

SARAYA URANIUM MINERAL RESOURCE UPGRADE

Highlights

- Saraya Upgraded Classified Mineral Resource Estimate (MRE) reports <u>an Indicated Mineral</u> <u>Resource of 6.04 Mlbs eU₃O₈ at a grade of 752ppm eU₃O₈</u> and an Inferred Mineral Resource of 10.1Mlbs of eU₃O₈ at a grade of 484ppm eU₃O₈ [Total Indicated and Inferred Resource of 16.11Mlbs of eU₃O₈ at a grade of 558ppm eU₃O₈] (250ppm cut-off)
- Majority of MRE (~80%) is located within 140m from surface amenable to open pit operations, with mineralisation open along strike, down-dip and down-plunge
- Upgraded MRE based on a database containing data from 519 historical drillholes, together with data from Haranga's recent drill programs including: 22 diamond holes, positive Metallurgical testwork and geological confirmation from 29 RC holes drilled
- <u>Further MRE update to follow the receipt of laboratory assay results</u> from 29 RC holes completed at Saraya in Q1
- Potential for significant exploration upside, with several of the regional anomalies defined to date displaying a significantly larger footprint than the Saraya resource mineralisation⁵
- Saraya uranium project is located in Senegal, West Africa and covers a total area of 1,650km²

Classification	Tonnage	Grade	Contai	ned eU ₃ O ₈
Classification	Mt	eU₃O ₈ ppm	Mlbs	Tonnes
Indicated	3.65	752	6.04	2,742
Inferred	9.45	484	10.07	4,570
Total	13.10	558	16.11	7,312

Table 1: Saraya Classified Mineral Resource Estimate – 250ppm cutoff

Haranga Resources Ltd (ASX:HAR; FRA:65E0; "Haranga" or "the Company") is pleased to announce an upgraded mineral resource estimate for the Saraya Uranium Deposit located in Eastern Senegal, West Africa.

Managing Director of Haranga, Mr Peter Batten stated, "Haranga is very pleased to announce an upgraded Mineral Resource Estimate. The reclassification of a significant proportion (37%) of the resource to Indicated, most of which is located within 140m of the surface, enables the commencement of more advanced project development studies together with the planning for a resource expansion drill out program.

The Saraya permit has a real prospect of significant growth through the Saraya deposit extensions, the six surrounding geochemical and radiometric coincident anomalies^{5,6} already identified and the radiometric anomalism sitting in the southeast of the permit."



The Classified JORC 2012 Resource comprised **an estimated 16.1 Mlbs (7,300t) of eU₃O₈ at an average grade of 558ppm eU₃O₈ using a 250ppm eU₃O₈ cut-off.** The reported Mineral Resource Estimate was prepared by A. Gillman of Odessa Resources Pty Ltd in accordance with the 2012 JORC Code and was based primarily on historical diamond and RC drilling, together with recent validation drilling and metallurgical testwork by Haranga.

In 2022, Haranga announced an Exploration Target of between 4 and 35 Mlb of eU₃O₈ at an estimated grade of 350 to 750ppm¹. The tonnage and contained eU₃O₈ estimated in the MRE fell at the midway point of the ranges reported in the Exploration Target, whilst the estimated grade falls towards the upper end of the Exploration Target grade range.

The uranium mineralisation at Saraya is shear hosted in a NNE structural corridor affected by sodic metasomatism and episyenitisation within the felsic granitic batholith of Saraya. Mineralisation is almost exclusively constrained in the episyenites. Haranga is targeting several NNE extensions with subsequent termite mound sampling (TMS) and auger/aircore drilling to define new RC/diamond core drilling targets and possible resource extensions.

The introduction of the Indicated classification constraint over the central, well-drilled, part of the deposit has reduced the influence of the higher grades on the overall resource, i.e. in the initial fully Inferred Mineral Resource there was a slightly larger spread of the higher grades that produced a global resource grade of 587ppm. In addition, the resource constraints were updated to conform to the recent drilling data and in doing so captured a small percentage of dilution. The upgraded global resource grade of 558ppm eU₃O₈ represents a change of less than 5% and is not considered to be material.

It should be noted that the higher confidence Indicated portion of the resource reports a grade of **752 ppm eU₃O₈**.

Ore characterisation testwork was recently completed (and previously released³) on a representative bulk sample taken from the Haranga diamond core. The testwork included acid and alkali leach tests and the positive results contributed to the improved confidence in the Saraya resource.

Project Overview and History

The Saraya Uranium Deposit is located in Eastern Senegal, West Africa (Figure 1). Haranga Resources Ltd entered a joint venture with Mandinga Resources SARL (Mandinga), 100% holders of the Saraya Permit, with the purchase of 70% of Mandinga. The remaining 30% in Mandinga becomes dilutionary following a positive PFS and will convert to a 2% net-smelter royalty if it should dilute below 6%.

The uranium potential of the Saraya prospect was first flagged by the French Atomic Energy Commission (Commissariat à l'Energie Atomique, CEA) in the late 1950s, from large-scale aerial surveys and subsequent ground radiometric mapping and trenching.





Figure 1: Saraya Permit Location

By the mid-1970s, COGEMA (previously Compagnie Générale des Mines) extended reconnaissance-level field radiometric mapping followed by 452 drillholes at the Saraya main prospect. Gamma probes were used to determine eU grades. COGEMA established that uranium mineralisation at Saraya was an episyenite-affiliated target structurally controlled by fault intersections. By the mid-1980s, COGEMA's interest shifted to their new Niger discoveries and Saraya was mothballed.

Areva (now Orano), previously known as COGEMA, re-engaged with the Saraya Project in 2008, fueled by global uranium prices. Their comprehensive review of the geophysical data highlighted a boundary of the deuteric alteration within the granites associated with Saraya. Subsequent drilling of 141 holes across various prospects included 72 holes in the Saraya Prospect area. Areva linked the significant uranium mineralisation with brecciated corridors within Episyenite in a sodic metasomatism context. Areva proposed a comprehensive exploration program at Saraya but withdrew from Senegal following the Fukushima incident.

Haranga, through Mandinga Resources, took over exploration activities at the Saraya prospect in 2022. Haranga's initial diamond drill program included 22 diamond drill holes for 3,017 metres aimed at validating the geological model, corroborating historical drill data and seeking extensions to the known uranium mineralisation. Drilling was executed by IDC (International Drilling Company-West Africa) and downhole radiometric logging was handled by Terratec Geophysical Services (Germany). Commencing in late 2023 and continuing through to March 2024 Haranga carried out a further 29-hole RC drilling program of 3,721 metres to both further enhance the



robustness of the resource and to test a number of outlying prospects (Diobi, Mandankoly and Sanela).

Company	Exploration period	Hole Type	No. Holes	Metres	Average Length (m)	Deepest Hole (m)
Cogema Exploration	1970-1980's	percussion	442	49,122	111	535
Areva	2009-2011	percussion	77	13,153	171	390
Haranga	2022-2023	diamond	22	3,018	137	220
Haranga*	2023-2024	RC	29	3,721	126	270
Total			570	69,014		

Table 2: Drillholes used for the MRE Upgrade (*The RC holes were used only to confirm historic intercepts, assays are pending)

The Saraya permit covers a portion of the Paleoproterozoic Kedougou-Kenieba Inlier in the West African Craton (Figure 2). The Saraya uranium deposit is hosted by the late Eburnean composite batholite of Saraya, which intruded Birimian greenstone formations. The structural disposition of the batholith suggests a diapiric ascent with remnants of Birimian greenstones appearing in between these rising magmatic bodies. The northern-most pluton of the Saraya batholite, host to the known uranium mineralisation, is marked by a medium to coarse-grained leucocratic granite composition, whereas the southern plutons reveal a finer biotite granite composition.

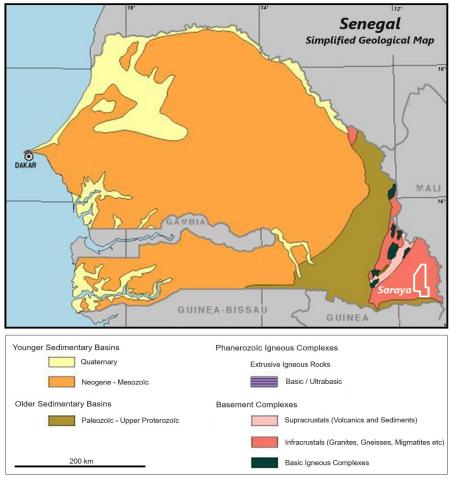


Figure 2: Senegal Geology



The eastern edge of Saraya Granite is characterised by a NNE trending subvertical shear zone at the interface with the Dalema Basin sediments. Parallel shear systems are developed within the granite, possibly directing the Na-metasomatism and consequent episyenites. Possible extensions of these NNE shears may be developed in the southern Saraya plutons, masked by thicker laterite to the south.

Summary of the Mineral Resource Estimation

A geological model of the deposit, probably the first established in the project area, was developed by Odessa Resources Pty Ltd by numerically interpolating the logging codes of both historical and recent drilling.

The Saraya Uranium Deposit predominantly comprises two primary lithologies: Syenite and Granite. The mineralisation is almost exclusively hosted within the syenite formation. A weathering model was also constructed showing a relatively shallow (6-15m) top of the fresh rock.

Mineralised domains were delineated using an indicator radial bias function (RBF) model based on composited eU₃O₈ interval data. This model identifies volumes likely to exceed a 200ppm eU₃O₈ cutoff. The model's boundaries have then been visually validated against the 200ppm/250ppm eU₃O₈ grade intervals on drillhole traces.

A total of 757 bulk density measurements were taken by Haranga on recently drilled and mineralised core at 0.5m intervals: the bulk density measurements remain consistent with depth. An overall bulk density of 2.62t/m³ was used for tonnage computation.

The eU₃O₈ grade intervals were composited to 0.25m lengths inside the RBF hard boundary, from which the grade distribution histogram and log probability of the composited eU₃O₈ were extracted. Ordinary Kriging (OK) was utilised for grade estimation - a method that employs covariances and a Gaussian process for interpolation between measured data points, rather than relying on inverse distance or nearest neighbor estimates. A two-stage estimation strategy was used. Due to the dataset's skewed nature, a log-normal transformation was used to refine the variogram, and then back-transformed for accurate resource estimates.

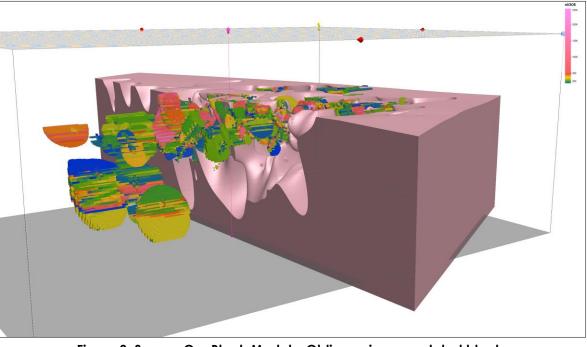


Figure 3: Saraya Ore Block Model – Oblique view populated blocks



Based on the geology and variography, a rotated block model was set up (Figure 3). Estimated grades were validated using visual block grade comparisons to downhole data and swath plots comparing kriged grades to inverse distance squared grades and composite grades. Validations across different axes revealed consistent correlation between the two estimation methods. Both showed no systematic grade over-estimation, indicating a reliable estimation process.

Classification Strategy

The upgraded Saraya mineral resource estimate (MRE) is classified as either Indicated or Inferred. The Indicated classification is supported by the additional drilling carried out by Haranga since November 2023 that was designed to both expand the resource and to provide QA/QC data. These recent RC holes are awaiting laboratory assay results and only the anomalous downhole intercepts were used to confirm the historic intercepts in the maiden MRE.

The main aspects that collectively contribute to the resource upgrade are:

- Hole Spacing and Sampling Density
- Geological Continuity
- Confirmatory Drilling
- Modifying Factors

Hole Spacing and Sampling Density

The resource is drilled on, either, a roughly 50m x 50m pattern or, over the central part of the resource, or a roughly 25m x 25m pattern. In numerous areas within the central zone drill-spacing reduces to several metres. Buffers around each drillhole trace were created using a radius of 12.5m which is the half-distance between drillholes that are located in the central, most densely drilled area of the resource (Figure 4). The area in which many of the buffers merged or near merged formed a block that supports an Indicated Resource classification. The "Indicated block" extends to a depth of approximately 140m (+30RL) and encompasses 214 drillholes that intersect an Indicated Resource tonnes per hole. The areas outside and below the Indicated block is classified as Inferred.



Figure 4: Plan View of the Saraya Resource Area Showing Classification Domains



Geological Continuity

The resource interpretation (constraint) shows good geological continuity between sections that are oriented normal to the regional geological trend of 300°. This interpretation is consistent with the geometry of the host meta-syenite body.

Confirmatory Drilling

A total of 15 diamond holes and 14 RC holes were completed within the Indicated block by Haranga between September 2022 and February 2024.

The recent intersections based on pXRF analyses correspond well with the interpretations based solely on historic gamma data (Figure 5). This close spatial correlation enhances the confidence level of the historic data and hence supports an upgrading of a proportion of the resource.

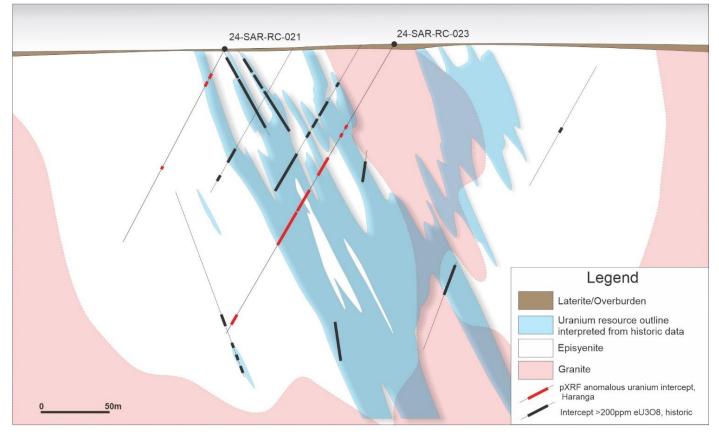


Figure 5: Cross Section Showing Good Correlation Between Haranga Drilling Results and Historic Drilling Results

Portable XRF Instrument – Cautionary Statement

The uranium survey results and the anomalous RC drill intersections (Figure 5) quoted in this announcement are acquired using our in-house, pXRF device. The device is an Olympus Vanta M Series XRF analyzer and is measuring the U content. This is a semi-quantitative process and does not equate to a laboratory assay, despite the accuracy of the latest technological advances. These results will not be relied on in any resource estimation undertaken at our Senegalese projects.

The XRF uses a graphene detector operating at -30°C with a silicon drift detector (SDD) for rapid and accurate elemental identification.



For the Termite Mounds samples and RC samples, Haranga use the machine's Geochem3 counting mode specific to Olympus that optimizes the detection for the 40 elements selected, enhancing the detection and counting of the particular elements that are of primary interest in geochemical studies, from low grade elements to ore grade elements.

The Geochem 3 method, using Fundamental Parameters, uses the adjusted rates, the tube spectrum, and the x-ray properties of the elements to calculate the sample chemistry. Fundamental Parameters considers the effect of each element on every other element. This requires very intensive calculations.

The device has been programmed for a 3 X-ray energy beam analyses with emphasis on the high energy Beam1: analyses time is programmed for 90 seconds on Beam 1, 30 seconds on Beam 2 and 30 seconds on Beam 3.

Emphasis on Beam1 allows for 2-3 ppm limit of detection for Uranium.

Modifying Factors

Subject to the application of "modifying factors" the Indicated component of the resource may allow for a formal evaluation of its economics with the potential to be converted to a Probable Ore Reserve. Two key factors have been assessed: Mining Method and Metallurgical Recovery

1- Mining Method

The resource extends from near-surface to a depth of 360m over a plan-view area of 1,200m along strike and 700m across-strike. This geometry is ideal for conventional open pit mining methods and, subject to geotechnical conditions, a reasonable "ore to waste" strip ratio may be achieved. No pit optimisation studies have been carried out. The resource is reported on a global basis.

This resource is split into two confidence levels:

- +30RL: representing the zone from surface to a vertical depth of 140m, which is considered easily accessible to open pit mining methods
- -30RL: representing the zone below 140m vertical depth to a depth of 300m

Most of the resource, including all the indicated classification, representing about 80% of contained eU_3O_8 , spans from the surface to 140m deep, suitable for shallow open pit mining (Table 3).

Zone	Classification	Tonnage	Grade	Conto	ined eU3O8
Zone		Mt	eU ₃ O ₈ ppm	Mlbs	Tonnes
+30RL	Indicated	3.6	752	6.0	2,742
+30RL	Inferred	5.6	541	6.6	3,009
-30RL	Inferred	3.9	402	3.4	1,561
	Total	13.1	558	16.1	7,311

Table 3: Saraya Mineral Resource Estimate Reported by RL Zone (250ppm eU₃O₈ cutoff)



2- Metallurgical Recovery

In April 2024 Haranga released the results of initial leach testing on Saraya material which, in summary, highlight the following:

- High >96% uranium extraction achieved under atmospheric leach conditions using sulphuric acid.
- 84% uranium extracted using an alkaline atmospheric leach.

The implications of this positive testwork results include a significant de-risking of the project together with further confidence in the Indicated classification.

Exploration Potential

The Saraya permit, spanning 1,650 km², is entirely located on the Saraya Granite, the source of uranium mineralisation (Figure 6). Approximately 85% of the permit area is obscured by regolith, including laterite and colluvial deposits, concealing the granite and any potential mineralization. Cogema and Areva successfully identified surface mineralisation in the exposed 15% of the area, they acknowledged the challenges of exploring the covered portions.

Haranga has undertaken a comprehensive termite mound sampling strategy across the entire permit at intervals of 1,000m x 100m, narrowing to 200m x 50m for infill areas⁵. This technique leverages the termite's natural tendency to burrow deep, bringing elements from the concealed granites to the surface, cutting through the colluvial and lateritic cover. The samples obtained from this cost-effective and rapid method are analyzed with a handheld XRF device, modified for enhanced uranium detection and calibrated for the site and the sample type.

The regional (1,000m x 100m) TMS survey has been completed (100%) with 15,845 termite mound samples collected, slightly less than the planned 16,344 samples. Results for the last 2 blocks are still pending. Additionally, eight anomalies have been further investigated out of nine delineated by the permit survey, with 18,727 infill samples collected out of a planned 21,342. Assays for 4,065 samples are pending. Early results, particularly from the Sanela prospect⁶, have revealed strong uranium anomalism and new extensions to the known Saraya deposit mineralisation (Figure 6).

Given these promising preliminary findings, ongoing sampling and analysis are expected to hasten drill targeting.



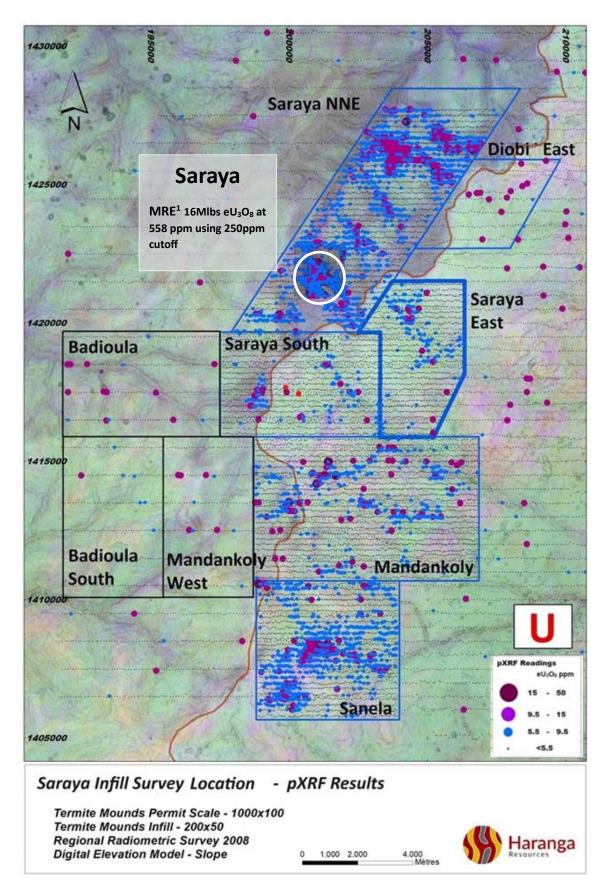


Figure6: Location of the outlying prospects identified as anomalous, using in-house pXRF readings for eU₃O₈ distribution in termite mounds (ppm)^{1,5}



ASX Listing Rule 5.8.1 Summary

The following summary presents a fair and balanced representation of the information contained within the Mineral Resource Estimation Technical Report for the Saraya Uranium Project:

- Uranium mineralisation at Saraya occurs within the Episyenites of the Saraya Batholith in brecciated corridors within Episyenite in a sodic metasomatism context.
- Sampling varied for drilling types and analyses methods. These methods are described in the JORC Tables.
- A number of drilling methods have been used at the Saraya uranium deposit, including RAB (only where downhole scintillometer was used), RC (laboratory assay) and diamond core (scintillometer and laboratory assay).
- Equivalent uranium grades (eU₃O₈) were recorded using a downhole scintillometer and calculating the grade based on the response. The quality of the drilling, sampling methodology and analysis for this method was assessed by the Competent Person and is of an acceptable standard for the use in a Mineral Resource Estimation publicly reported in accordance with the JORC 2012 Edition Guidelines. (ASX LR 5.8.1 Sampling & Drilling).
- Major and trace elements have been analyzed using a four-acid digestion method followed by combined Inductively Coupled Plasma Mass Spectrometry and Atomic Emission Spectrometry (ICP-MS and AES) analysis by ALS Vancouver laboratory. An extra 5% of samples have been assayed by complete fusion followed by X-Ray Fluorescence (XRF) analysis, to assess for resistive minerals holding Uranium.
- Mineral Resources were estimated by the use of a 3D constraints of the geology based on drillhole logging and constrained by a DTM surface. Saprolite and laterite hardcap was excluded from the resource on the basis of it being unmineralised, very thin and stripped prior to mining. (ASX LR 5.8.1 Estimation Methodology).
- Grade estimation was completed using ordinary kriging with hard boundaries applied between identified layers. The estimate was undertaken using two bottom grade cuts of 200ppm and 250ppm respectively and a top cut of 10,000ppm. (ASX LR 5.8.1 Estimation Methodology).
- For reporting purposes, a U₃O₈ cutoff grade of 250ppm was selected. There is, within the data, a natural cutoff at between 200ppm and 250ppm and this reflects the homogeneous nature of the Saraya episyenites. The use of a natural cutoff ensures all portions of the deposit are represented in the resource.
- The Mineral Resource is categorised as either Indicated or Inferred. All material below 30RL is classified as inferred. This is a reflection of the lack of drillholes below 30RL and the absence of extractive metallurgical testwork. (ASX LR 5.8.1 Classification).
- The Mineral Resource Estimation is classified as either Indicated or Inferred on the basis of the drill hole logging, drill hole sampling analytical results, drill spacing, statistical analysis and the confidence in geological continuity. (ASX LR 5.8.1 Classification).
- Ore characterization testwork was undertaken to demonstrate that the uranium was extractable from the ore. Positive results were achieved from acid and alkali leach tests and were considered to be of an industry standard.



• No mining studies or economic parameters have been undertaken or applied to the MRE.

This announcement is approved for release by the Board of the Company.

Investor inquiries

Haranga Resources

Peter Batten, Managing Director P: +61 1300 141 491

E: info@haranga.com

COMPETENT PERSON'S STATEMENT

The information in this report that relates to technical assessment of the Mineral Resource Estimate and Exploration Target for the Saraya Uranium Project is based on, and fairly represents, information and supporting documentation prepared by Mr Alf Gillman BSc(Hons), a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Gillman is an employee of Odessa Resources Pty Ltd. Mr Gillman has sufficient experience that is relevant to the technical assessment of the mineral assets under consideration, the style of mineralization 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 Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

Mr Gillman consents to the inclusion of the matters based on his information in the form and context in which it appears in this Presentation and has not withdrawn his consent before lodgment of this report.

About Haranga

Haranga Resources is an African focused multi-commodity company. The Company's most advanced project is the Saraya uranium project in Senegal, previously owned by Uranium giant Orano (previously Areva) and which has in excess of 65,000 m of historical drilling. In addition, Haranga owns the gold-prospective Ibel-South permit in Senegal within the prolific Kenieba Inlier of the Birimian Formation, where more than 40 Moz of gold has been discovered. Both projects are serviced from its well-established 40-man exploration camp.

The Company's immediate focus is the Saraya uranium project, where a 16.1Mlbs U₃O₈ indicated & inferred mineral resource @ 558ppm has been defined and where further uranium anomalies are continuing to be realised across this 1,650km² permit. In conjunction, Haranga is exploring it's Ibel-South gold project, where the Company continues to define drill targets and execute a maiden drill program across this permit during 2024.

Corporately, the Company is continuing to identify and assess additional acquisition targets across the African region, primarily focused on expanding its portfolio across the clean energy and gold sectors. Haranga's collective expertise includes considerable experience running ASX-listed companies and financing and developing mining and exploration projects in Africa, Australia, and other parts of the world.

Haranga Resources Limited	Directors	Trading Sy	mbols
ABN 83 141 128 841	Michael Davy (Chairman)	Australia:	ASX:HAR
Suite 7/ 63 Shepperton Road Victoria Park, 6100	Peter Batten (Managing Director)	Frankfurt:	FSE:65E0
	John Davis (Non-executive Director)		
T: +61 6158 9990	Hendrik Schloemann (Non-executive	5	
E: info@haranga.com.au	Director)	-	
W: haranga.com			



Previously Reported information

Mr Peter Batten is a Competent Person, who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Batten has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Batten is the Managing Director of Haranga Resources Limited and consents to the inclusion in this announcement of the Exploration Results in the form and context in which they appear. 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 referenced in this market announcement (Footnotes 1 - 7). The Company confirms that the form and context in which the Person's findings are presented have not been materially modified from the original market announcements.

ASX Announcements referenced in this release

- 1. Mineral Resource Estimate results taken from the report titled "Maiden Mineral Resource Estimate Saraya Uranium" released on the ASX on 25th of September 2023 and available to view on https://haranga.com/investors/asx-announcements/
- 2. Drill samples and drilling referred to as the source of the Metallurgical composited sample were previously reported in a release titled "Drilling Results Confirm Wide Shallow High Grade Uranium" released on the ASX on 28th of February 2023 and available to view on <u>https://haranga.com/investors/asx-announcements/</u>
- 3. The composite metallurgical sample and previous leach work referred to were previously reported in a release titled "Initial Leach Results Confirm >96% Uranium Extraction" released on the ASX on 15th of April 2024 and available to view on https://haranga.com/investors/asx-announcements/
- 4. Previous RC drilling references taken from the report titled "Initial RC Drill Results from Saraya Extensional Drilling Confirm Uranium Mineralisation" released on the ASX on 13th of March 2024 and available to view on <a href="https://https/h
- 5. Previous RC drilling references taken from the report titled "RC Drill Results from Saraya Confirms Further Uranium Mineralisation Sanela Drilling Intersects Mineralisation" released on the ASX on 11th of April 2024 and available to view on <u>https://haranga.com/investors/asx-announcements/</u>
- 6. Anomalous prospects references taken from the report titled "8th Regional Uranium Anomaly Confirmed at Saraya Project" released on the ASX on 3rd of May 2024 and available to view on <u>https://haranga.com/investors/asx-announcements/</u>
- 7. Anomalous prospects references taken from the report titled "Sanela's Discovery Potential Firms Up as Auger Drilling Confirms Anomalies" released on the ASX on 21st of May 2024 and available to view on <u>https://haranga.com/investors/asx-announcements/</u>



ANNEX 1 – RC Drilling Data

Hole-ID	UTM East	Utm North	Azimuth	Dip	End of Hole	Area
23-SAR-RC-001	200911	1422081	40	-60	72	Saraya Project
24-SAR-RC-001	200818	1421700	300	-60	54	Saraya Project
24-SAR-RC-002	201329	1421490	300	-60	270	Saraya Project
24-SAR-RC-003	203782	1425884	270	-60	99	Saraya Project
24-SAR-RC-004	200879	1422046	130	-60	66	Saraya Project
24-SAR-RC-005	201121	1421625	300	-60	130	Saraya Project
24-SAR-RC-006	201148	1421565	300	-60	180	Saraya Project
24-SAR-RC-007	201225	1421568	300	-60	160	Saraya Project
24-SAR-RC-008	200809	1421666	300	-60	120	Saraya Project
24-SAR-RC-009	201340	1421432	300	-60	120	Saraya Project
24-SAR-RC-010	200807	1421620	300	-60	100	Saraya Project
24-SAR-RC-011	200801	1421640	300	-50	105	Saraya Project
24-SAR-RC-012	201331	1421450	300	-60	59	Saraya Project
24-SAR-RC-013	201330	1421445	300	-60	80	Saraya Project
24-SAR-RC-014	201073	1414221	270	-60	80	Mandankoly
24-SAR-RC-015	201129	1414221	270	-60	114	Mandankoly
24-SAR-RC-016	200976	1414220	90	-60	120	Mandankoly
24-SAR-RC-017	201073	1414154	270	-60	150	Mandankoly
24-SAR-RC-018	200645	1407970	300	-60	80	Sanela
24-SAR-RC-019	200689	1407947	120	-60	173	Sanela
24-SAR-RC-020	200852	1421648	310	-60	150	Saraya Project
24-SAR-RC-021	201157	1421689	310	-60	160	Saraya Project
24-SAR-RC-022	201118	1421670	310	-60	144	Saraya Project
24-SAR-RC-023	201251	1421607	310	-60	246	Saraya Project
24-SAR-RC-024	201014	1421414	320	-60	100	Saraya Project
24-SAR-RC-025	200693	1407949	300	-60	130	Sanela
24-SAR-RC-026	200752	1407914	300	-60	120	Sanela
24-SAR-RC-027	200718	1407875	300	-60	171	Sanela
24-SAR-RC-028	200761	1407962	300	-60	168	Sanela



JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg 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 (eg '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 (eg submarine nodules) may warrant disclosure of detailed information. 	 Drilling Results used as the basis for the Mineral Resources Estimation are extracted from the report entitled "Significant Historical Drilling Results at Saraya" created on 8th August 2022 and available to view on https://haranga.com/investors/asx-announcements/. <i>Historical Sampling</i> Uranium grades were estimated using downhole gamma probes operated by COGEMA (pre-1985), Areva (2009), with the following probes: ST31 and ST22-2t probes pre-1985, DHT27 in 2009. Gamma data (as counts per second) from calibrated probes were converted into equivalent uranium oxide values (eU308) using appropriate calibration factors (K factor) and all other applicable correction factors. No samples from the COGEMA drilling are known to have been collected for laboratory analysis. Core/chips from the Areva drilling (seven holes with diamond tails) were reportedly sampled and assayed; however, no assay results have been found in the records obtained by Haranga. <i>Haranga Sampling</i> <i>DD Drilling (2022)</i> Uranium grades were estimated using downhole gamma probes operated by Terratec Geophysics Gmbh with the following probe: UEP42 from Electromind Gamma data (as counts per second) from calibrated probes were converted into equivalent uranium oxide values (eU308) using appropriate calibration factors (K factor) and all other applicable correction factors, by Terratec Geoservices and reviewed by Haranga geologists and RSC consultant. Geochemical analyses have been performed on Haranga DD core to verify gamma ray downhole probe calculated grades. A total of 758 samples have been selected on significant intervals. Each sample consist of 50cm half core.



Criteria	JORC Code explanation	Commentary
		 Hand spectrometer measurements have been taken on the core (10cm spacing) to ensure proper match with downhole probe measurements. Samples have been prepared (see below), 108 QAQC samples have been added (blanks, duplicates, CRMs), samples have been properly packed and sent to ALS Vancouver laboratory for ICP MS and AES multi-element analyses. Some 45 samples (+5 QAQC), taken from the 758 samples have been re-assayed using a Fusion + XRF technique for Quality Control and resistive mineral assessment on two different laboratories (ALS Vancouver, MSALab Vancouver).
		RC Drilling (2023/24)
		Uranium grades are assayed in a certified laboratory (ALS Vancouver):
		 A total of 720 samples have been selected on significant intervals. Each sample consist of metric RC samples. Metric samples are produced at the RC drill rig owned and operated by FTE Drilling. Each metric sample is collected in a 90l plastic bag and transported to the Haranga Workshop. Sample bags are then weigthed, split using a large sample splitter to produce a 2.5 to 3.5kg sample. The 2.5 to 3.5 sample is further split to 100gr sample using a riffle splitter. Uranium value was estimated using portable XRF Olympus Vanta M operated by our technicians on the 100gr. Such pXRF results are used to get a preliminary idea of the Uranium content in the RC samples for interval definition. Intervals including pXRF values higher than 100ppm are collected and sent for geochemical analyses in a certified laboratory (ALS Vancouver) for Fusion+XRF analysis.
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary	Historical Drilling
	air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-	 Drilling comprised rotary, RC and diamond exploratory drilling conducted by COGEMA from 1979–1984 and Areva in 2009, comprising:
	sampling bit or other type, whether core is oriented and if so, by what method, etc).	 3 DD from COGEMA (1979) totaling 411.5 m 26 DD from COGEMA (1981) totaling 2,310.4 m 277 Rotary holes from COGEMA (1982–1983) totaling 29,838.7 m 125 Rotary holes from COGEMA (1984) totaling 14,282.75 m DD from COGEMA (1984) totaling 1994.15 m 76 RC (including 7 holes with diamond tails) from Areva (2009) totalling 5,672.7 m 22 DD from Mandinga/Haranga (2022) The diameter of the holes varies from PQ, HQ, NQ to BQ for diamond drilling and from OD to 64mm for Rotary/RC.



Criteria	JORC Code explanation	Commentary
		Recent drilling – Haranga
		DD Drilling
		Haranga (2022): 22 DD Holes totalling 3021m
		• Drilling at collar is HQ drilling and casing diameter until bedrock (from 6 to 15m) followed by NQ drilling.
		• Average depth of hole is 140m with holes depth from 80 to 220m. Holes are drilled a 60° angle from surface at different azimuth.
		RC Drilling
		• Haranga (2023/24): 34 RC holes for 4,289m
		• Collar casing is 24cm drilling until bedrock (from 12 to 15m) followed by normal RC drilling (4.5" rods).
		• Average depth of hole is 120m with holes depth from 50 to 270m. Holes are drilled a 60° angle from surface.
		Down hole survey (azimuth, dip) using Reflex survey tools
Drill sample •	Method of recording and assessing core and chip sample	Historical Drilling
recovery	recoveries and results assessed.Measures taken to maximise sample recovery and ensure	• There are no records available regarding sample recovery from either COGEMA or Areva. However, recovery is not relevant for equivalent analysis by gamma probe.
	representative nature of the samples.Whether a relationship exists between sample recovery and	Recent drilling – Haranga
	grade and whether sample bias may have occurred due to	DD Drilling
	preferential loss/gain of fine/coarse material.	• Haranga properly recorded DD recovery data from all drillholes. Recoveries are excellent (+99%) due to the hard rock nature of the core. Samples taken from the core are representative of the mineralized sections.
		RC Drilling
		Recovery measured by weighing samples against estimated normal 100% recovery weight.
Logging	• Whether core and chip samples have been geologically and	Historical Drilling
	 Whether core and emp samples have been geologically and geotechnically logged to a level of detail to support appropria Mineral Resource estimation, mining studies and metallurgica studies. Whether logging is qualitative or quantitative in nature. Core costean, channel, etc) photography. 	• All chip and core samples were geologically logged and used to assist in the interpretation of the resistivity and gamma-ray logs from the downhole geophysical probes. The logging is appropriate to support basic geological domaining and to support the present Mineral Resource Estimation and classification.
	 The total length and percentage of the relevant intersections logged. 	• The geological logging completed was both qualitative (rock type, mineralogy, colour, degree of oxidation, etc.) and quantitative (recording of specific depths and various geophysical data)
	1099cu.	• Most historical core (COGEMA and Areva) and chips have been discarded. Some historical core has been obtained; however, storage was inadequate and the source holes and depths are unable to be established. Logging is mainly qualitative. There are no records of sample photographs from the COGEMA



Criteria	JORC Code explanation	Commentary
		 programme. Core from seven of the Areva drillholes was photographed, however, some photographs are out of focus and there are inconsistencies in the labels. There is no evidence that the historical DD core was geotechnically logged. Most of the historical holes were logged with downhole geophysical probes. <i>Recent drilling – Haranga</i> DD Drilling The geological logging on DD was 100% completed was both qualitative (rock type, mineralogy, colour, degree of oxidation, etc.) and quantitative (recording of specific depths and various geophysical data): 100% of the core has been orientated and surveyed (azim, dip) all boxes have been properly photographed and photos are of proper quality. all core samples are stored in Haranga field facilities in Saraya all DD holes from Haranga have been logged with downhole geophysical probes <i>RC Drilling</i> All RC chips from Haranga have been stored in the workshop. Small 100gr bags are stored at ALS Vancouver Lab with a duplicate kept at Saraya workshop. All RC holes have been surveyed using Reflex tools.
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. 	 Historical Drilling No samples from the COGEMA drilling are known to have been collected for laboratory analysis. Core/chips from the Areva drilling were reportedly sampled and assayed; however, no sampling procedures or assay records have been obtained by Haranga. Core and chips have not been suitably preserved from historical programmes by COGEMA or Areva. Rotary drilling does not provide a sufficiently clean sample geochemical assaying (because it involves an open hole with no control on contamination or smearing of the sample between meters) and, as such, no samples were collected from the COGEMA rotary holes for geochemical assay. However, this type of drilling does allow the passage of geophysical probes which can provide an equivalent value for uranium mineralisation. The Competent Person is not aware of the sampling and quality control procedures implemented by COGEMA or Areva. There are no records of any field duplicates or other quality control sub-sampling methods being applied. The relevance of sample size to grain size has not been investigated at this stage and is not relevant to results obtained from downhole probes.



Criteria	JORC Code explanation	Commentary
		Recent drilling – Haranga
		DD Drilling
		A total of 758 samples have been collected by Haranga on mineralized intervals of the DD Drilling:
		 50 cm core have been sampled using core saw, samples cut along the orientation line, same half sampled for all samples. All samples have been weighted in air and water to provide elementary density measurements. Samples have been crushed by jaw crusher at 2mm aperture. Samples have been divided into 250gr sub-samples using riffle splitters; some samples have been duplicated for QAQC purposes and to assess splitting. 250gr samples have been grinded to 75µ pulps in ALS sample prep facilities in Kedougou. Sub sample of 50gr have been split at ALS Kedougou for shipment to ALS Vancouver Analyses (ICP AES and MS, Fusion+XRF) have been executed on 50gr pulp samples by ALS Vancouver and MSA lab
		RC Drilling
		A total of 720 samples have been collected by Haranga on mineralized intervals of the RC drilling:
		 Preliminary intersections of Uranium values are defined using the data from the pXRF: this is a semi quantitative method that needs confirmation from assaying in a certified laboratory. Samples have been divided into 100gr sub-samples using riffle splitters; some samples have been duplicated for QAQC purposes and to assess splitting. Duplicates, blank material and CRM included Analyses (Fusion + XRF) at ALS Vancouver partially completed, some results pending.
		Met Test on DD Core – Haranga
		 A 40kg bulk composite sample was produced by splitting (approximately) 150gms from 243 core sections from the Haranga 2022 diamond core drilling program. The core was selected from numerous sites to represent the drilled deposit. The core sections were selected by laboratory assayed grades to produce a weighted average grade for the bulk sample that matches the Inferred Resource grade and were spatially varied to better represent the lithology of the drilled deposit. Only the core sections of laboratory assayed grades were selected to produce a weighted average grade for the bulk sample that matches the luk sample that closely matches the Inferred Resource grade.
		• The 40kg bulk sample on being received by SGS Lakefield (ON, Canada) was remixed to overcome any settling that occurred during transport and then split the sample into a number of equal portions. This is achieved by splitting, either rotary or riffle, to ensure that each portion is relative to every other portion.



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 Historical Drilling Analytical (Gamma Ray counts per second "ACP") results were obtained from downhole geophysical gamma logging using an ST31 and ST22-2t probes pre-1985 and a DHT27 probe in 2009, each equipped with two counting devices, crystal (scintillometer) and two Geiger-Muller (GM) tubes. Only CPS recorded by the GM tubes were used for grade evaluation, logging upward at speed of 1m/minute. The probe parameters are not specified in the records; however, former COGEMA and Areva staff reported that they used standard procedures and parameters. The standard DHT27 probe parameters are dead time: 45µs (2 tubes Philips Z100), Diameter: 27mm, and Coefficient corrected CPS to eU ppm (cAVP): 24.500. The standard ST22-2t probe parameters are dead time: 40µs (2 tubes Philips Z100), Diameter: 22mm, and Coefficient corrected CPS to eU ppm (cAVP): 26.500. Attenuation using a coefficient of absorption of metal casing (0.0430) and of mud (0.0047). The detail of quality control procedures is not known. Former COGEMA and Areva staff have reported that they defined the K factor in the Bessine dedicated sites using seven drums (stabilized U grades: 0, 500, 1000, 1900, 2900, 4800, 9700 ppm) and that daily control of probe counting occurred at the beginning and end of each shift using cylindrical certified sources (one low, one high). An intra-probe coefficient of calibration was reportedly used by COGEMA to ensure a correct correspondence of the data acquired with each of the probes. Radon control reportedly involved logging immediately after the end of drilling and clear water circulation for 30 minutes. Highly mineralised holes were relogged 3 days later. No radon problems were experienced at the project. No samples from the COGEMA drilling are known to have been collected for laboratory analysis. Core/chips from the Areva drilling (seven holes with diamond tails) were reportedly sampled and assayed, however, no assay procedures or results ha
		Recent drilling – Haranga
		DD Drilling
		• All DD holes from Haranga (2022) have been probed using the services of Terratec Geoservices Gmbh of Germany. Analytical (equivalent uranium oxide eU3O8) results were obtained from downhole geophysical gamma logging using an UEP42 probe from Electromind with two counting devices, crystal (PM scintillometer) and Geiger-Muller (GM) tubes.
		 Gamma probes have been certified by Orano at their Bessines site in France, using Uranium mixed concrete drums of different grades resulting in a Coefficient used to calculate the equivalent U3O8. Calibration certificates have been received.

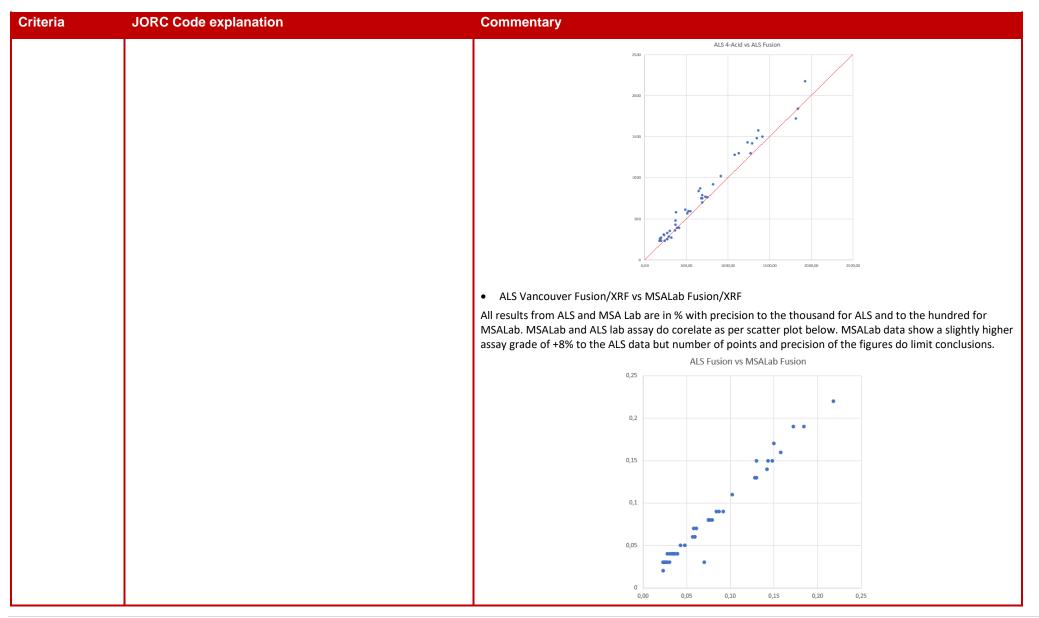


Criteria	JORC Code explanation	Commentary			
		 One hole drilled during the campaign (22-SAR-DD-005) has been used as a control drillhole with 3 quality control downhole survey carried out during the campaign to ensure the status of the probes throughout the campaign. 			
		 The 758 samples sent to ALS Canada have been sent with duplicates, blanks and standards. The QAQC samples is totalling 108 samples. Duplicate data: 			
		A total of 40 pairs of duplicate samples was introduced in the samples. The scatter and QQ plots below show good comparison for duplicate sample pairs but for one sample that most probably resulted in an inversion of sample number. HT precision of the duplicate data set is good with 1.21%.			
		Scatter Plot - First QQ Plot - First			
		how			
		- Blank data:			
		A total of 43 samples uncertified blank material sourced localy was used as blank material. Overall, the U concentration in the blank samples is very low with 2 to 6ppm. Three samples show three peak values of 7, 11 and 14 ppm U, some of which follow higher-grade samples. It is unclear if this is due to contamination due to the very small number of samples affected and, even if it was contamination, the effect of it is so small that it doesn't materially affect the overall results.			
		 CRM data: A total of 25 CRM samples have been introduced in the samples assayed. The CRM samples are Oreas 102a with a reference value of 638ppm U (95% 615-662ppm U) for 4 Acid Digestion methods and 662ppm for 			



Criteria	JORC Code explanation	Commentary
		Fusion methods (95% 638-685ppm U). The CRM data show a step change starting with sample 22-DD-002- 0429C, where the process mean drops from 641 ppm U to 607 ppm U (~5% less). The data set is too small to carry out a statistically significant assessment it is hard to tell if this has something to do with the analytical process or the CRM samples themselves. Irrespective of the cause, this change does not affect the validity of the dataset from ALS.
		750 750 750 750 750 750 750 750
		
		- Blank samples:
		Two blank samples have been re-assayed by Fusion/XRF, both showing -0.01% results.
		- Duplicate samples:
		Three duplicate samples pairs have been assayed by Fusion/XRF showing identical results for two samples (0.03 to 0.03ppm U for both) and one mismatch (0.03 to 0.07ppm U).
		- CRMs:
		Only one CRM sample has been assayed showing 0.06% for 662ppm value.
		ALS 4-Acid vs ALS Fusion
		Corelation between ALS 4-Acid/ICP method and ALS Fusion/XRF finish show good correlation for Uranium assays as per scatter plot below.
		Meanwhile, Fusion method shows a consistent +15% in assaying values, most probably accounting for Uranium in resistive minerals. Note: CRM Oreas CRM datasheet state for a +10% difference between the two methods for Oreas 102a.







Criteria	JORC Code explanation	Commentary
		 <i>RC Drilling</i> The 720 RC samples sent to ALS Canada have been sent with duplicates, blanks and standards. The QAQC samples is totalling 61 samples.
		- Duplicate data:
		A total of 40 pairs of duplicate samples was introduced in the samples. The scatter and QQ plots below for the 19 first pairs show good comparison for duplicate sample pairs.
		Duplicates - Batch 1
		1200
		800
		600
		400
		200
		- Blank data:
		A total of 40 samples uncertified blank material sourced localy was used as blank material. Results are pending. Partial results (batch 1) of 19 samples shows all Blanks below LOD (<80ppm)
		- CRM data:
		A total of 40 CRM samples have been introduced in the samples assayed. The CRM samples are Oreas 101b with a reference value of 396ppm U (95% 378-415ppm U) for Fusion methods. The CRM data for the first 18
		samples shows good correlation with 15 samples within the 5% and 18 sample within the 10% $_{\mbox{CRM}}$ - ALS Lab QAQC
		350
		300
		250



Criteria	JORC Code explanation	Commentary
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. 	 Met Test Assaying – ALS Lakefield (ON, Canada) DD Drilling core The 40kg bulk sample was transported to SGS Lakefield (ON, Canada) for ore characterisation work. A representative head sample was collected for chemical and mineralogical analysis as follow : Particle size distribution (PSD) by screen analysis. Uranium by X-ray fluorescence (XRF). Whole Rock Analysis (WRA) by XRF: SIO2, Al2O3, Na2O, K2O, CaO, MgO, Fe2O3, Cr2O3, MnO, TIO2, P2O5, V2O5 and loss on ignition. Total carbon by LECO and carbonate by coulometry. Semi-Quantitative XRD Analysis – RIR Method Bench Scale Leach Testing have been conducted including leach durations of up to 48 hours with kinetic liquor sampling and kinetic solids full analysis. The scope included four leach tests (acidic and alkaline) where : Temperature, free acid and ORP were monitored during the tests and adjusted as required; Intermediate and final solution assays were conducted using a combination of ICP-OES/MS; Final solids assays were conducted using a combination of ICP-OES/MS; Fiul details on data documentation and entry protocols are not known. However, RSC consulting company has reviewed scanned copies of hand-written paper logs from COGEMA, scanned paper and electronic logs by Areva and a digital database of drillholes from the Saraya Prospect compiled by Areva and observes that: Verification of significant intersections have been executed during the drilling programmes and recorded on paper logs named "Economical logs", consisting of "+300ppm eU" intercepts COGEMA gamma ray and grade probe data were measured for the entire hole length but the database and digital logs collected by Areva only include results from anomalous/mineralised zones recorded as "Economical logs". Cogema data reporting was done daily on paper logs. All radiometric logs were recorded on a Nagra magnetophone. The COGEMA d



Criteria	JORC Code explanation	Commentary
		 The potential issue of disequilibrium is not addressed in the historical reports neither from COGEMA nor Areva. However, former COGEMA and Areva staff have noted that they used standard procedures and parameters, as detailed in the previous sections of this table. When necessary, eU grades were converted to eU₃O₈ for intercept reporting using the standard conversion multiplier of 1.179.
		Recent drilling – Haranga
		DD Drilling
		 Gamma probe data and derived eU3O8 grades have been reviewed by Haranga's consultants for complete check. It is established that:
		 Geochemical analysis by a certified laboratory have been compared with downhole gamma probe data. No twin holes have been drilled by Haranga, on Haranga holes to date. Out of 22 holes, Haranga twinned 9 holes of historical Areva/Cogema for grade comparison. Downhole gamma data are provided as LAS files directly after survey at drill site by Terratec. A copy of the data is sent to the head office of the contractor in Germany for processing and eU308 grade calculation. Data is then recovered by Haranga for storage on Haranga's hard drive and sharing with consulting company for control. No adjustments are made to any assay data.
		RC Drilling
		• Sampling process is verified daily by 3 technicians (1 at the rig, two at the workshop) under supervision of the field geologist and the project site manager. Final laboratory assaying process for geochemical analysis will be certified by ALS laboratory.
		Met Tests – SGS Lakefield (ON, Canada),
		 Met process has been executed at SGS Lakefield (ON, Canada) under supervision of Kevin Bradley, Senior Metallurgist.
		 The Met Process has been designed and followed by Peter Adamini, Lead Metallurgist at Independent Metallurgical Operations Pty Ltd, for Haranga Resources.
Location of data	Accuracy and quality of surveys used to locate drill holes (collar	Historical Drilling
points	 and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. 	 Original paperlogs and digital data shows: COGEMA (pre-1986): all historical collar locations were measured by topographic surveying (fixed grid, baseline). The location accuracy (x,y) is not known but is expected to be ±5–10 m. Downhole survey (deviation) measurements using an Eastman photo compass were recorded in logs and



Criteria	JORC Code explanation	Commentary
	• Quality and adequacy of topographic control.	 summary reports for ~50 of the 450 drillholes. The COGEMA drillholes have incomplete elevation data in the original logs. Areva (2009): Records indicate that collar positions (z,y,z) were measured by GPS, however, it is unclear whether a handheld or differential method was used. Former Areva staff have indicated that dGPS was in use by Areva in 2009, however, the exact method used at Saraya is still to be confirmed. Areva also verified ~50% of the COGEMA drillhole collars at Saraya (using the same GPS). A gyroscopic tool was used to measure downhole surveys in the Areva program (Geovista probe). Holes were drilled vertically or inclined at 60° with four main directions (040; 310, 122 and 220)
		 Elevations in the historical drilling database (compiled by Areva and used by Haranga) were assigned by projection onto the area's Satellite DEM (Shuttle Radar Topographic Mission, SRTM) then verified against DGPS elevation value).
		 The grid system used in this report is Universal Transverse Mercator, zone 29N (WGS 84 datum). Drillhole elevations in the drilling database have been projected onto the Satellite DEM (SRTM), the reference topographic surface for the area, which has a 30 m resolution in z.
		 Haranga Validation of historical data included: Approximately 20% of COGEMA collars have been located in the field and collar surveyed by an independent surveyor using a DGPS, including elevation. Approximately 70% of the Areva holes have been located in the field and collar surveyed by an independent surveyor using a DGPS, including elevation. COGEMA and Areva collar location information have been plotted agains DGPS values and show extremely good correlation.
		Recent drilling – Haranga
		DD Drilling
		• All (100%) of Haranga DD collars have been surveyed in the field by an independent surveyor using a DGPS, including elevation. The grid system is Universal Transverse Mercator, zone 28N (WGS84).
		 A gyroscopic tool was used to measure downhole surveys during the drilling program (Reflex tool) as well as during the downhole probing (included in the UEP42 probe).
		RC Drilling
		• Haranga RC collars have been surveyed in the field by the team using a handheld GPS Garmin Antenna. The grid system is Universal Transverse Mercator, zone 28N (WGS84).
		• A gyroscopic tool was used to measure downhole surveys during the RC drilling program (Reflex tool).
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to 	• Drillholes are irregularly spaced across the Project. Holes are on a relatively close spacing around the main mineralised zones, around 25 m X 25 m in the main mineralisation zones.
	establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve	• The Competent Person considers that following the planned validation drilling and database updates, the data spacing and distribution of the historical drillholes is sufficient to imply continuity as required for



Criteria	JORC Code explanation	Commentary
	estimation procedure(s) and classifications applied.Whether sample compositing has been applied.	 future Mineral Resource Estimation and classification. No sample compositing has been reported to have been applied to historical probe data. No sample compositing has been applied to Haranga probe data nor chemical assay data.
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. 	 Mineralisation is interpreted to be structurally controlled, dominantly striking ~040 and dipping ~80° to 130. A second perpendicular mineralised structure is speculated and may be evidenced by results from several drillholes oriented to intersect this ESE-WNW striking structure. From this interpretation, it is clear that some of the drillholes dip within, or partly within, the mineralisation. This is unavoidable in areas where the two perpendicular orientations are both present. Any possible bias in the probe data from the drilling orientations is unknown at this stage.
Sample security	• The measures taken to ensure sample security.	 Historical Drilling No samples from the COGEMA drilling are known to have been collected. Core/chips from the Areva drilling were reportedly sampled and assayed, however, no records of assay results have been obtained by Haranga. Security and storage of the historical core and chips are largely unknown. While some historical core has been obtained, storage was inadequate and the source drillholes and depths are unable to be established. Haranga sampling has been secured by chain of custody during the different steps of the sample
		preparation and transport operation.
		Recent drilling – Haranga
		DD Drilling
		 Haranga DD core are properly stored in core boxes in the workshop at Saraya camp facility, under responsibility of the camp managers and camps security. Core boxes are store outside to avoid possible Radon concentration in confined spaces.
		• Sample rejects from Jaw Crusher 2mm crushing as well as 200gr pulp rejects have been recovered and are stored for sample security purposes.
		RC Drilling
		• All 2.5/3.5kg RC split samples have been stored in the workshop. Small 100gr bags are stored at ALS Vancouver Lab with a duplicate kept at Saraya workshop.
		• Chip strays are kept with chips from the RC metric samples at the workshop.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• Haranga is not aware of any external audits or reviews of the historical sampling techniques or data other than the high-level review of Haranga auditors:
		 RSC audited the drilling database and deemed it appropriate for exploration targeting. Odessa audited the drilling database and deemed it appropriate for Mineral Resource Estimation after Haranga field validation. Further validation and verification drilling are required to be able to adopt better classification categories (indicated, measured).



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. 	 The Saraya Project is a joint venture between Haranga and Mandinga Resources SARL and relates to a single active licence, PR 02208 which covers 1,650 km² in Senegal. Haranga has earned a 70% interest from Mandinga Resources. Mandinga has a 30% free carry-through to PFS. After PFS, Mandinga will have to contribute to costs or dilute to royalty. The granted licence is in good standing with no known impediments, having been renewed for a second term (further 3 years).
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	 A compilation of historical exploration work has been completed. Historical work included reports, rock sampling, geochemistry (hydrogeochemistry, emanometry) geological mapping, geophysical surveys, drilling, and estimates of exploration potential by COGEMA and Areva.
		 Haranga's ASX Release from 8th August 2022 summarises the material exploration drilling undertaken at the Saraya prospect. Historical drillholes reported here were undertaken by COGEMA and Areva at the Saraya Prospect. Additional historical drilling has been undertaken at minor prospects but is not considered material to this release.
		 A regional airborne survey was carried out in 2007 by an international cooperation programme (Agence Française pour le Développement, AFD, and EU Programme de Renforcement du Secteur Miniere, PDRSM, and operated by FUGRO), the SYSMINE Project, started in 2004.
Geology	• Deposit type, geological setting and style of mineralisation.	 The Saraya Project is situated within the Paleoproterozoic Kedougou-Kenieba Inlier (KKI) of the West African Craton. In Senegal, the KKI contains two major units separated by a major shear zone, the Main Transcurrent Zone (MTZ); the Mako NE-trending volcanic belt in the west and the Dialé-Daléma metasedimentary basin in the east. The MTZ strikes northeast in the south and rotates to a northwesterly trend as it crosses the Falémé River into Mali.
		• Both the Mako volcanic belt and the Diale-Dalema sedimentary series are intruded by granitoids of variable ages and geochemical signatures. The most voluminous are the plutons of the Saraya batholith, probably emplaced around 2.1 Ga. The Saraya batholith occurs as an N30 axis. The northern half of the batholith is characterized by deuteric alteration marked by a coarse-grained muscovite-rich leucogranite. The complex is poorly faulted, mainly affected by quite late N120 and N30–40 structures, typically pegmatite veins and dolerite dikes respectively.
		 Uranium mineralisation at Saraya is understood to be structurally controlled with uranium being mobilised during a sodic hydrothermal event (Na-metasomatism) and precipitated in episyenitic structural conduits. Mineralisation is found preferentially in brecciated lenses (up to 100-m long) within the episyenite but



Criteria	JORC Code explanation	Commentary
Drill hole Information	 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: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	 further investigation into the geological controls on mineralisation is required. A geological model has been constructed by Odessa based on geological logging. Two major lithologic entities have been recorded and 3D mapped: Saraya leucocratic Granite and Saraya Episyenite. A mineralisation model appears to support a dominant orientation of ~040 and dipping SE at ~80°. A second perpendicular (WNW striking) mineralised structure is speculated. However, alternative orientations have not been completely ruled out. Drilling Results used as the basis for the MRE are extracted from the report entitled "Significant Historical Drilling Results at Saraya" created on 8th August 2022 and available to view on https://haranga.com/investors/asx-announcements/. Appendix 2 within the 8th August 2022 release includes all DD drillhole information used as the basis of the Mineral Resource Estimation reported here. RC drillhole information used as the basis of the Mineral Resource Estimation reported here has previously been released (see listed Announcements 4 and 5 above).
Data aggregation methods	 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. 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. 	 Drilling Results used as the basis for the Mineral Resource Estimation are extracted from the report entitled "Significant Historical Drilling Results at Saraya" created on 8th August 2022 and available to view on <u>https://haranga.com/investors/asx-announcements/</u>. No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole 	 Mineralisation is interpreted to be structurally controlled striking approximately 040 and dipping ~80° to 130. From this interpretation, it is clear that some of the historical drillholes dip within, or partly within, the mineralised syenite. Only downhole intercept lengths are reported as true width is not known.



Criteria	JORC Code explanation	Commentary
	length, 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. 	 Maps and sections are included in the body of the report.
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	 Appendix 2 within the 8th August 2022 release includes all drillhole information used as the basis of the Exploration Target reported here. No relevant information has been omitted from this report.
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 regional geophysical radiometric data was collected in 2007 within the Sysmine framework. Additional historical exploration data exists including drilling by COGEMA and Areva at several other prospects (Diobi, Dalafin, Fanta Diama, Badioula, Samecouta and Kanta Fanta), petrography, mineralogy and metallogeny, however, these data are still being reviewed. If considered material, they will be reported in future.
Further work	 The nature and scale of planned further work (eg 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. 	 Haranga has undertaken termite mound geochemistry sampling surveys across the entire permit at intervals of 1,000m x 100m, and to 200m x 50m for infill areas. The samples are analyzed with a handheld XRF device. To date: 100% of the permit area has been surveyed (15,845 samples collected out of 16,344 planned). 18,727 infill samples have been collected, out of 21,342 samples on planned infill grids over anomalies. Early results reveal strong uranium anomalism. Haranga is planning several drilling campaigns on the newly discovered surface anomalies (Aircore followed by RC drilling). Haranga is planning DD drilling on the known Saraya project and lateral extension for further resource



Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used.	 Downhole probe-data, on which the estimate is based, was processed for Haranga by Terratec Geoservices. Sufficient comparative QAQC checks between historic and 2022 data have been carried out such that it is considered to be of adequate quality on which an estimate of grade and tonnes can be made. Both Haranga and Odessa Resources are satisfied that an appropriately comprehensive multiple phase checking process has been employed, upon which the Mineral Resource Statement is based. for Mineral Resource estimation was that no obvious errors were detected. Drill data is stored in a Microsoft Access database and exported to text prior to importing into to Leapfrog Geo 2023.1.1. The error checking capabilities of the software were used to correct errors such as overlapping intervals, missing intervals, etc.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	 The Mineral Resource Competent Person has not visited the site due to budget considerations. However, a site visit is likely to occur in the future. The Competent Person has reviewed the 2023 sampling procedures and is satisfied that they have been performed in a professional manner and no material issues were identified.
Geological interpretation	Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology.	 There is a good confidence level in the geological interpretation of the mineral deposits. The fresh, transition and oxide zones were modelled from geological logging data. Two main lithology codes contained within the database comprise: Syenite (episyentite) Granite Lesser rock types include dolerite and pegmatite. Mineralisation is almost entirely contained within syenite. A geological (rock) model was constructed by numerical interpolating the logging codes of both the syenite and enclosing granite. A weathering model was also created. However, the top of fresh boundary is quite shallow (1-3m).
		• Mineralised domains are defined by an indicator radial bias function (RBF) interpolant (or model) of the eU3O8 uncomposited interval data. An indicator RBF interpolant defines a volume that encloses the



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		 values that are likely to be above a cut-off threshold, in this case a cut-off of 200ppm eU3O8. The boundaries of the resulting model are visually checked against the grade of 200ppm eU3O8 on drillhole traces. It is considered unlikely that alternative interpretations would have a substantial impact on the Mineral Resource estimates. The dip and strike of the mineralised domain is consistent with historic geological interpretations. Both the mineralised zones and the oxidation boundaries were treated having as hard boundaries during grade estimation.
Dimensions	The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.	 The resource area measures approximately 1200m along strike from southwest to north-east and 700m across strike with a vertical extent of 415m. Sections have been drilled at 25m spacing at ninety degrees to the strike with spacing along the sections averaging 25m. The peripheral parts of the deposit are drilled on a 50mx50m grid and outside the resource the drill lines spread to 100m spacing.
Estimation and modelling techniques	The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. The assumptions made regarding recovery of by-products. Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation). In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed. Any assumptions about correlation between variables. Description of how the geological interpretation was used to	 Modelling and estimation work was carried out using Leapfrog Geo/Edge 2023.1.1 eU308 grades intervals were composited 0.25m within the hard-boundary RBF domain Grade estimation was carried using ordinary Kriging (Kr or OK) which is a method of interpolating estimates for unknown points between measured data. Kriging is considered to be the preferred industry-accepted technique. A two pass estimation strategy was adopted to assist in determining classification. The average downhole gamma-probe measurement interval is 0.10m. For estimation purposes samples were composited to 0.25 metre lengths. The deposit remains unmined, so there are no production records for reconciliation. Saraya is considered primarily a uranium project with no associated mineral credits. Metallurgical test work confirms strong Albite/Dolomite alteration in association to primary Na-Metasomatsim (episyenitisation) of initial Leucocratic Granite There are no estimates for potentially deleterious elements No SMU study was carried out. However, the parent block sizes are divisible by a factor or either 2 or 5 to



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	Discussion of basis for using or not using grade cutting or capping. The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.	 Several runs were made using various block sizes. However, due to the almost imperceptible differences in the resultant estimations a 5mx10mx10m blocks was selected for faster processing and reporting. A rotated block model was set up using the following parameters: Been block size: 10 1000 1000<!--</td-->
Moisture	Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages and grades were estimated on a dry basis.



Criteria	JORC Code explanation	Commentary
Cut-off parameters	The basis of the adopted cut-off grade(s) or quality parameters applied.	• A reporting cut off of 200ppm and 250ppm eU3O8 in keeping with the typical industry standard
Mining factors or assumptions	Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	 The mining method is currently assumed to be all open pits. The estimate is reported as undiluted. The Z value of 10m allows for sub-blocking to either 5m or 2.5 which corresponds with common mining bench dimensions.
Metallurgical factors or assumptions	The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	 Uraninite and coffinite are the identified uranium minerals. Saraya is characterised as Na-Metasomatism uranium deposit within episyenite in a hard-rock fels granite. Met Testworks confirm industry comparable uranium extraction: leach rates at industry standard concentrations and conditions consistent with existing uraniu development projects and operations >90% Uranium extraction Both acid and alkaline conditions provide process optimisation paths: uranium extractio generated by both acid and alkaline conditions were industry comparable, providing proce optimisation options for both routes.
Environmental factors or assumptions	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Nothing undertaken or reported.
Bulk density	Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature,	 Specific gravity measurements were determined on site by Haranga personnel using an unsealed wat immersion method.



Criteria	JORC Code explanation	Commentary
	size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	• A total of 757 specific gravity measurements were carried out on Haranga core at 0.5m intervals through mineralised sections. There is little variation in SG with depth. A resource-wide SG of 2.62 has been adopted for the tonnage calculation.
		Variation in SG with Depth
Classification	The basis for the classification of the Mineral Resources into varying confidence categories. Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). Whether the result appropriately reflects the Competent Person's view of the deposit.	 The resource is classified as either Indicated or Inferred. The resource is drilled on either a roughly 50m x 50m pattern or, over the central part of the resource, a roughly 25m x 25m pattern. In numerous areas within the central zone drill-spacing reduces to several metres. Buffers around each drillhole trace were created using a radius of 12.5m which is the half-distance between drillholes that are located in the central, most densely drilled area of the resource (Figure 4). The area in which many of the buffers merged or near merged formed a block that supports an Indicated Resource classification. The "Indicated block" extends to a depth of approximately 135m (+30RL) and encompasses 214 drillholes that intersect an Indicated Resource volume of 1.84Mm3. This represents an average of 8,600m3 or approximately 22,500 resource tonnes per hole. The areas outside and below the Indicated block is classified as Inferred.
		 Appropriate account has been taken of all relevant factors, including the relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data. The geological and grade continuity of the deposit has been demonstrated and the quality of the assay
		 The reported Mineral Resources appropriately reflect the Competent Person's view of the Saraya deposit.



Criteria	JORC Code explanation	Commentary
Audits or reviews	The results of any audits or reviews of Mineral Resource estimates.	Internal review has been undertaken and no material issues were identified.
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	 The relative accuracy and confidence level in the Mineral Resource estimates are considered to be in line with the generally accepted accuracy and confidence of the nominated Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the Competent Person's experience with similar deposits around the world. The factors that could affect the relative accuracy and confidence of the estimate include: The completeness and accuracy of the database; and The accuracy of the historic assay methods. The Competent Person is of the opinion that the scope for variations is minimal, and if any, the impact on the Mineral Resource estimate is unlikely to be significant. The estimates are localised to model blocks of a size considered appropriate for local grade estimation. No production data is available as the deposit currently remains unmined.