

Additional REE Assays Significantly Expand Strongly Anomalous Zones Across Intrusions at Pingrup

Further analysis confirms the potential for a significant REE mineralised system at Pingrup

Key Points:

- **Peak Total Rare Earth + Yttrium Oxide (TREYO) result of 3,620ppm;**
- **Nd+Pr% of TREYO between 17-32%;**
- **6m – 43m thick intersections of enriched REE's in clay-rich saprolite, primarily over ultramafic and intermediate intrusions including 43m @ 1,117ppm TREYO;**
- **50 holes re-assayed across 7 traverses where End of Hole anomalous values were identified;**
- **Approximately 800 additional samples remain to be assayed should initial characterisation test work show potential for REE recoveries.**

Todd River Resources Limited (**ASX: TRT**) (**Todd River** or the **Company**) is pleased to announce that following the identification of anomalous rare earth element (REE) values by selected re-assaying of 10 aircore holes, further re-assaying of the clay and saprolite zones has delivered thick intersections of strongly anomalous TREYO values from its 100% owned Pingrup Project in Western Australia (Figure 1).

Analytical results focusing on Ni-Cu-PGE mineralisation from aircore and reverse circulation (RC) drilling targeting previously identified magnetic targets (Greenfire and High Noon) within the Corrigin Tectonic Zone at the southwest Yilgarn Craton–Youanmi Terrane boundary were reported to ASX on May 25, 2023. Further analysis of the drilling data highlighted several areas that returned REE anomalism in the end of hole sample. Initially a decision was taken to re-assay ten holes across two traverses with the initial re-assaying highlighting thick continuous enrichment of REE's hosted in clay rich saprolite primarily over the ultramafic intrusion at Greenfire as well as thick slightly less enriched but still strongly anomalous zones over the High Noon intermediate intrusion (Figure 2) – as reported to ASX June 12, 2023.

At the Greenfire Prospect, re-assaying of 37 holes identified REE enriched clay-rich saprolite intervals up to 27m thick including **24m @ 1459ppm TREYO in hole PNAC0099** and **21m @ 1162ppm TREYO in hole PNAC0089** amongst other intersections. At the High Noon Prospect, the intrusive rocks were predominantly granitic to intermediate in composition with the magnetic nature of the intermediate rocks explaining the magnetic high that was targeted. A well-developed clay horizon is developed in the regolith with the best



TREYO assays being **27m @ 1338ppm TREYO in hole PNAC0130** and **29m @ 1057ppm TREYO in hole PNAC0110**. Table 1 shows the intersections > 500 ppm TREYO in full, from each of the re-assayed holes. In addition, Table 2 has the drillhole information and a full breakdown of analytical results can be found in Appendix 3.

An additional batch of approximately 800 samples remain to be assayed should initial metallurgical test work planned for the second half of the year show positive results for REE recoveries from the material.

Cross sections of the four traverses are shown in detail in Figures 3 to 6 where TREYO >500ppm is highlighted on each drill trace.

Table 1: Significant REE Results from Aircore Holes at Pingrup

Hole ID	Prospect	From (m)	To (m)	Width (m)	TREYO (ppm)	Nd+Pr (%)
PNAC0002	Green Fire	9	36	27	663	23%
PNAC0004	Green Fire	9	18	9	516	17%
PNAC0005	Green Fire	18	33	15	1213	22%
PNAC0006	Green Fire	15	39	24	688	27%
PNAC0010	Green Fire	30	42	12	1104	25%
PNAC0011	Green Fire	24	39	15	834	25%
PNAC0013	Green Fire	15	24	9	2221	32%
PNAC0014	Green Fire	15	24	9	746	26%
PNAC0015	Green Fire	12	18	6	616	26%
PNAC0038	Green Fire	18	24	6	1714	25%
PNAC0041	Green Fire	15	26	11	1342	24%
PNAC0044	Green Fire	15	33	18	1188	25%
PNAC0088	Green Fire	9	15	6	1677	23%
PNAC0088	Green Fire	24	32	8	1204	27%
PNAC0089	Green Fire	15	36	21	1162	23%
PNAC0090	Green Fire	12	27	15	665	24%
PNAC0098	Green Fire	15	30	15	940	22%
PNAC0099	Green Fire	15	39	24	1459	27%
PNAC0100	Green Fire	15	21	6	631	26%
PNAC0102	Green Fire	18	36	18	1159	22%
PNAC0108	High Noon	24	34	10	900	22%
PNAC0109	High Noon	21	34	13	757	24%
PNAC0110	High Noon	18	47	29	1058	24%
PNAC0111	High Noon	30	38	8	656	24%
PNAC0112	High Noon	21	42	21	711	20%
PNAC0113	High Noon	18	45	27	714	21%
PNAC0130	High Noon	15	42	27	1338	23%
PNAC0132	High Noon	9	35	26	858	22%



Commenting on the results from the additional re-assaying program, Todd River Resources' Managing Director, Will Dix said:

“Expanding the previously identified anomalism the way we have gives us the confidence that we have a robust enough footprint to justify characterisation test work on the clay and saprolite material. We are working through a number of options for this and once we have commenced that work we will look and how we maximise the value from the current samples and where we need further information for drilling post this year’s grain harvest.

In the Northern Territory at Mt Hardy all surface preparation is complete for the upcoming drilling program that has unfortunately been delayed by several weeks. We now expect to be drilling in the second week of August and will update the market accordingly. We are excited to be back drilling at Mt Hardy for the first time since before the COVID-19 Pandemic and with the targets we have generated there, I am confident we will have some excellent results to share with the market once they are received.”



Figure 1 – Todd River Resources Projects highlighting the location of the Pingrup Ni-Cu-PGE Project

Background



Exploration Licence E70/5954 covers an area of approximately 240 square kilometres within the Corrigin Tectonic Zone some 300 kilometres southeast of Perth. The bedrock geology is obscured by thin (1-10 metres) sandy cover and a thick weathering profile.

Within the project area are twelve magnetic features with historical work confined to just three of them. This work was completed by Magnetic Resources who were exploring the magnetic highs for the presence of Banded Iron Formation (BIF) hosted iron ore deposits between 2008-2011. In all three cases drilling failed to identify any BIF, however it confirmed the magnetic features to be mafic-ultramafic intrusions.

Table 2: Drillhole details of holes re-assayed for REEs

Hole ID	Prospect	Easting	Northing	RL	Type	Hole Length (m)	Dip (°)	Azimuth (°)
PNAC0001	Green Fire	642602	6300656	305	Aircore	58	-60	45
PNAC0002	Green Fire	642545	6300600	302	Aircore	61	-60	45
PNAC0003	Green Fire	642488	6300543	300	Aircore	51	-60	45
PNAC0004	Green Fire	642432	6300487	299	Aircore	37	-60	45
PNAC0005	Green Fire	642375	6300430	298	Aircore	38	-60	45
PNAC0006	Green Fire	642319	6300373	295	Aircore	48	-60	45
PNAC0007	Green Fire	642262	6300317	294	Aircore	30	-60	45
PNAC0008	Green Fire	642206	6300260	293	Aircore	23	-60	45
PNAC0009	Green Fire	643167	6299864	301	Aircore	31	-60	45
PNAC0010	Green Fire	643111	6299808	301	Aircore	55	-60	45
PNAC0011	Green Fire	643082	6299779	301	Aircore	42	-60	45
PNAC0012	Green Fire	643054	6299751	300	Aircore	34	-60	45
PNAC0013	Green Fire	642997	6299695	296	Aircore	42	-60	45
PNAC0014	Green Fire	642941	6299638	296	Aircore	30	-60	45
PNAC0015	Green Fire	642817	6299536	292	Aircore	21	-60	45
PNAC0016	Green Fire	642737	6299503	292	Aircore	31	-60	45
PNAC0017	Green Fire	643026	6300175	306	Aircore	25	-60	45
PNAC0035	Green Fire	642686	6300289	300	Aircore	24	-60	45
PNAC0036	Green Fire	642658	6300260	298	Aircore	20	-60	45
PNAC0037	Green Fire	642630	6300232	299	Aircore	22	-60	45
PNAC0038	Green Fire	642573	6300175	298	Aircore	37	-60	45
PNAC0039	Green Fire	642517	6300119	296	Aircore	18	-60	45
PNAC0040	Green Fire	642460	6300062	296	Aircore	26	-60	45
PNAC0041	Green Fire	642404	6300006	295	Aircore	27	-60	45
PNAC0042	Green Fire	642347	6299949	293	Aircore	19	-60	45
PNAC0043	Green Fire	642290	6299892	292	Aircore	17	-60	45
PNAC0087	Green Fire	643280	6300430	312	Aircore	40	-60	45
PNAC0088	Green Fire	643252	6300402	313	Aircore	33	-60	45
PNAC0089	Green Fire	643224	6300373	312	Aircore	49	-60	45
PNAC0090	Green Fire	643195	6300345	312	Aircore	31	-60	45
PNAC0096	Green Fire	642843	6300471	308	Aircore	34	-60	45



PNAC0097	Green Fire	642799	6300402	304	Aircore	45	-60	45
PNAC0098	Green Fire	642771	6300373	303	Aircore	42	-60	45
PNAC0099	Green Fire	642743	6300345	302	Aircore	59	-60	45
PNAC0100	Green Fire	642913	6300289	307	Aircore	49	-60	45
PNAC0101	Green Fire	642884	6300260	306	Aircore	49	-60	45
PNAC0102	Green Fire	642856	6300232	305	Aircore	49	-60	45
PNAC0108	High Noon	643276	6302689	301	Aircore	35	-60	45
PNAC0109	High Noon	643220	6302632	300	Aircore	35	-60	45
PNAC0110	High Noon	643163	6302576	300	Aircore	49	-60	45
PNAC0111	High Noon	643107	6302519	300	Aircore	39	-60	45
PNAC0112	High Noon	643050	6302463	300	Aircore	43	-60	45
PNAC0113	High Noon	642937	6302349	300	Aircore	47	-60	45
PNAC0114	High Noon	643551	6302529	301	Aircore	33	-60	45
PNAC0115	High Noon	643494	6302472	301	Aircore	37	-60	45
PNAC0116	High Noon	643438	6302415	301	Aircore	19	-60	45
PNAC0129	High Noon	643789	6301844	300	Aircore	47	-60	45
PNAC0130	High Noon	643733	6301788	300	Aircore	47	-60	45
PNAC0131	High Noon	643676	6301731	300	Aircore	36	-60	45
PNAC0132	High Noon	643620	6301675	301	Aircore	36	-60	45

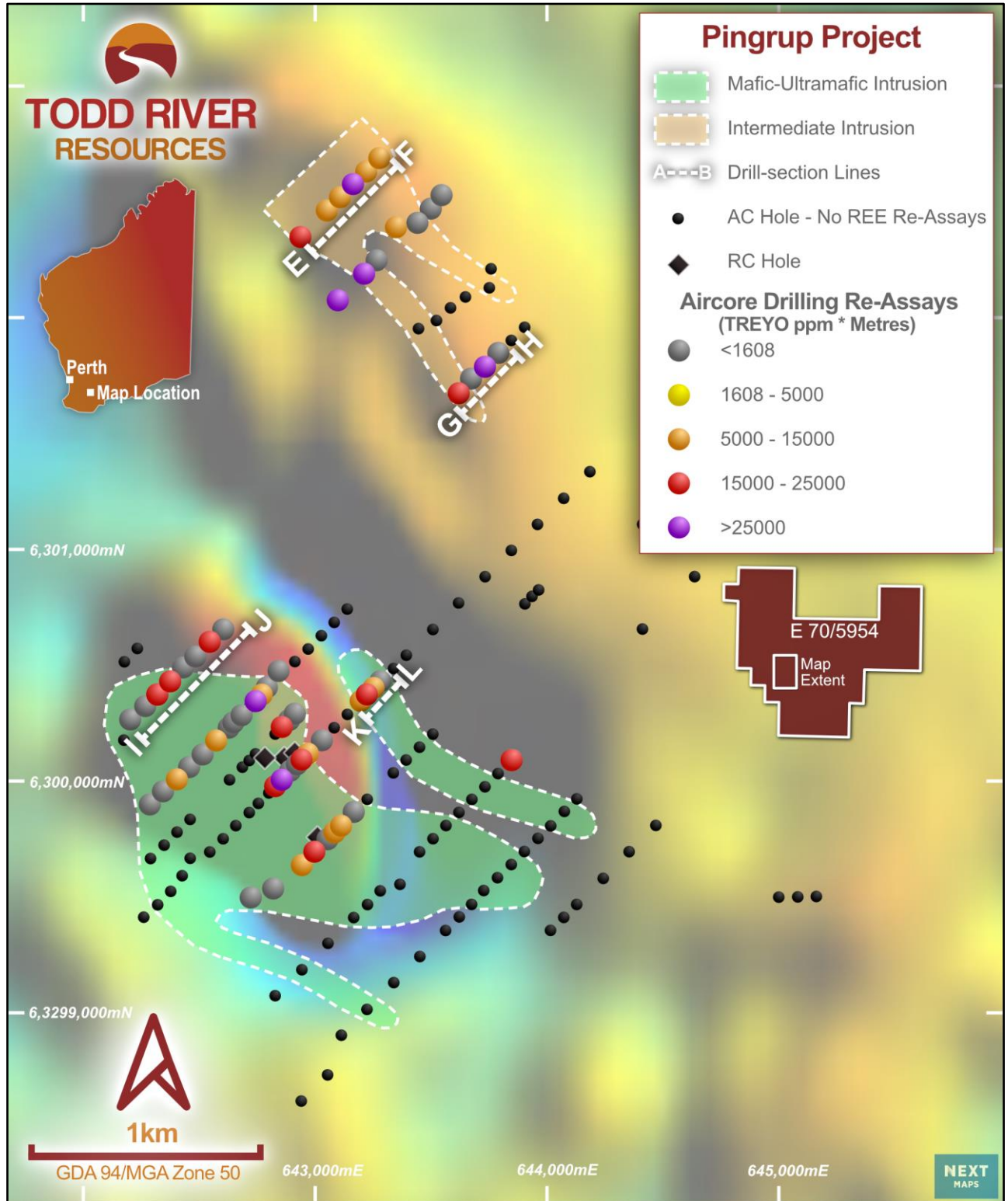


Figure 2 – Intersection TREYO ppm * metres values from REE re-assays of aircore holes at Pingrup

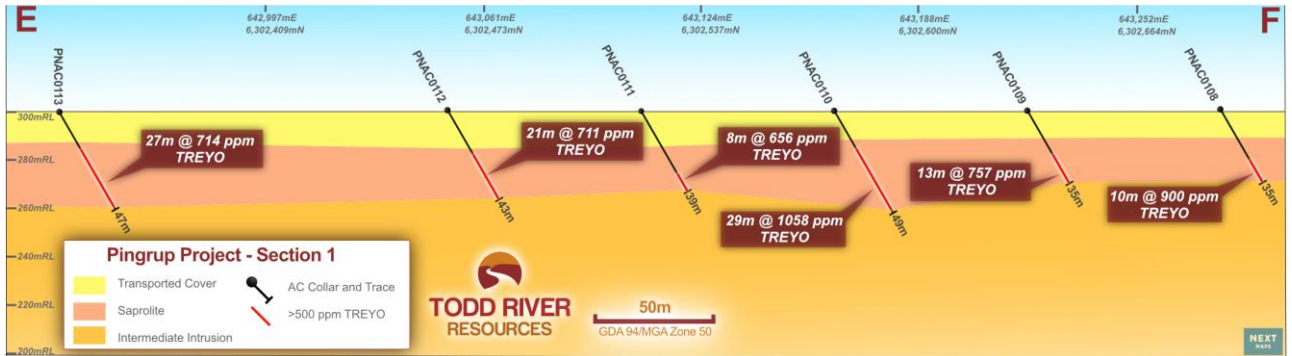


Figure 3 – Section E-F (refer Fig 2) at the High Noon Prospect showing clay-rich saprolite intersections of TREYO >500ppm

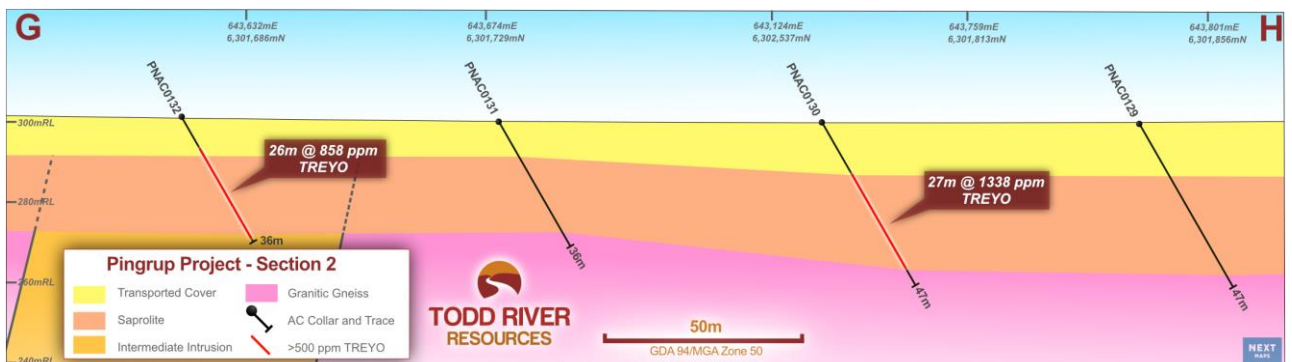


Figure 4 – Section G-H (refer Fig 2) at the High Noon Prospect showing clay-rich saprolite intersections of TREYO >500ppm

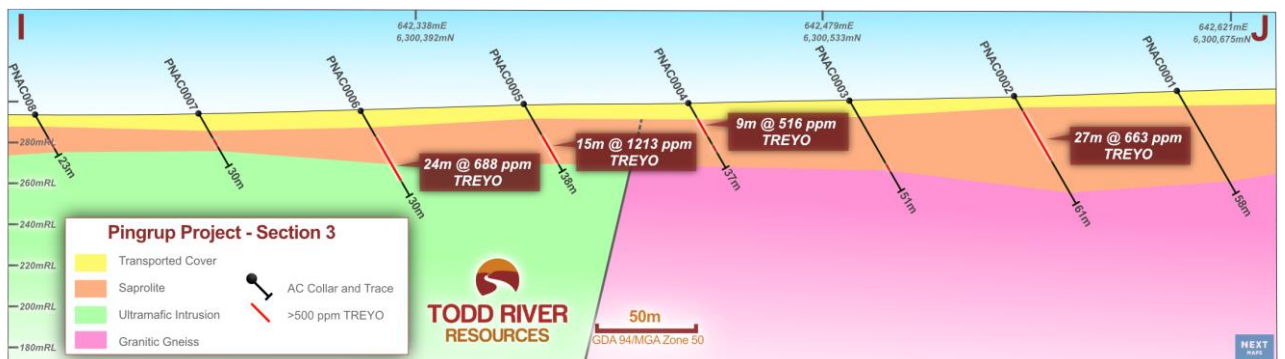


Figure 5 – Section I-J (refer Fig 2) at the Green Fire Prospect showing clay-rich saprolite intersections of TREYO >500ppm

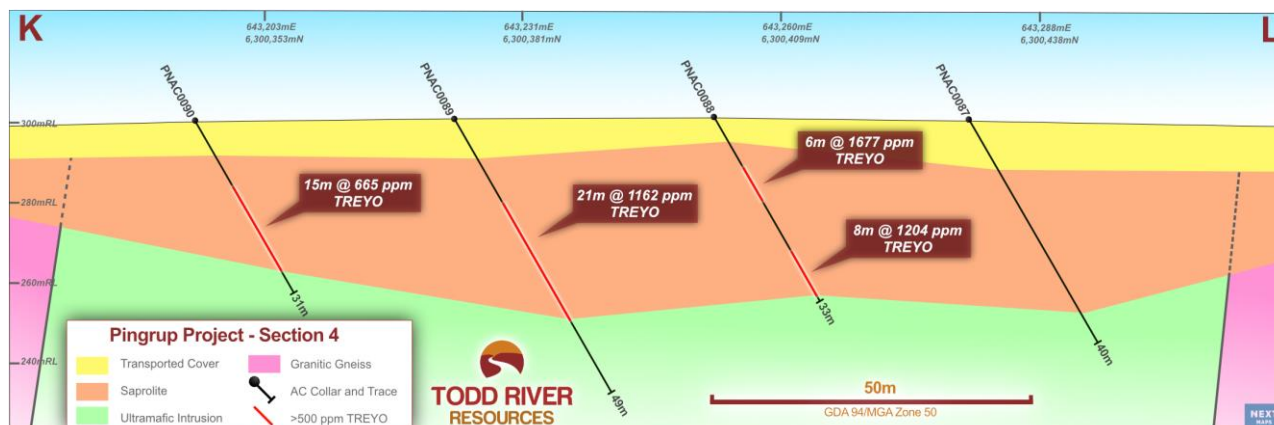


Figure 6 – Section K-L (refer Fig 2) at the Green Fire Prospect showing clay-rich saprolite intersections of TREYO >500ppm

Release authorised by the Board of Todd River Resources

Enquiries: Will Dix + 61 (0) 8 6166 0255

About Todd River Resources

Todd River Resources (ASX: TRT) is an Australian-based resources company that has base and precious metal projects in Western Australia and the Northern Territory. The Company has a base metal resource at its **Mt Hardy Project** and several exciting Ni-Cu-PGE and base metal projects in Western Australia including **Berkshire Valley** and **Pingrup Projects** in the southwest of Western Australia.

With a strong management team and balance sheet, Todd River is well placed to pursue additional base metal opportunities across its extensive exploration portfolio that also includes the large applications in the Bangemall Region of Western Australia.



Forward Looking Statements

This announcement includes forward-looking statements. These statements relate to the Company's expectations, beliefs, intentions, or strategies regarding the future. These statements can be identified by the use of words like "will", "progress", "anticipate", "intend", "expect", "may", "seek", "towards", "enable" and similar words or expressions containing same.

The forward-looking statements reflect the Company's views and assumptions with respect to future events as of the date of this announcement and are subject to a variety of unpredictable risks, uncertainties, and other unknowns. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, many of which are beyond our ability to control or predict. Given these uncertainties, no one should place undue reliance on any forward-looking statements attributable to the Company, or any of its affiliates or persons acting on its behalf. The Company does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Neither the Company nor any other person, gives any representation, warranty, assurance, nor will guarantee that the occurrence of the events expressed or implied in any forward-looking statement will actually occur. To the maximum extent permitted by law, the Company and each of its advisors, affiliates, related bodies corporate, directors, officers, partners, employees and agents disclaim any responsibility for the accuracy or completeness of any forward-looking statements whether as a result of new information, future events or results or otherwise.

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by William Dix, who is a full-time employee of Todd River Resources and holds shares and options in the Company. Mr. Dix is a Fellow of the Australian Institute of Mining and Metallurgy. Mr. Dix has sufficient experience of relevance to the style of mineralization and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Dix consents to the inclusion in this report of the matters based on information in the form and context in which it appears.



Appendix 1 - JORC Table One – Sampling Techniques and data (Pingrup Project)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<p>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.</p> <p>Aspects of the determination of mineralisation that are Material to the Public Report.</p>	<p>For aircore drilling 3m composite samples were collected with a bottom of hole 1m sample collected separately. Re-assays for REEs of composite samples were analysed by Li borate fusion ICP-MS for 25 elements. Bottom of hole samples were pulverised from which a 50 g charge for Au Pd Pt by fire assay was taken, with 48 elements (plus 12 REEs) by four acid ICP-OES/MS also completed.</p>
Drilling techniques	<p>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).</p>	<p>Aircore drilling – 4.5” aircore bit on 6m rod lengths with 5” hammer bit used on occasion.</p>
Drill sample recovery	<p>Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure 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.</p>	<p>Recoveries were visually estimated from bulk sample volume.</p> <p>Not enough drilling has been completed to determine relationship between grade and recovery.</p>
Logging	<p>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.</p> <p>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</p> <p>The total length and percentage of the relevant intersections logged.</p>	<p>All holes were qualitatively logged in full for lithology by TRT geologists and recorded digitally.</p>
Sub-sampling techniques and sample preparation	<p>If core, whether cut or sawn and whether quarter, half or all core taken.</p> <p>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</p> <p>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</p> <p>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</p> <p>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.</p> <p>Whether sample sizes are appropriate to the grain size of the material being sampled.</p>	<p>Aircore samples were collected as 3m composites with sub-sampling from the bulk sample using a scoop. A bottom of hole sample was collected from the last drill metre using a scoop.</p> <p>Drill sample sizes are considered appropriate for the style of mineralisation sought and the exploratory nature of the drilling program.</p> <p>Sample preparation at the laboratory is industry standard, with oven drying and pulverisation to 85% passing 75 microns.</p>



<p>Quality of assay data and laboratory tests</p>	<p>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.</p>	<p>All samples underwent preparation and analysis at Intertek Genalysis, Perth. All reported re-assay samples were analysed REEs by Li borate fusion with ICP-MS finish (LFP6/MS33). Aircore end of hole samples were analysed for Au Pd Pt by fire assay with ICP-MS finish (FA50/MS), and for 48 elements with 12 REEs addon by four acid with ICP-OES/MS finish (4A/MS48R).</p> <p>Certified standards and blanks were inserted every 25 samples to test for laboratory accuracy and precision.</p>																																
<p>Verification of sampling and assaying</p>	<p>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.</p>	<p>Significant intersections were reviewed internally by 2 different geologists.</p> <p>TREYO = Total Rare Earth Oxides + Yttrium = CeO₂ + Dy₂O₃ + Er₂O₃ + Eu₂O₃ + Gd₂O₃ + Ho₂O₃ + La₂O₃ + Lu₂O₃ + Nd₂O₃ + Pr₆O₁₁ + Sm₂O₃ + Tb₄O₇ + Tm₂O₃ + Yb₂O₃ + Y₂O₃</p> <p>Rare earth element results were converted to oxides using the following conversion rates:</p> <table border="1" data-bbox="999 996 1262 1503"> <thead> <tr> <th>Element</th> <th>Oxide Factor</th> </tr> </thead> <tbody> <tr><td>CeO₂</td><td>1.2284</td></tr> <tr><td>Dy₂O₃</td><td>1.1477</td></tr> <tr><td>Er₂O₃</td><td>1.1435</td></tr> <tr><td>Eu₂O₃</td><td>1.1579</td></tr> <tr><td>Gd₂O₃</td><td>1.1526</td></tr> <tr><td>Ho₂O₃</td><td>1.1455</td></tr> <tr><td>La₂O₃</td><td>1.1728</td></tr> <tr><td>Lu₂O₃</td><td>1.1371</td></tr> <tr><td>Nd₂O₃</td><td>1.1664</td></tr> <tr><td>Pr₆O₁₁</td><td>1.2082</td></tr> <tr><td>Sm₂O₃</td><td>1.1596</td></tr> <tr><td>Tb₄O₇</td><td>1.1762</td></tr> <tr><td>Tm₂O₃</td><td>1.1421</td></tr> <tr><td>Yb₂O₃</td><td>1.1387</td></tr> <tr><td>Y₂O₃</td><td>1.2699</td></tr> </tbody> </table>	Element	Oxide Factor	CeO ₂	1.2284	Dy ₂ O ₃	1.1477	Er ₂ O ₃	1.1435	Eu ₂ O ₃	1.1579	Gd ₂ O ₃	1.1526	Ho ₂ O ₃	1.1455	La ₂ O ₃	1.1728	Lu ₂ O ₃	1.1371	Nd ₂ O ₃	1.1664	Pr ₆ O ₁₁	1.2082	Sm ₂ O ₃	1.1596	Tb ₄ O ₇	1.1762	Tm ₂ O ₃	1.1421	Yb ₂ O ₃	1.1387	Y ₂ O ₃	1.2699
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<p>Locations of data points</p>	<p>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. Specification of the grid system used. Quality and adequacy of topographic control.</p>	<p>All drillholes have accompanying collar and survey recordings and were located with handheld GPS.</p> <p>No downhole surveys were completed on aircore holes.</p> <p>The coordinate system used is GDA94 MGA Zone 50.</p> <p>Drillhole elevation is from publicly available SRTM DEM data with no elevation data collected in the field.</p>																																



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.	Aircore drillholes are spaced 40-80m along line and 160-320m between lines. Work completed is exploratory in nature; therefore spacing/distribution is not sufficient for estimation purposes.
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.	REE mineralisation is within flat-flying saprolite. Aircore drilling is at -60° dip, therefore at a slight angle to mineralisation and intersections are not true width.
Sample security	The measures taken to ensure sample security.	Samples were bagged on site and sent to the laboratory via a 3 rd party freight company.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No sampling audits have been conducted.

Appendix 2 - Section 2 Reporting of Exploration

Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. 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 Pingrup Project is located on tenement E70/5954 (Moore River Metals Pty Ltd). The tenement is in good standing and is not subject to any joint ventures
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	All significant previous work is outlined in WAMEX open file reports. TRT has accessed and reviewed all of this work and compiled our own database on the project from the available open file data. The WAMEX reports used for the purpose of this work include: A094331 A090754 A100463 These reports are compiled by Magnetic Resources NL and Auzex Exploration Limited and contain comprehensive written descriptions of their work and associated .txt files of all drilling and sampling completed.



		The documents appear correct and the geo-spatial data recorded matches with images produced when verified independently
Geology	Deposit type, geological setting and style of mineralisation.	The underlying unweathered lithology is metamorphosed greenstones and gneissic terrane. The REE mineralisation is hosted in the weathered remnants (clay-rich saprolite) of mafic-ultramafic and intermediate intrusions.
Drill hole Information	<p>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:</p> <ul style="list-style-type: none"> ○ Easting and northing of the drill collar ○ Elevation of RL (Reduced Level – elevation above sea level in metres) of the drill collar ○ Dip and azimuth of the hole ○ Down hole length and interception depth ○ Hole length 	See table 1 and 2 for drillhole information and appendix 1 for detailed assay results.
Data aggregation methods	<p>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</p> <p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	Significant intersections are calculated using weighted averages with a cut-off grade of greater than 500 ppm TREYO.
Relationship between mineralisation widths and intercept lengths	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</p>	The REE mineralisation is interpreted to be flat-flying, with actual orientation not known due to early stage of work. Aircore drilling was completed at -60° dip to target sub-vertical basement geology. Aircore intersections are down hole length, with true width not known.
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 in body of text.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results considered significant are reported.
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.	No further data has been collected other than what is contained in this announcement or has been previously reported.
Further work	<p>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	Further re-assaying of samples from the clay rich saprolite zone will be completed from holes announced in previous announcements.



Appendix 3: Detailed REE results from Pingrup Drilling Program

Hole ID	From	To	Width	CeO2	Dy2O3	Er2O3	Eu2O3	Gd2O3	Ho2O3	La2O3	Lu2O3	Nd2O3	Pr6O11	Sm2O3	Tb4O7	Tm2O3	Yb2O3	Y2O3	TREYO	Nd+Pr%
PNAC0002	9	12	3	370	10.8	4.1	7.4	22.2	1.6	231	0.3	198	55	32	2.5	0.5	2.5	47	985	26%
PNAC0002	12	15	3	436	8.4	3.4	6.3	16.7	1.3	235	0.3	166	49	27	2.0	0.5	2.6	38	993	22%
PNAC0002	15	18	3	253	5.2	2.3	3.5	9.7	0.9	158	0.2	106	32	16	1.2	0.3	1.7	24	614	22%
PNAC0002	18	21	3	201	3.7	1.5	1.9	6.9	0.6	124	0.1	75	23	11	0.7	0.1	1.1	15	465	21%
PNAC0002	21	24	3	200	5.2	1.9	3.2	9.3	0.7	148	0.1	95	29	14	1.2	0.2	1.4	20	528	23%
PNAC0002	24	27	3	256	5.7	2.3	3.8	10.8	0.9	134	0.2	101	29	17	1.3	0.3	1.6	22	587	22%
PNAC0002	27	30	3	312	7.5	2.9	4.5	13.8	1.3	150	0.2	127	35	20	1.6	0.3	1.9	28	706	23%
PNAC0002	30	33	3	227	6.1	2.3	3.5	11.4	1.0	114	0.2	96	26	16	1.3	0.3	1.6	22	529	23%
PNAC0002	33	36	3	236	7.2	3.7	3.8	11.8	1.3	117	0.5	94	27	16	1.4	0.5	3.1	37	560	22%
PNAC0002	9	36	27	277	6.6	2.7	4.2	12.5	1.1	157	0.2	118	34	19	1.5	0.3	1.9	28	663	23%
PNAC0003	36	39	3	246	4.2	2.1	2.7	7.8	0.8	131	0.2	84	26	13	0.9	0.2	1.5	25	545	20%
PNAC0004	9	12	3	274	1.5	0.3	1.2	2.5	0.2	166	-0.1	59	23	7	0.2	-0.1	0.3	3	538	15%
PNAC0004	12	15	3	130	2.1	0.6	1.5	4.0	0.2	72	-0.1	49	15	7	0.5	-0.1	0.6	5	287	22%
PNAC0004	15	18	3	349	2.4	1.4	0.8	4.4	0.5	232	0.3	82	29	8	0.5	0.2	1.7	11	723	15%
PNAC0004	9	18	9	251	2.0	0.8	1.2	3.6	0.3	157	0.0	64	22	7	0.4	0.0	0.9	6	516	17%
PNAC0004	24	27	3	507	7.0	2.7	5.4	12.9	1.0	235	0.2	152	49	24	1.5	0.3	1.8	30	1029	19%
PNAC0005	18	21	3	460	6.7	2.1	4.7	15.8	0.9	254	0.2	180	54	28	1.6	0.2	1.6	23	1034	23%
PNAC0005	21	24	3	231	4.2	1.5	2.5	8.2	0.6	141	0.2	82	25	14	0.9	0.2	1.4	15	527	20%
PNAC0005	24	27	3	775	13.5	4.2	8.9	29.3	1.9	410	0.5	291	85	47	3.4	0.6	3.2	53	1726	22%
PNAC0005	27	30	3	952	14.8	4.8	10.2	34.1	2.3	498	0.3	359	105	55	3.8	0.6	3.4	60	2104	22%
PNAC0005	30	33	3	256	11.7	5.7	5.2	19.2	2.2	118	0.6	124	32	24	2.5	0.7	4.2	70	676	23%
PNAC0005	18	33	15	535	10.2	3.7	6.3	21.3	1.6	284	0.4	207	60	34	2.4	0.5	2.8	44	1213	22%
PNAC0006	15	18	3	254	4.4	1.6	1.9	5.2	0.7	158	0.2	78	26	9	0.7	0.2	1.6	11	553	19%
PNAC0006	18	21	3	236	6.5	2.5	3.8	10.1	1.0	118	0.3	113	32	19	1.4	0.3	2.7	20	567	26%
PNAC0006	21	24	3	352	27.0	9.3	14.9	45.6	3.9	132	0.9	315	71	67	5.6	1.3	6.9	101	1153	33%
PNAC0006	24	27	3	323	24.2	8.3	14.0	45.8	3.6	120	0.7	292	61	63	5.6	1.0	6.1	95	1063	33%
PNAC0006	27	30	3	158	22.6	8.5	9.6	38.6	3.7	59	0.8	155	30	38	4.8	1.1	6.6	99	636	29%
PNAC0006	30	33	3	129	18.9	8.8	5.9	26.2	3.4	51	0.9	88	19	22	3.6	1.3	7.1	119	503	21%
PNAC0006	33	36	3	211	7.5	3.2	3.0	12.4	1.3	108	0.3	89	24	16	1.5	0.3	2.7	43	524	22%
PNAC0006	36	39	3	204	7.2	3.1	3.0	12.0	1.3	106	0.3	82	23	14	1.4	0.5	2.4	41	501	21%
PNAC0006	15	39	24	233	14.8	5.7	7.0	24.5	2.4	107	0.6	152	36	31	3.1	0.8	4.5	66	688	27%
PNAC0009	24	27	3	194	9.3	3.3	5.6	16.0	1.4	106	0.3	111	29	21	2.0	0.5	2.6	34	536	26%
PNAC0010	30	33	3	590	27.4	9.5	18.3	51.4	4.4	238	0.9	335	85	73	6.4	1.3	6.7	97	1544	27%
PNAC0010	33	36	3	314	16.1	5.9	9.7	29.0	2.6	132	0.6	178	44	39	3.6	0.8	4.8	58	837	27%
PNAC0010	36	39	3	490	36.8	15.2	17.1	61.4	6.5	254	1.6	301	70	63	7.4	1.9	11.6	175	1514	25%
PNAC0010	39	42	3	170	12.5	6.4	5.1	19.0	2.5	79	0.8	90	22	19	2.1	0.9	5.0	88	522	21%
PNAC0010	30	42	12	391	23.2	9.3	12.6	40.2	4.0	176	1.0	226	55	49	4.9	1.2	7.0	104	1104	25%



Hole ID	From	To	Width	CeO2	Dy2O3	Er2O3	Eu2O3	Gd2O3	Ho2O3	La2O3	Lu2O3	Nd2O3	Pr6O11	Sm2O3	Tb4O7	Tm2O3	Yb2O3	Y2O3	TREYO	Nd+Pr%
PNAC0011	24	27	3	226	5.2	1.5	4.2	10.3	0.7	139	0.1	98	28	17	1.2	0.2	1.3	17	549	23%
PNAC0011	27	30	3	286	9.4	2.7	6.8	19.4	1.4	135	0.2	158	41	30	2.2	0.3	2.0	34	727	27%
PNAC0011	30	33	3	505	16.2	5.1	11.1	32.8	2.4	254	0.5	254	68	48	3.5	0.6	3.6	59	1262	25%
PNAC0011	33	36	3	368	16.0	6.3	8.6	27.9	2.6	202	0.7	178	47	34	3.3	0.9	4.8	70	970	23%
PNAC0011	36	39	3	235	13.2	5.8	6.5	24.4	2.5	107	0.6	127	32	27	2.7	0.8	4.0	72	659	24%
PNAC0011	24	39	15	324	12.0	4.3	7.4	23.0	1.9	167	0.4	163	43	31	2.6	0.6	3.1	50	834	25%
PNAC0012	24	27	3	219	14.8	7.0	6.3	21.1	2.7	74	0.9	113	29	24	2.8	1.0	6.6	64	587	24%
PNAC0013	15	18	3	778	28.6	8.5	27.6	65.2	4.1	512	0.6	726	201	133	7.1	1.0	5.6	80	2577	36%
PNAC0013	18	21	3	834	48.0	18.0	31.1	98.3	7.9	610	1.5	710	179	133	10.8	2.3	11.2	203	2897	31%
PNAC0013	21	24	3	455	19.1	7.4	10.9	33.2	3.2	209	0.8	254	64	49	3.9	1.0	5.9	72	1188	27%
PNAC0013	15	24	9	689	31.9	11.3	23.2	65.6	5.1	444	1.0	563	148	105	7.3	1.4	7.6	118	2221	32%
PNAC0013	36	39	3	557	19.5	8.1	11.2	36.7	3.4	239	0.8	228	59	44	4.2	1.0	6.0	87	1305	22%
PNAC0014	15	18	3	183	6.3	2.5	3.9	12.7	1.0	115	0.2	99	27	18	1.4	0.3	1.7	30	502	25%
PNAC0014	18	21	3	398	15.7	5.6	9.8	31.9	2.5	243	0.5	225	60	42	3.5	0.7	3.3	69	1110	26%
PNAC0014	21	24	3	214	11.4	4.6	6.6	21.6	1.9	107	0.5	138	33	28	2.5	0.6	3.2	54	627	27%
PNAC0014	15	24	9	265	11.1	4.2	6.8	22.1	1.8	155	0.4	154	40	29	2.5	0.5	2.7	51	746	26%
PNAC0015	12	15	3	242	9.9	3.3	5.8	16.7	1.5	116	0.3	127	35	24	2.1	0.5	2.7	33	619	26%
PNAC0015	15	18	3	233	9.0	3.3	5.4	17.3	1.4	123	0.3	124	32	21	2.0	0.5	2.7	36	612	26%
PNAC0015	12	18	6	237	9.5	3.3	5.6	17.0	1.5	120	0.3	126	34	23	2.1	0.5	2.7	35	616	26%
PNAC0038	18	21	3	812	22.4	7.5	15.3	39.2	3.4	403	0.8	372	111	70	4.8	1.0	6.0	73	1941	25%
PNAC0038	21	24	3	596	17.1	5.5	13.1	33.3	2.5	309	0.5	304	86	55	4.0	0.7	3.9	57	1487	26%
PNAC0038	18	24	6	704	19.8	6.5	14.2	36.3	3.0	356	0.7	338	98	62	4.4	0.9	5.0	65	1714	25%
PNAC0041	15	18	3	376	10.9	3.8	6.3	18.7	1.6	143	0.3	124	34	26	2.4	0.5	3.0	29	779	20%
PNAC0041	18	21	3	869	47.9	16.4	20.5	80.3	7.4	338	1.4	399	96	85	10.2	1.9	10.7	153	2136	23%
PNAC0041	21	24	3	443	43.2	16.4	16.9	71.3	7.1	208	1.5	291	63	65	8.7	2.1	10.9	169	1417	25%
PNAC0041	24	26	2	296	24.8	8.9	10.7	41.4	4.0	125	0.8	185	42	43	5.3	1.1	5.9	91	886	26%
PNAC0041	15	26	11	514	32.3	11.6	13.9	54.0	5.1	211	1.0	256	60	56	6.8	1.4	7.8	112	1342	24%
PNAC0044	15	18	3	881	4.9	1.0	4.7	11.3	0.6	519	-0.1	223	82	23	1.2	0.1	0.7	11	1763	17%
PNAC0044	18	21	3	765	6.0	1.5	6.4	14.4	0.7	340	0.2	294	89	33	1.5	0.2	1.1	15	1567	24%
PNAC0044	21	24	3	473	8.3	2.3	8.6	19.5	1.1	157	0.2	280	70	37	2.1	0.2	1.8	24	1084	32%
PNAC0044	24	27	3	397	23.1	9.6	14.2	39.2	3.7	143	1.0	265	58	52	4.7	1.3	7.3	118	1137	28%
PNAC0044	27	30	3	299	22.2	9.5	12.3	37.0	3.8	121	1.0	194	41	45	4.7	1.3	7.5	118	917	26%
PNAC0044	30	33	3	216	19.1	7.9	7.3	28.5	3.3	94	0.8	124	29	28	3.8	1.0	5.8	90	658	23%
PNAC0044	15	33	18	505	13.9	5.3	8.9	25.0	2.2	229	0.5	230	62	36	3.0	0.7	4.0	62	1188	25%
PNAC0088	9	12	3	768	21.2	7.0	12.4	36.2	3.2	285	0.7	290	73	52	4.5	0.9	5.1	63	1622	22%
PNAC0088	12	15	3	673	18.7	5.8	12.6	36.7	2.6	447	0.6	324	91	57	4.2	0.6	3.9	55	1732	24%
PNAC0088	9	15	6	721	20.0	6.4	12.5	36.5	2.9	366	0.7	307	82	55	4.4	0.8	4.5	59	1677	23%
PNAC0088	24	27	3	348	25.4	10.3	13.0	41.5	3.9	228	1.1	290	69	54	5.1	1.4	8.3	100	1199	30%
PNAC0088	27	30	3	360	49.2	23.1	17.9	69.0	8.9	304	3.0	336	75	66	8.9	3.3	19.6	281	1626	25%



Hole ID	From	To	Width	CeO2	Dy2O3	Er2O3	Eu2O3	Gd2O3	Ho2O3	La2O3	Lu2O3	Nd2O3	Pr6O11	Sm2O3	Tb4O7	Tm2O3	Yb2O3	Y2O3	TREYO	Nd+Pr%
PNAC0088	30	32	2	146	15.1	7.2	6.6	22.1	2.7	102	0.9	124	28	24	2.9	0.9	6.4	90	581	26%
PNAC0088	24	32	8	302	31.8	14.3	13.2	47.0	5.5	225	1.8	266	61	51	6.0	2.0	12.1	165	1204	27%
PNAC0089	15	18	3	875	17.2	5.3	10.5	31.0	2.3	303	0.5	325	90	54	3.5	0.6	4.0	48	1769	23%
PNAC0089	18	21	3	547	7.9	3.0	4.6	14.5	1.3	280	0.3	160	48	23	1.8	0.5	2.6	27	1122	19%
PNAC0089	21	24	3	324	9.1	4.0	4.1	13.4	1.5	161	0.6	126	35	20	1.6	0.7	4.0	37	742	22%
PNAC0089	24	27	3	305	12.6	5.0	5.6	19.8	2.1	158	0.7	151	40	28	2.5	0.8	4.8	51	787	24%
PNAC0089	27	30	3	653	72.3	31.7	26.5	105.3	12.3	405	3.6	516	118	105	13.5	4.3	25.3	347	2439	26%
PNAC0089	30	33	3	138	10.6	4.6	3.9	16.5	1.9	85	0.6	86	21	16	2.0	0.6	3.8	55	446	24%
PNAC0089	33	36	3	355	10.1	4.2	2.9	14.8	1.7	189	0.5	133	39	20	1.9	0.6	3.4	52	828	21%
PNAC0089	15	36	21	457	20.0	8.3	8.3	30.8	3.3	226	1.0	214	56	38	3.8	1.2	6.8	88	1162	23%
PNAC0090	3	6	3	52	3.2	1.6	1.4	3.5	0.6	18	0.2	23	5	5	0.6	0.2	1.8	14	130	22%
PNAC0090	6	9	3	32	3.1	1.6	1.0	3.3	0.6	13	0.2	17	4	4	0.6	0.2	1.7	11	93	22%
PNAC0090	9	12	3	133	5.4	2.2	3.1	8.4	0.8	60	0.2	73	19	14	1.1	0.2	2.0	18	341	27%
PNAC0090	12	15	3	237	10.9	4.6	4.7	16.4	1.7	79	0.5	101	24	20	2.1	0.6	3.8	46	551	23%
PNAC0090	15	18	3	224	15.0	6.6	7.4	25.1	2.5	119	0.7	167	39	32	2.9	0.9	5.2	74	723	29%
PNAC0090	18	21	3	243	13.2	5.8	4.7	18.2	2.3	93	0.8	109	27	22	2.4	0.8	4.6	67	614	22%
PNAC0090	21	24	3	408	10.9	4.6	3.4	15.8	1.7	185	0.6	150	41	23	1.9	0.7	3.9	53	904	21%
PNAC0090	24	27	3	191	13.1	5.7	4.7	17.6	2.3	70	0.7	106	24	22	2.4	0.8	4.7	68	534	24%
PNAC0090	27	30	3	117	10.6	5.1	3.8	13.3	1.8	49	0.6	71	16	15	1.8	0.7	4.2	64	373	23%
PNAC0090	12	27	15	261	12.6	5.5	5.0	18.6	2.1	109	0.7	127	31	24	2.3	0.8	4.4	62	665	24%
PNAC0096	15	18	3	314	3.9	1.5	2.7	6.9	0.7	206	0.1	89	30	12	0.8	0.2	1.1	15	684	17%
PNAC0096	30	33	3	313	5.6	2.4	3.7	9.2	0.9	170	0.2	108	33	14	1.1	0.3	1.8	31	694	20%
PNAC0097	15	18	3	236	8.5	2.9	5.7	15.8	1.3	137	0.2	146	38	24	1.9	0.3	1.9	32	652	28%
PNAC0098	15	18	3	309	5.0	1.5	3.5	9.5	0.6	197	0.2	132	41	18	1.2	0.2	1.1	17	737	24%
PNAC0098	18	21	3	704	9.3	2.7	7.5	20.2	1.3	460	0.2	257	83	38	2.2	0.3	1.7	33	1620	21%
PNAC0098	21	24	3	531	12.1	4.0	7.3	21.3	1.7	241	0.3	193	55	33	2.5	0.5	3.0	44	1150	22%
PNAC0098	24	27	3	231	6.5	2.4	4.4	12.7	1.0	116	0.2	108	29	20	1.4	0.3	1.8	29	564	24%
PNAC0098	27	30	3	262	8.3	3.1	5.0	14.2	1.3	117	0.2	123	33	22	1.6	0.3	2.0	37	630	25%
PNAC0098	15	30	15	407	8.2	2.7	5.5	15.6	1.2	226	0.2	163	48	26	1.8	0.3	1.9	32	940	22%
PNAC0099	15	18	3	461	19.1	5.9	12.4	38.7	2.6	318	0.5	326	85	56	4.4	0.7	3.4	77	1411	29%
PNAC0099	18	21	3	690	25.1	8.9	14.0	43.1	3.9	416	0.7	394	109	68	5.2	1.0	5.5	131	1915	26%
PNAC0099	21	24	3	1310	48.7	14.1	30.9	95.4	6.8	766	0.9	789	204	139	10.7	1.6	7.9	196	3620	27%
PNAC0099	24	27	3	610	25.8	9.7	14.7	46.3	4.0	330	0.9	361	95	66	5.6	1.1	6.6	131	1706	27%
PNAC0099	27	30	3	390	16.3	5.8	10.0	29.6	2.5	213	0.6	240	61	42	3.4	0.7	4.4	78	1098	27%
PNAC0099	30	33	3	307	12.9	5.0	6.8	23.7	2.1	166	0.6	179	46	31	2.7	0.7	3.9	66	853	26%
PNAC0099	33	36	3	146	8.3	3.3	4.3	14.4	1.4	68	0.3	91	21	18	1.8	0.5	2.3	42	422	27%
PNAC0099	36	39	3	249	9.4	3.3	4.9	16.6	1.4	125	0.3	134	33	23	2.0	0.5	2.4	42	647	26%
PNAC0099	15	39	24	520	20.7	7.0	12.3	38.5	3.1	300	0.6	314	82	55	4.5	0.9	4.6	95	1459	27%
PNAC0100	15	18	3	296	8.5	3.0	5.9	14.9	1.4	175	0.2	141	38	22	1.8	0.3	1.8	33	743	24%



Hole ID	From	To	Width	CeO2	Dy2O3	Er2O3	Eu2O3	Gd2O3	Ho2O3	La2O3	Lu2O3	Nd2O3	Pr6O11	Sm2O3	Tb4O7	Tm2O3	Yb2O3	Y2O3	TREYO	Nd+Pr%
PNAC0100	18	21	3	159	8.0	2.7	5.3	14.8	1.3	128	0.2	116	28	19	1.8	0.3	1.8	32	520	28%
PNAC0100	15	21	6	228	8.3	2.9	5.6	14.9	1.4	151	0.2	129	33	21	1.8	0.3	1.8	32	631	26%
PNAC0101	21	24	3	464	19.7	7.9	10.1	31.5	3.2	194	0.8	222	55	39	3.8	1.0	5.8	97	1154	24%
PNAC0102	18	21	3	441	11.0	4.2	6.7	19.1	1.7	246	0.5	164	45	27	2.4	0.5	2.8	46	1018	20%
PNAC0102	21	24	3	897	21.7	7.8	12.3	35.3	3.3	463	0.7	297	84	51	4.4	0.9	5.4	89	1972	19%
PNAC0102	24	27	3	570	29.0	10.3	14.6	47.3	4.5	255	0.9	298	73	58	6.0	1.3	7.6	116	1492	25%
PNAC0102	27	30	3	354	26.3	12.0	10.2	36.3	4.7	170	1.3	189	46	38	4.7	1.6	9.3	144	1047	22%
PNAC0102	30	33	3	332	19.9	9.3	8.0	28.2	3.6	160	0.9	166	41	32	3.6	1.3	6.6	114	926	22%
PNAC0102	33	36	3	172	11.5	4.5	5.3	16.4	1.7	77	0.5	104	24	20	2.0	0.6	3.3	58	501	26%
PNAC0102	18	36	18	461	19.9	8.0	9.5	30.4	3.3	229	0.8	203	52	38	3.9	1.0	5.8	94	1159	22%
PNAC0108	24	27	3	346	2.3	0.9	1.5	4.1	0.3	202	0.1	85	31	8	0.5	-0.1	1.0	9	692	17%
PNAC0108	27	30	3	589	5.7	1.7	5.9	12.3	0.8	273	0.1	207	65	25	1.3	0.2	0.9	20	1208	23%
PNAC0108	30	33	3	373	7.8	3.4	5.4	13.5	1.3	177	0.3	158	44	22	1.6	0.5	2.6	42	852	24%
PNAC0108	33	34	1	328	7.1	3.1	4.4	12.0	1.1	165	0.3	129	36	19	1.4	0.5	2.5	37	746	22%
PNAC0108	24	34	10	425	5.5	2.1	4.3	10.2	0.8	212	0.2	148	46	18	1.2	0.2	1.6	25	900	22%
PNAC0109	21	24	3	483	3.7	1.5	3.0	7.3	0.6	209	0.2	177	55	19	0.8	0.1	1.3	14	975	24%
PNAC0109	24	27	3	511	5.2	1.5	4.5	9.7	0.7	223	0.1	181	57	20	1.2	0.2	1.0	17	1034	23%
PNAC0109	27	30	3	206	8.7	3.0	5.7	13.9	1.4	91	0.2	120	28	21	1.8	0.3	2.0	36	538	28%
PNAC0109	30	33	3	206	7.0	2.9	4.5	11.9	1.1	98	0.2	103	25	18	1.5	0.3	1.9	36	517	25%
PNAC0109	33	34	1	223	13.8	6.2	5.9	20.1	2.5	91	0.7	132	30	25	2.6	0.9	5.1	89	648	25%
PNAC0109	21	34	13	341	6.7	2.5	4.5	11.4	1.1	150	0.2	144	41	20	1.4	0.3	1.8	31	757	24%
PNAC0110	18	21	3	265	10.8	4.8	4.2	15.0	1.8	138	0.6	122	31	21	2.0	0.7	3.9	54	674	23%
PNAC0110	21	24	3	457	7.7	3.9	4.2	13.0	1.5	272	0.6	152	45	21	1.6	0.6	3.5	51	1035	19%
PNAC0110	24	27	3	623	9.3	3.7	6.5	16.5	1.5	334	0.3	207	64	29	2.1	0.5	2.7	40	1340	20%
PNAC0110	27	30	3	401	10.9	4.0	6.8	18.8	1.6	179	0.3	188	50	31	2.4	0.5	3.1	45	943	25%
PNAC0110	30	33	3	668	24.1	9.6	12.7	39.4	3.9	283	1.0	356	90	58	4.8	1.3	7.4	121	1680	27%
PNAC0110	33	36	3	401	22.5	10.7	9.3	32.0	4.1	168	1.3	233	54	41	4.1	1.5	8.5	139	1129	25%
PNAC0110	36	39	3	434	23.8	12.3	9.7	34.7	4.5	194	1.5	241	57	43	4.5	1.7	10.7	158	1230	24%
PNAC0110	39	42	3	357	15.4	7.2	6.8	23.4	2.6	154	0.8	179	45	31	2.8	1.0	5.6	87	920	24%
PNAC0110	42	45	3	296	12.9	6.3	5.6	19.0	2.2	134	0.6	148	38	24	2.4	0.8	4.8	75	769	24%
PNAC0110	45	47	2	299	12.3	5.0	5.1	19.2	2.1	127	0.6	145	37	26	2.4	0.7	4.1	64	751	24%
PNAC0110	18	47	29	424	15.1	6.8	7.2	23.2	2.6	201	0.8	199	52	33	2.9	0.9	5.5	84	1058	24%
PNAC0111	30	33	3	197	14.1	6.5	5.1	19.0	2.6	81	0.7	110	26	20	2.4	0.8	4.7	83	573	24%
PNAC0111	33	36	3	254	14.0	6.5	5.3	19.6	2.4	110	0.7	136	33	23	2.5	0.9	4.9	81	693	24%
PNAC0111	36	38	2	284	11.5	5.4	5.2	16.9	1.9	126	0.7	140	36	23	2.0	0.8	4.6	68	726	24%
PNAC0111	30	38	8	240	13.4	6.2	5.2	18.7	2.4	104	0.7	127	31	22	2.3	0.8	4.8	79	656	24%
PNAC0112	21	24	3	391	2.0	0.8	1.6	3.7	0.3	255	0.1	73	31	7	0.5	0.1	0.8	9	775	13%
PNAC0112	24	27	3	343	2.6	0.9	2.4	4.7	0.3	181	0.1	95	32	12	0.6	-0.1	0.8	9	685	19%
PNAC0112	27	30	3	173	4.6	1.8	3.1	8.0	0.8	79	0.2	81	21	13	0.9	0.2	1.6	20	408	25%



Hole ID	From	To	Width	CeO2	Dy2O3	Er2O3	Eu2O3	Gd2O3	Ho2O3	La2O3	Lu2O3	Nd2O3	Pr6O11	Sm2O3	Tb4O7	Tm2O3	Yb2O3	Y2O3	TREYO	Nd+Pr%
PNAC0112	30	33	3	342	14.0	6.3	6.9	20.7	2.4	159	0.7	163	41	27	2.7	0.8	4.4	72	862	24%
PNAC0112	33	36	3	410	10.2	5.5	5.4	15.9	1.9	215	0.7	151	44	23	2.0	0.7	4.4	70	960	20%
PNAC0112	36	39	3	293	7.3	3.5	3.6	11.5	1.4	153	0.5	117	33	17	1.4	0.5	3.2	47	694	22%
PNAC0112	39	42	3	252	6.0	2.7	3.7	9.9	1.0	129	0.5	102	28	15	1.2	0.3	2.5	37	590	22%
PNAC0112	21	42	21	315	6.7	3.1	3.8	10.6	1.2	167	0.4	112	33	16	1.3	0.4	2.5	38	711	20%
PNAC0113	18	21	3	358	4.4	1.5	2.3	7.8	0.7	228	0.1	98	32	13	0.9	0.1	1.1	18	766	17%
PNAC0113	21	24	3	246	3.7	1.5	2.1	7.1	0.6	134	0.2	83	25	11	0.8	0.2	1.3	16	532	20%
PNAC0113	24	27	3	214	2.8	1.1	1.4	4.6	0.5	135	0.2	58	19	8	0.6	0.1	1.1	13	459	17%
PNAC0113	27	30	3	278	2.6	1.3	1.7	4.7	0.5	159	0.2	75	26	10	0.6	0.2	1.5	12	572	18%
PNAC0113	30	33	3	629	13.3	4.7	8.7	23.4	1.9	289	0.5	274	74	39	2.7	0.6	3.6	51	1414	25%
PNAC0113	33	36	3	328	16.1	8.5	6.7	20.9	3.0	143	1.0	166	41	29	2.8	1.3	7.2	106	880	24%
PNAC0113	36	39	3	227	13.4	6.9	4.6	16.8	2.5	109	0.7	108	27	19	2.4	0.9	5.1	87	631	21%
PNAC0113	39	42	3	268	7.0	3.2	3.1	10.1	1.1	143	0.3	98	28	14	1.3	0.3	2.7	38	618	20%
PNAC0113	42	45	3	233	7.3	3.5	3.2	10.6	1.3	120	0.3	93	26	15	1.4	0.5	2.7	42	559	21%
PNAC0113	18	45	27	309	7.8	3.6	3.8	11.8	1.3	162	0.4	117	33	17	1.5	0.5	2.9	42	714	21%
PNAC0130	15	18	3	537	20.9	10.4	9.5	30.3	3.7	251	1.0	236	61	41	3.6	1.4	8.4	116	1331	22%
PNAC0130	18	21	3	551	13.5	6.3	7.3	21.8	2.3	266	0.8	219	61	32	2.6	0.9	5.7	77	1267	22%
PNAC0130	21	24	3	373	5.3	2.4	3.9	9.5	0.9	163	0.5	138	41	19	1.1	0.3	2.8	29	790	23%
PNAC0130	24	27	3	855	17.0	6.6	10.7	29.7	2.6	342	0.8	372	105	54	3.3	0.9	6.5	79	1885	25%
PNAC0130	27	30	3	410	8.1	3.4	5.0	13.4	1.4	195	0.3	168	47	25	1.6	0.5	2.6	38	920	23%
PNAC0130	30	33	3	616	10.7	3.5	7.6	18.0	1.5	276	0.3	255	70	37	2.1	0.5	2.7	38	1339	24%
PNAC0130	33	36	3	851	13.2	4.3	9.0	24.2	2.1	437	0.5	312	90	43	2.8	0.6	3.2	49	1843	22%
PNAC0130	36	39	3	759	16.2	6.2	10.0	27.3	2.4	350	0.6	311	87	48	3.3	0.8	4.7	66	1692	24%
PNAC0130	39	42	3	424	10.7	4.3	6.3	17.6	1.7	209	0.5	169	48	27	2.1	0.6	3.2	49	973	22%
PNAC0130	15	42	27	598	12.8	5.3	7.7	21.3	2.1	276	0.6	242	68	36	2.5	0.7	4.4	60	1338	23%
PNAC0132	9	12	3	356	9.0	3.7	4.4	13.9	1.4	195	0.2	150	43	22	1.8	0.5	2.4	41	844	23%
PNAC0132	12	15	3	725	15.1	7.1	9.0	25.2	2.7	319	0.7	269	70	37	2.9	0.9	5.4	80	1570	22%
PNAC0132	15	18	3	686	10.3	5.0	6.8	18.0	1.7	314	0.7	225	65	30	2.0	0.8	4.6	60	1430	20%
PNAC0132	18	21	3	239	3.2	1.0	3.0	5.9	0.5	109	0.1	83	25	12	0.7	0.1	0.9	11	494	22%
PNAC0132	21	24	3	276	4.2	1.4	3.5	7.8	0.6	126	0.1	105	30	15	0.9	0.2	1.1	15	588	23%
PNAC0132	24	27	3	281	5.5	2.3	3.9	10.5	0.8	128	0.3	119	32	17	1.2	0.3	1.7	24	628	24%
PNAC0132	27	30	3	290	8.6	3.9	4.3	12.6	1.5	141	0.5	122	33	19	1.5	0.6	3.2	46	687	22%
PNAC0132	30	33	3	349	8.3	3.9	4.6	13.3	1.4	171	0.6	144	39	20	1.5	0.6	3.5	49	810	23%
PNAC0132	33	35	2	252	6.1	2.7	3.4	9.6	1.0	124	0.3	97	28	15	1.2	0.3	2.4	35	578	22%
PNAC0132	9	35	26	389	7.9	3.5	4.8	13.1	1.3	183	0.4	148	41	21	1.5	0.5	2.8	40	858	22%