8km Critical Mineral Corridor at Radium Hill - High-Grade Scandium & Yttrium

Highlights

- **Radium Hill reconnaissance surface rock chip sampling program yields significant assay results**
- **Recent work, combining aerial geophysics and historical records, with field follow-up, focused on better defining 8km+ structural zone extending along strike from historic Radium Hill uranium mine**
- **This structural corridor is enriched in a variety of critical minerals including Yttrium, Scandium, Rare Earth Elements[1] & Vanadium**
- **Rock samples along this Critical Mineral Corridor (*CMC)* test positive for high grade Scandium (to 959ppm Sc_2O_3), Yttrium (to 2236ppm Y_2O_3) and Uranium (to 3597ppm U_3O_8)**
- **A sample of lode rock from Railway Prospect returned 0.36% U_3O_8, 253 ppm Sc_2O_3, 1.26% TREO (incl. 0.13% Y_2O_3). Railway Prospect lies just over 100m along strike from the Radium Hill deposit, indicating mineralisation continues into HRE's project area**
- **The recent work strengthens HRE's geological model of Radium Hill as a critical minerals project, providing impetus for systematic exploration of the *CMC***

Heavy Rare Earths Limited (**"HRE"** or **"the Company"**) is pleased to announce very encouraging assay results from the recent Radium Hill reconnaissance rock chip sampling program. Rock samples were collected across the 8km-long linear SW to NE extension from the historic Radium hill mine and assessed with a multi-element analysis.

While the assayed uranium grades were strong as expected, the consistent presence of high-grade Scandium (up to **969ppm Sc_2O_3**) and Yttrium (up to **2236ppm Y_2O_3**) close to the historic mine and up to 5km from the mine, is of particular significance for HRE's future critical minerals exploration program.

Chair of the Board, Gabriel Chiappini commented:

"It's highly encouraging to receive positive assay results from ongoing groundwork at Radium Hill as our geological model continues to develop. Reinterpretation of aerial geophysical data, collected by HRE in 1H_2025, coupled with intense investigation of historical data, is refining our knowledge of an 8km structural corridor, enriched in a suite of critical minerals, including from the Radium Hill mine.

It is important to note this corridor, corresponding to the axial plane of a regional fold, outcrops for only half of its interpreted extent and, where it does outcrop, there are numerous examples of historical mining efforts dating back more than a century.

[1] REE (Rare Earth Elements) = La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu.

Given this structural corridor is a geological extension of Australia's first uranium mine, we anticipated receiving positive uranium samples but are encouraged to find anomalous values for a range of critical minerals.

In addition to anomalous uranium, we are pleased to confirm that high critical mineral values, in the form of Scandium and Yttrium, were detected at multiple prospects along the length of the sample area, with significant grades particularly concentrated on two main targets - Bristowe's/Railway (<1km from Radium Hill Mine) and Bonython Hill (5km from Radium Hill Mine).

Sampling at Bristowe's Prospect confirmed multiple lodes of high-grade U-REE-Y-Sc mineralisation with up to 721ppm Sc_2O_3,1728ppm Y_2O_3 and 0.36% U_3O_8. Perhaps of greater significance were samples from Bonython Hill showing the strongly anomalous nature of U-REE-Y-Sc mineralisation continues for up to 5km along strike from Radium Hill mine, with up to 284ppm Sc_2O_3,1309ppm Y_2O_3 and 0.15% U_3O_8.

Scandium and Yttrium are prized critical minerals and represent valuable additions to this already exciting U-REE project.

HRE's recently refreshed board are excited to accelerate exploration across Radium Hill alongside our other projects, with these results adding further evidence that Radium Hill has the potential to host a sizable critical minerals resource.

We feel there is considerable potential for discovery from a suite of critical minerals in a historical mining camp which has not been tested by a single drillhole in the past 64 years, and where previous mining focussed almost solely on one commodity, uranium."

Positive findings along an 8km long extension of Radium Hill mine

The Company's evolving geological model suggests there is considerable potential to discover mineralised extensions to the main Radium Hill mine lodes, predominantly northeast, but also southwest of the Mine, where 954,000 tonnes of ore @ 0.12 U_3O_8 were mined and processed between 1954 and 1961 to produce 850t of U_3O_8. Towards the end of mining, about 135 kg of scandium oxide was recovered in Port Pirie on a pilot scale from residues[2].

Recent re-evaluation of aerial geophysical data, collected by HRE earlier this year *(refer ASX announcement 19 May 2025)*, has further defined an 8km long structural corridor, trending northeast to southwest, through the Radium Hill mine, corresponding to the axial plane of a regional, domed anticlinal fold. Approximately 6km of this trend lies within HRE's Radium Hill project area. This structural corridor appears to have strong control on the distribution of critical mineral mineralisation throughout the Radium Hill region. Importantly, approximately 50% of the structural feature's strike length is covered by soils and recent alluvial sediments/scree and remains largely untested by modern exploration methods.

Analysis of the findings has been led by Bob Johnson, the highly regarded founder of Maptek, an innovative and industry leading provider of 3D geological modelling software.

At the same time as this work, an experienced geological consultant has been searching through historical data looking for evidence of mineralisation along the *CMC*. This study has been time consuming due to the variable state of preservation of the data after so many decades.

This work has outlined areas of historical mining, dating back to the early 20th Century, which were not part of the main uranium mining period of the 1950s. Multiple prospects have been identified, such as railways,

[2] https://catalog.sarig.sa.gov.au/dataset/rb7400044/resource/0f6dd27b-5317-4436-ae09-38154da1dfa7

Bristowe's, Radium Hill North, Bonython Hill, and Taylor's Shaft. The work has significantly contributed to the critical mineral geological model being constructed by HRE.

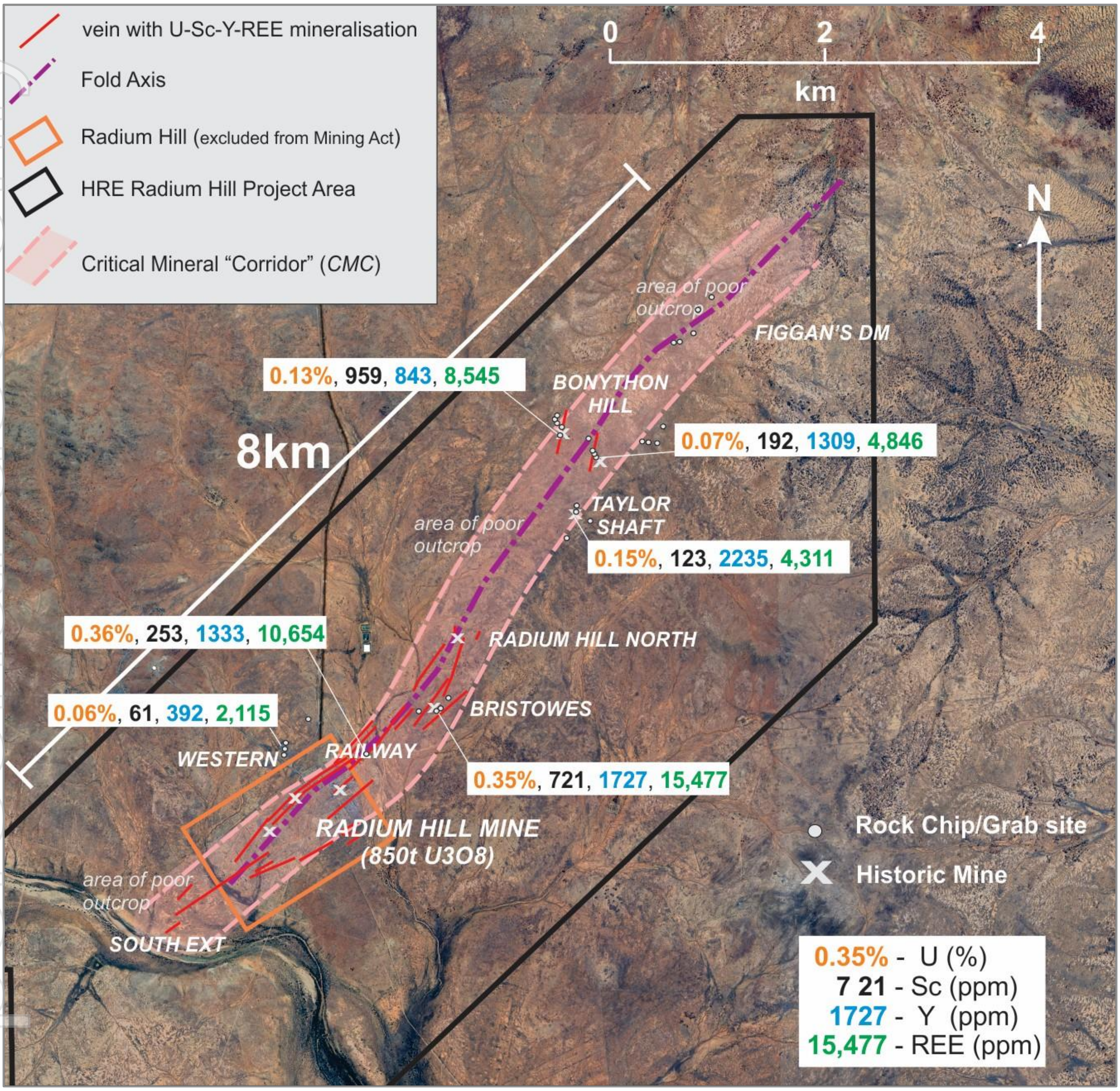

Figure 1. Radium Hill project showing proposed Critical Mineral Corridor with selected high-grade rock samples from recent mapping program. Complete table of assays in *Appendix 1*

HRE's geological team is undertaking preliminary field testing along the CMC, with a particular focus on historical workings and outcropping areas, testing the relationship between uranium, scandium, yttrium and REEs to determine whether they are part of the same or different mineralising events. Analysis of this work is being aided by studies being concurrently undertaken at Radium Hill by renowned REE expert, Professor Carl Spandler from the University of Adelaide.

The preliminary sampling program was designed to test mineralised lode and un-mineralised host rocks at several areas of historical workings as well as a linear, north-east trending, radiometric anomaly outlined by HRE's aerial survey year *(refer ASX announcement 17 July 2025)* which is known as Figgan's Dam Anomaly.

Figure 2: HRE geologist collecting representative samples of mineralisation near Taylor Shaft, Radium Hill.

33 samples were collected and submitted to Bureau Veritas Laboratories in Adelaide. Results show highly anomalous grades for U, Sc, Y and REEs at all prospect areas sampled over a 5km length of the CMC extending northeast from the Radium Hill mine up to, and including, Bonython North Prospect (Figure 1).

It is significant that the highest assay value for scandium (959ppm Sc_2O_3) is from Bonython North (Bonython Hill Prospect), the northernmost historical working along the *CMC*, 5km from the Radium Hill Mine. This sample also contains highly anomalous yttrium (843 ppm Y_2O_3) and uranium (1332ppm U_3O_8).

Other significant assays from each prospect include:

- Bristowe's Prospect - (sample no. RH25MG024 -**721ppm Sc_2O_3, 1727 ppm Y_2O_3** & **3526ppm U_3O_8**)
- Railway Prospect - (sample no. RH25MG024 -**253ppm Sc_2O_3, 1333 ppm Y_2O_3** & **3597ppm U_3O_8**) and
- Taylor's Shaft - (sample no. RH25MG002 -**123ppm Sc_2O_3, 2235 ppm Y_2O_3** & **1545ppm U_3O_8**)

Figure 3. Historic working at Bristowe's Prospect showing large, 40cm, outcropping quartz vein (red line) with davidite – ilmenite mineralisation (Sample RH25MG024 – see above)

Unseasonal rainfalls prevented access to Radium Hill North Prospect where some of the highest scandium, U and REE assays were reported from preliminary reconnaissance sampling in mid-2025 *(refer ASX announcement 19 May 2025) – eg RHR007 – 0.37% U_3O_8, 936ppm Sc_2O_3 and 1.0% TREO.*

Results from two previous reconnaissance sampling programs at Radium Hill were released before the spectacular rise in yttrium oxide prices in mid-July 2025 and Y values were not included in these announcements. Re-evaluation of the data makes it clear that scandium has the potential to significantly add value to the Radium Hill critical mineral inventory. Several of the more significant results from the May 2025 sampling include:

SAMPLE	EAST	NORTH	PROSPECT	U3O8*	Sc_2O_3*	Y_2O_3	V_2O_5	TREO**
				%	ppm	ppm	ppm	%
RHR006	467333	6422633	Radium Hill Nth	0.36	644	2997	5106	1.54
RHR007	467333	6422633	Radium Hill Nth	0.37	936	2794	5641	0.72
RHR002	467070	6421962	Bristowes	0.60	882	2426	8319	1.64
RHR003	467080	6421956	Bristowes	0.41	521	1918	5391	1.22
RHR018	466971	6422088	Intermediate	0.47	445	1537	7141	0.77

* U3O8 and Sc2O3 previously reported in ASX announcement 19 May 2025 ** TREO (Total Rare Earth Oxides) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu2O3

There are no historical workings at the Figgan's Dam Prospect at the north-eastern extremity of the CMC, although 5 reconnaissance samples did not return anomalous values for any critical minerals, the source of the radiometric anomaly could not be explained, and the area warrants additional follow up work.

All assay results from 2H 2025 program are contained in *Appendix 1 on page 8*.

Figure 4. Taylor Shaft looking southwest along the CMC towards Radium Hill Mine.

The latest findings build on previously reported critical minerals results from HRE, *(refer ASX release 15 September, "HRE advances exploration at its Critical Minerals & Uranium Projects" and ASX release 30 October 2024," Reconnaissance Sampling Highlights Potential for Rare Earths and Scandium at Radium Hill"* which demonstrated grades up to 9,068ppm U_3O_8, 936ppm Sc_2O_3, 3734ppm Y_2O_3 as well as 1.89% TREO.

As reported previously, the strongly anomalous Sc_2O_3 grades from samples along the entire length of the CMC, as seen in *Appendix 1* compare favourably to the Sc_2O_3 head grades of the resources for the ASX/TSX quoted companies listed in Table 2.

Company	Deposit	Location	Total Tonnes Mt	Sc_2O_3 ppm[1]	Market Capitalisation
Australian Mines Limited[2]	Flemington	NSW	6.3	684	$23m
Sunrise Energy Metals Limited[3]	Syerston	NSW	60.3	598	$896m
Scandium International Mining Corp[4]	Nyngan	NSW	16.81	360	CAD$44m
West Cobar Metals Limited[5]	Newmont	WA	12	158	$7m

1. *Converted to Sc2O3 from reported Sc grades using Sc2O3 = Sc x 1.5338.*
2. *Australian Mines ASX announcement 14/04/25 "Australian Mines Expands Scoping Study Amid Chinese Scandium Restrictions". Resource also contains 601 ppm Co and 1,350 ppm Ni.*
3. *Sunrise Energy Metals ASX announcement 05/02/25 "Update of Syerston Scandium Project Mineral Resource".*
4. *Scandium International Mining Corp 04/05/16 "Feasibility Study – Nyngan Scandium Project" https://scandiummining.com/site/assets/files/5775/feasbility_study-nyngan_scandium_project.pdf.*
5. *West Cobar Metals ASX announcement 29/04/24 "Maiden Scandium Resource Declared at Salazar". Resource also contains 915 ppm TREO and 4.95% TiO2.*

The Company has recently undergone a renewal of the board, appointing well regarded and highly credentialed Directors who now seek to aggressively explore HRE's project portfolio. Radium Hill's demonstrated prospectivity for critical minerals, such as Scandium and Yttrium, warrants further investigation. The Company looks forward to updating the market on the exploration strategy for 2026, to pursue this as well as explore the Company's other prospects.

— ENDS —

This announcement has been approved by the Board of HRE

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About Heavy Rare Earths Limited

Heavy Rare Earths Limited (ASX:HRE) is an Australian uranium and critical minerals exploration and development company. HRE's key exploration projects are in the uranium-and critical minerals-rich Curnamona Province of eastern South Australia and in the Mid-West region of Western Australia.

Competent Person's Statement

The Exploration Results contained in this announcement were compiled by Mr Joseph Ogierman. Mr Ogierman is a Member (#4469) of the Australian Institute of Geoscientists (MAIG). He is a full-time employee of Heavy Rare Earths Limited. Mr Ogierman 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. Mr Ogierman consents to the inclusion in this announcement of the matters based on the Exploration Results in the form and context in which they appear.

Forward Looking Statement

This announcement includes "forward-looking statements" as that term within the meaning of securities laws of applicable jurisdictions. Forward-looking statements involve known and unknown risks, uncertainties and other factors that are in some cases beyond HRE's control. These forward-looking statements include, but are not limited to, all statements other than statements of historical facts contained in this presentation, including, without limitation, those regarding HRE's future expectations. Readers can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "continue," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "predict," "project," "risk," "should," "will" or "would" and other similar expressions. Risks, uncertainties and other factors may cause HRE's actual results, performance, production or achievements to differ materially from those expressed or implied by the forward-looking statements (and from past results, performance or achievements). Readers are cautioned not to place undue reliance on forward-looking statements. Although HRE believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements

APPENDIX 1. Assay results from rock sampling program

SITE_ID	East_MGA94	North_MGA94	Prospect	Lith_desc	Sc_2O_3	U_3O_8	Y_2O_3	V2O5	TREO	La2O3	CeO2	Pr6O11	Nd2O3	Sm2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3
					ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
RH25MG001	468644	6424015	Taylor Shaft	mineralised rock in shaft waste	153	469	621	2249	1821	549	663	48	129	31	9	53	14	100	24	77	14	96	14
RH25MG002	468650	6424061	Taylor Shaft	mineralised rock in small trench	46	311	551	1321	1657	522	587	41	110	24	8	43	11	82	19	74	14	106	16
RH25MG003	468450	6424876	Bonython Hill	mineralised rock in shaft waste	959	1333	843	4784	8545	3096	3624	248	680	133	19	151	28	185	39	125	23	171	24
RH25MG012A	465657	6421835	Western	biotite-qtz-davidite; old trench waste	61	287	267	1428	2731	912	1226	89	243	42	9	44	7	44	10	35	7	54	9
RH25MG012B	465657	6421835	Western	granite; old trench waste	8	4	71	71	318	60	135	14	50	13	2	13	2	11	2	7	<1	7	1
RH25MG013	465634	6421815	Western	amphibolite	69	4	36	750	73	7	27	2	10	3	2	6	1	6	<1	5	<1	5	<0.5
RH25MG014	465636	6421808	Western	biotite-qtz-davidite in old trench	61	596	393	1749	2073	812	859	51	104	17	4	25	6	54	15	55	11	87	15
RH25MG015	465642	6421803	Western	pegmatite in old trench	0	4	9	71	100	27	45	5	15	3	1	2	<0.5	2	<1	<1	<1	<1	<0.5
RH25MG016	466306	6421417	Railway	biotite-qtz-davidite fragments in old trench	253	3597	1334	7462	10654	4210	4361	254	560	106	20	134	33	258	62	221	42	342	52
RH25MG022A	467188	6422084	Bristowes	biotite-qtz-ilmenite; old shaft waste	100	193	780	1500	3900	1160	1437	115	370	95	25	118	26	181	37	120	22	169	25
RH25MG022B	467188	6422084	Bristowes	pink microgranite; old shaft waste	0	9	30	71	168	43	69	7	24	5	1	6	1	5	<1	3	<1	3	<0.5
RH25MG024	467077	6421958	Bristowes	biotite-qtz-davidite lode exposed in small pit	721	3526	1728	5891	13749	5805	5466	290	580	95	17	146	39	324	82	300	59	476	71
RH25MG026	466897	6421944	Bristowes	pegmatite	8	25	39	71	337	96	150	13	37	8	2	8	1	7	2	5	<1	6	1
RH25MG036	468564	6423694	Taylor Shaft	granite; foliated	0	4	8	<	26	11	11	<1	3	<0.5	<0.5	<1	<0.5	1	<1	<1	<1	<1	<0.5
RH25MG042	468791	6423874	Taylor Shaft	sandstone with haematite; Cutana Beds	15	36	6	3071	11	4	5	<1	2	<0.5	<0.5	<1	<0.5	1	<1	<1	<1	<1	<0.5
RH25MG046	468644	6424012	Taylor Shaft	muscovite-biotite-qtz-davidite; old shaft waste	123	1545	2236	1607	4311	1059	1327	104	309	103	31	204	51	387	88	269	42	295	43
RH25MG047	468658	6424018	Taylor Shaft	amphibolite	61	5	52	857	119	19	37	5	19	5	2	8	2	9	2	6	<1	6	<0.5
RH25MG048	468653	6424056	Taylor Shaft	muscovite-biotite-qtz-davidite; old small pit	54	179	239	1678	738	194	267	23	70	18	5	25	5	40	9	31	6	40	6
RH25MG050	469658	6426027	Figgans Dam	tourmaline-qtz rock	15	18	37	321	153	33	63	7	25	5	1	5	<0.5	5	<1	5	<1	5	<0.5
RH25MG051	469732	6426025	Figgans Dam	kyanite-biotite-muscovite-qtz schist	23	11	48	179	420	99	188	21	68	12	2	10	2	8	2	5	<1	5	<0.5
RH25MG052	469858	6426108	Figgans Dam	kyanite-biotite-muscovite-qtz schist	31	6	43	286	440	93	198	23	78	14	2	13	2	8	2	5	<1	3	<0.5
RH25MG054	470053	6426511	Figgans Dam	granite gneiss	15	11	79	214	322	65	133	14	55	12	2	14	2	12	3	8	<1	7	1
RH25MG055	469912	6426366	Figgans Dam	kyanite schist	23	9	70	214	456	100	201	23	78	14	2	14	2	12	2	7	<1	6	1
RH25MG063	468792	6424755	Bonython Hill	biotite-qtz-davidite lode exposed in small pit	192	736	1309	1892	4846	1607	1867	130	323	64	19	97	24	188	49	172	32	236	37
RH25MG064	468788	6424765	Bonython Hill	granite gneiss	92	104	524	1785	992	272	330	23	59	15	5	32	9	75	18	58	10	73	11
RH25MG066	468785	6424774	Bonython Hill	biotite-qtz-davidite lode exposed in small pit	107	268	742	4284	2129	661	780	54	145	33	12	55	14	111	27	89	16	114	18
RH25MG072	468724	6424869	Bonython Hill	biotite-qtz-magnetite schist; lode rocks	107	6	123	821	115	16	24	4	8	3	<0.5	8	2	17	3	11	2	13	2
RH25MG075	468452	6424888	Bonython Hill	biotite-qtz schist; lode rocks	31	10	44	321	72	11	22	4	12	3	<0.5	6	1	6	<1	3	<1	3	<0.5
RH25MG077	468456	6424964	Bonython Hill	biotite-qtz-ilmenite schist; lode rocks	284	109	388	1250	1148	310	421	36	114	30	5	43	9	58	13	42	7	52	8
RH25MG078	468421	6424992	Bonython Hill	biotite-qtz-ilmenite schist; lode rocks	31	21	94	357	130	15	36	5	22	9	2	14	2	13	3	8	<1	6	<0.5
RH25MG080	468417	6425064	Bonython Hill	biotite-qtz schist; lode rocks	176	4	102	750	125	16	28	5	16	6	1	12	2	15	3	8	1	9	1
RH25MG081	468428	6425065	Bonython Hill	biotite-qtz schist; lode rocks	107	4	37	571	54	8	15	2	7	3	<0.5	5	1	5	<1	3	<1	3	<0.5
RH25MG082	468412	6425035	Bonython Hill	biotite-qtz schist; lode rocks	31	16	281	321	506	70	151	19	77	28	5	46	8	46	9	23	3	17	2

JORC Code, 2012 Edition – Table 1
Section 1 Sampling Techniques and Data

(Criteria in this Section apply to all succeeding Sections pages 9 to 20)

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.* *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.*	• A total of 43 rock chip and grab samples were collected from within and adjacent to existing historic mining and exploration workings within EL 5831, EL 6041 and EL 6594, along strike from the historic Radium Hill Mine site, a 2.64 km^2 area reserved from the South Australian *Mining Act 1971*. This reserved area is enclosed within EL 6041 but excluded from the exploration licence. • Samples were taken from sites such as mine dumps, prospect pits, and adjacent mineralised and unmineralised outcrop or subcrop/float Some samples were also taken of representative host rocks in outcrop. Equipment used was predominately handheld hammer for the collection of rock fragments. • Rock chip/grab sampling is an industry-wide field technique for establishing preliminary information on metal content and mineralisation types present in an area of interest.
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.).*	• No drilling was undertaken on the project.

Criteria	JORC Code Explanation	Commentary
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.* *Measures taken to maximize sample recovery and ensure the representative nature of the samples.* *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No drilling was undertaken on the project.
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.* *The total length and percentage of the relevant intersections logged.*	• No drilling was undertaken on the project.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.* *If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.* *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* *Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.* *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• No drilling was undertaken on the project. • All rock grab samples were approximately 200 - 500 g in weight. • No subsampling is described in rock grab samples. • No field of duplicate sampling was undertaken. • Sample sizes were appropriate for the material sampled.

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.* *For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* *Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.*	• The nature of the analyses is appropriate to the nature of mineralisation. Analyses were complete by the Adelaide laboratory of Bureau Veritas Minerals Pty Ltd (BV). • The assay technique used by BV is by ICP-OES with Lithium Borate Fusion using method LB101 for Al, Ba, Be, Cr, Fe, K, Mg, Mn, Na, P, Sc, Si, Ti and V. Method LB102 was used with ICP-MS for Bi, Co, Cs, Ga, Ha, In, Mo, Nb, P, Rb, Re, Sb, Se, Sn, Sr, Ta, Te, Tl, U, W, Y, Zr, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu. • An aliquot of sample is accurately weighed and fused with lithium metaborate at high temperature in a Pt crucible. The fused glass is then digested in nitric acid.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.* *The use of twinned holes.* *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* *Discuss any adjustment to assay data.*	• This report does not include drilling or drilling results.
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.* *Specification of the grid system used.* *Quality and adequacy of topographic control.*	• This report does not include drilling or drilling results. • Grab sample locations were recorded using a hand-held Garmin Etrex 22x GPS with ±3 metre accuracy. The grid system used is GDA94 Zone 54.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.* *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* *Whether sample compositing has been applied.*	• Data spacing is appropriate for the style of geological reconnaissance and rock characterisation.

Criteria	JORC Code Explanation	Commentary
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* *If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Orientation is not considered in this reconnaissance style of rock sampling, where samples were collected from historical ore dumps and mine pits.
Sample security	*The measures taken to ensure sample security.*	• Samples were hand-delivered to the BV laboratory in Adelaide by the Consultant Geologist and the Competent Person.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• No audits or review of the sampling techniques and results from the exploration program have been performed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding Section 1 also apply to this Section)

Criteria	JORC Code Explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Radium Hill Project covers 57 km^2, within which there is a 2.64 km^2 area covering the historic Radium Hill Mine and Tailings Dam, which is reserved from the South Australian *Mining Act 1971*. • Heavy Rare Earths Limited (HRE) has entered into a binding agreement with Havilah Resources Limited (Havilah) to acquire an initial 80% interest in the uranium rights on all or part of 22 tenements in South Australia, including parts of 4 tenements at Radium Hill (ELs 5831, 5848, 6041 and 6594). Thereafter HRE and Havilah will co-fund exploration and development activities under a joint venture arrangement. • The agreement excludes access to the 2.64 km^2 area over the historic Radium Hill Mine (Radium Hill Mine Exclusion Zone). This area is administered by the South Australian Government. • Havilah will remain the title holder of each tenement and HRE as operator will work with Havilah on all tenement governance matters including annual technical reporting, tenement administration and heritage access agreements. • A program for environment protection and rehabilitation (PEPR) approval from the South Australian Department for Energy and Mining (DEM) will be required to undertake ground disturbing works. • Havilah has Native Title Mining Agreements (NTMA) in place with all the relevant Native Title parties covered by the tenements and these NTMAs are registered with DEM.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	• Exploration at Radium Hill was undertaken solely by the South Australia Department of Mines in the years up to 1962. Exploration in the specific project area by private companies has only reviewed government data.

Criteria	JORC Code Explanation	Commentary
Geology	*Deposit type, geological setting and style of mineralisation.*	• The Radium Hill area comprises a sequence of gneisses of late Palaeoproterozoic age (Willyama Supergroup), which was intensely deformed and metamorphosed by the Olarian Orogeny (ca. 1640–1580 Ma) and intruded by granitoid intrusives of early Mesoproterozoic age (ca. 1590–1580 Ma). Uranium mineralisation occurs in NE-trending fractures and shears that cross-cut the regional banding in a domal NE-plunging anticlinal structure. • Mineralisation occurs in fracture or shear planes in the gneisses and schists with associated acid and basic dykes. • Within a typical lode channel, uranium is mostly concentrated centrally along the strike of the lode shears, within the larger lens-like swellings of the lodes. Sequence of mineralisation is as follows: i) Replacement of sericitic shear rock along overthrust fault zones by quartz-biotite-hematite-ilmenite mineralisation; ii) Intrusion of rare earth pegmatites (salmon pink and glassy white felspar) containing orthite and xenotime; iii) Movement along the shears causing brecciation of the earlier bodies and their biotite alteration; iv) Intrusion of 'new amphibolites' along faults at about this stage; and v) Introduction of clear quartz stringers containing davidite together with irregular replacements by bright red felspar.
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.*	• ca. 670 diamond core drillholes drilled in the Radium Hill area of which ca. 190 drillholes were drilled within the project area outside the Radium Hill Mine Exclusion Zone.

Criteria	JORC Code Explanation	Commentary
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.* *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• This report does not include drilling or drilling results. Sample results are from individual samples, not subject to cutting of grades or compositing. • No metal equivalent values are reported. • For this announcement REEs (Rare Earth Elements) are regarded as the 15 elements of the Lanthanide series (elements 57-71): La, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu. Although Y and Sc are often grouped with the lanthanides for reporting purposes they are being kept separate. • Sc, Y and the Lanthanide 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. The Lanthanide oxide values are summed to produce a rare earth oxide (TREO) grade for each assay sample. • All Sc and U assays have been converted to oxide values using the following industry standard element-to-stoichiometric oxide conversion factors: Sc_2O_3 = Sc x 1.5338 U_3O_8 = U x 1.1792.

Criteria	JORC Code Explanation	Commentary
Relationship between mineralisation widths and intercept lengths	*If the geometry of 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').*	• Mineralisation at Radium Hill is subvertical to steeply SE dipping. Reported intercepts in costeans are believed to represent the true thickness of mineralisation but drillhole intercepts are believed to be greater than true thickness (true width is not known but may be ca. 50-75% of intercepts).
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.*	• No new discoveries are being reported here. • Maps and tables are shown in the body of the 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.*	• Due to the large number of historic exploration drillholes in the project area, it is impractical to present a comprehensive report of such. Historic exploration data was often classified and there is often very little information except for uranium intercepts mentioned in brief summary texts or on maps and sparse sections.

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<td>Other substantive exploration data</td>
<td>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.</td>
<td>

The majority of exploration within the project area has been costeaning and drilling but also includes multiple government and company geophysical surveys including airborne electromagnetics, magnetics, radiometrics, and ground gravity, to map out geological basement structure. Most of these surveys were completed prior to 1962.
Metallurgical work was undertaken at Radium Hill prior to and during mining from 1954-61. This is not considered material at this stage of investigation.
HRE commissioned MagSpec Airborne Surveys to fly an airborne magnetic-radiometric survey over most of the project area. NW-SE flight lines were spaced 25 m apart and tie lines 250 m apart. A mean terrain clearance of 30 m was maintained throughout the survey. Survey equipment was as follows:

Aircraft Type

Cessna 210

Acquisition System

Sample rates up to 20 Hz
Integrated Novatel OEM DGPS receiver providing positional information to tag incoming data streams and pilot navigation guidance
Visual, real-time, on-screen system monitoring / error messaging to limit refights due to equipment failure

Magnetometer
Geometrics G-823A tail sensor mounted in a stinger housing

Sensor Type - Cesium vapor
Resolution - 0.001 nT
Sensitivity - 0.01 nT
Sample Rate - 20 Hz (~3.5 m sample interval)
Compensation - 3-axis fluxgate magnetometer

Gamma-Ray Spectrometer
RSI RS-500 gamma-ray spectrometer, incorporating 2x RSX-4 detector packs

Total Crystal Volume - 32 L

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Criteria	JORC Code Explanation	Commentary
		• Channels - 1024 • Sample Rate - 2 Hz (~35 m sample interval) • Stabilisation - Multi-peak, automatic gain **Altimeters** Bendix/King KRA 405 radar altimeter • Resolution - 0.3 m • Sample Rate - 20 Hz • Range - 0-760 m Reinshaw ILM-500R laser altimeter • Resolution - 0.01 m • Sample Rate – up to 20 Hz • Range - 0-500 m **Magnetic Base Stations** GEM GSM-19 Overhauser • Resolution - 0.01 nT • Accuracy - 0.1 nT • Sample Rate - 1.0 Hz **Navigation and Flight Path Recovery** NovAtel OEM719 DGPS Receiver • Channels - 555 • Signal Tracking - L1/L2 + GLONASS Multi Frequency • Positional Accuracy - 0.4 m RMS (NovAtel CORRECT) • Sample Rate - 2 Hz

Criteria	JORC Code Explanation	Commentary
Further work	*The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).* *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Compilation of available historical geological and geochemical data, magnetic and radiometric interpretations, geological mapping and more comprehensive rock chip sampling is nearing completion leading to development of a geological model for Radium Hill-type U-Sc-REE mineralisation. • On-ground exploration consisting of geological mapping in conjunction with scintillometer and hand-held XRF sample analysis is planned. • Target generation for drill testing based on the new geological model.