# auricmining

# Chalice West Drilling Defines Widespread Clay-Hosted Rare Earth Element System

# Highlights

- **ASSAYS**: Significant assays returned for 15 new holes. A total of 25 holes from the drill program confirm widespread REE mineralisation.
- **THICKNESS**: REE intervals of between 4 and 14 m thick discovered across the project.
- **HIGH VALUE**: Magnetic Rare Earth Oxides (MREO) used in permanent magnets for wind energy and electric mobility make up to 31% of the TREO grade.
- **SIGNIFICANT**: Latest results confirm REE enrichment along a ~7 km-long NWtrending magnetic feature. Further drilling is required.
- **UNTESTED**: Prominent magnetic feature (~3.5 x 2.5 km) in the centre of Chalice West to be drilled.
  - **THREE SEPARATE ZONES**: The best results for each zone are:
    - In the northwest zone with one-metre intervals up to 2,459 ppm TREO.
    - In southern zone with one-metre intervals up to 3,323 ppm TREO.
    - In the southeast zone, as previously reported with one-metre intervals up to 11,038 ppm TREO.

# Significant Results

Significant new clay hosted REE intersections include<sup>1</sup>:

- 6 m at 1,583 ppm TREO (30.6% MREO) from 56 m, including 1 m @ 3,323 ppm TREO in AAC0354.
- 14 m @ 712 ppm TREO (25.1% MREO) from 32 m in AAC0416.
- 12 m\* @ 587 ppm TREO (25.0% MREO) from 52 m, including 1 m at 2,459 ppm, in AAC0417.
- 11 m at 517 ppm TREO (23.3%) MREO from 20 m in AAC0311.
- 11 m at 977 ppm TREO (22.7% MREO) from 32 m in AAC0302.
- 8 m at 1,138 ppm TREO (28.7%MREO) from 0 m in AAC0355.

<sup>&</sup>lt;sup>1</sup> Calculated at minimum cut-off grade of 200 ppm and no top-cut applied. \*Internal dilution (2 m below 200 ppm TREO).

These intersections are additional to results reported previously for the same program (ASX announcement on 19 December 2022):

- 4 m @ 3,591 ppm TREO (21.9% MREO), from 41 m including 1 m at 11,038 ppm (1.10 wt %), in AAC0239 (MREO 21.9%).
  - 17 m\* @ 1,699 ppm TREO (MREO 21.1%) from 4 m in AAC0279.

## The Announcement

Auric Mining Limited (ASX: AWJ) (Auric or the Company) is pleased to report the final results for recently completed drilling at the Chalice West Project near Higginsville-Widgiemooltha, Western Australia. The project contains widespread, thick clay-hosted rare earth element (REE) mineralisation. The drilling program was completed on 22 November 2022 with 227 aircore holes drilled for 7,227 m (Figure 1).

**Managing Director Mark English**, "These REE results from our first drilling program are outstanding. The shallow extensive REE-in-clay results have resulted in three zones being identified, the largest corresponding with a 7 km long magnetic feature in the south-east of the project area.

These results present a fantastic opportunity for Auric. There is a lot more work to be done, particularly to close the spacings in the 7 km system, drill the prominent magnetic feature at the centre of the project, expand the drilling in the NW and southern parts of the project. This drilling program represents a very small proportion of the 408 km<sup>2</sup> project area."

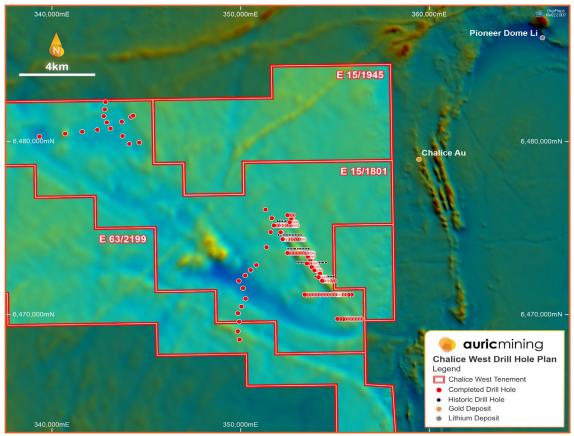


Figure 1. Chalice West aircore drill holes at completion of program.

## **Results and Discussion**

The final results substantially expand the area of elevated REE hosted in clays to include a series of wide-spaced reconnaissance holes in the northwest of E15/1801 as well as a second reconnaissance traverse in the center of the tenement, extending south into E63/2199 (Figure 2).

The current results reveal anomalous REE values from clay and BOH samples with up to 3,323 ppm TREO (total rare earth oxide) complementing previously reported high-grade intervals at 11,038 ppm (1.1 wt.%) TREO (see ASX announcement on 19 December 2022).

Significant drill intersections with TREO >500 ppm over a width of 4 m or more were discovered in 15 new holes (Table 1) taking the total number from the program to 25 holes. Grades range up to 1,583 ppm TREO for a 6-metre interval in AAC0345 with a single one-metre interval of 3,323 ppm TREO. Notably, the proportion of valuable magnetic rare earth oxides (MREO; sum of Nd, Pr, Tb, and Dy oxide) is >30% for the interval at AAC0345. The majority of analysed intervals have a MREO proportion of well above 20% of the TREO grade (Table 1, Appendix B). Therefore, Chalice West is enriched in highly sought-after REE metals used in permanent magnets for wind energy and electric mobility (Alves Dias et al., 2020).

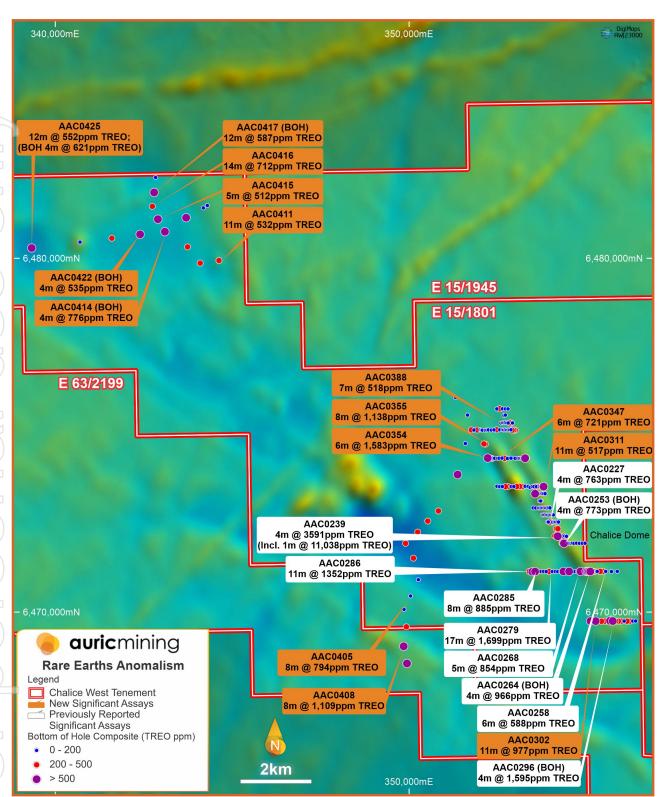


Figure 2. Total magnetics intensity (TMI) map from GSWA illustrating magnetic anomalies at Chalice West coinciding with high REE intervals in the eastern holes. Note the REE-rich intercepts and BOH samples in the NW part.

New assay results from holes in the central part of Chalice West extending into E63/2199 confirm the previously reported association of elevated REEs with magnetic features in the GSWA map (see ASX announcement on 19 December 2022). For instance, hole AAC0408 is positioned over a linear magnetic anomaly in E 63/2199 (Figure 1 & 2) and returned 1108 ppm TREO over 8 m from 8 m depth and 989 ppm TREO over 4 m from 21 m depth (Figure 3). The new assay results from holes over the ~7 km long NW-trending magnetic feature in the eastern part of E 15/1801 have encouraging results; e.g. AAC0354 or AAC0355 (Figure 2). Yet, the prominent ~3.5 x 2.5 km-wide magnetic feature in the centre of E 15/1801 (Figure 1) is untested. Further drilling is planned.

The bottom-of-hole geochemistry data (Figure 2, Appendix C) indicates that anomalous TREO concentrations in clay coincide with magnetite-biotite-rich granite (Figure 2). Four holes from the announcement on 22 December 2022 (AAC0266, AAC0285 AAC0286, and AAC0296) have >1,420 ppm TREO over 1–4 m composites. In the new results, the two-metre BOH composite of AAC0354 has 2,952 ppm TREO (29.5% MREO) over the magnetic feature. The REE-enriched magnetic granite bedrock may be the source of the REEs.

The wide-spaced reconnaissance holes in the NW of E15/1801 also returned anomalous REE values with up to 14 m @ 712 ppm TREO (25 % MREO, Figure 2 & 4). Geochemical interpretation of BOH and clay analyses is ongoing to understand the nature of REE mineralisation in relation to dolerite dykes and adjacent low magnetic responses in the NW part.

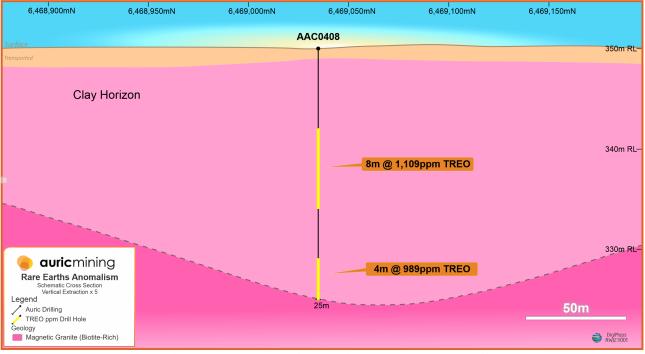


Figure 3. Cross-section of hole AAC0408 with REE intervals and cut-offs based on Table 1.

Table 1. Significant intervals defined for TREO >500 ppm at 200 ppm cut-off, minimum 4 m width. MREO% was calculated as weighted average (Previous results in blue).

Hole ID	From (m)	To (m)	Downhole	TREO <sup>1</sup>	<b>MREO<sup>2</sup> (%)</b>
A A C 0 2 0 0	20	42	Interval (m)		00.7
AAC0302	32	43	11	977	22.7
AAC0311	20	31	11	517	23.3
AAC0347	29	35	6	721	24.3
AAC0354	56	62	6	1583	30.6
Incl.	60	61	1	3323	30.5
AAC0355	0	8	8	1138	28.7
AAC0388	28	35	7	518	24.4
AAC0405	32	40	8	835	27.6
AAC0408	8	16	8	1109	21.0
Incl.	21	25	4	989	24.2
AAC0411	32	47	11	532	19.7
AAC0414 (BOH)	16	20	4	776	28.3
AAC0415	36	41	5	512	28.4
AAC0416	32	43	14	712	25.1
AAC0417	52	64	12*	587	25.0
Incl.	61	62	1	2459	21.3
AAC0422 (BOH)	52	56	4	535	21.7
AAC0425	72	84	12	552	21.1
AAC0425 (BOH)	88	92	4	621	19.3
AAC0227	33	37	4	763	24.8
AAC0239	41	45	4	3591	21.9
Incl.	42	43	1	11038	21.9
AAC0253 (BOH)	32	36	4	773	21.2
AAC0258	32	38	6	588	18.1
AAC0264 (BOH)	24	28	4	966	20.8
AAC0268	32	37	5	854	24.6
AAC0279	4	21	17*	1699	21.1
AAC0285	13	21	8	885	22.0
AAC0286	15	26	11*	1352	20.2
AAC0296 (BOH)	32	36	4	1595	27.9

 $\label{eq:rescaled} \ensuremath{^{1}\text{TREO}}\xspace = \ensuremath{\,\text{Sum}}\xspace of Total Rare Earth Oxides La_2O_3, CeO_2, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3 + Y_2O_3$ 

<sup>2</sup>MREO (%) = Percentage of Magnetic Rare Earth Oxides  $Pr_6O_{11}$ ,  $Nd_2O_3$ ,  $Tb_4O_7$ ,  $Dy_2O_3$  relative to respective TREO grade.

\*Internal dilution (2 m below 200 ppm TREO).

No top cut has been applied.

Downhole widths are reported. Exploration is at an early stage and true widths are not definitively known.

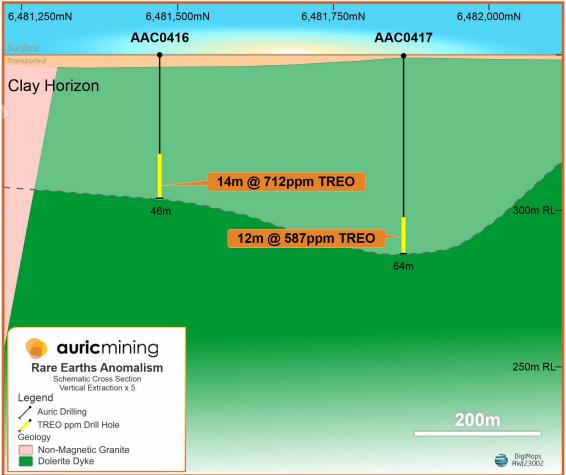


Figure 4. Cross-section of two holes in the NW part of Chalice West above a dolerite dyke with REE intervals and cut-offs based on Table 1.

## **Background on Clay-Hosted REE Mineralisation**

Underlying bedrock (e.g. granite) is the primary source for REEs for clay-hosted REE mineralisation. During extensive weathering of granite and breakdown of feldspar to clay minerals (e.g. halloysite and kaolinite), REEs from the granite are retained in the regolith profile and can be adsorbed to the surface of the clay minerals or form secondary REE minerals. This process leads to REE enrichment from primary granite to its weathering product. The targeted horizon is therefore the weathered profile above or adjacent to REE-rich bedrock.

Clay-hosted REE deposits are targeted for exploration because they typically have low Th and U concentrations, and REEs may be extracted via weak acids or ionic solutions. Therefore, REE concentrations in commercially extracted clay-hosted deposits can be low — typically in the range of 500–2000 ppm TREO (Borst et al., 2020) The lower grade is largely offset by easier mining and lower processing costs.

Chalice West is underlain by Yilgarn Craton Granite (A-g-Y) and Burra Monzogranite (A-br-gm) based on the 1:100,000 Interpreted Bedrock Geology map by GSWA. Detailed logging of bottom-of-hole samples revealed magnetic monzogranite and ultramafic bedrock geology, which can both contribute REEs to the weathered profile. Further drilling will define the extent of the mineralisation.

## Future work

The next steps include the following:

- Petrography work to characterise the deportment of REEs in the clay horizon.
- Reprocessing or flying aeromagnetic and radiometric surveys over the magnetic features to obtain detailed outlines of the anomalies identified in the GSWA dataset.
- Drill postponed holes over the prominent magnetic high within the centre of currently defined REE anomalies (refer to announcement of 8 November 2022).
- Plan further drilling to test the REE clays and expand the prospects.

#### References

- Alves Dias, P., Bobba, S., Carrara, S., & Plazzotta, B. (2020). The role of rare earth elements in wind energy and electric mobility. *European Commission: Luxembourg*.
- Borst, A. M., Smith, M. P., Finch, A. A., Estrade, G., Villanova-de-Benavent, C., Nason, P., Marquis, E., Horsburgh, N. J., Goodenough, K. M., Xu, C., Kynický, J., & Geraki, K. (2020). Adsorption of rare earth elements in regolith-hosted clay deposits. Nature communications, 11(1), 4386. <u>https://doi.org/10.1038/s41467-020-17801-5</u>

## **Auric Mining**

Auric Mining was established to explore for and develop gold and other mineral deposits in the Widgiemooltha-Norseman area, of Western Australia.

Auric has four projects (Figure 5):

#### The Widgiemooltha Gold Project & Munda Gold Deposit

The Widgiemooltha Gold Project ("WGP") located near the town of Widgiemooltha combines 20 tenements, including 5 granted Mining Leases. All tenements are highly prospective for gold mineralisation. This includes the Munda Gold Deposit. The combined Inferred and Indicated Mineral Resource estimate for Munda at 0.5 g/t cut-off is 4.48Mt @ 1.38 g/t Au for 198,700 oz gold<sup>2</sup>.

#### The Chalice West Project

The Chalice West Project is adjacent to the Chalice Mine, a mine that produced almost 700,000 oz of gold and combines 3 tenements. It covers 408 km<sup>2</sup>, including geology mirroring the Chalice Mine and is approximately 50 km northwest of Norseman.

#### **The Jeffrey Find Project**

The Jeffreys Find Project is 50 km northeast of Norseman and combines 2 tenements including 1 granted Mining Lease. It holds the Jeffreys Find gold deposit. The gold mineralisation extends from the surface to at least 110m in vertical depth and is thickest near the surface. The combined Inferred and Indicated Mineral Resource estimate for Jeffreys Find at 0.5 g/t cut-off is 1.22 Mt @ 1.22 g/t Au for 47,900 oz gold<sup>3</sup>.

#### The Spargoville Project

The Spargoville Project is located 30km north of Widgiemooltha and combines 7 tenements. It lies in the same stratigraphy, along strike from the Wattle Dam Gold Mine which produced 268,000 oz gold @ 10 g/t from 2006–13; one of Australia's highest-grade mines at that time.

#### Summary

Auric now has tenements covering 516 km<sup>2</sup>. Auric holds the rights to gold on all of its tenements. Further, at Munda it holds all mineral rights except nickel and lithium. At Jeffreys Find, Chalice West, the original Spargoville tenements and two recent WGP applications, Auric owns 100% of all mineral rights.

<sup>&</sup>lt;sup>2</sup> (ASX:AWJ): Announcement 28 January 2022: Increase in Estimated Resources at Munda and Reclassification from Inferred to Indicated.

<sup>&</sup>lt;sup>3</sup> (ASX:AWJ): Announcement 2 March 2021: Auric Mining Limited Resources Summary and Exploration Update.

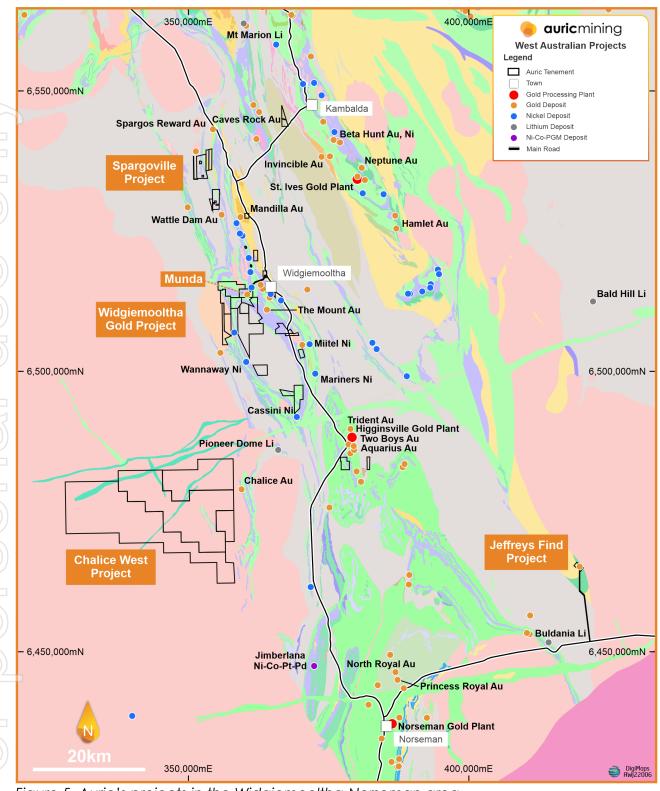


Figure 5. Auric's projects in the Widgiemooltha-Norseman area.

## **Compliance Statements**

The information in this announcement that relates to Exploration Results for the Chalice West Project is based on and fairly represents information and supporting documentation compiled by René Sterk, who is a full-time employee of consulting company RSC. Mr Sterk is a Competent Person and a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy. Mr Sterk has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Sterk consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this announcement relating to the Mineral Resource estimate for the Munda Gold Deposit is extracted from the announcement Increase in Estimated Resources at Munda and Reclassification from Inferred to Indicated dated 28 January 2022. The information in this announcement relating to the Mineral Resource estimate for the Jeffreys Find gold deposit is extracted from the announcement Auric Mining Limited Resources Summary and Exploration Update dated 2 March 2021. Both announcements are available to view on the Auric website auricmining.com.au. The company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Competent Person for both reports are Mr Neil Schofield and 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 announcements.

Mark English Managing Director

This announcement has been approved for release by the Board.

Further information contact: Mark English <u>menglish@auricmining.com.au</u> 0409 372 775

# **APPENDIX A: AIRCORE DRILLHOLE DETAILS**

	Hole_ID	Туре	Hole Depth (m)	MGA_East	MGA_North	Orig_RL	Dip	MGA_Azi
$\supset$	AAC0199	AC	51	353718	6473142	350	-60	270
	AAC0200	AC	73	353739	6473146	350	-60	270
	AAC0201	AC	51	353683	6473143	350	-90	0
	AAC0202	AC	9	353979	6472948	350	-90	0
	AAC0203	AC	20	353939	6472950	350	-90	0
	AAC0204	AC	3	353897	6472944	350	-90	0
	AAC0205	AC	16	353858	6472945	350	-90	0
	AAC0206	AC	14	353819	6472946	350	-90	0
	AAC0207	AC	5	353778	6472948	350	-90	0
X	AAC0208	AC	22	353735	6472945	350	-90	0
()	AAC0209	AC	26	353698	6472945	350	-90	0
	AAC0210	AC	15	353659	6472945	350	-90	0
	AAC0211	AC	16	353580	6472945	350	-90	0
	AAC0212	AC	31	353508	6472948	350	-90	0
	AAC0213	AC	20	354078	6472751	350	-90	0
	AAC0214	AC	2	354043	6472745	350	-90	0
LU	AAC0215	AC	15	354002	6472746	350	-90	0
	AAC0216	AC	2	353963	6472744	350	-90	0
	AAC0217	AC	9	353921	6472744	350	-90	0
	AAC0218	AC	23	353885	6472747	350	-90	0
$\bigcirc$	AAC0219	AC	4	353839	6472750	350	-90	0
	AAC0220	AC	13	353800	6472750	350	-90	0
$\bigcirc$	AAC0221	AC	4	353764	6472746	350	-90	0
	AAC0222	AC	13	354223	6472548	350	-90	0
	AAC0223	AC	35	354183	6472550	350	-90	0
	AAC0224	AC	9	354140	6472548	350	-90	0
$\geq$	AAC0225	AC	29	354106	6472548	350	-90	0
$\bigcirc$	AAC0226	AC	22	354060	6472544	350	-90	0
	AAC0227	AC	37	354016	6472546	350	-90	0
	AAC0228	AC	33	353980	6472548	350	-90	0
	AAC0229	AC	43	353935	6472548	350	-90	0
( )	AAC0230	AC	48	353906	6472548	350	-90	0
	AAC0231	AC	60	354160	6472364	350	-90	0
	AAC0232	AC	72	354206	6472358	350	-60	270
	AAC0233	AC	8	354447	6472143	350	-90	0
	AAC0234	AC	8	354400	6472151	350	-90	0
	AAC0235	AC	35	354362	6472150	350	-90	0
	AAC0237	AC	9	354320	6472151	350	-90	0
	AAC0238	AC	23	354279	6472150	350	-90	0
	AAC0239	AC	12	354241	6472150	350	-90	0
	AAC0240	AC	45	354201	6472145	350	-90	0
	AAC0241	AC	27	354164	6472150	350	-90	0

Hole_ID	Туре	Hole Depth (m)	MGA_East	MGA_North	Orig_RL	Dip	MGA_Az
AAC0242	AC	32	354120	6472157	350	-90	0
AAC0243	AC	1	354973	6471948	350	-90	0
AAC0244	AC	2	354894	6471946	350	-90	0
AAC0245	AC	15	354814	6471946	350	-90	0
AAC0246	AC	15	354733	6471951	350	-90	0
AAC0247	AC	2	354660	6471945	350	-90	0
AAC0248	AC	32	354615	6471951	350	-90	0
AAC0249	AC	5	354580	6471942	350	-90	0
AAC0250	AC	13	354535	6471946	350	-90	0
AAC0251	AC	16	354491	6471951	350	-90	0
AAC0252	AC	5	354452	6471950	350	-90	0
AAC0253	AC	17	354418	6471944	350	-90	0
AAC0254	AC	36	354376	6471944	350	-90	0
AAC0255	AC	52	354320	6471950	350	-90	0
AAC0256	AC	65	355719	6471147	350	-90	0
AAC0257	AC	41	355557	6471150	350	-90	0
AAC0258	AC	39	355480	6471152	350	-90	0
AAC0259	AC	19	355399	6471153	350	-90	0
AAC0260	AC	45	355317	6471150	350	-90	0
AAC0261	AC	53	355240	6471151	350	-90	0
AAC0262	AC	56	355200	6471151	350	-90	0
AAC0263	AC	37	355162	6471149	350	-90	0
AAC0264	AC	28	355120	6471148	350	-90	0
AAC0265	AC	33	355081	6471151	350	-90	0
AAC0266	AC	31	355043	6471152	350	-90	0
AAC0267	AC	30	355001	6471153	350	-90	0
AAC0268	AC	37	354920	6471152	350	-90	0
AAC0269	AC	28	354844	6471151	350	-90	0
AAC0270	AC	35	354759	6471147	350	-90	0
AAC0271	AC	10	354680	6471147	350	-90	0
AAC0272	AC	2	354607	6471150	350	-90	0
AAC0273	AC	5	354522	6471150	350	-90	0
AAC0274	AC	1	354443	6471150	350	-90	0
AAC0275	AC	14	354364	6471150	350	-90	0
AAC0276	AC	4	354285	6471145	350	-90	0
AAC0277	AC	4	354201	6471146	350	-90	0
AAC0278	AC	3	354130	6471151	350	-90	0
AAC0279	AC	25	354046	6471147	350	-90	0
AAC0280	AC	3	353957	6471149	350	-90	0
AAC0281	AC	2	353874	6471147	350	-90	0
AAC0282	AC	4	353801	6471149	350	-90	0
AAC0283	AC	8	353722	6471150	350	-90	0
AAC0283	AC	10	353643	6471142	350	-90	0
/////////////		10	000040	04/1142	000	-70	U

Hole_ID	Туре	Hole Depth (m)	MGA_East	MGA_North	Orig_RL	Dip	MGA_Az
AAC0286	AC	26	353482	6471142	350	-90	0
AAC0287	AC	15	353396	6471152	350	-90	0
AAC0288	AC	47	356402	6469749	350	-90	0
AAC0289	AC	57	356321	6469748	350	-90	0
AAC0290	AC	50	356237	6469747	350	-90	0
AAC0291	AC	44	356158	6469744	350	-90	0
AAC0292	AC	6	356078	6469747	350	-90	0
AAC0293	AC	39	356000	6469746	350	-90	0
AAC0294	AC	46	355915	6469745	350	-90	0
AAC0295	AC	47	355842	6469745	350	-90	0
AAC0296	AC	36	355756	6469749	350	-90	0
AAC0297	AC	37	355679	6469755	350	-90	0
AAC0298	AC	72	355603	6469747	350	-90	0
AAC0299	AC	73	355524	6469744	350	-90	0
AAC0300	AC	69	355437	6469741	350	-90	0
AAC0301	AC	34	355273	6469747	350	-90	0
AAC0302	AC	43	355128	6469749	350	-90	0
AAC0303	AC	16	353842	6473350	350	-90	0
AAC0304	AC	28	353799	6473349	350	-90	0
AAC0305	AC	24	353759	6473351	350	-90	0
AAC0306	AC	26	353718	6473347	350	-90	0
AAC0307	AC	33	353679	6473348	350	-90	0
AAC0308	AC	32	353641	6473349	350	-90	0
AAC0309	AC	38	353601	6473352	350	-90	0
AAC0310	AC	41	353561	6473347	350	-90	0
AAC0311	AC	41	353561	6473347	350	-90	0
AAC0312	AC	42	353842	6473543	350	-90	0
AAC0313	AC	25	353800	6473549	350	-90	0
AAC0314	AC	24	353759	6473548	350	-90	0
AAC0315	AC	23	353719	6473550	350	-90	0
AAC0316	AC	34	353681	6473548	350	-90	0
AAC0317	AC	53	353629	6473551	350	-90	0
AAC0318	AC	41	353601	6473548	350	-90	0
AAC0319	AC	54	353558	6473548	350	-90	0
AAC0320	AC	56	353527	6473549	350	-90	0
AAC0321	AC	44	353477	6473549	350	-90	0
AAC0322	AC	51	353418	6473528	350	-90	0
AAC0323	AC	40	353363	6473552	350	-90	0
AAC0324	AC	16	353279	6473558	350	-90	0
AAC0325	AC	25	353194	6473552	350	-90	0
AAC0326	AC	32	353124	6473555	350	-90	0
AAC0327	AC	18	353039	6473552	350	-90	0
AAC0328	AC	14	352960	6473552	350	-90	0
	AC	15	352884	6473552	350	-90	0

Hole_ID	Туре	Hole Depth (m)	MGA_East	MGA_North	Orig_RL	Dip	MGA_Azi
AAC0330	AC	24	352801	6473550	350	-90	0
AAC0331	AC	13	352721	6473548	350	-90	0
AAC0332	AC	6	352635	6473550	350	-90	0
AAC0333	AC	3	352559	6473548	350	-90	0
AAC0334	AC	2	352483	6473557	350	-90	0
AAC0335	AC	11	353354	6474346	350	-90	0
AAC0336	AC	14	353318	6474349	350	-90	0
AAC0337	AC	14	353278	6474350	350	-90	0
AAC0338	AC	13	353238	6474347	350	-90	0
AAC0339	AC	8	353199	6474350	350	-90	0
AAC0340	AC	5	353159	6474349	350	-90	0
AAC0341	AC	10	353119	6474348	350	-90	0
AAC0342	AC	17	353075	6474350	350	-90	0
AAC0343	AC	11	352995	6474348	350	-90	0
AAC0344	AC	20	352879	6474352	350	-90	0
AAC0345	AC	28	352778	6474343	350	-90	0
AAC0346	AC	18	352624	6474355	350	-90	0
AAC0347	AC	35	352542	6474352	350	-90	0
AAC0348	AC	46	352501	6474349	350	-90	0
AAC0349	AC	44	352417	6474351	350	-90	0
AAC0350	AC	48	352378	6474353	350	-90	0
AAC0351	AC	55	352347	6474344	350	-90	0
AAC0352	AC	48	352299	6474358	350	-90	0
AAC0353	AC	51	352257	6474360	350	-90	0
AAC0354	AC	62	352222	6474356	350	-90	0
AAC0355	AC	35	352155	6474749	350	-90	0
AAC0356	AC	35	352115	6474757	350	-90	0
AAC0357	AC	26	352998	6475146	350	-90	0
AAC0358	AC	23	352959	6475146	350	-90	0
AAC0359	AC	22	352911	6475146	350	-90	0
AAC0360	AC	41	352879	6475156	350	-90	0
AAC0361	AC	26	352837	6475152	350	-90	0
AAC0362	AC	27	352799	6475151	350	-90	0
AAC0363	AC	25	352757	6475149	350	-90	0
AAC0364	AC	23	352715	6475152	350	-90	0
AAC0365	AC	21	352673	6475148	350	-90	0
AAC0366	AC	21	352640	6475154	350	-90	0
AAC0367	AC	23	352561	6475154	350	-90	0
AAC0368	AC	26	352473	6475154	350	-90	0
AAC0369	AC	29	352398	6475153	350	-90	0
AAC0370	AC	31	352323	6475147	350	-90	0
AAC0371	AC	52	352240	6475152	350	-90	0
AAC0372	AC	56	352197	6475148	350	-90	0
AAC0373	AC	83	352152	6475143	350	-90	0

Hole_ID	Туре	Hole Depth (m)	MGA_East	MGA_North	Orig_RL	Dip	MGA_Az
AAC0374	AC	47	352072	6475145	350	-90	0
AAC0375	AC	41	352041	6475146	350	-90	0
AAC0376	AC	38	352005	6475155	350	-90	0
AAC0377	AC	84	351919	6475148	350	-90	0
AAC0378	AC	71	351832	6475148	350	-90	0
AAC0379	AC	42	351763	6475152	350	-90	0
AAC0380	AC	32	352922	6475348	350	-90	0
AAC0381	AC	29	352881	6475348	350	-90	0
AAC0382	AC	35	352841	6475349	350	-90	0
AAC0383	AC	31	352798	6475348	350	-90	0
AAC0384	AC	36	352760	6475347	350	-90	0
AAC0385	AC	38	352718	6475355	350	-90	0
AAC0386	AC	41	352679	6475352	350	-90	0
AAC0387	AC	49	352641	6475351	350	-90	0
AAC0388	AC	40	352597	6475344	350	-90	0
AAC0389	AC	56	352720	6475571	350	-90	0
AAC0390	AC	68	352680	6475559	350	-90	0
AAC0391	AC	75	352795	6475746	350	-90	0
AAC0392	AC	70	352720	6475746	350	-90	0
AAC0393	AC	66	352637	6475750	350	-90	0
AAC0394	AC	85	352559	6475750	350	-90	0
AAC0395	AC	61	352480	6475746	350	-90	0
AAC0396	AC	41	351314	6476070	350	-90	0
AAC0397	AC	47	351651	6475571	350	-90	0
AAC0398	AC	16	351590	6474767	350	-90	0
AAC0399	AC	39	351371	6473889	350	-90	0
AAC0400	AC	73	350829	6472860	350	-90	0
AAC0401	AC	98	350527	6472575	350	-90	0
AAC0402	AC	68	350242	6472263	350	-90	0
AAC0403	AC	44	349900	6471944	350	-90	0
AAC0404	AC	14	350260	6470916	350	-90	0
AAC0405	AC	62	350041	6470458	350	-90	0
AAC0406	AC	2	349858	6470076	350	-90	0
AAC0407	AC	8	349922	6469586	350	-90	0
AAC0408	AC	25	349847	6469035	350	-90	0
AAC0409	AC	10	349940	6468550	350	-90	0
AAC0411	AC	52	350122	6471526	350	-90	0
AAC0412	AC	47	344626	6479940	350	-90	0
AAC0413	AC	28	344096	6479866	350	-90	0
AAC0414	AC	68	343738	6480325	350	-90	0
AAC0415	AC	20	343099	6480755	350	-90	0
AAC0416	AC	41	342900	6481108	350	-90	0
AAC0417	AC	46	342743	6481471	350	-90	0
AAC0418	AC	64	342794	6481864	350	-90	0

Hole_ID	Туре	Hole Depth (m)	MGA_East	MGA_North	Orig_RL	Dip	MGA_Azi
AAC0419	AC	19	342836	6482288	350	-90	0
AAC0420	AC	45	343698	6481150	350	-90	0
AAC0421	AC	7	344185	6481426	350	-90	0
AAC0422	AC	23	344297	6481496	350	-90	0
AAC0423	AC	81	341599	6480571	350	-90	0
AAC0424	AC	11	340699	6480461	350	-90	0
AAC0425	AC	92	339334	6480294	350	-90	0

# APPENDIX B: REE results (in ppm) of final geochemical analyses for one-metre interval samples above a cut-off of 500 ppm TREO.

Hole_ID	From (m)	To (m)	La	Ce	Pr	Nd	Sm	Ευ	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu	Y	TREO	MREO (%)
AAC0336	13	14	50	111	13	57.1	14.1	4.4	19.1	3.2	20.8	4.4	12.3	1.7	11.4	1.6	109	522	21.0
AAC0347	31	32	191	261	39	136.9	22.6	4.6	15.8	2.0	10.2	1.8	4.7	0.6	3.9	0.6	52	894	24.7
AAC0347	30	31	256	362	52	182.7	29.5	6.0	20.4	2.5	12.7	2.3	5.9	0.8	4.7	0.7	64	1201	24.4
AAC0347	34	35	256	400	48	170.4	28.5	6.1	23.2	2.9	14.8	2.8	6.9	0.9	4.8	0.7	85	1263	21.9
AAC0354	57	58	206	79	37	125.2	18.4	4.0	11.6	1.4	6.8	1.1	2.8	0.4	2.2	0.3	28	621	32.3
AAC0354	59	60	511	108	79	275.6	40.7	9.7	33.1	3.8	19.9	3.5	8.8	1.1	5.9	0.8	107	1431	31.1
AAC0354	58	59	673	129	109	369.4	54.4	12.8	41.7	4.8	23.8	4.2	10.0	1.2	6.4	0.9	124	1853	32.1
AAC0354	61	62	662	165	101	350.8	51.7	12.5	44.4	5.4	28.9	5.5	14.6	1.9	10.5	1.5	193	1958	29.1
AAC0354	60	61	1185	204	180	625.6	93.1	22.5	77.7	9.5	48.8	9.3	23.1	3.0	16.1	2.3	301	3323	30.5
AAC0355	4	5	484	108	71	241.2	36.0	8.8	31.3	3.8	19.8	3.8	9.7	1.2	6.8	1.0	126	1367	28.8
AAC0355	2	3	563	133	83	291.4	43.6	10.7	38.7	4.6	24.6	4.7	12.3	1.6	8.6	1.2	156	1637	29.0
AAC0355	1	2	549	145	84	293.0	44.6	10.7	39.4	4.7	25.1	4.8	12.4	1.6	8.8	1.2	162	1646	29.0
AAC0355	0	1	599	152	91	323.7	48.6	11.8	43.9	5.2	27.8	5.2	13.8	1.8	9.9	1.4	180	1800	29.2
AAC0355	3	4	636	145	95	329.3	49.0	11.8	43.0	5.2	27.2	5.2	13.2	1.8	9.4	1.3	176	1839	29.1
AAC0388	33	34	79	134	16	57.0	10.4	2.3	11.3	1.7	10.6	2.4	6.8	0.9	5.4	0.9	77	500	19.9
AAC0388	32	33	127	186	27	106.9	17.7	4.6	14.8	1.9	10.8	2.2	6.3	0.9	5.4	0.8	74	705	24.5
AAC0388	29	30	168	202	39	153.1	33.5	8.3	35.7	5.5	33.1	6.3	16.5	2.4	15.4	2.2	137	1027	26.3
AAC0405	32	33	127	221	25	90.8	13.8	3.0	10.2	1.2	6.3	1.1	2.9	0.4	2.0	0.3	33	645	22.4
AAC0405	33	34	234	213	47	166.9	27.7	5.9	20.5	2.6	12.9	2.2	5.6	0.7	3.7	0.5	63	964	28.0
AAC0405	34	35	313	162	58	199.3	32.0	6.9	24.9	3.0	15.0	2.6	6.4	0.7	3.9	0.5	74	1073	30.1
AAC0405	36	37	343	304	70	246.1	39.8	8.4	27.1	3.3	16.1	2.7	6.4	0.7	4.0	0.5	66	1358	29.0
AAC0405	35	36	453	404	86	305.5	47.2	9.6	32.3	3.8	17.6	2.9	6.9	0.8	3.9	0.5	75	1727	28.0
AAC0408	11	12	110	199	20	62.2	9.4	1.3	6.4	0.9	4.5	0.8	2.3	0.3	1.8	0.2	18	525	19.5
AAC0408	22	23	119	264	25	84.2	12.8	1.6	8.2	1.1	5.8	1.0	2.9	0.4	2.4	0.3	26	667	20.4

	From	То																	MREO
Hole_ID	(m)	(m)	La	Ce	Pr	Nd	Sm	Ευ	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu	Y	TREO	(%)
AAC0408	8	9	180	358	37	119.3	17.4	1.8	11.0	1.6	8.5	1.6	4.4	0.6	4.0	0.5	36	939	20.8
AAC0408	12	13	227	412	41	131.2	18.9	1.8	11.7	1.4	6.7	1.1	2.7	0.3	2.1	0.3	24	1060	20.0
AAC0408	14	15	220	407	40	132.4	19.9	1.9	13.9	1.8	8.9	1.5	3.8	0.5	3.0	0.4	34	1068	20.2
AAC0408	15	16	259	456	44	139.4	17.7	1.5	11.5	1.4	6.9	1.2	3.1	0.4	2.4	0.3	29	1170	19.3
AAC0408	13	14	232	433	45	153.7	27.5	2.3	21.2	2.9	14.0	2.2	5.0	0.6	3.3	0.5	47	1188	21.3
AAC0408	10	11	233	486	52	174.8	26.9	2.3	17.0	2.3	12.1	2.1	5.3	0.7	4.0	0.5	48	1282	22.1
AAC0408	24	25	259	424	59	205.2	31.5	4.1	21.9	2.9	14.9	2.4	5.7	0.7	3.9	0.5	53	1304	25.4
AAC0408	9	10	270	633	69	228.6	34.4	3.1	20.8	2.9	15.3	2.7	7.5	1.1	6.2	0.8	63	1634	22.7
AAC0408	23	24	335	590	86	282.4	38.7	4.5	22.6	2.8	13.3	2.2	5.0	0.6	2.8	0.3	55	1726	26.2
AAC0411	34	35	91	206	20	65.9	11.9	0.6	8.6	1.1	6.5	1.0	2.6	0.3	1.9	0.3	26	534	20.6
AAC0411	36	37	95	200	20	66.6	12.1	0.6	9.7	1.3	6.2	1.1	2.6	0.3	2.0	0.3	28	536	20.7
AAC0411	33	34	75	258	17	54.1	9.7	0.6	7.3	1.1	5.6	1.0	2.7	0.3	2.1	0.3	25	555	16.5
AAC0411	35	36	91	229	20	65.4	12.2	0.6	9.1	1.2	6.4	1.1	2.9	0.4	2.2	0.3	29	568	19.3
AAC0411	32	33	80	275	18	59.2	10.2	0.7	7.2	1.0	4.9	0.8	2.2	0.3	1.8	0.3	21	582	16.7
AAC0411	39	40	69	267	15	53.0	11.4	1.0	10.0	1.5	8.6	1.5	4.1	0.5	2.8	0.4	45	595	15.5
AAC0411	46	47	120	202	26	86.2	15.3	1.0	11.6	1.5	7.8	1.4	3.6	0.5	2.7	0.4	37	622	23.0
AAC0415	40	41	189	156	39	123.5	20.8	2.5	13.9	1.8	9.0	1.5	3.7	0.5	2.8	0.4	32	712	28.6
AAC0415	39	40	222	147	52	165.0	26.7	3.2	16.0	2.0	9.6	1.5	3.8	0.5	2.9	0.4	34	817	32.8
AAC0416	43	44	72	139	13	46.9	9.3	2.1	11.4	1.7	11.7	2.6	8.4	1.2	7.9	1.3	85	500	17.1
AAC0416	35	36	104	133	28	98.5	19.1	4.0	12.8	1.8	9.4	1.5	4.0	0.5	3.5	0.5	28	536	30.1
AAC0416	40	41	152	115	21	85.2	14.8	3.7	17.8	2.3	12.2	2.2	5.6	0.7	4.3	0.6	54	588	24.1
AAC0416	34	35	147	226	39	135.8	24.3	4.8	16.2	2.2	11.6	1.9	4.8	0.6	4.0	0.5	35	782	28.3
AAC0416	33	34	149	252	40	138.6	24.8	4.9	17.0	2.4	13.2	2.4	6.5	0.9	5.8	0.8	59	860	26.6
AAC0416	32	33	173	257	44	152.2	27.6	5.4	19.1	2.7	14.1	2.6	6.9	0.9	5.4	0.8	59	923	27.1
AAC0416	38	39	313	277	60	226.2	40.6	8.9	36.4	4.8	26.1	4.7	12.3	1.6	9.8	1.4	114	1358	27.4
AAC0416	39	40	588	456	92	356.9	61.0	13.7	62.1	7.7	40.7	7.3	18.7	2.3	14.1	1.9	174	2262	25.8
AAC0417	45	46	116	172	15	57.8	9.9	1.9	11.5	1.3	6.8	1.2	3.0	0.4	2.4	0.4	33	519	18.2
AAC0417	49	50	28	346	6	21.4	4.4	0.9	3.7	0.5	2.6	0.5	1.2	0.2	1.0	0.2	11	521	6.8

	Hole_ID	From (m)	To (m)	La	Ce	Pr	Nd	Sm	Eυ	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu	Y	TREO	MREO (%)
	AAC0417	54	55	105	211	41	134.1	21.7	3.1	10.7	1.4	6.8	1.2	3.2	0.4	2.9	0.4	29	684	31.4
	AAC0417	55	56	144	372	66	207.3	32.6	4.4	13.4	1.6	7.4	1.2	3.0	0.4	2.5	0.4	26	1057	31.4
	AAC0417	61	62	450	817	92	307.8	55.5	9.9	47.2	6.9	38.7	6.9	18.0	2.3	13.7	1.9	178	2459	21.3
$\square$	AAC0425	80	81	97	185	19	63.5	10.0	1.1	7.5	1.0	4.9	0.8	1.9	0.3	1.4	0.2	22	500	20.7
	AAC0425	74	75	128	192	28	94.9	14.7	1.5	9.3	1.1	5.4	0.8	2.0	0.2	1.4	0.2	22	602	25.3
	AAC0425	78	79	129	225	23	76.0	11.7	1.3	8.5	1.1	5.9	1.0	2.5	0.3	1.9	0.3	31	623	20.0
È	AAC0425	76	77	163	245	33	112.8	17.6	1.9	11.7	1.5	6.8	1.1	2.6	0.3	1.7	0.2	31	754	24.0
((	AAC0425	73	74	162	258	34	115.8	17.2	1.4	11.1	1.3	6.5	1.0	2.4	0.3	1.6	0.2	28	768	24.1
6	AAC0425	79	80	220	427	42	138.1	22.4	1.5	15.8	2.1	10.5	1.7	4.1	0.5	2.6	0.4	48	1126	20.1

APPENDIX C: REE results (in ppm) of final geochemical analyses for BOH composite samples above a cut-off of 200 ppm TREO.

Hole ID	From (m)	To (m)	La	Ce	Pr	Nd	Sm	Eυ	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu	Y	TREO	MREO (%)
AAC0301	32	34	74	218	62	18.5	12.3	0.8	9.6	1.3	7.5	1.3	3.4	0.5	3.0	0.4	30	532	19.6
AAC0302	40	43	115	223	76	21.2	12.6	1.7	12.3	1.7	10.2	1.9	4.9	0.7	4.0	0.6	54	650	19.6
AAC0309	36	38	90	122	65	19.6	12.6	1.5	10.6	1.5	9.5	1.7	4.7	0.7	4.3	0.6	43	464	24.1
AAC0310	40	41	136	214	94	28.8	16.6	2.1	12.7	1.7	9.3	1.6	4.1	0.6	3.3	0.5	42	680	23.2
AAC0312	24	25	93	191	81	22.0	18.1	2.8	17.9	2.5	15.1	2.8	7.4	1.1	6.5	0.9	71	642	22.1
AAC0313	20	24	16	38	23	4.6	7.5	2.7	13.7	2.5	19.8	4.4	13.6	1.9	12.5	1.9	133	358	16.1
AAC0316	52	53	32	63	23	6.7	4.1	0.6	3.3	0.6	4.5	0.9	2.6	0.4	2.6	0.4	26	205	19.9
AAC0318	52	56	55	115	41	12.1	6.5	0.6	4.7	0.6	3.5	0.6	1.7	0.2	1.4	0.2	18	314	21.2
AAC0324	24	25	35	85	35	9.8	6.1	0.9	3.9	0.4	2.1	0.3	0.8	0.1	0.7	0.1	7	225	24.8
AAC0325	28	32	37	82	34	9.3	6.5	1.4	5.1	0.6	3.0	0.5	1.1	0.2	1.0	0.1	12	233	23.6
AAC0326	16	18	40	71	34	9.7	5.6	1.4	3.5	0.4	1.8	0.3	0.6	0.1	0.5	0.1	6	209	25.9

	From	То																	MREO
Hole_ID	(m)	(m)	La	Се	Pr	Nd	Sm	Ευ	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu	Y	TREO	(%)
AAC0329	20	24	77	136	53	15.9	9.3	2.0	6.2	0.8	4.5	0.7	1.8	0.3	1.6	0.2	16	390	22.2
AAC0330	12	13	90	119	31	11.0	4.3	0.7	2.5	0.3	1.4	0.2	0.5	0.1	0.5	0.1	6	320	15.9
AAC0335	13	14	45	91	25	7.8	4.7	1.2	4.0	0.6	3.6	0.7	1.9	0.3	1.9	0.3	15	244	17.6
AAC0336	12	14	50	115	57	13.5	13.9	4.3	18.0	2.8	19.9	4.0	11.4	1.6	10.2	1.4	101	511	21.3
AAC0345	20	21	76	116	45	13.8	6.7	1.6	5.1	0.6	3.1	0.6	1.5	0.2	1.3	0.2	14	345	21.5
AAC0351	53	55	51	65	33	9.7	6.0	1.4	4.7	0.6	3.5	0.6	1.7	0.2	1.4	0.2	18	236	23.2
AAC0352	44	48	93	134	55	16.7	9.1	2.0	6.6	0.9	4.7	0.8	2.1	0.3	1.8	0.3	24	422	21.5
AAC0353	48	51	51	87	29	8.9	4.2	0.9	2.8	0.4	1.9	0.4	0.9	0.1	0.7	0.1	10	239	20.0
AAC0354	60	62	1018	204	535	155	78.6	19.3	65.7	8.3	44.5	8.5	22.6	3.0	15.9	2.3	304	2952	29.5
AAC0355	32	35	65	126	45	13.3	6.9	1.4	4.3	0.6	2.8	0.5	1.3	0.2	1.1	0.2	12	336	21.4
AAC0356	32	35	40	99	25	7.4	3.6	0.8	2.2	0.3	1.5	0.3	0.7	0.1	0.6	0.1	7	227	17.4
AAC0357	24	26	61	120	43	12.9	7.3	0.8	4.9	0.7	3.7	0.7	2.0	0.3	1.9	0.3	18	334	21.2
AAC0358	20	23	37	67	27	8.0	4.5	0.9	3.6	0.5	2.8	0.6	1.5	0.2	1.2	0.2	17	208	21.7
AAC0359	20	22	40	70	28	8.2	4.6	0.9	3.9	0.6	3.3	0.6	1.8	0.2	1.5	0.2	20	221	21.5
AAC0368	24	26	30	57	28	7.0	5.8	1.5	6.8	1.1	7.5	1.6	5.1	0.8	5.1	0.8	43	242	20.9
AAC0377	80	84	47	85	30	8.9	4.7	1.0	3.3	0.4	2.0	0.3	0.9	0.1	0.8	0.1	10	234	20.6
AAC0379	40	42	67	121	39	12.3	5.7	1.0	3.6	0.4	2.1	0.3	0.9	0.1	0.7	0.1	9	317	20.0
AAC0381	28	29	35	79	28	8.0	4.5	1.0	3.6	0.5	3.1	0.6	1.6	0.2	1.5	0.2	15	219	21.0
AAC0382	32	35	48	103	38	11.1	6.0	0.8	3.8	0.5	2.6	0.5	1.1	0.2	1.0	0.2	11	273	22.3
AAC0394	84	85	65	140	32	9.9	4.2	0.8	3.3	0.4	2.4	0.5	1.2	0.1	0.9	0.2	11	327	15.9
AAC0399	36	39	130	273	130	37.3	20.2	4.3	10.2	1.3	5.9	1.0	2.4	0.3	1.8	0.3	19	764	26.8
AAC0400	72	73	106	97	61	18.5	10.2	1.9	6.8	0.8	4.0	0.6	1.5	0.2	1.0	0.2	16	387	25.6
AAC0401	96	98	60	116	42	12.8	7.1	0.6	4.9	0.6	3.2	0.5	1.2	0.1	0.8	0.1	12	315	22.0
AAC0402	64	68	68	139	47	14.1	7.4	0.6	4.8	0.7	4.1	0.7	1.7	0.2	1.0	0.2	19	372	20.9
AAC0403	40	44	82	118	58	17.6	8.9	0.8	5.6	0.7	3.3	0.6	1.4	0.2	1.0	0.2	19	381	24.7
( AAC0407	4	8	94	229	45	15.1	5.7	1.0	2.8	0.4	1.5	0.2	0.6	0.1	0.4	0.1	5	482	15.0
AAC0408	24	25	243	357	174	50.5	25.4	3.2	16.8	2.3	12.0	1.9	4.6	0.5	3.0	0.4	43	1124	25.0
AAC0409	8	10	206	297	80	28.2	9.2	1.7	3.7	0.4	1.8	0.3	0.7	0.1	0.5	0.1	6	764	17.0

Hole_ID	From (m)	To (m)	La	Ce	Pr	Nd	Sm	Eυ	Gd	Tb	Dy	Но	Er	Tm	Yb	Lu	Y	TREO	MREO (%)
 AAC0410	48	52	71	143	45	13.6	7.6	1.1	5.5	0.8	4.3	0.8	2.0	0.2	1.6	0.3	21	382	19.6
AAC0411	44	47	89	142	66	19.8	12.2	0.8	9.2	1.4	7.6	1.4	3.8	0.5	2.9	0.5	35	470	23.7
AAC0412	24	28	83	168	49	15.4	7.6	0.6	4.6	0.6	2.7	0.4	0.9	0.1	0.7	0.1	9	413	19.4
AAC0413	64	68	86	147	39	12.9	5.5	0.4	3.4	0.4	2.2	0.4	0.9	0.1	0.7	0.1	8	370	17.3
AAC0414	16	20	220	163	133	41.7	21.3	2.7	14.1	1.9	9.8	1.6	3.8	0.5	2.9	0.4	35	776	28.3
AAC0415	40	41	217	176	131	40.2	21.0	2.6	14.1	1.9	9.5	1.6	3.9	0.5	2.9	0.4	36	785	27.4
AAC0416	44	46	45	61	32	8.3	6.8	1.9	10.9	2.0	15.9	4.2	13.5	1.8	11.5	2.2	185	491	13.7
AAC0417	60	64	113	199	74	21.1	14.3	2.9	15.6	2.7	18.5	4.1	12.2	1.8	12.2	2.0	107	724	18.8
AAC0419	44	45	108	182	63	20.1	9.4	1.1	6.1	0.9	4.4	0.8	2.0	0.3	1.7	0.3	18	502	20.8
AAC0422	52	56	112	189	71	21.1	11.3	1.2	8.0	1.1	5.3	0.8	2.0	0.2	1.4	0.2	20	535	21.7
AAC0423	80	81	60	119	42	12.5	6.9	0.6	5.3	0.7	3.6	0.6	1.3	0.1	0.8	0.1	15	322	21.5
AAC0425	88	92	129	233	73	22.6	11.1	1.0	8.0	1.1	5.6	0.9	2.4	0.3	1.6	0.2	26	621	19.3

# **APPENDIX D: CHALICE WEST JORC TABLE 1 CHECKLIST**

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	<ul> <li>Air core drilling used to obtain 1m samples via a rig-mounted cyclone and bucket with each sample placed in ar individual pile. An ~2.5 kg sample was then obtained using a small scoop and sampling from individual piles to produce composite 4 m samples excep where the end of hole restricted the composite to 3 m or less</li> </ul>
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).	<ul> <li>All Auric aircore drilling by face-sampling blade bit with a drill bit (hole) diameter of approximately 121 mm.</li> <li>Holes drilled to 'refusal' (ie depth a which blade bit can no longe penetrate), which ranged from 1–104 m</li> </ul>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximize sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have	<ul> <li>Drill sample recovery varied depending on ground conditions and was generally good in the residual profile but poor in some intervals within transported sands and clays.</li> <li>Aircore is a face-sampling technique with generally good recoveries. Samples were collected via a cyclone which also maximises sample recovery.</li> <li>There is no evidence of sample bias as al</li> </ul>

#### Section 1 Sampling Techniques and Data (Criteria in this section apply to the succeeding section)

Criteria	JORC Code explanation	Commentary
	occurred due to preferential loss/gain of fine/coarse material.	results are from residual portions.
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.	<ul> <li>All chips were logged at 1m intervals corresponding to the sample intervals and according to Auric's coding system.</li> <li>The drilling and sampling technique is appropriate for early-stage exploration but will not be used to support mineral resource estimation, mining studies and metallurgical studies in the Competent Person's opinion.</li> <li>The logging is qualitative in nature; however, pXRF results for Cr, Ti and Zr were compared with the geological logs and used to better quantify lithologies, particularly clay-weathered protoliths.</li> <li>Chips were not photographed but selected chips from the bottom-of-hole sample have been retained in compartmentalised chip trays.</li> <li>The total length logged is 7,227m which is 100% of the drilled intervals.</li> </ul>
Sub- sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled.	<ul> <li>Samples were taken by hand scoop which is industry standard but does not ensure sample representivity. The Competent Person considers the technique appropriate for the interpretation of early-stage exploration results.</li> <li>Samples were mostly dry but damp and wet intervals were encountered and have been recorded.</li> <li>No duplicate samples were taken.</li> </ul>
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.	<ul> <li>Bottom-of-hole samples, representing between 1 m and 4 m sample lengths, were analysed by Intertek Genalysis for a suite of multi elements via a 4-acid digest and Inductively Coupled Plasma Mass Spectrometry and for Au, Pt and Pd via 50g Fire Assay and Inductively Coupled Plasma Mass Spectrometry. Fire assay is considered to be a total digestion technique. The 4-acid digest provides only a partial digest for 18 of the 48 elements analysed and is considered to be a total digest for the remainder.</li> </ul>

Criteria	JORC Code explanation	Commentary
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.	<ul> <li>Samples selected on the basis of pXRF analyses for subsampling at 1 m intervals were submitted to Intertek Genalysis. The samples were analysed for a suite of 48 multielements + 12 REE via a 4-acid digest and Inductively Coupled Plasma Mass Spectrometry and for Au, Pt and Pd via 50g Fire Assay and Inductively Coupled Plasma Mass Spectrometry. Fire assay is considered to be a total digestion technique. The 4-acid digest provides only a partial digest for 18 of the 48 elements and 8 of the 12 REE analysed and is considered to be a total digest for the remainder. This method is appropriate for clay-hosted REE mineralisation because it minimises the dissolution of acid-resistant monazite, which is challenging to process in clay-hosted REE mineral systems.</li> <li>The laboratory (Intertek Genalysis) analysed standards and blanks inserted with each batch. Comparison of expected results for standards with the assays received for both Bottom-of-hole composites and single metre individual samples indicates that the data are sufficiently accurate and precise for the intended purpose of interpreting exploration results.</li> </ul>
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.	<ul> <li>Anomalous assays have been verified by alternative Auric personnel.</li> <li>No twinned holes have been drilled.</li> <li>Field sample records are merged with assay results from the lab and various cross reference checks, both manual and computational used to ensure data integrity.</li> <li>Data are stored on two separate computers and backed up regularly.</li> <li>No adjustment has been made to assay data.</li> <li>The conversion of elemental weight percent of REEs to oxide weight percent in order to calculate TREO and MREO used the following conversion factors:</li> <li>La<sub>2</sub>O<sub>3</sub> 1.1728</li> <li>CeO<sub>2</sub> 1.2284</li> <li>Pr<sub>6</sub>O<sub>11</sub> 1.2082</li> <li>Nd<sub>2</sub>O<sub>3</sub> 1.1664</li> <li>Sm<sub>2</sub>O<sub>3</sub> 1.1579</li> <li>Gd<sub>2</sub>O<sub>3</sub> 1.1526</li> </ul>

Criteria	JORC Code explanation	Commentary
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Tb4O7       1.1762         Dy2O3       1.1477         Ho2O3       1.1455         Er2O3       1.1435         Tm2O3       1.1421         Yb2O3       1.1387         Lu2O3       1.1371         Y2Q3       1.2699         •       Hole collar positions were located using a hand-held GPS referenced to MGA-GDA94, Zone 51 and are accurate to within 5 m.         •       Most holes were drilled vertical. Angled
	Specification of the grid system used. Quality and adequacy of topographic control.	<ul> <li>Most holes were drilled vertical. Angled holes were drilled at -60° inclination. Hole azimuth and dip was measured at surface using a compass and inclinometer.</li> <li>The hand-held GPS was used to define collar elevation for some holes and an arbitrary elevation was applied to others. This is appropriate to early-stage exploration in the Competent Person's opinion. Topographic control will be established where the potential for economic mineralisation is demonstrated.</li> </ul>
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.	<ul> <li>Densest drilling is at nominal 40m hole spacing along traverses. Traverse spacing in that area is nominally 200 m but extending out to 1400 m. Reconnaissance holes were drilled along three other traverses at nominal 500 m spacings.</li> <li>The holes and data will not be used for mineral resource estimation.</li> <li>Bottom-of-hole samples were composited for intervals between 1 m and 4 m. Remaining samples sent for REE analysis were not composited.</li> </ul>
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 mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	<ul> <li>Drilling is at an early stage and the orientation of possible structural controls on mineralisation is not known.</li> <li>It is not expected that the drilling orientation has caused any sampling bias; however, further work is required.</li> </ul>

	Criteria	JORC Code explanation	Commentary
	Sample security	The measures taken to ensure sample security.	<ul> <li>Auric personnel were present during all drilling and sampling and individual samples were bagged and sealed in larger polywoven bags with no opportunity for tampering.</li> <li>Samples were transported to the lab by Auric personnel.</li> </ul>
)	Audits or reviews	The results of any audits or reviews of sampling techniques and data.	• There have been no reviews of sampling techniques and data related to the current program.

#### Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<ul> <li>Air core drilling was conducted on E15/1801 which is held by Mr John Williams and operated by Auric Mining subsidiary, Chalice West Pty Ltd under the terms of an Option Agreement.</li> <li>There are no known impediments to obtaining a licence to explore or mine in the area beyond routine compliance requirements.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Resolute Limited completed an aircore drill program in 1997, comprising 82 drill holes for 2960 m, and a follow-up soil sampling program in 1998.</li> <li>The 1997 drilling returned Au anomalism coincident with magnetic units that mimic the magnetic stratigraphy hosting the Chalice deposit approx. 6km to the northeast. Selected Resolute drill samples were also analysed for Ni, Cu, Cr, Zn and As, identifying a number of anomalous (+1000 ppm) Ni intervals.</li> <li>The 1998 soil sampling defined several areas of (100 ppm) Ni anomalism.</li> <li>Regional magnetic data provided by GSWA is used for exploration targeting and presented in maps in this announcement.</li> <li>Air core drilling targeted favourable stratigraphy (basalts and ultramafics) in a setting that mirrors the host rocks to the Chalice gold deposit where the two areas are separated by a granite dome.</li> </ul>
		<ul> <li>Reconnaissance drilling tested the geology under areas of extensive cover.</li> <li>The 7-km long magnetic anomaly is interpreted to relate to magnetite-biotite-rich granite which may be the source for REE in the clays. REE clays are targeted that spatially relate to the magnetic anomaly.</li> </ul>
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> </ul> </li> </ul>	<ul> <li>Refer to:</li> <li>Table 1: SIGNIFICANT RARE EARTH DRILL INTERSECTIONS.</li> <li>APPENDIX A: AIRCORE DRILLHOLE DETAILS.</li> <li>APPENDIX B: REE results (in ppm) of final geochemical analyses for one-</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <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> 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.	<ul> <li>metre interval samples above a cutoff of 500 ppm TREO.</li> <li>APPENDIX C: REE results (in ppm) of final geochemical analyses for BOH composite samples above a cut-off of 200 ppm TREO.</li> </ul>
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.	<ul> <li>Sample results are reported above 200 ppm TREO for BOH samples and 500 ppm TREO for one-metre interval samples (Appendix B and C).</li> <li>Significant intersections are reported above 500ppm TREO after calculating averages derived from applying a 200 ppm TREO cut-off, with a maximum of 1 m internal dilution and a minimum width of 4 m.</li> <li>No metal equivalents are reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	• Mineralisation widths for REE in the predominantly vertical drillholes may represent true widths as the mineralised unit is likely sub horizontal due to REE enrichment in the residual weathering profile; however, downhole lengths are reported here as true width is not certain.
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 1-4
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should	• REE intercepts that are considered relevant have been presented in the report body in a balanced manner. Individual sample results above a cut-off of 500 ppm TREO are also presented in

Criteria	JORC Code explanation	Commentary
	be practiced to avoid misleading reporting of Exploration Results.	Appendix B for one-metre interval samples. A 200 ppm cut-off for TREO is applied to for bottom of hole samples in Appendix C.
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.	• The air core program represents early- stage exploration. Possible links between anomalous values and geological features (lithological contacts and structural features) have been described but are speculative in the Competent Person's opinion.
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.	<ul> <li>Geochemical interpretation of BOH and clay analyses.</li> <li>Obtain higher quality magnetics and radiometric data.</li> <li>Petrography.</li> <li>Drilling of prominent, untested magnetic feature.</li> <li>Further drilling if justified by results of met work.</li> </ul>