to determine whether they are mineralised. Only mineralised 1m samples in the appropriate calico bag were collected for analysis.</li> <li>No aggregation of short length samples was used as samples were consistently sampled when the geologist deemed the material to be mineralised. Material outside the mineralised areas were not sampled for assay.</li> <li>No assumptions of metal equivalence was made.</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>The mineralisation within the Butcherbird Project is primarily strata bound with an approximate 80 degree strike, dipping at 7 degrees to the north.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>• <i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• The mineralised widths reported are down hole widths and are based on geological bands comprising a high-grade manganiferous cap, supergene enriched manganiferous laterite and basal shale.</li> <li>• All drilling is vertical as the stratigraphy for the Ilgarari Formation which is generally flat lying with gentle open folding in places.</li> <li>• Downhole widths are reported for all exploration results, the true thickness width is not known.</li> <li>• Plans and sections are included in the document.</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Refer to figures in document.</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Several “Intrinsic” samples were collected representing the drilling program. Holes which were mineralised had an intrinsic sample collected from a high-grade sample comprising large Rock Chips, up to 50mm and placed into small pre numbered paper Geochem bags. These samples weighed up to 200 grams per sample and were then placed into plastic bags and despatched to BV laboratories for additional manganese grade testing.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• An Updated Mineral Resource will be undertaken</li> </ul>

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