ASX ANNOUNCEMENT
Heavy Rare Earths Limited (ASX: HRE)
1 May 2023

NEW HIGH-GRADE ASSAYS AT COWALINYA SHOW POTENTIAL TO ADD 14 KILOMETRES OF MINERALISED STRIKE

Highlights:

- **High-grade assays up to 5192 ppm TREO** intersected in **three new areas**
- Areas defined by **intersections of shallow, thick and/or high-grade rare earths** in holes drilled 400 metres apart
- **Potential for 14-kilometre strike extension to newly-discovered Western Zone** of mineralisation
- Highly encouraging assays reported in holes near HRE's **recently acquired tenements E63/2144 and E63/2145**
- **Resource consultant engaged** to update existing Mineral Resources and estimate an Exploration Target for the project. Delivery anticipated in **Q3 2023.**

Significant new drill intersections include:

- **12 metres @ 1690 ppm TREO (22.7% magnet REOs) from 16 metres (AC487)**
  - **including 2 metres @ 5192 ppm TREO from 20 metres**
- **7 metres @ 1303 ppm TREO (23.7% magnet REOs) from 7 metres (AC473)**
- **10 metres @ 1286 ppm TREO (34.4% magnet REOs) from 16 metres (AC471)**
- **8 metres @ 1175 ppm TREO (24.4% magnet REOs) from 31 metres (AC520)**
  - **including 2 metres @ 3449 ppm TREO from 31 metres**
- **20 metres @ 977 ppm TREO (23.6% magnet REOs) from 20 metres (AC446)**
  - **including 8 metres @ 1596 ppm TREO from 22 metres**
- **30 metres @ 923 ppm TREO (26.7% magnet REOs) from 11 metres (AC468)**
  - **including 8 metres @ 1684 ppm TREO from 25 metres**
- **31 metres @ 758 ppm TREO (30.5% magnet REOs) from 19 metres (AC467)**
  - **including 16 metres @ 1062 ppm TREO from 23 metres**

Assays are **reported for the first time** from 41 vertical air core holes drilled along existing access tracks in the northern and central parts of E63/1972 to the north and west of the Cowalinya North resource[1] (Figure 1).

HRE Executive Director, Richard Brescianini, said, "Today's assays have added an exciting 'blue sky' element to Cowalinya with excellent rare earth intersections, both in width and grade, drilled up to 14 kilometres from our recent Western Zone discovery. This is a very significant development for the project and builds on our success in demonstrating the widespread and coherent nature of rare earth mineralisation within our ground.

"Results reported by HRE since last October underline the potential for a material increase in resources at Cowalinya. The work aimed at achieving this has now commenced and will be completed over the coming months."

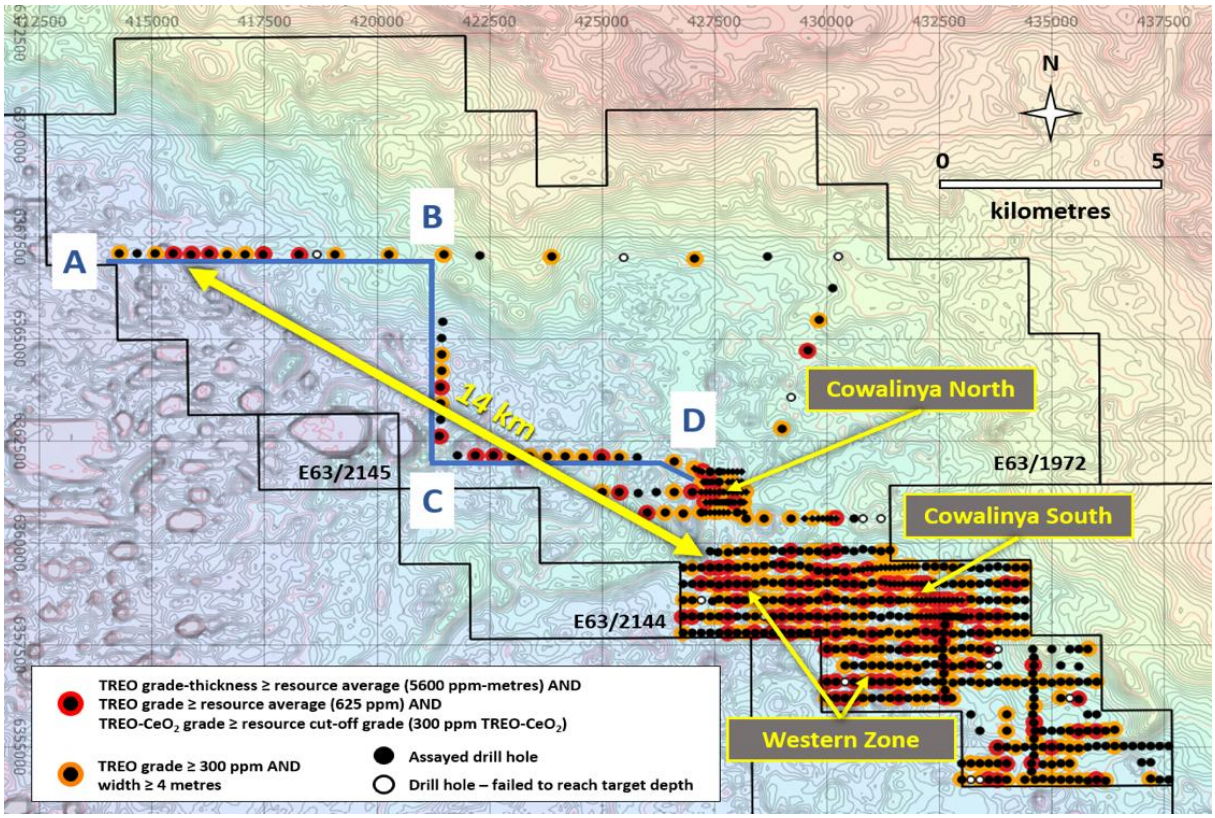

Figure 1: Plan view of Cowalinya air core drilling on E63/1972 showing holes with significant intervals of REE mineralisation, existing Cowalinya North and South resources, newly discovered Western Zone, and location of cross-section A-B-C-D (Figure 2).
Background image: Landgate digital elevation model.

[1] Table 5.1 of Appendix 7 (Cowalinya Resource Report) of the Independent Geologist's Report contained in HRE's IPO Prospectus.

Drill results from new area up to 14 kilometres from Western Zone

(A-B in Figure 1)

A number of **shallow, thick and/or high-grade intersections** in saprolite have been discovered along a line of consecutive 400 metre-spaced holes located **up to 14 kilometres north-west of the newly discovered Western Zone** of rare earth mineralisation. They include:

- AC467: **31 metres @ 758 ppm TREO from 19 metres**
- AC468: **30 metres @ 923 ppm TREO from 11 metres**
- AC471: **10 metres @ 1286 ppm TREO from 16 metres**
- AC472: **19 metres @ 811 ppm TREO from 11 metres**
- AC473: **7 metres @ 1303 ppm TREO from 7 metres**.

These holes are at the western end of the 8-kilometre-long section A-B in Figure 2.

Drill results from new areas near newly acquired tenements *(B-C and C-D in Figure 1)*

A **second area of highly encouraging rare earth assays** lies near the intersection of the 4.8-kilometre-long north-south drill line B-C and the 5-kilometre-long east-west drill line C-D (Figures 1 and 2). This area is 6 kilometres west of Cowalinya North and **in close proximity to HRE's recently acquired tenements E63/2144 and E63/2145**. Drill intercepts include:

- AC452: **18 metres @ 691 ppm TREO from 17 metres**
- AC453: **13 metres @ 636 ppm TREO from 14 metres**
- AC455: **12 metres @ 644 ppm TREO from 14 metres**
- AC458: **19 metres @ 693 ppm TREO from 29 metres.**

None of the assays from these and other holes drilled along the access tracks will initially be used in the estimation of Mineral Resources, but could form **the basis of an Exploration Target for the Cowalinya project and a future focus for rare earth exploration and definition drilling**.

Closer to and immediately west of the Cowalinya North resource, a coherent block of ten mineralised holes (Figure 1) has the potential to add to the project's resource inventory. This zone measures 2 km^2 (*c.f.* Cowalinya North 0.8 km^2) and **remains open to the south-west towards E63/2144**. Rare earth assays from these holes feature:

- AC446: **20 metres @ 977 ppm TREO from 20 metres**
- AC487: **12 metres @ 1690 ppm TREO from 16 metres**
- AC491: **12 metres @ 625 ppm TREO from 16 metres**
- AC494: **8 metres @ 1113 ppm TREO from 15 metres.**

Mineral Resource Update

HRE has engaged a resource consultant to update Mineral Resources and estimate an Exploration Target for the project. The Company anticipates this will be **completed during Q3 2023**.

The resource update will use assays from 400 holes drilled in the 2022 campaign which successfully delivered the major rare earth intersections listed in Table 1. These intersections mainly come from the Western Zone. It will also involve re-estimating resources for the Cowalinya North and South deposits using new assays by Lithium Borate Fusion/ICP-MS on 2-metre sample composites from 102 holes drilled in 2021 *(refer to ASX announcement 26 October 2022)*.

Total Mineral Resources for Cowalinya are currently estimated to be 28 million tonnes @ 625 ppm TREO (all Inferred) using a cut-off grade of 300 ppm TREO-CeO_2[2].

[2] Table 5.1 of Appendix 7 (Cowalinya Resource Report) of the Independent Geologist's Report contained in HRE's IPO Prospectus.

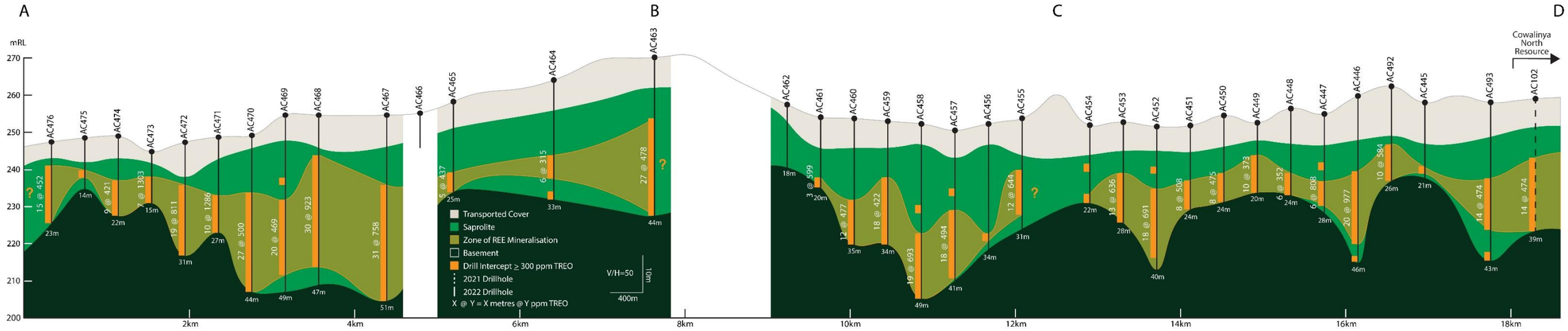

Figure 2: Cross section along access tracks at Cowalinya.
Location of A-B-C-D shown on Figure 1.

Heavy Rare Earths Limited (ASX:HRE)
ACN 648 991 039
Level 21, 459 Collins Street, Melbourne, VIC 3000
www.hreltd.com.au

Table 1: Mineralised saprolite intervals from all 2022 drilling that exceed the average grade-thickness of the mineralised horizon in the Cowalinya deposit.
Newly reported holes are highlighted at the top.

HOLE NO.	FROM (m)	TO (m)	INTERVAL (m)	TREO (ppm)	MAGNET REOs/TREO
AC227	19	33	14	512	23.7%
AC446	20	40	20	977	23.6%
AC452	17	35	18	691	27.2%
AC453	14	27	13	636	17.8%
AC455	14	26	12	644	30.6%
AC457	21	41	20	494	24.2%
AC458	29	48	19	693	23.8%
AC459	15	33	18	422	24.3%
AC460	22	34	12	477	20.3%
AC463	16	43	27	478	21.0%
AC467	19	50	31	758	30.5%
AC468	11	41	30	923	26.7%
AC469	23	43	20	469	25.0%
AC470	16	43	27	500	27.1%
AC471	16	26	10	1286	34.4%
AC472	11	30	19	811	17.8%
AC473	7	14	7	1303	23.7%
AC476	7	22	15	452	22.1%
AC487	16	28	12	1690	22.7%
AC491	16	28	12	625	28.7%
AC492	15	25	10	584	18.1%
AC493	20	34	14	474	24.6%
AC494	15	23	8	1113	25.2%
AC497	15	29	14	601	26.1%
AC518	19	27	8	808	20.3%
AC519	23	34	11	573	25.3%
AC520	31	39	8	1175	24.4%
AC532	26	46	20	644	19.0%
AC110	18	29	11	826	26.2%
AC111	16	30	14	712	27.9%
AC112	19	29	10	663	29.2%
AC115	22	29	7	1042	27.1%
AC118	19	35	16	396	22.0%
AC119	16	25	9	673	22.9%
AC122	16	21	5	1258	27.6%
AC124	14	30	16	539	22.5%
AC129	15	25	10	740	22.5%
AC130	18	38	20	726	22.4%

AC134	6	18	12	632	19.4%
AC137	15	29	14	758	26.3%
AC142	14	25	11	768	25.9%
AC165	23	35	12	500	23.5%
AC175	22	44	22	576	21.8%
AC178	28	40	12	563	26.0%
AC179	14	36	22	665	24.8%
AC181	15	26	11	745	27.3%
AC193	20	40	20	448	24.3%
AC194	20	28	8	727	24.1%
AC195	15	30	15	541	21.3%
AC196	19	37	18	631	23.2%
AC198	35	45	10	640	19.8%
AC199	21	35	14	412	25.4%
AC200	20	26	6	1862	25.8%
AC201	22	40	18	710	22.2%
AC204	15	33	18	473	25.7%
AC206	22	34	12	568	23.6%
AC211	20	37	17	402	26.5%
AC212	22	36	14	1033	29.0%
AC213	17	29	12	748	27.4%
AC221	17	27	10	2087	25.1%
AC222	15	35	20	407	22.0%
AC223	11	28	17	1069	26.3%
AC224	9	21	12	509	22.1%
AC225	16	35	19	3190	32.5%
AC226	12	54	42	790	25.4%
AC232	18	25	7	1047	33.8%
AC244	20	27	7	895	30.9%
AC245	14	27	13	500	22.1%
AC246	18	25	7	824	23.7%
AC263	18	28	10	1026	28.0%
AC265	26	40	14	796	20.1%
AC268	24	34	10	888	25.5%
AC269	10	24	14	1135	25.3%
AC274	14	40	26	1133	25.7%
AC275	19	37	18	1344	22.2%
AC278	24	49	25	449	23.6%
AC279	29	39	10	1580	27.4%
AC281	20	33	13	740	26.9%
AC283	19	31	12	531	25.0%
AC285	21	37	16	489	26.9%

AC286	9	21	12	718	24.3%
AC287	14	43	29	701	25.3%
AC288	20	32	12	816	27.2%
AC289	11	35	24	747	28.0%
AC292	21	39	18	668	23.2%
AC293	21	38	17	492	18.2%
AC297	17	31	14	464	22.2%
AC301	18	32	14	689	26.2%
AC302	18	30	12	1207	23.8%
AC305	17	33	16	629	20.2%
AC306	15	29	14	559	25.0%
AC309	25	41	16	814	21.8%
AC312	18	54	36	656	23.3%
AC321	38	41	3	2246	23.7%
AC322	25	33	8	838	28.1%
AC326	32	36	4	1783	28.4%
AC329	20	36	16	393	27.7%
AC339	28	44	16	688	23.9%
AC343	20	32	12	928	28.6%
AC344	22	34	12	1212	18.5%
AC349	16	28	12	567	24.9%
AC350	19	27	8	843	26.8%
AC354	19	29	10	1169	26.6%
AC356	28	42	14	1060	24.2%
AC358	26	40	14	458	26.3%
AC359	16	30	14	1164	31.6%
AC360	19	45	26	1201	22.5%
AC361	20	26	6	1771	23.9%
AC363	30	40	10	1200	19.9%
AC366	21	33	12	725	22.5%
AC374	30	41	11	744	22.2%
AC379	20	32	12	621	23.2%
AC381	24	46	22	522	22.3%
AC382	15	29	14	799	30.3%
AC385	9	25	16	483	25.1%
AC386	20	38	18	463	23.1%
AC387	24	45	21	867	25.1%
AC388	15	29	14	670	23.8%
AC391	22	32	10	858	19.3%
AC395	20	32	12	515	25.0%
AC396	10	24	14	825	19.7%
AC397	18	40	22	391	23.3%

AC398	16	28	12	572	21.6%
AC401	10	32	22	548	26.6%
AC405	8	24	16	525	25.2%
AC406	6	20	14	498	23.6%
AC409	11	25	14	588	25.3%
AC411	15	35	20	755	27.7%
AC412	16	38	22	1018	24.7%
AC413	17	27	10	747	25.6%
AC415	11	27	16	929	27.3%
AC417	23	29	6	1010	28.8%
AC418	21	26	5	1784	24.2%
AC419	26	37	11	612	23.7%
AC424	9	15	6	2597	54.8%
AC424	21	25	4	1976	31.8%
AC429	23	31	8	847	23.9%
AC430	19	29	10	813	27.2%
AC431	22	36	14	755	17.9%
AC432	17	29	12	578	25.3%
AC433	6	32	26	702	24.9%
AC434	12	30	18	531	23.8%
AC440	14	28	14	1278	24.8%
AC441	8	22	14	630	21.2%
AC506	18	32	14	616	19.8%
AC511	20	27	7	1173	22.0%
AC526	16	30	14	506	25.7%
AC538	18	28	10	621	24.9%
AC539	18	34	16	429	23.5%
AC540	19	30	11	948	22.9%
AC543	20	31	11	613	24.7%
AC544	17	39	22	868	21.3%

TREO = La_2O_3+CeO_2+Pr_6O_{11}+Nd_2O_3+Sm_2O_3+Eu_2O_3+Gd_2O_3+Tb_4O_7+Dy_2O_3+Ho_2O_3+Er_2O_3+Tm_2O_3+Yb_2O_3+Lu_2O_3+Y_2O_3
Magnet REOs = Pr_6O_{11}+Nd_2O_3+Tb_4O_7+Dy_2O_3

-- Ends --

This announcement has been approved by the Board of HRE.

For more information, please contact:

Executive Director
Richard Brescianini
info@hreltd.com.au

Media Enquiries
Ryan Batros
info@brcapital.com.au

About Heavy Rare Earths Limited

Heavy Rare Earths Limited (ASX: HRE) is an Australian rare earth exploration and development company. HRE's key exploration project is Cowalinya, near Norseman in Western Australia. This is a clay-hosted rare earth project with an Inferred Resource of 28 Mt @ 625 ppm TREO and a desirable rare earth composition where 25% are the valuable magnet rare earths and 23% the strategic heavy rare earths.

Competent Persons Statement

The Exploration Results contained in this announcement were compiled by Mr. Richard Brescianini. Mr. Brescianini is a member of the Australian Institute of Geoscientists (AIG). He is a director and full-time employee of Heavy Rare Earths Limited. Mr. Brescianini has more than 35 years' experience in mineral exploration and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 JORC Code.

The Mineral Resources contained in this announcement have been extracted from the Independent Geologist's Report included in the Company's Initial Public Offering (IPO) Prospectus, a copy of which was lodged with the Australian Securities and Investments Commission (ASIC) on 5 July 2022. The Company confirms that it is not aware of any new information or data that materially affects the Mineral Resources as contained in the Company's IPO Prospectus. All material assumptions and technical parameters underpinning the Mineral Resources in the Company's IPO Prospectus continue to apply and have not materially changed.

Table 2: Mineralised saprolite intervals that assay ≥300 ppm TREO.

HOLE NO.	FROM (m)	TO (m)	INTERVAL (m)	TREO (ppm)	TREO-CeO_2 (ppm)	MAGNET REOs/TREO
AC227	19	21	2	329	268	20.6%
AC227	21	23	2	365	276	24.2%
AC227	23	25	2	299	229	23.6%
AC227	25	27	2	475	286	22.5%
AC227	27	29	2	627	341	25.5%
AC227	29	31	2	889	493	24.3%
AC227	31	33	2	601	400	25.5%
AC445	17	19	2	2631	2402	41.0%
AC446	20	22	2	742	371	22.6%
AC446	22	24	2	1376	632	21.4%
AC446	24	26	2	2409	960	19.4%
AC446	26	28	2	1371	679	21.5%
AC446	28	30	2	1228	600	21.8%
AC446	30	32	2	881	511	25.8%
AC446	32	34	2	427	285	27.3%
AC446	34	36	2	466	287	27.8%
AC446	36	38	2	532	314	25.2%
AC446	38	40	2	337	214	23.7%
AC446	44	45	1	625	344	24.2%
AC447	13	15	2	398	303	23.3%
AC447	19	21	2	545	185	10.7%
AC447	21	23	2	1188	870	32.1%
AC447	23	25	2	691	492	31.5%
AC448	17	19	2	301	150	12.8%
AC448	19	21	2	286	141	20.6%

AC448	21	23	2	470	268	28.9%
AC449	9	11	2	363	178	12.5%
AC449	11	13	2	323	163	16.7%
AC449	13	15	2	428	227	23.3%
AC449	15	17	2	298	167	25.0%
AC449	17	19	2	456	245	23.4%
AC450	15	17	2	507	252	14.4%
AC450	17	19	2	505	257	20.1%
AC450	19	21	2	343	180	21.9%
AC450	21	23	2	545	290	22.3%
AC451	15	17	2	337	192	24.3%
AC451	17	19	2	572	341	26.9%
AC451	19	21	2	463	276	27.0%
AC451	21	23	2	659	388	26.4%
AC452	11	13	2	433	244	16.7%
AC452	17	19	2	398	249	24.1%
AC452	19	21	2	342	149	19.6%
AC452	21	23	2	1332	770	28.4%
AC452	23	25	2	1161	754	31.8%
AC452	25	27	2	787	504	30.3%
AC452	27	29	2	963	763	32.5%
AC452	29	31	2	540	386	28.1%
AC452	31	33	2	372	248	26.0%
AC452	33	35	2	324	196	23.6%
AC453	14	16	2	306	136	14.3%
AC453	16	18	2	334	148	19.2%
AC453	18	20	2	440	183	18.8%
AC453	20	22	2	648	292	21.7%

AC453	22	24	2	820	360	18.4%
AC453	24	26	2	1227	991	14.2%
AC453	26	27	1	720	533	17.7%
AC454	10	12	2	300	162	15.2%
AC454	20	21	1	561	335	28.4%
AC455	14	16	2	392	306	34.4%
AC455	16	18	2	1234	975	34.7%
AC455	18	20	2	866	661	31.9%
AC455	20	22	2	594	418	28.6%
AC455	22	24	2	457	312	28.3%
AC455	24	26	2	320	203	25.8%
AC456	29	31	2	315	170	24.0%
AC457	15	17	2	305	58	8.3%
AC457	21	23	2	446	213	21.2%
AC457	23	25	2	441	216	21.8%
AC457	25	27	2	465	225	21.4%
AC457	27	29	2	647	339	22.1%
AC457	29	31	2	800	526	28.5%
AC457	31	33	2	559	393	29.3%
AC457	33	35	2	385	242	23.8%
AC457	35	37	2	358	218	23.9%
AC457	37	39	2	342	202	25.3%
AC458	21	23	2	314	273	21.3%
AC458	29	31	2	447	371	23.2%
AC458	31	33	2	422	256	18.8%
AC458	33	35	2	791	350	16.9%
AC458	35	37	2	912	242	10.2%
AC458	37	39	2	1281	692	25.5%

AC458	39	41	2	1106	682	27.9%
AC458	41	43	2	667	520	34.8%
AC458	43	45	2	380	261	28.8%
AC458	45	47	2	386	241	26.4%
AC458	47	48	1	383	237	26.8%
AC459	15	17	2	458	267	24.8%
AC459	17	19	2	439	243	24.3%
AC459	19	21	2	385	217	25.1%
AC459	21	23	2	322	180	24.5%
AC459	23	25	2	308	169	23.8%
AC459	25	27	2	365	206	24.8%
AC459	27	29	2	311	178	25.2%
AC459	29	31	2	808	569	23.5%
AC459	31	33	2	398	265	22.7%
AC460	22	24	2	430	211	17.6%
AC460	24	26	2	514	281	18.0%
AC460	26	28	2	248	56	9.2%
AC460	28	30	2	709	439	27.2%
AC460	30	32	2	653	407	26.1%
AC460	32	34	2	306	191	23.9%
AC461	16	18	2	616	368	25.9%
AC461	18	19	1	566	327	25.6%
AC463	16	18	2	390	165	16.4%
AC463	18	20	2	482	146	11.9%
AC463	20	22	2	542	234	22.3%
AC463	22	24	2	872	367	19.6%
AC463	24	26	2	600	315	23.2%
AC463	26	28	2	573	222	17.9%

AC463	28	30	2	467	200	20.0%
AC463	30	32	2	413	193	21.7%
AC463	32	34	2	440	234	24.0%
AC463	34	36	2	373	222	24.8%
AC463	36	38	2	275	158	23.8%
AC463	38	40	2	305	161	22.9%
AC463	40	42	2	397	222	22.0%
AC463	42	43	1	643	425	26.3%
AC464	20	22	2	320	188	24.4%
AC464	22	24	2	323	183	23.7%
AC464	24	26	2	301	171	25.2%
AC464	30	32	2	443	243	24.1%
AC465	19	21	2	493	246	22.0%
AC465	21	23	2	302	166	24.7%
AC465	23	24	1	595	306	23.4%
AC467	19	21	2	331	257	33.3%
AC467	21	23	2	886	729	35.9%
AC467	23	25	2	1238	1047	37.4%
AC467	25	27	2	471	322	32.7%
AC467	27	29	2	1811	1623	39.6%
AC467	29	31	2	1865	1691	38.3%
AC467	31	33	2	405	224	24.8%
AC467	33	35	2	1105	958	34.4%
AC467	35	37	2	567	436	28.8%
AC467	37	39	2	1032	840	28.9%
AC467	39	41	2	412	301	25.8%
AC467	41	43	2	221	138	26.2%
AC467	43	45	2	322	209	26.0%

AC467	45	47	2	458	268	23.6%
AC467	47	49	2	399	246	24.7%
AC467	49	50	1	439	272	23.3%
AC468	11	13	2	319	256	28.7%
AC468	13	15	2	485	374	31.0%
AC468	15	17	2	1115	924	41.4%
AC468	17	19	2	951	306	14.3%
AC468	19	21	2	773	240	14.1%
AC468	21	23	2	651	326	21.7%
AC468	23	25	2	932	541	27.5%
AC468	25	27	2	1122	726	30.4%
AC468	27	29	2	1693	1425	36.8%
AC468	29	31	2	1290	1108	31.1%
AC468	31	33	2	2631	1378	25.0%
AC468	33	35	2	688	391	23.7%
AC468	35	37	2	441	259	24.7%
AC468	37	39	2	359	209	24.4%
AC468	39	41	2	395	230	25.1%
AC469	17	19	2	505	274	22.5%
AC469	23	25	2	372	228	24.6%
AC469	25	27	2	554	332	26.1%
AC469	27	29	2	353	205	24.9%
AC469	29	31	2	442	260	24.9%
AC469	31	33	2	1024	591	27.0%
AC469	33	35	2	416	255	25.9%
AC469	35	37	2	465	263	22.5%
AC469	37	39	2	337	191	23.9%
AC469	39	41	2	358	205	24.4%

AC469	41	43	2	374	217	25.6%
AC470	16	18	2	403	243	25.0%
AC470	18	20	2	772	553	31.6%
AC470	20	22	2	550	399	30.6%
AC470	22	24	2	1269	1123	33.6%
AC470	24	26	2	681	460	27.6%
AC470	26	28	2	351	217	26.3%
AC470	28	30	2	457	269	24.5%
AC470	30	32	2	466	268	23.9%
AC470	32	34	2	443	240	22.5%
AC470	34	36	2	322	186	24.8%
AC470	36	38	2	234	140	25.5%
AC470	38	40	2	347	209	23.0%
AC470	40	42	2	294	196	24.0%
AC470	42	43	1	331	217	23.4%
AC471	16	18	2	583	367	32.6%
AC471	18	20	2	1276	1058	37.9%
AC471	20	22	2	2491	2122	36.7%
AC471	22	24	2	1263	1071	34.5%
AC471	24	26	2	817	599	30.2%
AC472	11	13	2	583	214	9.7%
AC472	13	15	2	972	314	14.3%
AC472	15	17	2	998	350	14.8%
AC472	17	19	2	809	386	14.0%
AC472	19	21	2	912	470	15.4%
AC472	21	23	2	1431	1187	19.9%
AC472	23	25	2	740	570	21.1%
AC472	25	27	2	489	369	23.9%

AC472	27	29	2	489	356	23.9%
AC472	29	30	1	558	404	23.2%
AC473	7	9	2	672	220	14.6%
AC473	9	11	2	2319	1289	26.3%
AC473	11	13	2	1060	678	28.7%
AC473	13	14	1	1015	590	26.8%
AC474	12	14	2	312	192	26.6%
AC474	14	16	2	345	205	25.7%
AC474	16	18	2	361	219	28.0%
AC474	18	20	2	533	317	28.8%
AC474	20	21	1	682	384	28.0%
AC475	8	10	2	302	153	17.9%
AC476	7	9	2	336	272	28.1%
AC476	9	11	2	526	427	26.1%
AC476	11	13	2	319	190	18.7%
AC476	13	15	2	424	179	15.6%
AC476	15	17	2	530	252	20.9%
AC476	17	19	2	692	406	25.6%
AC476	19	21	2	391	186	19.8%
AC476	21	22	1	353	182	22.0%
AC477	16	18	2	444	348	22.3%
AC478	20	22	2	348	184	15.5%
AC478	22	24	2	536	281	20.3%
AC478	24	26	2	213	121	22.2%
AC478	26	28	2	366	205	25.5%
AC478	28	29	1	547	287	29.8%
AC480	14	16	2	370	184	12.7%
AC480	16	18	2	554	275	15.0%

AC481	16	18	2	314	164	11.6%
AC481	22	24	2	329	165	21.5%
AC483	31	33	2	425	228	22.2%
AC483	39	41	2	336	216	23.1%
AC483	41	43	2	357	222	22.2%
AC483	43	45	2	393	243	23.2%
AC485	19	21	2	393	236	25.9%
AC485	21	23	2	279	172	25.9%
AC485	23	25	2	413	253	27.4%
AC485	25	27	2	325	197	25.9%
AC486	21	23	2	407	201	17.6%
AC486	27	29	2	365	204	26.0%
AC486	29	31	2	553	324	26.1%
AC486	31	32	1	991	766	25.6%
AC487	16	18	2	486	264	23.2%
AC487	18	20	2	1850	961	24.0%
AC487	20	22	2	5192	2944	23.3%
AC487	22	24	2	1126	605	23.4%
AC487	24	26	2	850	416	22.3%
AC487	26	28	2	638	447	20.0%
AC490	12	14	2	563	295	18.8%
AC490	14	16	2	660	352	28.8%
AC491	16	18	2	463	244	25.1%
AC491	18	20	2	665	343	26.4%
AC491	20	22	2	651	437	33.4%
AC491	22	24	2	956	753	32.7%
AC491	24	26	2	524	310	26.4%
AC491	26	28	2	489	277	28.1%

AC492	15	17	2	1319	572	18.9%
AC492	17	19	2	486	245	14.1%
AC492	19	21	2	260	131	15.1%
AC492	21	23	2	354	181	18.1%
AC492	23	25	2	501	272	24.3%
AC493	20	22	2	669	345	20.8%
AC493	22	24	2	529	270	22.0%
AC493	24	26	2	365	190	22.8%
AC493	26	28	2	530	289	25.1%
AC493	28	30	2	470	266	26.2%
AC493	30	32	2	338	193	29.2%
AC493	32	34	2	420	258	26.2%
AC493	40	42	2	341	227	24.1%
AC494	15	17	2	524	292	12.8%
AC494	17	19	2	2068	1452	31.6%
AC494	19	21	2	1479	1126	33.6%
AC494	21	23	2	381	200	22.9%
AC494	27	29	2	534	263	20.7%
AC494	29	31	2	423	212	21.5%
AC494	31	33	2	400	207	23.2%
AC494	33	34	1	425	240	24.6%
AC495	17	19	2	355	208	29.3%
AC495	19	21	2	381	209	24.9%
AC496	5	7	2	602	305	22.3%
AC496	7	9	2	887	484	28.4%
AC496	9	11	2	605	308	22.2%
AC497	15	17	2	360	191	24.2%
AC497	17	19	2	198	150	25.6%

AC497	19	21	2	1564	1433	33.8%
AC497	21	23	2	296	194	22.1%
AC497	23	25	2	482	336	26.9%
AC497	25	27	2	681	524	27.1%
AC497	27	29	2	624	515	22.9%
AC501	25	27	2	303	228	21.7%
AC501	31	33	2	523	352	26.3%
AC501	33	35	2	204	123	28.7%
AC501	35	36	1	319	197	27.8%
AC502	13	15	2	324	164	17.4%
AC502	15	17	2	410	223	19.1%
AC502	17	19	2	343	201	24.6%
AC502	19	21	2	661	478	26.2%
AC502	21	23	2	934	833	26.1%
AC503	14	16	2	306	154	10.9%
AC503	16	18	2	338	166	14.2%
AC503	18	20	2	177	95	18.5%
AC503	20	21	1	387	234	25.5%
AC514	23	25	2	398	201	16.3%
AC515	20	22	2	341	185	24.7%
AC517	21	23	2	570	285	20.4%
AC517	23	25	2	475	249	24.1%
AC517	25	26	1	353	215	22.7%
AC518	11	13	2	533	317	22.0%
AC518	13	15	2	389	255	24.0%
AC518	19	21	2	364	190	13.9%
AC518	21	23	2	1630	829	18.8%
AC518	23	25	2	746	395	23.5%

AC518	25	27	2	490	267	24.7%
AC519	23	25	2	610	407	28.0%
AC519	25	27	2	702	520	27.0%
AC519	27	29	2	414	325	23.6%
AC519	29	31	2	922	713	25.0%
AC519	31	33	2	340	221	22.9%
AC519	33	34	1	322	207	25.2%
AC520	21	23	2	709	438	27.3%
AC520	23	25	2	582	396	32.0%
AC520	31	33	2	3449	2405	27.6%
AC520	33	35	2	598	425	27.2%
AC520	35	37	2	338	237	22.5%
AC520	37	39	2	314	230	20.3%
AC521	20	22	2	475	288	24.6%
AC521	22	24	2	492	313	24.3%
AC521	24	26	2	645	421	26.2%
AC524	12	14	2	350	266	22.1%
AC524	16	18	2	336	205	27.5%
AC525	7	9	2	536	265	20.7%
AC532	26	28	2	306	56	7.9%
AC532	28	30	2	245	60	9.4%
AC532	30	32	2	357	111	11.3%
AC532	32	34	2	435	148	12.6%
AC532	34	36	2	690	152	8.9%
AC532	36	38	2	1612	1287	34.8%
AC532	38	40	2	1525	1384	32.5%
AC532	40	42	2	443	355	23.9%
AC532	42	44	2	417	259	24.3%

AC532	44	46	2	414	283	24.4%
AC536	14	16	2	305	183	18.0%
AC536	16	18	2	542	252	24.4%
AC536	18	20	2	857	463	30.5%
AC536	20	21	1	400	218	22.5%
AC546	20	22	2	675	370	25.8%
AC546	22	24	2	620	331	26.5%
AC547	13	14	1	432	216	19.3%

TREO = La_2O_3+CeO_2+Pr_6O_{11}+Nd_2O_3+Sm_2O_3+Eu_2O_3+Gd_2O_3+Tb_4O_7+Dy_2O_3+Ho_2O_3+Er_2O_3+Tm_2O_3+Yb_2O_3+Lu_2O_3+Y_2O_3.
Magnet REOs = Pr_6O_{11}+Nd_2O_3+Tb_4O_7+Dy_2O_3.

Table 3: Cowalinya air core holes for which rare earth assays are reported in Table 2.

HOLE NO.	NORTHING (m)	EASTING (m)	EVEVATION (m)	DIP (°)	TOTAL DEPTH (m)
AC227	6359389	429597	261.5	-90	34
AC445	6362090	425792	258.4	-90	21
AC446	6362103	424987	260.2	-90	46
AC447	6362109	424589	255.7	-90	28
AC448	6362113	424193	256.7	-90	24
AC449	6362120	423790	253.1	-90	20
AC450	6362126	423392	255.3	-90	24
AC451	6362131	422992	252.2	-90	24
AC452	6362139	422593	251.8	-90	40
AC453	6362144	422192	253.5	-90	28
AC454	6362149	421789	252.1	-90	22
AC455	6362612	421398	254.1	-90	31
AC456	6363014	421408	252.6	-90	34
AC457	6363414	421413	250.7	-90	41
AC458	6363814	421420	252.2	-90	49
AC459	6364213	421427	253.6	-90	34
AC460	6364615	421436	253.8	-90	35
AC461	6365024	421442	254.7	-90	20
AC462	6365425	421450	257.6	-90	18
AC463	6367061	421474	270.6	-90	44
AC464	6367060	420267	264.3	-90	33
AC465	6367067	419071	258.3	-90	25
AC467	6367069	418275	254.8	-90	51
AC468	6367071	417472	255.4	-90	47
AC469	6367076	417074	255.2	-90	49
AC470	6367069	416672	249.7	-90	44
AC471	6367086	416273	249.3	-90	27
AC472	6367075	415874	247.6	-90	31
AC473	6367085	415466	245.2	-90	15
AC474	6367093	415067	249.3	-90	22
AC475	6367090	414670	248.9	-90	14
AC476	6367101	414272	247.8	-90	23

AC477	6367046	422274	278.4	-90	19
AC478	6367017	423874	280.1	-90	30
AC480	6366968	427071	271.8	-90	23
AC481	6367031	428671	274.5	-90	28
AC483	6365463	429828	276.0	-90	46
AC484	6363564	429198	268.0	-90	31
AC485	6362800	429001	263.2	-90	28
AC486	6361248	425001	262.3	-90	33
AC487	6361245	425397	262.7	-90	29
AC488	6361227	425801	259.3	-90	14
AC489	6361247	426202	258.0	-90	17
AC490	6361259	426601	261.8	-90	17
AC491	6361255	427000	256.4	-90	29
AC492	6362095	425393	262.6	-90	26
AC493	6361991	426602	258.3	-90	43
AC494	6360746	426000	263.7	-90	35
AC495	6360740	426402	260.3	-90	23
AC496	6360730	426802	253.3	-90	13
AC497	6360749	427199	261.2	-90	30
AC498	6361750	427398	260.7	-90	20
AC499	6361745	427603	259.2	-90	19
AC500	6361496	427600	258.8	-90	20
AC501	6360742	428004	264.1	-90	37
AC502	6360605	428603	255.0	-90	24
AC503	6360600	429202	264.2	-90	22
AC504	6360596	430598	269.3	-90	22
AC514	6355397	434797	262.6	-90	26
AC515	6355408	435000	263.3	-90	26
AC516	6355403	435201	263.5	-90	28
AC517	6355391	435399	263.5	-90	27
AC518	6355384	435600	263.6	-90	28
AC519	6355404	435797	266.5	-90	35
AC520	6355391	436001	268.9	-90	40
AC521	6355402	436200	268.5	-90	45
AC524	6354617	437002	258.4	-90	28

AC525	6354615	437200	260.6	-90	21
AC531	6366238	430126	276.5	-90	31
AC532	6364711	429572	270.8	-90	47
AC536	6354197	434401	256.5	-90	22
AC546	6360610	428199	263.3	-90	26
AC547	6357402	435598	274.1	-90	16

2012 JORC Code – Table 1

Section 1: Sampling Techniques and Data

Criteria	JORC Code Explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g., cut channels, random chips, or specific specialized 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.	A total of 550 vertical aircore holes have been drilled by HRE on the Cowalinya project to date, 109 holes in 2021 and 441 holes in 2022. Maximum hole depth is 59 metres. All holes have been tested for supergene rare earth element (REE) mineralisation hosted by saprolitic clays. Drilling in 2021 overlapped extensively with areas previously aircore drilled by two companies exploring for gold (AngloGold Ashanti Ltd and Great Southern Gold Pty Ltd). One-metre samples are collected from a cyclone into plastic bags. All holes drilled in 2022 have been 2 metre composite-sampled with 1 metre samples at end of hole. Overlying transported sediments are not routinely sampled as they do not contain anomalous amounts of REEs.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	For aircore drilling, regular air and manual cleaning of cyclone is being undertaken. Certified standards and duplicate samples are submitted with drill samples.
	Aspects of the determination of mineralisation that are Material to the Public Report.	Aircore drilling is used to obtain 1m samples which are collected in plastic bags. Samples ranging from 1m to 2m composites are taken for analysis. Sample size is 2-3 kilograms in weight. At LabWest Minerals Analysis (LabWest) in Perth, Western Australia, samples are dried, crushed, split and pulverized with a 0.1-gram sub-sample set aside for assay.
Drilling techniques	Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	The drill type is aircore, a form of reverse circulation (RC) drilling using slim rods and a 3.5-inch blade bit. The samples recovered are typically rock chips and powder, similar to RC drilling.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Aircore recovery is visually assessed by comparing drill chip volumes in sample bags for individual metres. Estimates of sample recovery are recorded on drill logs. Routine checks for correct sample depths are undertaken. Aircore sample recoveries are visually checked for recovery, moisture and contamination and are considered to be acceptable within industry standards. The cyclone is routinely cleaned ensuring no material build up.

Criteria	JORC Code Explanation	Commentary
	Measures taken to maximize sample recovery and ensure representative nature of the samples.	Due to the generally good drilling conditions through dry saprolite the site geologist believes the samples are reasonably representative. Poor sample recovery is regularly recorded in the first couple of metres of a hole and often when hard bedrock is intersected – usually less than a full metre is recovered. Wet samples with moderate recoveries are encountered most often in the transported sand/silcrete layer lying immediately above saprolite.
	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 sample bias has been identified to date. Future studies will be undertaken.
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.	Chip/clay samples are geologically logged in enough detail to discern lithological units. Logging is appropriate for this style of drilling and current stage of the project.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is qualitative in nature.
	The total length and percentage of the relevant intersections logged.	All aircore holes are completely geologically logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	One-metre samples are collected from a cyclone into plastic bags. Two-metre composites and single metre samples are collected by spearing each plastic bag with a scoop down the side of the bag and dragging it back up the side of the bag so as not to lose any sample – this achieves a representative sample from top to bottom through the entire bag. The vast majority of samples are dry sampled.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sampling technique is appropriate for the sample types and stage of the project.
	Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.	QAQC procedures involve the use of certified standards every 20th sample.
	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.	A field duplicate is taken every 20th sample.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	The sample size of 2-3 kilograms is considered appropriate to the grain size and style of mineralisation being investigated.

Criteria	JORC Code Explanation	Commentary
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.	Analyses are done at LabWest using their AF-02S technique: lithium meta/tetraborate fusion with ICP-MS/OES finish. This technique is considered to be a 'total' digest. A suite of 15 REEs – lanthanum (La), cerium (Ce), praseodymium (Pr), neodymium (Nd), samarium (Sm), europium (Eu), gadolinium (Gd), terbium (Tb), dysprosium (Dy), holmium (Ho), erbium (Er), thulium (Tm), ytterbium (Yb), lutetium (Lu), and yttrium (Y) – plus scandium (Sc), thorium (Th) and uranium (U), and oxides of aluminium (Al), calcium (Ca), iron (Fe), magnesium (Mg) and phosphorus (P), are measured.
	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.	Not applicable.
	Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	OREAS standards and/or blanks are inserted every 20th sample. Field duplicates are taken every 20th sample. LabWest uses OREAS standards, blanks and sample repeats. Acceptable levels of accuracy have been achieved.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections have yet to be verified by an independent geological consultant. They have been verified by alternative company geological personnel.
	The use of twinned holes.	Two holes have been twinned at Cowalinya: AC4 (AC544) and AC222 (AC222A).
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All data have been entered into Excel spreadsheets.
	Discuss any adjustment to assay data.	No data has been adjusted.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Hole collars are surveyed using a hand-held Garmin Etrex 22x GPS with ±3 metre accuracy. Northings, eastings and elevations are recorded using the hand-held GPS.
	Specification of the grid system used.	GDA94 z51.

Criteria	JORC Code Explanation	Commentary
	Quality and adequacy of topographic control.	The Cowalinya project is located in relatively flat terrain. Topographic control is provided by Landgate's Digital Elevation Model over the region which has an expected horizontal accuracy of 10 metres and vertical accuracy of 2 metres (both 95% confidence interval).
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Generally, 400 metres x 200 metres.
	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.	Data spacing is considered sufficient for this style of mineralisation to establish Inferred Mineral Resources. The mineralisation occurs as extensive, generally flat lying supergene blankets hosted in saprolitic clays.
	Whether sample compositing has been applied.	All holes have been assayed by 2 metre composite samples, compiled from 1 metre drilled samples. Additionally, a 1 metre end-of-hole sample is submitted for a 63 multi-element assay. A total of 967 samples (including standards, blanks and field duplicates) have been submitted for assay.
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.	Sampling is likely to be unbiased as vertical holes are intersecting flat lying mineralisation.
	If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	It is unlikely to be biased.
Sample security	The measures taken to ensure sample security.	Experienced field assistants have undertaken the sampling and delivery of samples to the freight company in Esperance, which provides a direct delivery service to LabWest in Perth.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been commissioned to date.

Section 2: Reporting of Exploration Results

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	Exploration licence E63/1972 is located 55 kilometres east-north-east of Salmon Gums in Western Australia. It consists of 80 graticular blocks comprising an area of 224 km^2. It is situated on unallocated crown land. The registered holder of the tenement is Heavy Rare Earths Limited (HRE). Full native title rights have been granted over the tenement and surrounding lands to the Ngadju people, with whom cultural heritage surveys are undertaken in advance of substantial disturbance exploration works.
	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 tenement is in good standing. There are no impediments to operating on the tenement other than requirements of the DMIRS and the Heritage Protection Agreement, all of which are industry standard.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	AngloGold Ashanti and Great Southern Gold previously worked in the area of E63/1972 exploring for gold mineralisation. Surface geochemical sampling and aircore drilling was undertaken by both companies but no significant gold mineralisation was discovered. Both companies assayed bottom of hole samples for a suite of multi-elements including REEs. Anomalous bedrock REE values were recorded in numerous holes from their drilling. Great Southern Gold also assayed for La and Ce for the entire length of a number of holes. AngloGold Ashanti flew an airborne magnetic/radiometric survey to assist with mapping of buried bedrock lithologies. Buxton Resources and Toro Energy also previously worked in the area of E63/1972 exploring for gold and nickel mineralisation, and uranium mineralisation, respectively. Both companies flew time-domain electromagnetic surveys to aid in their exploration targeting. No significant mineralisation was discovered.
Geology	Deposit type, geological setting and style of mineralisation.	The deposit type being investigated is low grade saprolite clay-hosted supergene rare earth mineralisation. This style of supergene rare earth mineralisation is developed over bedrock granitic rock types (granites and granitic gneisses) which contain anomalous levels of REEs. Although low grade, low mining and processing costs can make this type of deposit profitable to exploit.

Criteria	JORC Code Explanation	Commentary
Drillhole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: - easting and northing of the drillhole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar - dip and azimuth of the hole - down hole length and interception depth - hole length.	All relevant data for the drilling is shown in Table 3.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.	All REE assays have been converted to oxide (REO) values using the following industry standard element-to-stoichiometric oxide conversion factors: La_2O_3 = La x 1.1728 CeO_2 = Ce x 1.2284 Pr_6O_{11} = Pr x 1.2082 Nd_2O_3 = Nd x 1.1664 Sm_2O_3 = Sm x 1.1596 Eu_2O_3 = Eu x 1.1579 Gd_2O_3 = Gd x 1.1526 Tb_4O_7 = Tb x 1.1762 Dy_2O_3 = Dy x 1.1477 Ho_2O_3 = Ho x 1.1455 Er_2O_3 = Er x 1.1435 Tm_2O_3 = Tm x 1.1421 Yb_2O_3 = Yb x 1.1387 Lu_2O_3 = Lu x 1.1371 Y_2O_3 = Y x 1.2699. These oxide values are summed to produce a total rare earth oxide (TREO) grade for each assay sample. Minimum grade cut-off used is 300 ppm TREO. Maximum internal dilution is 2 metres @ <300 ppm TREO. No high cut-off has been applied. Length-weighted averages have been applied to intersections.

Criteria	JORC Code Explanation	Commentary
	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.	Intervals reporting >1000 ppm TREO are reported separately.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been used.
Relationship between mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. 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').	To date the targeted mineralisation appears to occur in flat lying sheets and drill holes have all been drilled at 90° vertically. The down hole length of intercept is effectively a true thickness of mineralisation.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	Refer to Figure 1 for plan view of all drillhole collar locations. Refer to Figure 2 for drillhole section A-B-C-D.
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.	Summary assays for all mineralised intervals ≥300 ppm TREO are presented in Table 2.
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.	Particle size analysis on mineralised saprolite shows that, on average: - 78.5% of REEs are confined to the -25 µm size fraction - the -25 µm fraction comprises 37.2% of the bulk saprolite feed mass - the REE grade of the -25 µm fraction is 116% higher than the bulk saprolite feed grade. Preliminary leach testwork has shown up to 91% TREO recovery from Cowalinya South using 5% hydrochloric acid at 30°C. U and Th values are reported as they are considered to be deleterious elements in rare earth processing. The highest values recorded for these elements on the project to date are 81 ppm ThO_2 and 96 ppm U_3O_8. The length-weighted average values are 11 ppm and 3.5 ppm, respectively.
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).	Comprehensive metallurgical testwork is in progress and petrological studies will be completed to identify REE-bearing mineral species.

Criteria	JORC Code Explanation	Commentary
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Potential extensions to the Cowalinya South and North deposits are indicated in Figure 1.