

## FOR IMMEDIATE RELEASE

23 November 2017

### **Rainbow Rare Earths Ltd ('Rainbow' or 'the Company') (LSE: RBW) Significant Exploration Upside at Gakara Confirmed by Airborne Magnetic Survey**

Rainbow, the rare earth element mining company, is pleased to announce an update on its Gakara Rare Earth Project ('Gakara') in Burundi, where first production and sales of rare earth concentrate are on schedule for Q4 2017. Gakara is one of the highest grade rare earth element mining projects globally, with an estimated in situ grade of 47-67% Total Rare Earth Oxide ('TREO'), and the Company is targeting a production rate of 5,000tpa by the end of 2018.

#### **Highlights**

- Completion of airborne magnetic survey suggests at least four large and highly prospective anomalies for a carbonatite source for Gakara's rare earth veins providing significant exploration upside potential
- The anomalies range in diameter from 300m to 2,700m and have modelled starting depths of 20m to 67m
- Consistent with Rainbow's long-term strategy these anomalies present the targets for the Company's first ever drill programme when cashflows from operations allow
- Rainbow is on schedule to make first shipment of rare earth concentrate before the end of 2017 through distribution and offtake agreement with multinational thyssenkrupp Raw Materials

**Martin Eales, CEO of Rainbow, commented:** "With the first shipment of Gakara concentrate imminent, we are encouraged by the identification of at least four highly prospective anomalies which could directly enhance the longer-term production profile of this project. We have believed for some time that the high-grade Gakara veins must have emanated from a substantial carbonatite source and through our recent work we have established some extremely positive indicators for the locations of what may be multiple carbonatites within our licence area that will be a key focus for our near-term exploration campaign."

#### **Exploration Update**

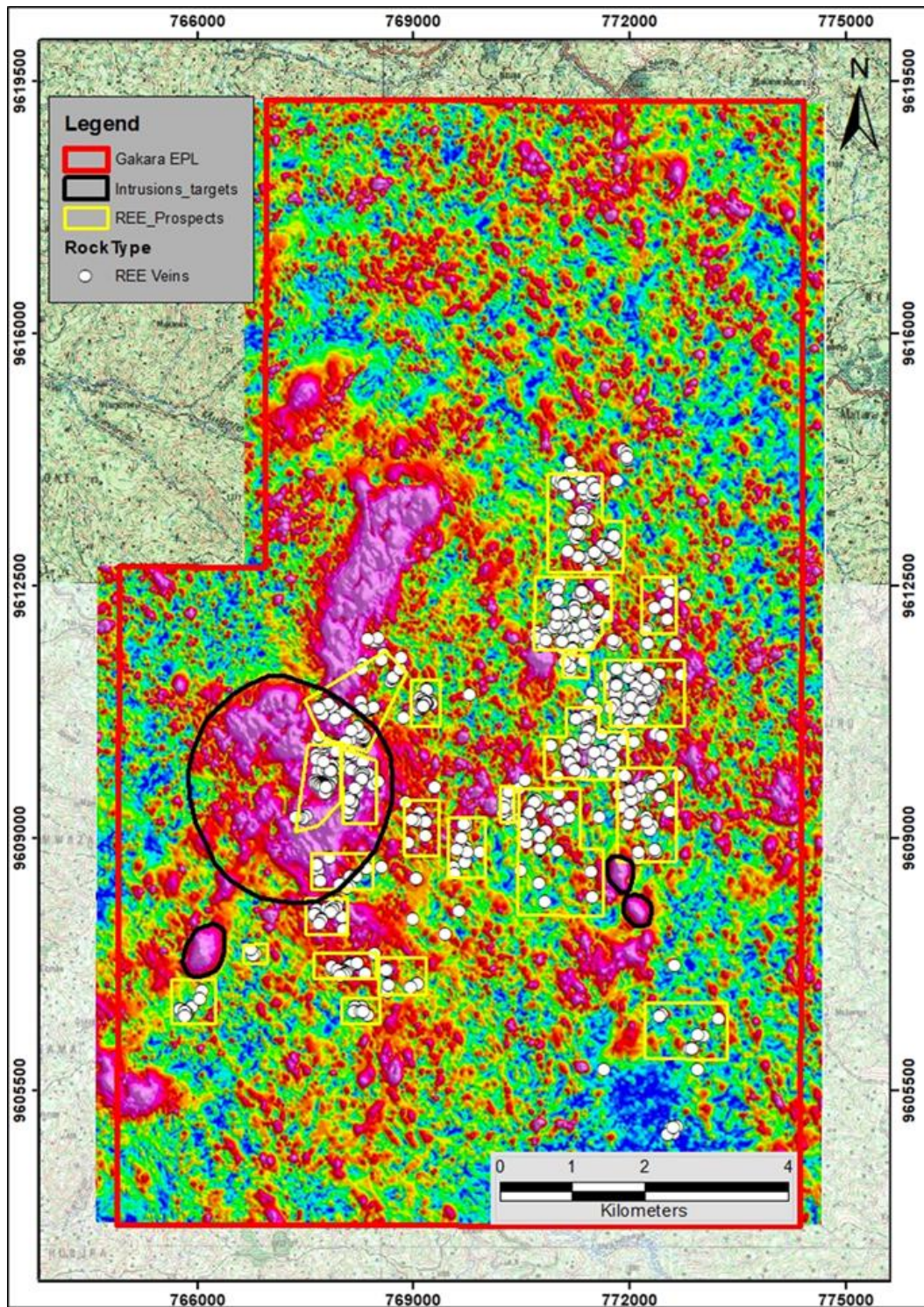
The Gakara deposit is made of a system of high grade veins, described as "stockworks", with the veins typically varying in thickness from a few centimetres to up to 50 centimetres. Field observations have also shown that these veins pinch and swell, laterally and vertically, and that they can be continuous over tens of metres.

Most scientific studies postulate that the Gakara rare earth mineralisation is associated with late-stage hydrothermal fluid phases expelled from carbonatite magmas into the earth's crust and therefore, the genetic parent rock of the veins could be a large carbonatite intrusion in the form of pipe or several pipes, similar to kimberlite pipes that typically host diamonds.

Rainbow commissioned a helicopter-borne magnetic and radiometric survey, which was flown by New Resolution Airborne Geophysics (Pty) Ltd in the first half of October 2017 over the entire Gakara exploration licence, which covers approximately 135km<sup>2</sup>. The flight lines were East–West oriented with 50m spacing between the lines and covered a total of 2,969 line-km. A survey altitude of 20-30m above topography was employed.

From the initial interpretation of the magnetic data, four conspicuous magnetic anomalies have been selected to date, although this figure may increase as the data is analysed further. These targets, which are indicative of large intrusions at depth, appear to be structurally controlled and vary in size from 300m to 2,700m in diameter (See Table below). The depth estimates to the top of the bodies vary from 20m to 67m.

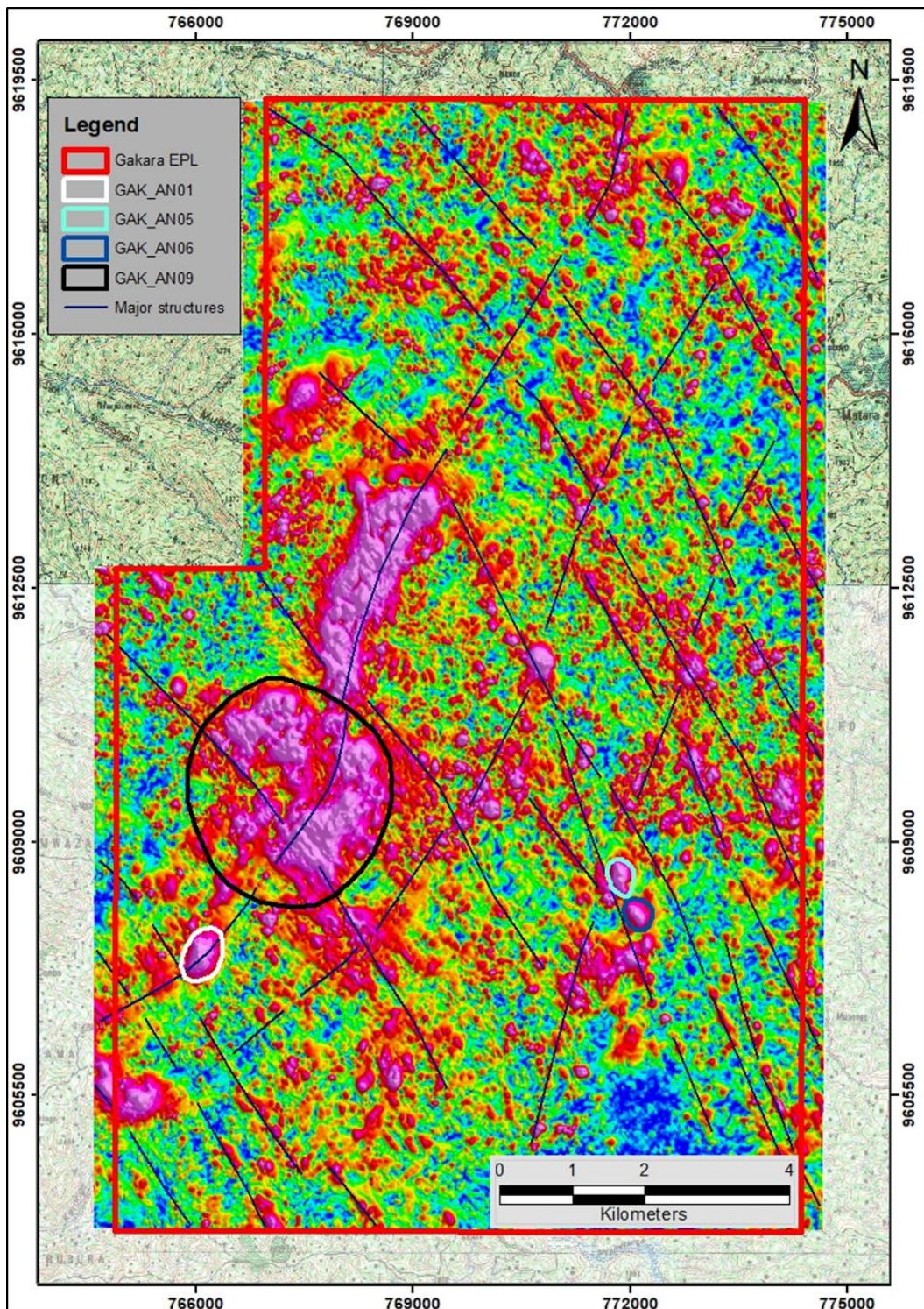
<b>Target name</b>	<b>Shape</b>	<b>Modelled Depth</b>	<b>Size</b>	<b>Surface geology</b>
GAK_AN01	Ellipsoid	67m	500x800m	Gneiss
GAK_AN05	Ellipsoid	20m	300x500m	Gneiss, mafics, pegmatites
GAK_AN06	Ellipsoid	20m	350x450m	Gneiss, mafics, pegmatites
GAK_AN09	Circular	65m	2,700-3,000m	Gneiss dominates in the eastern half, mafics intruding gneiss in the western half and micaschist in a north-south band in the centre



**Figure 1:** Analytical Signal map showing four selected targets in relation to the REE occurrences and the Gakara prospects

Each of the anomalies is close to major geological structures (see Figure 2 below) and is also either proximate to, or encompasses some of Rainbow’s existing rare earth prospects where high grade veins have been discovered.





**Figure 2:** Analytical Signal map showing 4 selected anomalies and mapped major geological structures

These targets further complement a ground based gravity survey at the Company's Kiyenzi prospect completed earlier this year. Kiyenzi was selected for investigation due to the presence of large boulders at surface containing very high grade rare earth material. Results

of this gravity survey suggest the presence of a further anomaly, which has been modelled as a sill-like oval structure potentially 22m thick and 80mx100m in size.

Rainbow's exploration strategy has focused to date on extending the Company's understanding of the deposit, both in advancing near term new mining areas to augment initial operations at Gasagwe and to seek the possible carbonatite source or sources for Gakara's extensive vein stockworks. The results from the recent airborne survey and the Kiyenzi gravity survey supply Rainbow with ready made, large and highly prospective targets warranting further investigation through a drilling campaign when cashflows from operations allow.

In addition, the airborne survey has provided Rainbow with a detailed geological and structural map of the entire exploration licence, showing previously unmapped lithological domains and better delineating reported geological formations; and also comprehensive data to assist decision making around the scheduled expiration of the Company's Exploration Licence area in 2018.

### **Operations Update**

Since its IPO in January 2017 Rainbow has targeted first production and sales of its mineral concentrate before the end of the calendar year. The Company has made excellent progress towards final completion and commissioning of its processing plant at Kabezi and the target of first shipment this quarter remains on track. The Company has been working closely with various agencies of the Government of Burundi to ensure that the exportation process for Rainbow mineral concentrate takes place efficiently.

**\*\*ENDS\*\***

For further information, please contact:

Rainbow Rare Earths Ltd	Martin Eales	Tel: +44 (0) 20 3910 4550
St Brides Partners Ltd	Lottie Wadham Susie Geliher	Tel: +44 (0) 20 7236 1177
Arden Partners plc	William Vandyk Benjamin Cryer	Tel: +44 (0) 20 7614 5900
Hannam & Partners (Advisory) LLP	Neil Passmore Ben Newman-Sanders	Tel: +44 (0) 20 7907 8500

**Notes to Editors:**

Rainbow's focus is the Gakara Project in Burundi, one of the highest-grade (47%-67% Total Rare Earth Oxide) rare earths projects globally. The Company has raised US\$8 million to fast-track the fully permitted Gakara Project to production ahead of targeted first sales of concentrate by the end of 2017. Rainbow has a ten-year distribution and offtake agreement with multinational thyssenkrupp Raw Materials secured for the sale of at least 5,000 tpa of concentrate produced. The Gakara basket is weighted heavily towards the magnet rare earths, including neodymium and praseodymium, which are driving demand and account for 70% of annual global REE sales due to their use in vital components in motors, generators, wind turbines, and electric vehicles.