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### Tuesday 24th January 2023

### **ASX Announcement**

# STRONG REE ANOMALIES AT NOLANS EAST

## **Highlights**

- REE anomalies defined by surface sampling at Nolans East Project
- Nolans East Project located 15km from Nolans Bore (ASX.ARU)
- Surface samples contain similar NdPr content to Nolans Bore
- Sampling over an expanded area to be carried out later in Q1 CY2023

Bubalus Resources Limited (ASX: BUS) (**Bubalus** or **the Company**) is pleased to advise that exploration at its 100% owned Nolans East Project has successfully identified anomalous rare earth element (REE) content at surface.

Assays from surface samples over an initial 2 km by 1 km returned a significant number of anomalous results with 41 of 170 samples returning > 500ppm total rare earth oxides (**TREO**) (refer Figure 1 and Appendix 1).

The anomalous samples define an aggregate strike length of almost 2 kilometres (Figure 1). The anomalies are interpreted to trend WNW – ESE parallel to the regional structural trend (Figure 2).

Nolans East is located 15km south east of the Nolans Bore deposit owned by Arafura Resources Limited (**Arafura**) (Figures 2 and 3). A Mineral Resource of 56 million tonnes at an average grade of 2.6% total rare earth oxides (TREO) and 11% phosphate ( $P_2O_5$ ) has been defined by Arafura at Nolans Bore<sup>1</sup>. Arafura's market capitalisation has recently grown to over A\$1 billion (ASX.ARU).

According to Arafura, neodymium-praesidium oxides ( $Nd_2O_3+Pr_6O_{11}$ , NdPr) make up 26% of the TREO content at Nolans Bore. Encouragingly, NdPr contents in the Nolans East surface samples average 22% of TREO (Appendix 1), similar to that at Nolans Bore.

The Company plans to implement a broader surface sampling programme at Nolans East as soon as the wet season passes (likely to be during February). The anomalous trends are not closed off and further sampling will enable anomalies to be better characterized and defined, both spatially and quantitatively.

Exploration at Nolans East is the first of several work programmes scheduled by Bubalus for the coming field season. Planning is well advanced and shareholders will be provided with a full outline of the 2023 exploration programme in coming weeks.

<sup>&</sup>lt;sup>1</sup> https://www.arultd.com/projects/nolans.html; also refer ARU.ASX Announcement 7 June 2017.



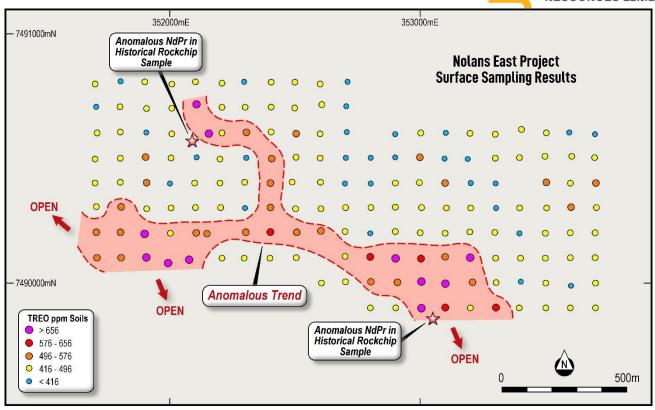


Figure 1. Results from surface sampling at Nolans East Project.

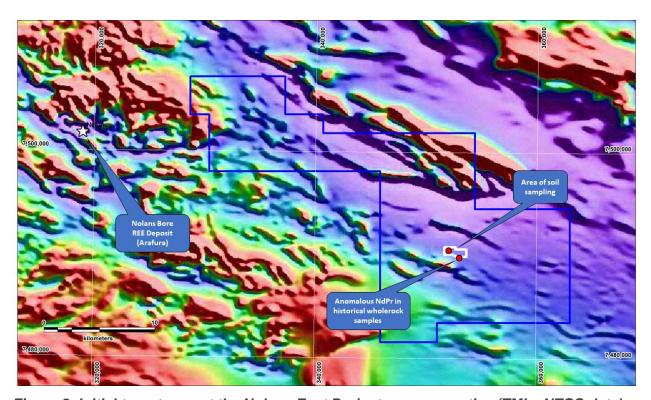


Figure 2. Initial target area at the Nolans East Project over magnetics (TMI – NTGS data).



The target selected for the Company's initial exploration phase was an area previously sampled by the Northern Territory Geological Survey (NTGS). Assays of 2 rockchip samples returned anomalous REE values, and specifically anomalous NdPr<sup>2</sup> (Figure 2).

Anomalism is currently based on statistical analysis of all assay results (Figure 4). Samples were taken from surface with material being recorded as either sandy loam or hard pan / pediment. Part of the target area is covered by a recent wash plain. The regolith profile in this area is not mapped in detail and accordingly the relationship between these anomalies and potential bedrock mineralisation is not known with any certainty, thus warranting further investigation.

It is anticipated that further results will allow the Company to delineate targets for drilling later in 2023 by better defining the length and tenor of anomalism. Drilling will allow the Company to test the relationship between the observed surface anomalies and REE contents in bedrock samples.

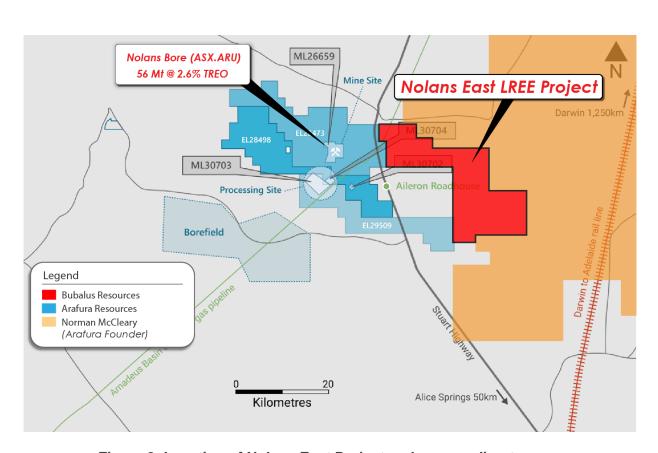


Figure 3. Location of Nolans East Project and surrounding tenure.

<sup>&</sup>lt;sup>2</sup> Refer Independent Geologists Report (ASX Announcement 11 October 2022), ASX Announcement 31 October 2022.



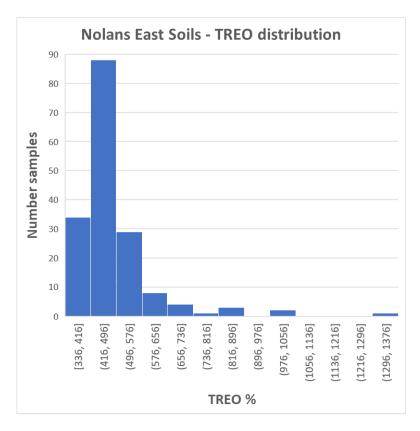


Figure 4. Frequency distribution of TREO% in surface sampling.

This announcement has been authorised by the Board of Directors of Bubalus Resources Limited.

### For more information, please contact:

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#### **ABOUT BUBALUS RESOURCES**

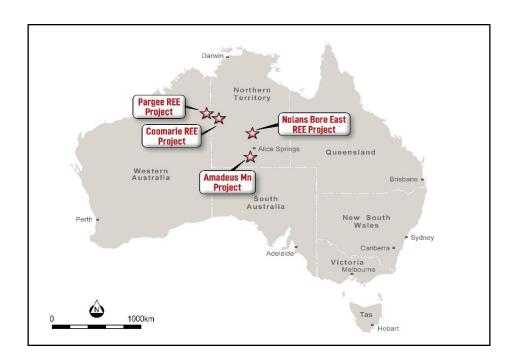
Bubalus has four projects, the Amadeus Project (prospective for Manganese), the Coomarie Project (prospective for Heavy Rare Earths), the Nolans East Project (prospective for Light Rare Earths) and the Pargee Project (prospective for Heavy Rare Earths), which are located in premier geological provinces in the Northern Territory and Western Australia:

Amadeus Project (Mn) - Significant land package with 150kms of strike containing outcropping high grade manganese covering 5,436km², located 125km south of Alice Spring where historical exploration has identified 11 manganese occurrences, along with cobalt and Ni-Zn-Cu also identified.

*Nolans East Project* (Light REEs) - The project covers 380km² of the Arunta Province, analogous to Nolan's Bore light rare earth deposit and is prospective for light rare earths, located only 15kms east of Arafura's (ASX:ARU) 56Mt NPV \$1.011Bn light rare earth deposit.

Coomarie Project (Heavy REEs) - The project covers 1,153 km² and presents as a geological analogue to Browns Dome, host to Northern Minerals' (ASX:NTU) Browns Range heavy rare earths deposit where mineralisation is hosted on margins of granite dome intrusive where the unconformity between Gardiner Sandstone and Browns Range Metamorphics exist and located in the Tanami Region.

Pargee Project (Heavy REEs) - The project is prospective for heavy rare earths and located 30kms from PWV Resources' (ASX:PVW) Watts Rise heavy rare earths discovery.





#### **COMPETENT PERSONS STATEMENT**

Information in this report relating to Exploration Results is based on information compiled, reviewed and assessed by Mr. Bill Oliver, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr. Oliver is a Director of Bubalus Resources 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 by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr. Oliver consents to the inclusion of the information in the form and context in which it appears.

Some of the information is extracted from the Independent Geologist's Report contained within the Prospectus released to the ASX on 11 October 2022 and available to view on the Bubalus Resources Limited website, <a href="https://www.bubalusresources.com.au">www.bubalusresources.com.au</a> or on the ASX website, <a href="https://www.asx.com.au">www.asx.com.au</a> under the ticker code BUS.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

**Appendix 1. Surface Sampling Results from the Nolans East Project** 

Sample	East	North	Р	TREO	Се	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Υ	Yb
NES001	353698	7490503	347	462	165	5.9	2.4	1.1	10.2	1.0	79	0.29	68	19	13	1.33	0.32	25	2.04
NES002	353604	7490505	388	427	149	6.3	2.8	1.4	9.3	1.1	70	0.37	61	17	12	1.28	0.39	28	2.54
NES003	353500	7490504	311	475	165	6.3	2.6	1.3	10.4	1.1	81	0.31	71	19	13	1.37	0.40	28	2.27
NES004	353397	7490503	331	441	153	6.2	2.6	1.3	9.6	1.0	75	0.37	65	18	12	1.29	0.36	26	2.29
NES005	353300	7490503	271	439	154	6.1	2.4	1.3	9.7	1.0	74	0.30	66	18	12	1.27	0.33	25	2.09
NES006	353189	7490498	277	368	126	5.2	2.2	1.2	8.1	0.9	63	0.27	54	15	10	1.09	0.32	24	2.02
NES007	353095	7490498	282	403	139	5.7	2.4	1.2	9.0	1.0	68	0.31	60	16	12	1.19	0.33	24	2.17
NES008	352998	7490503	366	499	174	6.8	2.9	1.4	11.0	1.1	85	0.47	75	20	14	1.42	0.39	28	2.53
NES009	352900	7490505	425	336	113	5.4	2.6	1.2	7.8	1.0	55	0.35	49	13	10	1.10	0.36	24	2.37
NES010	352801	7490503	352	397	131	6.0	2.8	1.4	8.9	1.0	63	0.35	58	15	11	1.23	0.87	33	2.44
NES011	352702	7490502	403	395	136	6.0	3.0	1.5	8.7	1.1	65	0.48	57	15	11	1.20	0.40	27	2.63
NES012	352599	7490501	439	477	165	6.5	2.8	1.5	10.2	1.1	79	0.34	70	19	13	1.36	0.39	32	2.41
NES013	352501	7490502	384	440	153	6.3	2.8	1.4	9.6	1.2	73	0.35	64	17	12	1.33	0.39	28	2.49
NES014	352404	7490500	393	510	178	7.2	3.1	1.5	11.1	1.2	86	0.37	74	20	14	1.50	0.43	31	3.04
NES015	352305	7490501	461	411	139	6.4	3.0	1.5	9.5	1.2	67	0.39	59	16	11	1.29	0.43	30	2.68
NES016	352199	7490502	445	449	151	7.0	3.3	1.5	10.4	1.3	74	0.39	65	17	13	1.44	0.48	33	2.90
NES017	352105	7490504	325	408	144	5.6	2.3	1.2	9.0	0.9	69	0.27	60	16	11	1.20	0.36	23	2.01
NES018	352003	7490503	384	453	160	6.1	2.6	1.3	10.0	1.6	76	0.29	67	18	13	1.30	0.33	26	2.10
NES019	351899	7490504	360	514	183	6.7	2.7	1.3	11.1	1.1	88	0.32	77	21	14	1.46	0.37	27	2.35
NES020	351802	7490500	329	470	165	6.4	2.7	1.3	10.2	1.2	81	0.34	69	19	13	1.36	0.37	27	2.25
NES021	351698	7490500	395	451	157	6.6	2.8	1.4	10.0	1.1	75	0.36	66	18	13	1.37	0.40	28	2.45
NES022	351706	7490604	333	445	155	6.2	2.6	1.3	9.7	1.1	75	0.34	66	18	12	1.30	0.36	26	2.31
NES023	351802	7490603	401	461	161	6.5	2.8	1.3	10.1	1.1	77	0.36	68	18	13	1.34	0.40	28	2.47
NES024	351905	7490605	283	411	145	5.5	2.3	1.2	8.9	1.0	69	0.28	61	16	11	1.19	0.33	23	1.98
NES025	352005	7490600	326	476	171	6.1	2.3	1.2	9.9	1.0	83	0.27	71	19	13	1.31	0.32	24	1.94
NES026	352155	7490601	854	1302	472	15.8	5.1	2.1	27.8	2.4	230	0.49	196	54	37	3.64	0.61	57	3.82
NES027	352204	7490603	391	450	158	6.1	2.5	1.2	9.8	1.0	76	0.30	67	18	13	1.33	0.35	26	2.18
NES028	352304	7490605	386	529	187	7.2	2.9	1.5	11.4	1.2	90	0.36	78	21	14	1.53	0.41	30	2.51
NES029	352403	7490606	445	447	155	6.7	3.1	1.5	10.0	1.2	73	0.38	64	17	12	1.34	0.42	30	2.82
NES030	352503	7490602	424	499	173	6.9	3.1	1.5	11.3	1.2	84	0.35	73	20	14	1.46	0.41	31	2.92
NES031	352604	7490598	329	472	162	7.0	3.0	1.6	10.3	1.2	80	0.36	69	19	13	1.42	0.40	30	2.56
NES032	352706	7490606	359	394	136	5.8	2.7	1.4	8.7	1.0	66	0.35	57	15	11	1.16	0.38	26	2.43
NES033	352802	7490502	471	402	135	6.3	3.1	1.6	9.3	1.2	66	0.40	59	16	11	1.31	0.44	29	2.84
NES034	352900	7490599	417	404	136	6.3	3.2	1.5	8.9	1.1	65	0.38	58	16	11	1.27	0.44	31	2.75

Sample	East	North	Р	TREO	Се	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb
NES035	353003	7490602	434	431	147	6.5	3.1	1.5	9.7	1.1	71	0.37	62	17	12	1.31	0.44	29	2.61
NES036	353101	7490602	327	352	118	5.6	2.6	1.4	7.9	1.0	58	0.35	51	14	10	1.13	0.37	26	2.41
NES037	353202	7490602	268	471	167	6.2	2.5	1.2	10.5	1.0	80	0.30	70	19	13	1.33	0.35	25	2.12
NES038	353302	7490599	297	468	169	5.6	2.1	1.1	9.9	0.9	82	0.25	70	19	13	1.29	0.29	22	1.68
NES039	353403	7490613	300	478	170	6.0	2.3	1.2	10.4	1.0	82	0.28	72	19	13	1.32	0.31	25	1.97
NES040	353502	7490603	353	430	151	6.0	2.6	1.4	9.4	1.0	72	0.32	63	17	12	1.29	0.36	26	2.38
NES041	353602	7490603	429	409	142	6.1	2.7	1.4	8.9	1.0	67	0.34	58	16	11	1.23	0.46	28	2.49
NES042	353703	7490600	342	400	140	5.7	2.3	1.1	9.0	1.0	67	0.30	58	16	11	1.20	0.33	24	3.73
NES043	351703	7490705	417	361	123	5.6	2.7	1.4	8.1	1.0	58	0.34	52	14	10	1.14	0.39	26	2.38
NES044	351802	7490703	401	418	145	5.9	2.6	1.3	9.0	1.0	70	0.34	61	16	11	1.21	0.35	28	2.22
NES045	351905	7490699	379	433	151	6.0	3.5	1.3	9.5	1.0	72	0.31	63	17	12	1.27	0.38	27	2.27
NES046	352004	7490702	381	444	155	6.0	2.5	1.2	9.3	1.0	75	0.32	64	18	12	1.28	0.37	29	2.24
NES047	352103	7490716	430	840	303	10.3	3.7	1.4	17.5	1.6	148	0.43	125	34	23	2.33	0.47	39	3.02
NES048	352203	7490705	375	463	160	6.5	3.0	1.4	10.4	1.1	78	0.35	69	19	13	1.37	0.40	28	2.42
NES049	352301	7490703	434	462	163	6.1	2.6	1.3	9.9	1.0	79	0.34	68	18	13	1.30	0.38	27	2.48
NES050	352402	7490703	485	416	140	6.5	3.0	1.4	9.7	1.1	68	0.39	60	16	11	1.30	0.41	30	2.69
NES051	352499	7490698	378	425	148	6.1	2.7	1.4	9.3	1.1	71	0.33	62	17	12	1.28	0.38	27	2.37
NES052	352606	7490717	315	418	147	5.7	2.8	1.3	9.0	1.1	70	0.32	61	17	11	1.20	0.36	26	2.24
NES053	352705	7490708	445	379	129	5.8	2.8	1.4	8.7	1.0	63	0.36	55	15	11	1.17	0.38	26	2.46
NES054	352710	7490805	443	377	128	5.9	2.9	1.5	8.4	1.1	61	0.34	54	15	10	1.19	0.40	27	2.56
NES055	352602	7490804	407	390	133	6.0	2.9	1.5	8.7	1.1	64	0.38	56	15	10	1.21	0.40	28	2.62
NES056	352498	7490806	404	418	143	6.0	2.7	1.5	9.1	1.0	69	0.34	61	16	12	1.24	0.44	28	2.73
NES057	352401	7490805	388	371	124	5.9	2.8	1.4	8.7	1.0	60	0.35	53	14	10	1.17	0.39	29	2.45
NES058	352295	7490808	382	408	141	6.7	2.6	1.3	8.9	1.0	69	0.31	59	16	11	1.21	0.36	25	2.27
NES059	352203	7490803	430	425	148	6.2	2.8	1.5	9.3	1.1	70	0.35	62	17	12	1.32	0.40	27	2.41
NES060	352101	7490805	409	416	144	6.0	2.6	1.3	9.2	1.0	69	0.32	61	16	12	1.24	0.37	28	2.35
NES061	352003	7490803	431	393	135	6.0	2.7	1.4	8.7	1.1	64	0.34	57	15	11	1.21	0.39	26	2.50
NES062	351899	7490805	375	445	158	5.9	2.7	1.3	9.6	1.0	75	0.31	65	18	12	1.28	0.34	25	2.09
NES063	351800	7490808	382	353	121	5.3	2.4	1.3	7.8	0.9	58	0.37	52	14	10	1.08	0.33	24	2.22
NES064	351700	7490796	458	431	152	5.9	2.4	1.2	9.4	1.0	73	0.30	63	17	12	1.26	0.34	25	2.15
NES065	353302	7490004	348	492	176	6.5	2.3	1.2	10.5	1.0	87	0.26	73	20	14	1.47	0.33	24	1.90
NES066	353401	7490005	322	401	138	5.4	2.2	1.2	8.5	0.9	67	0.26	59	16	11	1.15	0.31	27	1.90
NES067	353501	7489998	372	482	170	7.2	2.4	1.3	10.5	1.0	82	0.28	73	19	14	1.39	0.33	25	2.04
NES068	353602	7489996	310	404	140	5.5	2.3	1.2	8.9	0.9	69	0.28	59	16	11	1.19	0.32	24	2.03
NES069	353700	7490000	360	437	147	6.7	3.0	1.5	10.0	1.2	73	0.37	65	17	12	1.37	0.41	30	2.78
NES070	353701	7489902	338	440	154	6.2	2.6	1.4	9.6	1.0	74	0.28	65	18	12	1.29	0.36	27	2.19
NES071	353600	7489900	348	442	156	5.7	2.2	1.2	9.9	0.9	75	0.26	67	18	12	1.25	0.30	23	1.87

Sample	East	North	Р	TREO	Се	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb
NES072	353502	7489899	332	448	157	6.6	2.5	1.3	9.8	1.1	75	0.28	67	18	13	1.31	0.35	26	2.06
NES073	353397	7489900	320	487	173	6.2	2.4	1.2	10.5	1.0	84	0.28	73	21	14	1.37	0.33	25	1.97
NES074	353304	7489901	327	581	208	9.0	2.6	1.3	12.4	1.1	101	0.33	87	24	16	1.57	0.37	27	2.82
NES075	353199	7489901	373	469	166	6.3	2.5	1.2	10.0	1.1	80	0.30	69	19	13	1.33	0.34	26	2.21
NES076	353101	7489903	397	594	210	8.0	3.4	1.5	13.3	1.4	102	0.39	88	24	17	1.75	0.49	33	2.76
NES077	353002	7489900	413	732	263	9.5	3.2	1.6	15.6	1.4	128	0.34	108	30	20	2.06	0.43	35	2.59
NES078	352901	7489900	336	461	165	5.9	2.5	1.1	9.7	1.0	78	0.29	68	18	13	1.30	0.34	25	2.17
NES079	352800	7489897	331	464	162	6.5	2.9	1.3	10.3	1.3	77	0.37	68	18	13	1.41	0.39	29	2.45
NES080	352701	7490005	333	510	180	7.1	2.7	1.4	11.3	1.1	87	0.33	76	21	14	1.48	0.36	27	2.39
NES081	352701	7490005	347	474	167	6.3	3.2	1.3	10.2	1.1	81	0.30	70	19	13	1.38	0.34	26	2.47
NES082	352802	7490006	334	538	192	6.8	2.6	1.3	11.5	1.1	93	0.29	80	22	15	1.50	0.34	28	2.06
NES083	352906	7490008	314	525	188	6.4	2.5	1.3	10.7	1.0	92	0.30	79	21	14	1.40	0.35	26	2.01
NES084	353004	7490005	482	895	323	10.9	3.7	1.8	19.0	1.7	156	0.40	134	37	25	2.44	0.48	43	2.91
NES085	353100	7489999	503	791	285	9.6	3.7	1.5	15.7	1.6	140	0.44	116	32	21	2.09	0.53	39	3.21
NES086	353205	7490004	411	551	200	6.7	2.5	1.1	11.6	1.1	96	0.29	82	22	15	1.50	0.32	26	1.95
NES087	353302	7490099	343	444	155	6.0	2.5	1.2	9.7	1.0	75	0.29	65	18	12	1.30	0.34	26	2.46
NES088	353400	7490101	389	434	151	6.3	2.6	1.3	9.4	1.0	73	0.33	64	17	12	1.28	0.36	26	2.43
NES089	353503	7490102	329	474	165	6.4	2.7	1.5	10.8	1.1	80	0.32	71	19	13	1.37	0.38	28	2.41
NES090	353601	7490102	303	450	158	6.0	2.5	1.3	9.7	1.2	76	0.30	66	18	12	1.31	0.34	28	2.23
NES091	353699	7490102	366	472	166	6.6	2.9	1.5	10.1	1.2	77	0.37	69	18	13	1.37	0.42	30	2.74
NES092	353701	7490201	324	462	160	6.5	2.7	1.4	10.0	1.1	78	0.32	68	18	13	1.34	0.36	30	2.32
NES093	353600	7490203	370	437	153	6.6	2.7	1.4	9.4	1.1	73	0.34	63	17	12	1.27	0.38	27	2.40
NES094	353499	7490201	385	426	148	5.8	2.5	1.3	10.0	1.0	70	0.30	62	17	12	1.22	0.38	28	2.11
NES095	353397	7490198	401	387	133	5.5	2.5	1.3	8.6	1.0	65	0.30	58	15	11	1.16	0.33	24	2.11
NES096	353298	7490204	370	434	154	5.8	2.3	1.2	9.5	0.9	74	0.34	65	18	12	1.21	0.32	23	1.97
NES097	353200	7490204	330	454	161	5.6	2.2	1.1	9.7	0.9	78	0.25	68	18	13	1.21	0.30	25	1.75
NES098	353099	7490199	383	449	159	6.0	2.5	1.2	9.5	1.0	76	0.30	67	18	12	1.24	0.33	25	2.35
NES099	353002	7490199	295	442	154	8.4	2.4	1.3	9.2	1.0	76	0.29	65	18	12	1.26	0.37	25	2.17
NES100	352900	7490204	379	442	158	5.8	2.2	1.2	9.5	0.9	76	0.25	66	18	12	1.24	0.29	22	1.83
NES101	352800	7490200	341	380	130	5.9	2.7	1.4	8.5	1.0	62	0.33	55	15	11	1.18	0.38	26	2.42
NES102	352698	7490206	407	445	158	6.8	2.8	1.4	9.5	1.0	75	0.33	65	18	12	1.26	0.34	25	2.27
NES103	352700	7490108	365	457	160	6.2	2.7	1.4	9.6	1.1	78	0.33	68	18	12	1.30	0.39	27	2.34
NES104	352801	7490106	355	615	221	7.7	3.5	1.5	13.3	1.2	108	0.32	91	25	17	1.70	0.37	30	2.25
NES105	352901	7490097	376	730	262	8.7	3.2	1.8	15.1	1.4	130	0.38	109	30	20	1.97	0.43	34	2.55
NES106	353003	7490100	325	580	206	6.9	2.6	1.3	12.1	1.1	100	0.30	85	23	15	1.57	0.36	30	6.95
NES107	353101	7490104	421	520	187	6.7	2.8	1.2	10.9	1.1	90	0.32	76	21	14	1.46	0.36	27	2.29
NES108	353201	7490103	363	671	242	7.8	2.7	1.3	14.0	1.2	119	0.33	101	27	18	1.80	0.35	31	2.06

Sample	East	North	Р	TREO	Се	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb
NES109	353303	7490304	371	378	129	5.8	2.6	1.4	8.3	1.5	62	0.33	55	15	11	1.15	0.41	26	2.34
NES110	353400	7490302	361	452	159	6.2	2.5	1.3	9.7	1.0	77	0.29	67	18	12	1.29	0.33	25	2.90
NES111	353504	7490304	361	469	165	6.4	2.7	1.5	10.0	1.1	79	0.33	68	18	13	1.35	0.37	28	2.35
NES112	353602	7490304	285	505	180	6.3	2.5	1.3	10.7	1.0	89	0.27	75	20	14	1.37	0.33	26	2.00
NES113	353703	7490301	312	428	147	6.2	2.7	1.4	9.5	1.1	72	0.34	62	17	12	1.33	0.37	27	2.44
NES114	353702	7490403	368	508	179	7.0	2.7	1.4	11.3	1.1	86	0.31	75	20	14	1.91	0.39	28	2.31
NES115	353601	7490399	319	441	155	6.1	2.6	1.3	9.5	1.0	76	0.32	64	18	12	1.25	0.36	26	2.30
NES116	353503	7490402	278	418	145	6.1	2.7	1.4	9.1	1.0	70	0.32	61	16	11	1.25	0.38	27	2.28
NES117	353503	7490402	352	514	179	6.9	3.0	1.5	10.8	1.2	88	0.36	75	20	14	1.45	0.41	31	2.65
NES118	353301	7490401	325	372	127	5.4	2.4	1.2	8.1	0.9	63	0.33	55	15	10	1.10	0.33	24	2.27
NES119	353202	7490402	302	398	137	5.8	2.6	1.3	8.8	1.0	67	0.34	58	16	11	1.20	0.37	25	2.34
NES120	353101	7490403	354	513	183	6.5	2.6	1.3	11.0	1.1	89	0.31	76	21	14	1.45	0.37	26	2.23
NES121	352999	7490403	386	421	144	6.3	2.9	1.4	9.3	1.1	70	0.39	61	16	12	1.28	0.41	28	2.62
NES122	352901	7490403	350	457	159	6.4	2.8	1.4	10.0	1.1	77	0.36	67	18	13	1.38	0.40	28	2.50
NES123	352802	7490399	399	403	138	6.0	2.8	1.5	8.8	1.1	66	0.37	57	15	11	1.20	0.41	30	2.68
NES124	352700	7490400	399	402	139	5.8	2.9	1.5	8.8	1.1	66	0.35	57	15	11	1.27	0.40	28	2.57
NES125	352701	7490302	317	470	162	6.7	3.0	1.5	10.4	1.2	78	0.36	71	19	13	1.43	0.41	29	2.71
NES126	352803	7490304	383	442	154	6.4	3.2	1.5	9.6	1.1	74	0.35	64	17	12	1.27	0.41	27	2.70
NES127	352902	7490304	538	433	150	6.3	2.8	1.3	9.7	1.1	72	0.37	63	17	12	1.30	0.41	28	2.54
NES128	353005	7490303	402	412	138	6.7	3.2	1.6	9.4	1.2	66	0.40	60	16	11	1.35	0.45	31	2.89
NES129	353104	7490304	310	474	167	6.1	2.7	1.3	10.3	1.0	81	0.30	72	19	13	1.35	0.34	25	2.09
NES130	353201	7490298	295	439	152	6.5	2.4	1.3	9.7	1.0	75	0.30	66	18	12	1.27	0.33	25	2.05
NES131	352199	7490402	322	459	158	6.3	2.9	1.3	10.0	1.1	76	0.34	66	18	13	2.20	0.39	33	2.48
NES132	352099	7490402	355	523	186	6.8	2.7	1.3	11.2	1.1	90	0.32	78	21	14	1.47	0.37	28	2.27
NES133	351998	7490400	301	365	127	5.3	2.4	1.2	7.9	0.9	60	0.29	52	14	10	1.09	0.32	24	2.16
NES134	351903	7490402	318	497	176	6.5	2.7	1.3	10.8	1.2	84	0.31	74	20	13	1.40	0.36	28	2.18
NES135	351800	7490402	312	472	168	6.5	2.6	1.3	10.1	1.0	81	0.31	70	19	13	1.31	0.37	25	2.20
NES136	351699	7490400	371	452	160	6.1	2.6	1.2	9.5	1.0	76	0.31	65	18	12	1.28	0.35	28	2.13
NES137	351703	7490306	339	471	164	6.4	3.2	1.3	10.3	1.1	77	0.36	69	18	13	1.41	0.40	32	2.38
NES138	351800	7490303	332	520	185	6.8	2.8	1.3	11.0	1.3	89	0.34	77	21	14	1.46	0.37	28	2.34
NES139	351904	7490300	313	596	212	7.5	3.0	1.4	12.5	1.2	104	0.33	89	24	16	1.67	0.38	30	2.74
NES140	352002	7490300	282	516	182	6.8	2.8	1.3	10.9	1.1	90	0.35	76	21	14	1.46	0.37	29	2.31
NES141	352100	7490303	291	475	169	6.2	2.6	1.2	10.1	1.0	82	0.30	69	19	13	1.33	0.43	26	2.20
NES142	352200	7490303	306	494	176	7.0	2.7	1.2	10.3	1.0	83	0.58	72	20	13	1.36	0.35	26	4.67
NES143	352299	7490304	322	399	140	5.5	2.6	1.2	8.5	1.0	67	0.32	58	16	11	1.19	0.34	25	2.78
NES144	352402	7490303	328	498	178	6.3	2.5	1.3	10.5	1.0	86	0.30	73	20	14	1.39	0.36	26	2.25
NES145	352500	7490297	356	486	175	6.2	2.4	1.3	10.2	1.0	83	0.28	72	20	13	1.32	0.32	25	1.95

Sample	East	North	Р	TREO	Се	Dy	Er	Eu	Gd	Но	La	Lu	Nd	Pr	Sm	Tb	Tm	Y	Yb
NES146	352604	7490298	374	437	152	6.3	2.8	1.5	9.4	1.1	73	0.35	64	17	12	1.27	0.39	28	2.47
NES147	352600	7490402	364	579	207	7.2	3.0	1.6	12.2	1.2	101	0.33	86	23	16	1.57	0.39	30	2.48
NES148	352490	7490406	350	444	157	6.2	2.8	1.5	9.5	1.1	73	0.34	64	17	12	1.30	0.48	28	2.45
NES149	352402	7490401	339	568	199	7.4	2.9	1.5	12.2	1.2	98	0.37	83	23	16	1.60	0.40	34	2.54
NES150	352298	7490405	328	469	164	6.6	2.8	1.4	10.3	1.1	79	0.34	68	19	13	1.42	0.60	28	2.38
NES151	352100	7490200	332	552	194	7.6	3.2	1.4	11.7	1.3	94	0.37	81	22	15	1.56	0.47	33	2.69
NES152	351999	7490198	312	623	221	7.7	3.1	1.3	13.3	1.3	111	0.36	92	25	17	1.68	0.43	32	2.64
NES153	351895	7490200	431	671	237	8.6	3.3	1.7	14.3	1.4	118	0.39	99	27	18	1.83	0.48	36	2.79
NES154	351799	7490200	308	515	185	6.6	2.6	1.2	10.9	1.1	90	0.29	76	21	14	1.44	0.35	27	2.13
NES155	351701	7490199	310	515	184	6.6	2.7	1.4	11.0	1.1	89	0.35	75	20	14	1.41	0.38	28	2.37
NES156	351702	7490101	332	531	191	6.8	2.6	1.3	11.4	1.1	92	0.34	79	21	14	1.45	0.35	27	2.35
NES157	351800	7490101	342	554	201	6.6	2.5	1.2	11.4	1.1	97	0.29	81	22	15	1.49	0.33	27	1.93
NES158	351903	7490106	488	1030	376	11.9	3.8	1.7	21.0	1.8	187	0.38	152	42	28	2.71	0.51	43	2.80
NES159	351991	7490083	480	870	315	10.4	3.7	1.7	17.7	1.6	158	0.41	127	35	23	2.32	0.50	40	3.30
NES160	352076	7490095	554	987	356	11.8	4.6	1.5	19.6	1.9	177	0.53	145	40	26	2.57	0.59	48	3.60
NES161	352207	7490103	325	468	166	6.2	2.6	1.1	9.7	1.0	81	0.31	69	19	13	1.32	0.40	26	2.23
NES162	352296	7490103	298	450	159	6.2	2.5	1.2	9.5	1.0	78	0.31	66	18	13	1.29	0.34	25	2.09
NES163	352401	7490100	291	495	176	6.3	2.6	1.3	10.5	1.1	85	0.33	73	20	14	1.40	0.35	27	2.16
NES164	352505	7490103	295	475	170	5.9	2.3	1.2	10.0	1.0	82	0.29	70	19	13	1.31	0.32	24	2.02
NES165	352605	7490001	295	422	148	5.7	2.7	1.3	8.9	1.0	72	0.31	61	17	11	1.21	0.36	25	2.30
NES166	352601	7490204	400	498	174	7.2	3.0	1.5	10.7	1.2	84	0.38	72	20	14	1.47	0.42	31	2.70
NES167	352504	7490199	353	499	177	6.6	2.7	1.4	10.7	1.1	85	0.32	73	20	14	1.43	0.43	28	2.32
NES168	352402	7490202	305	601	218	7.4	2.8	1.1	12.0	1.2	106	0.31	87	24	16	1.59	0.38	30	2.29
NES169	352300	7490202	327	500	180	6.2	2.4	1.2	10.5	1.1	87	0.28	74	20	14	1.34	0.32	24	2.08
NES170	352148	7490199	364	561	199	7.2	3.0	1.3	11.8	1.8	97	0.34	83	23	15	1.53	0.39	30	2.47

- All values shown are ppm
- For further information please refer to Appendix 2

## Appendix 2.

### The following tables are presented in accordance with requirements under the JORC Code, 2012 Edition

# Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	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.	Surface sampling using a shovel to remove top 2cm of material.  Samples were sieved using – 80 mesh.
	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.	
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 core is oriented and if so, by what method, etc).	No drilling results are reported.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No drilling results are reported.
	Measures taken to maximise sample recovery and ensure	

Criteria	JORC Code explanation	Commentary
	<ul> <li>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>	
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.	Geological observations were recorded for all samples.  No core or chip samples are being reported.
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	
	The total length and percentage of the relevant intersections logged.	
0.1		
Sub-sampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	Entire sieved sample submitted for analysis.
and sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	
	• For all sample types, the nature, quality and appropriateness of the sample preparation technique.	
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	
	<ul> <li>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.</li> </ul>	
	<ul> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and laboratory	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	Samples collected were prepared at Intertek Genalysis Alice Springs (dried and pulverised). Samples were analysed at Intertek Genalysis Perth using a 4 acid
tests	For geophysical tools, spectrometers, handheld XRF instruments,	digest and ICP-MS. This method is predicted to give a complete or

Criteria	JORC Code explanation	Commentary
	etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	near complete recovery for rare earth elements and other elements of interest.
	<ul> <li>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.</li> </ul>	
Verification of sampling and	The verification of significant intersections by either independent or     Alternative company personnel.	Data recorded in field and entered into spreadsheet.
assaying	<ul> <li>alternative company personnel.</li> <li>The use of twinned holes.</li> </ul>	REE assays have been converted from elemental into oxide using molar weights.
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	
	Discuss any adjustment to assay data.	
Location of	Accuracy and quality of surveys used to locate drill holes (collar and	Sample points surveyed using handheld GPS.
data points	down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Data is in AMG Zone 53.
	Specification of the grid system used.	Open file topographic data is being used.
	Quality and adequacy of topographic control.	
Data spacing	Data spacing for reporting of Exploration Results.	Sample spacing was 100m x 100m.
and distribution	<ul> <li>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.</li> </ul>	Not applicable for Mineral Resources.
	Whether sample compositing has been applied.	
Orientation of data in relation to geological	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Further data required to confirm orientation of anomalies and links to structures observed in magnetic data.
structure	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.	
Sample security	The measures taken to ensure sample security.	Delivered to laboratory by company representatives.

Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits have been completed.

# Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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>	The Nolans East Project consists of 1 granted Exploration License (EL32957)  The tenement is 100% owned by Bubalus via its subsidiary Jarrah Nia Exploration Pty Ltd.  The project is covered by a pastoral lease as well as the Ngwarray native title determination.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical exploration at Nolans East has comprised mapping and sampling by the Northern Territory Geological Survey.  The area of EL32957 was previously held by Arafura Resources Ltd. No significant exploration is understood to have been carried out.
Geology	Deposit type, geological setting and style of mineralisation.	The Nolans East Project is situated in the Aileron Province of the Arunta Region in the southern part of the Northern Territory. The Aileron Province predominantly comprises Palaeoproterozoic greenschist to granulite facies metamorphosed sedimentary and igneous rocks. The Arunta region was subjected to a long-lived event from 450-300 Ma. The Alice Springs Orogeny is expressed in the Aileron Province as west-north-west trending greenschist to upper amphibolite shear zones. Large scale fluid flow during the Alice Springs Orogeny is believed to be responsible for REE mineralisation.

Criteria	JORC Code explanation	Commentary
		Exploration at Nolans East is targeting REE mineralisation in a similar setting to Arafura's Nolans Bore Project, which is located 15km west. Nolans Bore is a complex stockwork vein-style deposit with mineralisation occurring in in two stages (1) massive to granular fluorapatite with inclusions of REE silicates, phosphates and (fluoro) carbonates, and (2) calcite-allanite with accessory REE-bearing phosphate and (fluoro) carbonate minerals that vein and brecciate the earlier stage. Nolans Bore was discovered by mapping and sampling of these veins at surface.  The Nolans East Project area is 90% covered in sand cover with poor outcrop defined. Outcrops are principally Granite – Gneiss.
Drill hole Information	<ul> <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> <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>	No drilling results are reported. Coordinates are reported in Appendix 1.
Data aggregation methods	<ul> <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>	No aggregation of data.

Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>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').</li> </ul>	No drilling results are 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.	Refer to figures within this report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All meaningful information has been included in the body of the text.
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.	All material data and information has been included in the body of this ASX announcement.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	Follow up sampling as outlined in text. Drilling to be carried out based on results.