

**ASX RELEASE** 

14 February 2023

## Major Resource Upgrade at Aura Energy's Tiris Project

## **KEY POINTS:**

- 52% increase in Measured and Indicated Resources to 29.6 Mlbs U<sub>3</sub>O<sub>8</sub>, 62.1Mt at 216 ppm U<sub>3</sub>O<sub>8</sub> at a 100ppm grade cut-off.
- Global Mineral Resource Estimate (MRE) of 58.9 Mlbs U<sub>3</sub>O<sub>8</sub>, 113Mt at 236 ppm U<sub>3</sub>O<sub>8</sub> at a 100ppm grade cut-off.
- Near-term exploration targets identified to further grow the Tiris resource.
- Tiris Reserves estimate with the updated expanded Feasibility imminent

Aura Energy Limited (**ASX: AEE, AIM: AURA**) is pleased to announce that the Resource Upgrade program undertaken in 2022 has increased the Measured and Indicated (M&I) Resources at the Tiris Project ("Tiris or the "Project") from 19.5 Mlbs to 29.6 Mlbs, **62.2Mt at 216ppm U<sub>3</sub>O<sub>8</sub> at a 100ppm cut-off.** 

The significance of the Resource upgrade is that it enables Aura to update the 2019 Tiris Definitive Feasibility Study (DFS)<sup>1</sup> project work, assessing the potential to increase the production rate based on the increased M&I resource. This work is expected to be released before the end of Q1 2023.

Aura's Tiris Project differs from other near-term projects in that the carnotite is mostly ultrafine, micron scale in grain size enabling the separation of the uranium without crushing and grinding as demonstrated in the 2019 DFS<sup>1</sup>. In the DFS<sup>1</sup> production averaged 800,000 lbs  $U_3O_8$  per year with a capital cost of USD 74.8 million and C1 costs of USD 25.43/lb  $U_3O_8$ . Aura is confident that our existing fast-to-market development strategy will be accentuated in the updated DFS as a result of the economies of scale on the capital and operating costs using a modular expansion of the Tiris Project.

Commenting on the increased MRE, Aura Energy Managing Director Dave Woodall said:

"The significant increase of our M&I resources confirms our confidence that the Tiris province which we believe has great expansion potential. Our immediate focus is now to work with our Mauritanian stakeholders, offtake providers, investors and financing partners to progress towards a decision to Mine in Q3 CY2023, a target construction timeline of Q4 CY2023, and first production expected in late 2024 or early 2025.

"Our exploration success is creating a strong platform for growth for Aura's shareholders and our Mauritanian partners, and an exciting new zero-carbon energy source for an increasingly energy-hungry world."

<sup>&</sup>lt;sup>1</sup>ASX & AIM Release: Tiris Uranium Definitive Feasibility Study completed, 29 July 2019

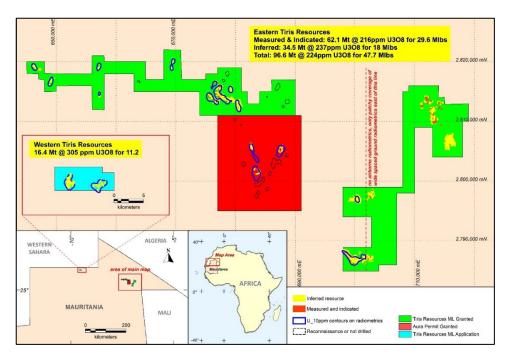


Figure 1 - Location of the Tiris Project Global Mineral Resource

#### **Upgraded Measured and Indicated Resource**

The program successfully delivered an additional Measured and Indicated resource of 23.0Mt at 200ppm  $U_3O_8$  containing 10.1Mlb  $U_3O_8$  at 100ppm  $U_3O_8$  cut-off grade. The detail of the upgraded resource across the project areas and the previous resources are shown in Tables 1 and 2. The drilling program completed in 2022 comprised 1,746 holes (1,680 air-core and 66 diamond-core holes) at an average depth of 7m, from 11,600m of drilling.

		Mineral Reso	urce Estimate F	ebruary 2022 <sup>2</sup>	Mineral Reso	urce Estimate I	ebruary 2023	% Ch	ange
Resource Location	Category	Tonnes (Mt)	U₃O <sub>8</sub> (ppm)	U₃O <sub>8</sub> (Mlbs)	Tonnes (Mt)	U₃O <sub>8</sub> (ppm)	U₃O <sub>8</sub> (Mlbs)	Tonnes (Mt)	U₃O <sub>8</sub> (Mlbs)
	Measured	5.7	225	2.8	8.0	236	4.2	40%	50%
Live alute Nexth	Indicated	6.5	217	3.1	5.8	217	2.8	-11%	-10%
Hippolyte North	Inferred	7.4	281	4.6	4.7	212	2.2	-36%	-52%
	Sub-Total	19.6	245	10.5	18.5	224	9.1	-6%	-13%
Hippolyte Marie & West	Inferred	8.2	310.0	5.6	8.2	310	5.6	0%	0%
	Indicated	4.8	192	2.0	4.6	192	2.0	-4%	0%
Hippolyte South	Inferred	3.1	176	1.2	2.7	176	1.1	-13%	-8%
	Sub-Total	7.9	177	3.2	7.4	186	3.0	-6%	-6%
	Measured	1.1	284	0.7	1.0	282	0.6	-9%	-14%
Leneve Nevth	Indicated	10.6	229	5.4	10.1	229	5.1	-5%	-6%
Lazare North	Inferred	3.9	210	1.8	3.7	210	1.7	-5%	-6%
	Sub-Total	15.6	224	7.9	14.8	228	7.4	-5%	-6%
	Measured	3.4	239	1.8	8.6	233	4.4	153%	144%
	Indicated	2.6	219	1.3	5.2	226	2.6	100%	100%
Lazare South	Inferred	9.1	214	4.3	4.8	222	2.3	-47%	-47%
	Sub-Total	15.1	225	7.4	18.6	228	9.3	23%	26%
	Measured				11.5	189	4.8		
	Indicated	4.5	240	2.4	7.4	200	3.2	64%	33%
Sadi	Inferred	14.8	266	8.7	10.3	228	5.2	-30%	-40%
	Sub-Total	19.3	301	11.1	29.2	206	13.2	51%	19%
	Measured	10.2	235	5.3	29.1	218	14.0	185%	164%
Table Table Fact Descu	Indicated	29.0	248	14.2	33.1	215	15.6	14%	10%
Total Tiris East Resource	Inferred	46.5	254	26.2	34.5	237	18.0	-26%	-31%
	Total	85.7	242	45.7	96.6	224	47.7	13%	4%
Oum Ferkik Resource	Inferred	16.4	305	11.2	16.4	305	11.2	0%	0%
Total Tiris Project Resource		102.1	253	56.9	113.0	236	58.9	11%	4%

Table 1 – Comparison of Tiris Project Global Mine Resource Estimate at 100ppm U<sub>3</sub>O<sub>8</sub> cut-off <sup>3</sup>

<sup>2</sup> ASX & AIM Release 16 February 2022 "Aura Defines Vanadium JORC Resource at Tiris Uranium Project

<sup>3</sup> Totals may vary due to rounded figures.

#### **Tiris Uranium Project Summary**

The Tiris Uranium Project is in North-eastern Mauritania (Figure 2), approximately 1,200km northeast of Nouakchott. Access is via Zouérat, 744 km by bitumen road and then a further ~700km on hardpan desert roads. The MRE is based on drilling conducted on two Mineral Exploration permits held 100% by Aura Energy: 562B4 Oum Ferkik, 2365B4 Oued EL Foule Sud, and on two Exploitation permits: 2492C4 Oued El Foule, 2491C4 Ain Sder held by Tiris Ressources SA (85% Aura Energy). Oum Ferkik is under application for conversion to an Exploitation Permit, with Oued EL Foule Sud under application for renewal and is expected to be processed by Q2 2023.

### **Regional Geological Setting**

The Tiris Uranium Project lies in the north-eastern part of the Reguibat Craton, an Archaean (>2.5 Ga) and Lower Proterozoic (1.6-2.5 Ga) aged complex composed principally of granitoids, meta-sediments and meta-volcanics. The resources lie within Proterozoic portions of the craton. This part of the craton generally consists of intrusive and high-grade metamorphic rocks of amphibolite facies grade. In addition to the Archaean and Paleoproterozoic basement rocks, two principal types of Cainozoic surficial sediments occur:

· Hamada: sand and outwash fan material.

 $\cdot$  Cailloutis: flat lying calcrete layers, typically 1 to 3 metres thick, in places partially silicified, which in this area stand out as small mesas up to a few metres above the surrounding land surface.

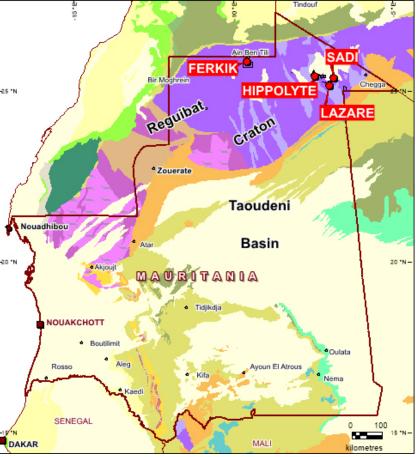


Figure 2: Regional geology of Mauritania; red dots are Aura uranium resources

Several small uranium occurrences were known in the Reguibat Craton from exploration during the 1950's. These vein deposits such as that at Bir En Nar, point to the existence of a poorly explored uranium province. Economically significant calcrete-type uranium deposits had not been reported in Mauritania prior to Aura's discoveries.

All the resource zones lie beneath flat land surfaces covered by surficial hamada and thin aeolian sand deposits. This shallow overburden largely covers the basement rocks, which only appear as scattered outcrops. Refer to Figure 4.



Figure 4: Typical landscape within Tiris Project area, trench illustrating soft sandy overburden with gravelly calcrete beneath

#### Mineralisation

The uranium resources generally lie either within weathered, partially decomposed red granite or in colluvial gravels developed on or near red granites. Small portions occur in other rock types such as metavolcanics and meta-sediments. The resources are believed to have developed within shallow depressions or basins, where colluvial material has accumulated in desert sheet wash events. The pebbles within the gravels are generally unweathered fragments washed in from the nearby exfoliating granites and other crystalline rocks, mixed with sand, silt, calcrete, gypsum and yellow uranium vanadates.

This mineralised veneer of relatively unconsolidated material is typically less than 5 metres in thickness, although locally it can occur up to 12 metres in depth. It forms continuous deposits on the plains or occurs in depressions amongst granite outcrops.

It is inferred that the deposits were formed by near-surface leaching of uranium from the uraniferous red granites by saline groundwaters during the wet Saharan "pluvial" periods. There have been several periods over the past 2.5 million years, the most recent ending only 5,900 years ago. Evaporation during the subsequent arid periods caused the precipitation of uranium vanadates, along with calcium, sodium and strontium carbonates, sulphates and chlorides.

Although the Tiris mineralisation is associated with calcium carbonates, it differs from other well-known calcrete uranium deposits such as Langer Heinrich and Yeelirrie, in that they are river valley-fill deposits. The Tiris deposits have formed in shallow depressions in unconsolidated and uncemented gravels and in partially decomposed granites. In Namibia and Western Australia, the mineralisation is typically within calcareous clays or massive hard calcrete which forms below the water table, often at several levels related to the changing positions of the water table.

In contrast, Aura's Tiris deposits are believed to be pedogenic calcrete occurrences that formed in the vadose zone by capillary action above the permanent water table.

The host material at Tiris is granitic gravel or weathered granite containing powdery calcium carbonate (calcrete) and sulphates. The gravels and weathered granite occur at surface or under a very thin (<30 cm)

veneer of wind-blown sand and form laterally continuous, single, thin sheets overlying fresh rock, usually granite. This offers the opportunity for easy, low-cost mining with little or no crushing.

The uranium mineralisation occurs principally as carnotite  $K_2(UO_2)_2(VO_4)_2$ .1-3H<sub>2</sub>O) and possibly some of the chemically-similar calcium uranium vanadate, tyuyamunite Ca(UO<sub>2</sub>)<sub>2</sub>(VO<sub>4</sub>)<sub>2</sub>.5-8H<sub>2</sub>O) in varying proportions. In this report, "carnotite" refers to any mineral in the carnotite-tyuyamunite series. The carnotite occurs as fine dustings and coatings on granite or granite mineral fragments, and on the surfaces or partly within the calcite cement that forms the patches of calcrete. The carnotite is mostly ultrafine, micron scale in grain size.

The carnotite is distributed erratically in numerous patches and strings over short distances. Collectively it occurs in pods of mineable size, some of which extend for several kilometres in a horizontal direction.

### Drilling techniques, hole spacing and mapping

Approximately 5,519 drill holes were used in this Resource Estimate using predominantly air core drilling with diamond drilling programs in 2017 and 2022 utilising triple tube PQ core allowing grade estimation by both chemical analysis and downhole gamma logging for validation purposes. In 3,113 (56%) of these,  $U_3O_8$  grade was determined by downhole gamma logging with disequilibrium factor applied, and in the remainder (44%),  $U_3O_8$  grade was determined by chemical assay.

In most cases Measured Resources are based on 50m x 50m spaced drill holes, Indicated Resources are based on 100m x 100m spaced holes, and Inferred Resources on 100m x 200m spaced holes. For the 2022 drilling, the drill spacing for Measured Resources was undertaken at 50m x 50m or 70m by 70m spacing. In 2017, three 100m x 100m squares were drilled at 12.5m hole spacing in both N-S and E-W directions to investigate grade anisotropy. In 2022, a further two such detailed patterns were drilled. Variography constructed by the resource consultants confirmed that the drill spacings are appropriate for the Resource classifications.

The calcrete mineralisation is flat lying to sub-horizontal so vertical holes were drilled, intersecting the mineralisation at a high angle. The collars are spaced in a grid pattern to provide adequate coverage of the mineralisation.

To account for solid outcrop in the resource statements, geological outcrop mapping was undertaken in the field by Aura Geologists for a portion of the work, and where field data was not available the outcrop was digitised from Worldview 3-HD Satellite Imagery to 15 cm resolution provided by Geoimage Pty Ltd. The digitised shapes will be field checked in future field programs. The inferred resource in Hippolyte Zones c, e, f, g was reported on zero outcrop, and these will be updated in future reports.

## Logging and Sampling.

For drilling programmes prior to 2017, all drilled material provided by the AC rig was collected in its entirety in 1m intervals except for the first metre which was sampled in 0.5m intervals. All intervals were geologically logged.

For aircore drilling, AC drill cuttings were riffle split on site to extract samples for assay, with the diamond drill core lengths measured to an accuracy of ~1 cm immediately on removal from the core barrel to determine & record core recovery. After transportation to the core yard in Nouakchott, the depths were marked on the core at 1-metre intervals and recovery data was checked again. Assays taken from the PQ core were compared against downhole gamma information from the same hole. Table 1 in the appendices contains all the information material to understand the estimates of Mineral Resources.

For holes drilled from 2017 onwards, uranium concentrations were measured by downhole total count gamma logging, which was converted to equivalent uranium grades (eU<sub>3</sub>O<sub>8</sub>) by applying calibration information, an air correction and minor smoothing. A check was undertaken on the disequilibrium between U238 and its gamma-emitting daughter products. To test for radioactive disequilibrium, 343 pulped-core samples were sent to Australian Nuclear Science and Technology Organisation (ANSTO). Results were compiled and interpreted by D Wilson of 3D Exploration. Disequilibrium factors were produced in two different ways. The first was based on laboratory measurements made at ANSTO, which

suggested a disequilibrium factor of 1.29. The second was a comparison of drill core assay results against downhole gamma logging which suggested a conversion factor of 1.16. When the apparent underestimation of grade by ICP analysis (in comparison to the more accurate DNA analysis) by 7% is taken into consideration the drill hole assay data imply a conversion factor of 1.24. Aura personnel decided a disequilibrium factor of 1.25 was appropriate and applied this to convert raw gamma  $eU_3O_8$  grades to  $U_3O_8$  grades.

#### Sample analysis and QAQC

Duplicates, blanks, and standards were inserted in the assay sample stream at regular intervals. The drill core was cut in half longitudinally by a diamond saw. For each half-metre of core, half-core was bagged for assay. This task was completed in 2017 by ALS Laboratories and in 2022 by MMM Laboratories in Nouakchott, under the supervision of an Aura Geologist.

2011/12 AC drill samples were submitted to Stewart Laboratories sample preparation facility near Zouérat in Mauritania. Samples were crushed by jaw crusher to -12mm and 1kg was riffle split for pulverising to +85% passing 75 microns. An ~100g split was bagged and sent to Stewart Laboratories in Ireland for analysis by pressed pellet XRF. Previous analysis comparing different analytical methods (XRF, ICP, DNC) had indicated that XRF is an accurate method on this material, if an x-ray band is selected for measurement that is not affected by the presence of strontium, and this was done. This method will measure total uranium.

For the diamond core drilled in 2017, bagged ½ core was prepared by ALS Laboratories Nouakchott by Method Prep 22 (Crush to 70% less than 6mm, pulverize entire sample to better than 85% passing 75 microns). A 100g sample of pulp was split off using a mini-riffle splitter. For diamond core drilled in 2022, sample preparation was completed by MMM Laboratories in Nouakchott, using the same method as for the 2017 core samples, except the 100g sample of pulp was split off using rotary splitter. Sample pulps were forwarded by air to ALS in Ireland for uranium analysis by ALS Method U-MS62 (U by ICP-MS after four-acid digestion) which provides near total extraction. ROL-21 agitation was carried out on the pulps before selecting assay aliquot.

Downhole gamma logging was performed by 2 down-hole Auslog gamma sondes utilising an A075 Natural Gamma Tool. Drill holes were gamma logged as soon as possible after drilling to avoid radon build-up. Each borehole was logged in both directions to verify consistency. Logging speed was 2 metres per minute, with a sample interval of 1cm. At least one hole was re-logged after each 20 holes as a repeatability check. A reference hole was established and relogged every 2 days as a check on consistency. Gamma logging procedures & interpretation were supervised by consultant David Wilson who qualifies as a Competent Person in these matters.

QAQC procedures for the 2011/12 AC drilling involved submission of 1 QAQC sample in every 5 samples, comprised of: field duplicates every twelve samples, blanks every 31 samples, umpire assays every 11 samples, certified reference material every 129 samples. Umpire analysis was carried on 427 sample intervals. For each of these the original pressed pellet XRF sample assayed by Stewart Labs was re-assayed by ICP by Stewart Labs. Each of these samples was also assayed by XRF and by ICP by ALS Labs. Accuracy & precision were within acceptable limits. QAQC procedures for the 2017 and 2022 diamond drilling comprise, submission of one standard, blank and field duplicate every 25 samples. In each set of 25 samples, a blank was inserted at every tenth position, standard at every twentieth position and field duplicate every 25th position. Accuracy & precision were within acceptable limits.

### **Estimation Methodology**

The uranium resource estimates for the ore zones Hippolyte, Hippolyte South, Lazare North, Lazare South and Sadi were conducted by H&S Consultants (HSC). These estimates were based on a combination of downhole radiometric logging and chemical analyses of drillhole samples. This update incorporates recent infill drilling completed during 2022 in three areas – Hippolyte North Zone 3, Lazare South and Sadi - as well as updating existing (2018) models for Lazare North and the rest of Hippolyte (North and South) with recent digitising of outcrops from aerial photographs.

The uranium resource estimates for the ore zones Marie, Hippolyte West, Oum Ferkik East, Oum Ferkik West deposits were based on chemical analyses of drillhole samples. These estimates were undertaken by Oliver Mapeto from Coffey Mining and Associates.

## Hippolyte North, Hippolyte South, Lazare North, Lazare South and Sadi Resources determined by H&S Consultants Pty Ltd.

The Mineral Resources reported here occur in five separate areas (Hippolyte North, Hippolyte South, Lazare North, Lazare South and Sadi) within a rectangle around 32 km north-south and 42 km east-west. The upper limit of the mineralisation occurs at surface and the uranium mineralisation generally forms thin shallow horizontal tabular bodies ranging in thickness from 1 to 12 m, hosted in weathered granite and granitic sediments. Resources reach a maximum depth of 14 m below surface. Differentiation of the weathered granite from granitic sediments is unreliable from AC sample returns. A purely geological model of the Tiris deposits has not been produced. While the interpretation of the mineralisation as flat lying tabular bodies is undisputed, alternative interpretations of the geology are unlikely to significantly impact estimated resources. The lateral extents of the mineralisation are poorly defined and additional drilling around the edges of the deposits may indicate that mineralisation is more limited than currently interpreted.

HSC created surfaces representing the base of the estimates to limit the extrapolation of grades into volumes that had no data. This is important at Tiris as there is a general decrease in uranium grades with depth. These surfaces nominally represent the top of the less-weathered granite, where AC drilling could penetrate no further. The base surfaces were produced using the locations of the end of the deepest assay from each drill hole. Where drill holes were very close, within around 15 m, the shallower point was generally removed.

Areas of obvious outcrop were excised from the MRE assuming a dip of 45 degrees between weathered granite/granitic sediments and the less-weathered granite. The extent of outcrop/subcrop and its relationship to free-digging mineralisation is somewhat uncertain but a conservative approach has been taken to minimise this risk.

The proportion of each block between the topographic and base surfaces, as well as the proportion of outcrop, were assigned to the block model and used to weight the reported estimates.

The continuity of both grade and geology are affected by the extent of weathering of the granitic host and the distribution of granitic sediments with respect to outcrop. The continuity does not appear to be affected by faulting.

The uranium concentrations were estimated by recoverable Multiple Indicator Kriging (MIK) using the GS3 geostatistical software. The uranium grades at the Tiris deposits exhibit a positively skewed distribution and therefore show reasonable sensitivity to a small number of high grades. MIK is considered an appropriate estimation method for the uranium grade distribution at the Tiris deposits because it specifically accounts for the changing spatial continuity at different grades through a set of indicator variograms at a range of grade thresholds. It also reduces the need to use the practice of top cutting. While no top-cuts were applied, the average of the mean and median grades was applied to the top indicator class to address any potential extreme values.

Only  $U_3O_8$  was estimated. No assumptions were made regarding the correlation of uranium with any other variable. No deleterious elements or other non-grade variables of economic significance were estimated. No assumptions were made regarding the recovery of by-products. Uranium was assumed to be the only element present in economically significant concentrations, although vanadium is known to occur with the uranium in the main ore mineral carnotite and could potentially be recovered.

All drill hole intervals were composited to 0.5m for estimation.

The five deposits were subdivided into a number of subzones for estimation, with conditional statistics generated for each of the subzones. All class grades used for estimation of the mineralised domains were derived from the class mean grades, except the top indicator class. The Recoverable MIK technique employed by HSC in this case requires a set of 14 variogram models, one for each of the fourteen grade

bins used. A set of variogram models were created for Subzones of the Hippolyte North, Lazare South and Sadi deposits. These variogram models were applied to Subzones that did not have sufficient data to generate reliable models. Table 1, in the appendices, in accordance with Listing Rule 5.8.1 contains all information material to understand the estimates of Mineral Resources.

All of the resources reported here have been estimated on the assumption that the deposits will be mined by open pit.

Recoverable MIK allows for block support correction to account for the change from sample size support to the size of a mining block. This process requires an assumed grade control drill spacing and the assumed size of the Selective Mining Unit (SMU). The variance adjustment factors were estimated from the  $U_3O_8$ metal variogram models assuming a minimum SMU of 10x10x0.5m (east, north, vertical) with high quality grade control sampling on a 10x10x0.5m pattern (east, north, vertical).

The application of the variance adjustments to the resource estimates is expected to provide estimates of recoverable resources without the need to apply additional mining dilution or mining recovery factors. Internal dilution, that is, within the SMU unit is accounted for. If a larger SMU size or a broader grade control drill pattern is implemented the selectivity assumed in the reported resources may not be realised.

The 2023 Tiris Mineral Resource upgrade varies from the previous mineral resource due to:

- Additional drilling throughout the project area.
- Geological outcrop mapping completed for all zone, excluding Hippolyte Zones c, e, f, g and excised from the MRE assuming a dip of 45 degrees between weathered granite/granitic sediments and the less-weathered granite.

# Hippolyte West, Oum Ferkik West and Oum Ferkik East Resources determined by Oliver Mapeto (Coffey Mining).

Mineralisation forms flat lying tabular bodies ranging in thickness from 1 to 12m with some internal waste patches occurring within the mineralisation envelope. In places, the top of mineralisation is covered by sand or waste overburden. Ore surfaces representing the top and base of the mineralisation using a grade cut-off of 100ppm U<sub>3</sub>O<sub>8</sub> were generated across all project areas and mineralised zones. The top and base of ore surfaces were used as hard boundaries to control grade estimation.

The grade varied significantly within the drill hole intersections. In some zones, pods of low-grade mineralisation occur showing moderate continuity of both grade and geology. The mineralisation is recent and unaffected by faulting.

The Mineral Resource Estimates applied a lower a cut-off grade of 100ppm across all project areas. The Marie ore zone occurs in an area 1.2km east-west and 6km north-south. This region is comprised of six separate zones that range in plan dimensions from 200m to 1.2km wide and 500m to 1.4km long. The Hippolyte W zone occurs in an area 0.8km east-west and 2.0km north-south. This region is comprised of three separate zones that range in plan dimensions from 150m to 400m wide and 400m to 1.0km long. Oum Ferkik West occurs as a single zone with dimensions of 1.6km east-west and 2.5km north-south. Oum Ferkik East occurs in an area 2.0km east-west and 2.0km north-south. This region is comprised of six separate zones that range in plan dimensions from 150m to 400m wide and 400m to 1.2km long.

Uranium concentrations were estimated using the Ordinary Kriging estimation method. The sample database has assay samples at a nominal 1m sample interval. Some samples were sampled at 0.5m interval using overburden-ore contact depending on thickness of topsoil (sand). 2m sample composites were created for grade estimation.

Area specific high-grade assay top cuts were applied to minimise grade smearing. The top-cut values were chosen by assessing the high-end distribution of the grade population within each zone and selecting the value at which the distribution became erratic.

Each zone was divided into subzones for grade estimation. The subzones were based on solids defined using a 100ppm lower  $U_3O_8$  grade cut-off. In addition, upper cut-off grade specific to the ore zones were

applied. Each zone was coded and only samples within the same matching zone code were used in estimation. Additional estimation parameters were applied as follows:

A three-pass estimation strategy was adopted to estimate the  $U_3O_8$  grades. The estimation search parameters are shown below for estimation run pass 1, 2 and 3. The short first axis of the search ellipse is vertical.

Pass 1. 300x200x6m search, 8-24 samples

Pass 2. 360x250x6m search, 6-24 samples

Pass 3. 600x400x6m search, 4-24 samples

Drill hole drill spacing is generally on a regular grid of approximately 100x200 m. Parent block model size was 50 x 50x 2m. Sub-block size 5 x 5 x 0.5m. The vertical dimension was chosen to reflect the anisotropy of the mineralisation and the downhole data spacing.

Block model grade estimates were validated using a statistical comparison of block model grades against drill composite grades by zone, visual check of cross sections, transverse, and long sections, plan views of grade distribution, along with comparison of block model and drill data grade distribution using histograms.

The resources reported here have been estimated on the assumption that the deposits will be mined by open pit mining method. Analysis was done for grade continuity and variography. However, in some cases, no reliable variogram structure could defined on a zone-by-zone basis. The global variogram was assumed as this could have been affected by lack of data due to limited extend of the individual mineralised zones.

The selected sub-blocks were appropriate for minimum selective mining unit.

The metallurgical test work information supplied to the consultant is based on reports by H & S Consultants Pty Ltd, which indicates that the Tiris deposits are amenable to a process of crushing, screening and an alkaline carbonate leach in order to recover uranium. Bench scale test work indicates that a significant upgrade in uranium and decrease in sulphate concentrations can be achieved through screening.

No deleterious elements or other non-grade variables of economic significance have been identified or estimated.

#### **Resource Classification**

The relative accuracy and confidence level in the Mineral Resource estimates are in line with the generally accepted accuracy and confidence of the nominated JORC Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the estimator's experience with several deposits at NPM and similar deposits elsewhere. The main factors that affect the relative accuracy and confidence of the estimate are the drill hole spacing and the style of mineralisation.

The Mineral Resource estimates for Marie, Hippolyte W, Oum Ferkik West and Oum Ferkik East were based on drill hole drill grid spacing, mineralisation and grade continuity, the grade estimation search pass used to estimate the block. All mineral Resource estimates estimated in 2011 were classified as Inferred. The relative accuracy and confidence level in the Mineral Resource estimates are in line with the generally accepted accuracy and confidence of the nominated JORC CODE (2012) Mineral Resource categories. This has been determined on both qualitative and quantitative basis. The main factor that affects the relative accuracy and confidence of the Mineral Resource estimate is sample data density and high variability in uranium grades. Confidence in mineralisation continuity is moderate. Most blocks were estimated in estimation run Pass 1 and 2.

#### **Bulk Density**

Tonnages are estimated on a dry weight basis. The moisture constant was not determined. Dry bulk density of diamond drill core was measured at the ALS facility in Nouakchott using an immersion method (Archimedes principle) on selected PQ diamond drill core intervals ranging in size from 10 to 30cm. Competent pieces of drill core were selected on a nominal interval of 50cm. The samples chosen are believed to be representative of the surrounding rock type. All density samples are wrapped in cling film

to avoid water absorption. A total of 412 density measurements have been taken from drill core at the Tiris deposits with values ranging from 1.50 to 2.66t/m<sup>3</sup> and averaging 2.13t/m<sup>3</sup>. Measured density values show that there is a reasonable correlation between density and the depth of the sample. A regression was used to assign densities to each block in the block model based on the depth below surface.

The Mineral Resource estimates for Marie, Hippolyte W, Oum Ferkik West and Oum Ferkik East used an average density of 2.0/g/cc dry bulk density based on tests done by Aura Energy. This was considered realistic for material and ore in similar ore deposits. Tonnages are estimated on a dry weight basis. The moisture constant was not determined.

#### Cut-Off Grade

A cut-off of 100ppm  $U_3O_8$  cut off is used to report the resources as it is assumed that ore can be economically mined at this grade in an open pit scenario. This cut-off is relatively low compared to operating uranium mines, but metallurgical test work indicates that a significant upgrade in uranium and decrease in sulphates can be achieved by a simple screening process.

Aura Energy Limited

#### For further information, please contact:

David Woodall Managing Director and CEO Aura Energy Limited info@auraenergy.com.au Paul Ryan Citadel-MAGNUS Investor & Media Relations pryan@citadelmagnus.com +61 409 296 511

#### About Aura Energy (ASX: AEE, AIM AURA)

Aura Energy is an Australian-based minerals company that has major uranium and polymetallic projects with large resources in Africa and Europe. The Company is now focused on uranium production from the Tiris Project, a major greenfields uranium discovery in Mauritania.

Aura also completed a capital estimate update for the Tiris Definitive Feasibility Study, to reflect current global pricing, with these 2021 figures reconfirming Tiris as one of the lowest capex, lowest operating cost uranium projects.

In October 2021, the Company entered a US\$10m Offtake Financing Agreement with Curzon, which includes an additional up to US\$10m facility, bringing the maximum available under the agreement to US\$20m.

In 2022, Aura will continue to transition from a uranium explorer to a uranium producer, to capitalise on the rapidly growing demand for nuclear power as the world continues to shift towards a decarbonised energy sector.

#### **Disclaimer Regarding Forward-Looking Statements**

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance, or achievements to differ materially from the expectations described in such forward-looking statements. The Company does not give any assurance that the anticipated results, performance, or achievements expressed or implied in those forward-looking statements will be achieved.

#### Notes to Project Description

The Company confirms that the material assumptions underpinning the Tiris Uranium Production Target and the associated financial information derived from the Tiris production target as outlined in the Aura Energy release dated 18 August 2021 for the Tiris Uranium Project Definitive Feasibility Study continue to apply and have not materially changed.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

Concerning the Resource statements, there is a low level of geological confidence associated with the inferred mineral resource and there is no certainty that further exploration work will result in the determination of indicated measured resource or that the production target will be realised.

#### **Competent Persons**

The Competent Person for the portion of the 2023 Tiris Mineral Resource Estimate and classification relating to the Hippolyte, Hippolyte South, Lazare North, Lazare South and Sadi deposits is Mr Arnold van der Heyden of H&S Consulting Pty Ltd. The information in the report to which this statement is attached that relates to the 2023 Mineral Resource Estimate is based on information compiled by Mr van der Heyden. Mr van der Heyden has sufficient experience that is relevant to the resource estimation to qualify Mr van der Heyden 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 van der Heyden is an employee of H&S Consultants Pty Ltd, a Sydney based geological consulting firm. Mr van der Heyden is a Member and Chartered Professional of The Australasian Institute of Mining and Metallurgy (AusIMM) and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Competent Person for the portion of the 2023 Tiris Vanadium Resource Estimate and classification relating to all other deposits within the resource (Marie, Hippolyte West, Oum Ferkik East, Oum Ferkik West deposits) is Mr Oliver Mapeto, an independent resources consultant. The information in the report to which this statement is attached that

relates to the 2018 Resource Estimate is based on information compiled by Mr Mapeto. Mr Mapeto has sufficient experience that is relevant to the resource estimation to qualify Mr Mapeto 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 Mapeto is a Member of The Australasian Institute of Mining and Metallurgy (AusIMM) and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Competent Person for drill hole data and for integrating the different resource estimates prior to September 2022 is Mr Neil Clifford. The information in the report to which this statement is attached that relates to compiling resource estimates and to drill hole data is based on information compiled by Mr Neil Clifford. Mr Clifford 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 Mr Clifford 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 Clifford is a consultant to Aura Energy. Mr Clifford is a Member of the Australasian Institute of Geoscientists. Mr Clifford consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Competent Person for drill hole data and for integrating the different resource estimates from September 2022 is Dr Michael Fletcher. The information in the report to which this statement is attached that relates to compiling resource estimates and to drill hole data is based on information compiled by Dr Michael Fletcher. Dr Fletcher has sufficient relevant experience in the preparation and compilation of exploration data across a broad range of deposits 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'. Dr Fletcher is a consultant to Aura Energy and a full-time employee of GeoEndeavours Pty Ltd. Dr Fletcher is a Member of the Australasian Institute of Geoscientists and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The Competent Person for interpreting downhole gamma information, disequilibrium analysis and assay results is Mr David Wilson. Mr Wilson 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 Wilson is a consultant to Aura Energy and is a full-time employee of 3D Exploration. Mr Wilson is a Member of the Australasian Institute of Geoscientists and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## APPENDIX 1 JORC Code 2012 Table 1 Appendix 5A ASX Listing Rules 2023 Tiris Vanadium Resource Estimate

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

Criteria	JORC Code explanation	Com	imentary
Sampling	• Nature and quality of sampling (e.g. cut		
techniques	channels, random chips, or specific	•	The data on which this resource estimate is
	specialised industry standard		based is from 6 field sampling programs:
	measurement tools appropriate to the	1.	An air-core (AC) drilling program in 2010/11 with
	minerals under investigation, such as		grade estimation by chemical analysis of drill
	down hole gamma sondes, or handheld		samples
	XRF instruments, etc). These examples	2.	An AC drilling program at Lazare in 2012 with
	should not be taken as limiting the		grade estimation by chemical analysis of drill
	broad meaning of sampling.	2	samples
	<ul> <li>Include reference to measures taken to ansure comple representivity and the</li> </ul>	3.	An AC drilling program at Sadi in 2015 with grade estimation by chemical analysis of drill
	ensure sample representivity and the appropriate calibration of any		samples
	measurement tools or systems used.	4.	An AC drilling program in 2017 with grade
	<ul> <li>Aspects of the determination of</li> </ul>	ч.	estimation by downhole gamma logging
	mineralisation that are Material to the	5.	An AC drilling program in 2022 with grade
	Public Report.		estimation by downhole gamma logging
	• In cases where 'industry standard' work	6.	Diamond drilling (DD) programs in 2017 and
	has been done this would be relatively		2022 with grade estimation by both chemical
	simple (e.g. 'reverse circulation drilling		analysis of core and by downhole gamma
	was used to obtain 1 m samples from		logging, for validation purposes.
	which 3 kg was pulverised to produce a	•	The 2011/12 drilling was the basis of 2 previous
	30 g charge for fire assay'). In other		Resource Estimation exercises (ASX release:
	cases, more explanation may be		announcement 14 July 2011 "First Uranium
	required, such as where there is coarse		Resource in Mauritania – 50 million pounds", &
	gold that has inherent sampling		ASX release: 16 July 2014 "Reguibat Uranium
	problems. Unusual commodities or		Project Scoping Study Complete). The 2018 resource estimation exercise has been aimed at
	mineralisation types (eg submarine		upgrading a substantial portion of Inferred
	nodules) may warrant disclosure of detailed information.		Resource to a higher resource category.
	detailed information.	•	The 2011/12 drillhole spacing was
			predominantly 100m x 200m. A portion of the
			2012 drilling was at a spacing of 50m x 100m
			drilled to define Indicated Resources. The 2017
			drilling was predominantly at a spacing of 50m x
			50m to define Measured Resources.
		•	AC drill cuttings were riffle split on site to extract
			approx. 2 kg samples for assay for the downhole
			intervals 0 to 0.5m, 0.5 to 1.0m, 1 to 2m, &
			thereafter in 1m intervals to end of hole.
		•	Down hole gamma logging in 2017 and 2022 was
			by 2 down-hole Auslog gamma sondes operated
			by Poseidon Geophysics (Pty) Ltd based in
			Gaborone Botswana using 3 geophysicists
		•	employed by Poseidon geophysics The 2 sondes (serial numbers T093 and T272)
		-	were sent to the Department of Environment,
			Water & Natural Resources, Adelaide South
			Australia for calibration prior to the surveys in
			both 2017 and 2022.
		•	Geological outcrop mapping was undertaken in
			the field by Aura Geologists for a portion of the
			work, and where field data was not available the

outcrop was digitised from Worldview 3-HD Satellite Imagery to 15 cm resolution provided

Criteria	JORC Code explanation	Commentary
		by Geoimage Pty Ltd. The digitised shapes will be field checked in future field programs. The inferred resource in Hippolyte Zones c, e, f, g still need to be digitised.
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul> <li>AC drilling in all programs prior to 2022 was conducted by Wallis Drilling of Perth WA using a Mantis drillrig with NQ size bit (outer diameter 75.7 mm) except for the 2015 program which used HQ size bit (OD 96mm). Diamond drilling (DD) was carried out by Capital Drilling Mauritanie SARL utilising triple tube PQ coring (122.6 mm outer diameter bit, 85 mm diameter core). In 2017, 1484 vertical drillholes were gamma logged of which 1428 were AC drillholes and 56 were cored diamond drillholes.</li> <li>In 2022, AC drilling was conducted by Sahara Natural Resources (Guinea) using a 650 model DTH cum-rotary rig. PQ triple-tube diamond drilling 1742 vertical drillholes were gamma logged of which 1676 were AC holes and 66 were cored diamond holes.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>For the 2010, 2011, 2012 Aircore programs, no sample recovery information is available.</li> <li>2015 AC drilling the total drill return for each sample interval was bagged and weighed to an accuracy of approximately 0.25 kg to estimate sample recovery. The assay results for the 2015 drilling are considered inaccurate due to loss of fine uranium-bearing carnotite during the drilling process, on the basis of 63 holes which were later gamma logged which indicated that eU308 grades were approx. 3 times greater than assay grades Since 2015, 35% (205) of the 2015 collars had another hole drilled within 15 metres and a downhole gamma survey undertaken.</li> <li>Efforts were made to minimise dust loss, eg in most holes the first metre was drilled without applying compressed air, and thereafter minimum air necessary to lift the sample was applied. In view of the ultrafine grain size of the uranium mineral carnotite, even where high recoveries were recorded, it is possible that some carnotite was lost in dust emitted from the drill rig cyclone. resulting in underestimation of uranium grade</li> <li>2017 and 2022 AC drillholes were not physically sampled, and downhole gamma surveys were</li> </ul>
		<ul> <li>completed for grade measurement.</li> <li>All drillcore was transported in covered core trays to Nouakchott for geological logging, density determination, and core cutting.</li> <li>Drillcore lengths were measured to an accuracy of c. 1 cm immediately on removal from the core barrel to determine &amp; record core recovery. After transportation to the core yard in Noakchott, the depths were marked on the core at 1 metre intervals and recovery data was checked again. 81% of core samples have a recovery of 95% or greater, and 85% of core samples have a recovery of 90% or greater.</li> <li>Given the ultra-fine-grained nature of the carnotite mineralisation, loss of uranium is likely</li> </ul>

Criteria	JORC Code explanation	Commentary
		in any core runs recording less than 100% recovery, and even where 100% recovery is recorded it is possible some loss of carnotite may have occurred.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>In 2011/12/15 AC drilling each sample interval was geologically logged by an onsite geologist and drill logs were uploaded to Aura's database managed by Reflex Hub in Perth. A sample of sieved &amp; washed chips for each sample interval was retained in chip trays for reference. In 2017 and 2022 AC drilling. only the bottom hole sample was geologically logged, and a sample retained in chip trays.</li> <li>Drillcore was photographed, geologically logged and logs were recorded on Aura's logging template and uploaded to Aura's database.</li> <li>In 2011/12/17 drilling, 385 density measurements (which included 25 duplicate determinations) were taken on drillcore by ALS Laboratories in Nouakchott under the supervision of Aura's geologist. In 2022, 174 density measurements were taken on drill core by MMM Laboratories SARL in Noakchott, under the supervision of an Aura Geologist.</li> <li>Database management was undertaken by Reflex Hub in Perth prior to July 2019, and by Earth SQL in Melbourne after that date.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>2011/12/15 AC drill samples were riffle split on site to provide a minimum 2 kg sample for assay and a duplicate split for reference and possible umpire analysis.</li> <li>Duplicates, blanks, and standards were inserted in the assay sample stream at regular intervals as detailed in the next section.</li> <li>Drillcore from 2017 was cut in half longitudinally by diamond saw by ALS Laboratories after marking up by, and under the supervision of, an Aura geologist. This task was completed in 2022 by MMM Laboratories in Noakchott, under the supervision of an Aura Geologist.</li> <li>For each half-metre of core, half-core was bagged for assay.</li> <li>Given the fine-grained nature of the uranium minerals these sample sizes are appropriate.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>2011/12 AC drill samples were submitted to Stewart Laboratories sample preparation facility near Zouérat in Mauritania (In 2012 Stewart Laboratories became part of ALS Laboratories). Samples were crushed by jaw crusher to -12mm and 1kg was riffle split for pulverising to +85% passing 75 microns. An c. 100g split was bagged and sent to Stewart Laboratories in Ireland for analysis by pressed pellet XRF. Previous analysis comparing different analytical methods (XRF, ICP, DNC) had indicated that XRF is an accurate method on this material, if an x-ray band is selected for measurement that is not affected by the presence of strontium, and this was done. This method will measure total uranium. 2015 AC drill samples were submitted to ALS</li> </ul>

Criteria	JORC Code explanation	Commentary
		Laboratories sample preparation facility in Nouakchott Mauritania. Samples were crushed by jaw crusher to -12mm and 1kg was riffle split for pulverising to +85% passing 75 microns. An c. 100g split was bagged and sent to ALS Global in Ireland for analysis by ALS method MC-ICP61 after 4-acid digestion. This method will measure near total uranium.
		<ul> <li>For diamond core drilled in 2017, bagged ½ core was prepared by ALS Laboratories Nouakchott by Method Prep 22 (Crush to 70% less than 6mm, pulverize entire sample to better than 85% passing 75 microns). An c. 100g sample of pulp was split off using mini-riffle splitter, placed in sample envelope and forwarded by air to ALS in Ireland for uranium analysis by ALS Method U-MS62 (U by ICP-MS after 4 acid digestion). 4 acid digestion provides near total extraction.</li> <li>For diamond core drilled in 2022, sample preparation was completed by MMM Laboratories in Noakchott. Samples were crushed to 70% less than 6mm, pulverize entire sample to better than 85% passing 75 microns. An c. 100g sample of pulp was split off using rotary splitter, placed in sample envelope and forwarded by air to ALS in Ireland for uranium analysis by ALS Method U-MS62 (U by ICP-MS after 4 acid digestion). ROL-21 agitation was carried out on the pulps before selecting assay aliquot. 4 acid digestion provides near total extraction.</li> </ul>
		<ul> <li>Downhole gamma logging was performed by 2 down-hole Auslog gamma sondes comprising:         <ul> <li>DLS5 Winch Controller</li> <li>W600-1 12V Portable Winch</li> <li>A075 Natural Gamma Tool</li> </ul> </li> <li>Logging procedures involved:         <ul> <li>Drill holes were gamma logged as soon as possible after drilling to avoid radon</li> </ul> </li> </ul>
		<ul> <li>build-up.</li> <li>Each borehole logged in both directions to verify consistency.</li> <li>Logging speed: 2 metres per minute</li> <li>Sampling interval: 1 cm</li> </ul>
		<ul> <li>At least one hole was re-logged after each 20 holes as a repeatability check.</li> <li>A reference hole was established and relogged every 2 days as a check on consistency.</li> </ul>
		<ul> <li>Gamma logging procedures &amp; interpretation were supervised by consultant David Wilson who qualifies as a Competent Person in these matters.</li> <li>QAQC procedures for the 2011/12 AC drilling</li> </ul>
		<ul> <li>comprised, on average:</li> <li>Field duplicates assays: 1 in every 12 samples</li> <li>Blanks: 1 in every 31 samples</li> <li>Umpire assays: 1 in every 11 samples</li> </ul>
		Umpire analysis was carried on 427 sample intervals. For each of these the original pressed pellet XRF sample assayed by Stewart Labs was re-assayed by ICP by Stewart Labs. Each of these

Criteria JC	DRC Code explanation	Commentary
		<ul> <li>samples was also assayed by XRF and by ICP by ALS Labs.</li> <li>Certified Reference material: 1 in every 129 samples</li> <li>Total QAQC samples: 1 in every 5 samples</li> <li>Accuracy &amp; precision were within acceptable limits.</li> <li>QAQC procedures for the 2017 and 2022 diamond drilling comprise, submission of one standard, blank and field duplicate every 25 samples. In each set of 25 samples, a blank was inserted at every tenth position, standard at every twentieth position and field duplicate every 25<sup>th</sup> position.</li> <li>190 sample pulps sent to ANSTO Minerals at Lucas Heights for U determination by Delayed Neutron Count, serving as the Umpire analysis.</li> <li>Certified reference standards at 128, 264, and 550 ppm were purchased from African Mineral Standards, South Africa. Blanks were prepared from sand collected near the University of Noakchott, that had been scanned with a hand- held spectrometer.</li> </ul>
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	<ul> <li>Approximately 5519 drillholes were used in this Resource Estimate. In 3113 56%) of these, U grade was determined by downhole gamma logging, and in the remainder (44%), U grade was determined by chemical assay. Diamond drillholes were both gamma logged and chemically assayed for validation purposes. The holes drilled in 2015 were excluded from the resource estimate.</li> <li>To test for radioactive disequilibrium 343 samples were sent to Australian Nuclear Science and Technology Organisation (ANSTO) in Australia for equilibrium determinations. Results were compiled and interpreted by D Wilson of 3D Exploration. Disequilibrium factors were produced in two different ways. The first was based on laboratory measurements made at ANSTO, which suggested a disequilibrium factor of 1.29. The second was comparison of drill core assay results against downhole gamma logging which suggested a conversion factor of 1.16. When the apparent under estimation of grade by ICP analysis (in comparison to the more accurate DNA analysis) by 7% is taken into consideration the drill hole assay data imply a conversion factor of 1.24. Aura personnel decided a disequilibrium factor of 1.25 meds to be applied to all raw gamma grades to provide the correct U grade. All drillhole data recorded was uploaded to Aura's online database managed by Reflex Hub during the programs prior to July 2019 and managed by Earth SQL after that date. Analyses were forwarded directly from the laboratories to the database manager for incorporation in the database.</li> </ul>

Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>2011/12 drillhole collars were surveyed by handheld GPS with reported accuracy of +/- 3 metres.</li> <li>All 2017 and 2022 drillhole collars were surveyed by differential surveying conducted by IRC-Magma (ISO 9001-2015) to an accuracy of +/- 20 cm in all dimensions.</li> <li>The grid projection used is UTM WGS84 Zone 29N.</li> <li>An independent check comparing data gathered prior to 2022 to topography was undertaken by PhotoSat of Vancouver, using satellite data provided to an accuracy of +/- 20 cm, confirming the quality and adequacy of topographic control.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Drillholes were spaced in different programs at 50m x 50m, 50m x 100m, 100m x 100m or 100m x 200m.</li> <li>In most cases Measured Resources are based on 50m x 50m spaced drillholes, Indicated Resources are based on 100m x 100m spaced holes, and Inferred Resources on 100m x 200m spaced holes.</li> <li>Downhole gamma data was composited into 0.5m intervals.</li> <li>Three 100m x 100m areas were drilled at 12.5m spacing in both N-S &amp; E-W directions for geostatistical purposes and to examine variability. Variography constructed by the resource consultants confirmed that the drill spacings are appropriate for the Resource classifications. Resource consultants with no input from Aura.</li> <li>For the 2022 drilling, the drill spacing for Measured Resources was undertaken at 50m x 50m or 70 by 70 metre spacing.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>In 2017, three 100m x 100m squares were drilled at 12.5m hole spacing in both N-S and E-W directions to investigate grade anisotropy. This indicated a weak NW-SE trend to the mineralisation. The drilling pattern employed is considered appropriate for the mineralisation orientation. In 2022, a further two such detailed patterns were drilled.</li> <li>The calcrete mineralisation is flat lying to subhorizontal so vertical holes were drilled, intersecting the mineralisation at a high angle.</li> <li>The collars are spaced in a grid pattern so provide adequate coverage of the mineralisation, demonstrating a broad NW_SE linearity to the mineralisation.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>Sample collection was supervised by geologists. Samples were transported as soon as practicable to independent sample preparation facilities.</li> <li>The core samples were transported to the processing facility in Noakchott where they were logged, and sample selection was undertaken by geologists. The core trays were then transported to MMM laboratories in Noakchott for cutting, sampling and sample preparation. The pulped samples were sent to ALS Ireland for analysis.</li> <li>Approx.67% of drillholes were assayed by</li> </ul>

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Criteria	JORC Code explanation	Commentary
		downhole gamma logging and for these, sample security is not relevant.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Resource estimation in 2012 was conducted by Oliver Mapeto of Coffey Mining. This was independently reviewed and confirmed by Wardell Armstrong International in 2016. The 2021 Resource Estimate at Sadi was done by Oliver Mapeto acting then as an independent consultant. The 2018 resource estimate, and the 2023 Resource Estimate have been carried out by independent consulting group H&amp;S Consultants Pty Ltd. All of these consulting groups have reviewed and endorsed the sampling, grade estimation and QAQC procedures.</li> </ul>

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

Criteria	(Criteria listea in the preceasing section	
Mineral tenement and land tenure status	<ul> <li>JORC Code explanation</li> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Resource Estimates are based on drilling conducted on 2 mineral exploration permits held 100% by Aura Energy: 562B4 Oum Ferkik, 2365B4 Oued EL Foule Sud, and on 2 Exploitation permits: 2492C4 Oued El Foule, 2491C4 Ain Sder held by Tiris Ressources SA. Oued EL Foule Sud is currently under application for renewal. Tiris Ressources SA is owned 85% by Aura Energy subsidiary, Aura Energy Mauritania and 15% by ANARPAM, a Mauritanian Government entity.</li> <li>Aura has completed an Environmental and Social Impact Assessment which concluded there are no known issues arising from native title, historical sites, environmental or third-party matters which are likely to materially affect exploitation.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Aura is unaware of any prior exploration on these areas, other than governmental data gathering projects such as the PRISM-II Mauritania Minerals Project (USGS)</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	• The mineralisation is of the calcrete uranium style. It occurs within Proterozoic rocks of the Reguibat Craton. The mineralisation is developed within near surface altered and weathered granites, and within shallow colluvium lying on granite or adjacent metasediments.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ol> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ol> </li> <li>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.</li> </ul>	<ul> <li>Specific drillhole data is not relevant to the reporting of this resource estimation because the topography is not significantly variable, and all holes are vertical, drilled almost perpendicular to sub-horizontal mineralisation at depth of less than 10 metres.</li> </ul>
Data aggregation methods	<ul> <li>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.</li> <li>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</li> </ul>	<ul> <li>Data aggregation methods are summarised in the Resource Estimate report by H&amp;S Consultants which this table accompanies.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>All drillholes on which the resource estimate is based were vertical and approximately perpendicular to the thickness of the sub horizontal mineralisation.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	<ul> <li>Refer to the ASX announcement which this table accompanies.</li> </ul>
Balanced reporting	<ul> <li>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.</li> </ul>	•
Other substantive exploration data	<ul> <li>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.</li> </ul>	<ul> <li>Metallurgical testwork is ongoing. Information on processing has been reported in ASX announcement: 29 July 2019 "Tiris Uranium Definitive Feasibility Study Completed".</li> <li>ASX Release 23<sup>rd</sup> June 2022 confirms average 550% upgrading of uranium with simple screening in test-work.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>In the Oued El Foule and Oued El Foule Sud tenements drilling is planned to test smaller radiometric anomalies that have not been drilled, and several larger anomalies that have only been assessed by wide-spaced drill lines that show promising results.</li> </ul>

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Section 3. Estimation and Reporting of Mineral Resources – PART 1 Note this Section 3 has been prepared by H&S Consultants and relates to the Hippolyte North, Hippolyte South, Lazare North, Lazare South, and Sadi Resources

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	Aura's resource database was managed by Reflex Hub during the programs prior to July 2019 and managed by Earth SQL after that date. Analyses were forwarded directly from the laboratories to the database manager for incorporation in the database. H&SC conducted some basic checks for internal inconsistencies such as overlapping intervals, records beyond end of hole depth, unassayed intervals and unrealistic drill hole data.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	The Competent Person for the recent Mineral Resource Estimate (MRE) has not visited the Tiris deposits due to time and budget constraints. H&SC bases its view of the geological setting and mineralisation on drill hole data, discussions with Aura geologists and on information in technical reports. Representatives of Coffey Mining and Wardell Armstrong International conducted site visits in Aril 2012 and May 2016 respectively.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	The uranium mineralisation generally forms thin shallow horizontal tabular bodies ranging in thickness from 1 to 12 m hosted in weathered granite and granitic sediments. Differentiation of the weathered granite from granitic sediments is unreliable from AC sample returns. A purely geological model of the Tiris deposits has not been produced. H&SC created a surface representing the base of the estimates in order to limit the extrapolation of grades into volumes that had no data. This is important at Tiris as there is a general decrease in uranium grades with depth. This surface nominally represents the top of the less-weathered granite, where AC drilling could penetrate no further. The base surface was produced using the locations of the end of the deepest assay from each drill hole. Where drill holes were very close, within around 15 m, the shallower point was generally removed. Areas of obvious outcrop were excised from the MRE assuming a dip of 45 degrees between weathered granite. The vast majority of the recent drill collar locations were surveyed using a Differential Global Positioning System (DGPS). H&SC used the locations of all drill hole collars that had been located with the DGPS to create a wireframe representing the topographic surface. The elevations of all drill holes that had been located using a handheld GPS were then derived from this

topographic surface. At the time that the estimates were completed, no topographic survey data were available.

The proportion of each block between the topographic and base surfaces, as well as the proportion of outcrop, were assigned to the block model and used to weight the reported estimates.

The interpretation of the mineralisation as flat lying tabular bodies is undisputed. The lateral extents of the mineralisation are poorly defined and additional drilling around the edges of the deposits may indicate that mineralisation is more limited than currently interpreted.

The extent of outcrop/subcrop and its relationship to free-digging mineralisation is somewhat uncertain but a conservative approach has been taken to minimise this risk.

Alternative interpretations of the geology are unlikely to significantly impact estimated resources.

The continuity of both grade and geology are affected by the extent of weathering of the granitic host. The continuity does not appear to be affected by faulting.

#### 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 Mineral Resources reported here occur in five separate areas (Hippolyte North, Hippolyte South, Lazare North, Lazare South and Sadi) within a rectangle around 32 km north-south and 42 km east-west. All mineralisation forms flat lying tabular bodies ranging in thickness from 1 to 12 m.

The Mineral Resources at Hippolyte North at a cutoff of 100 ppm U3O8 occur in an area 6 km eastwest and 5.5 km north-south. This region is comprised of several separate areas that range in plan dimensions from 500 m to 1.1 km wide and 500 m to 2.2 km long. The upper limit of the mineralisation occurs at surface and the reported resources reach a maximum depth of 11 m below surface.

The Mineral Resources at Hippolyte South at a cutoff of 100 ppm U3O8 occur in an area 5.6 km eastwest and 5.4 km north-south. This region is comprised of three isolated areas each with a north-south length of around 1.3 km and an eastwest length that ranges 400 m to 1.1 km. The upper limit of the mineralisation occurs at surface and the reported resources reach a maximum depth of six metres below surface.

The Mineral Resources at Lazare North at a cut-off of 100 ppm U3O8 occur in an area 4.5 km eastwest and 2.4 km north-south. This region is comprised of three isolated areas. The smallest of these areas has an east-west length of 900 m and a north-south length of 550 m. The largest area has an east-west length of 2.2 km m and a north-south length of 1.8 km. The upper limit of the mineralisation occurs at surface and the reported resources reach a maximum depth of 12 m below surface.

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Estimation

modelling

techniques

and

The Mineral Resources at Lazare South at a cut-off of 100 ppm U3O8 occur in an irregular shape with an east-west length of 5.5 km and a north-south length of 2.7 km. The largest area has an east-west length of 2.2 km m and a north-south length of 1.8 km. The upper limit of the mineralisation occurs at surface and the reported resources reach a maximum depth of 10 m below surface.

The Mineral Resources at Sadi at a cut-off of 100 ppm U3O8 occur in an irregular NNW trending area with an east-west length of 5 km and a north-south length of 9 km. The upper limit of the mineralisation occurs at surface and the reported resources reach a maximum depth of 14 m below surface.

The nature and appropriateness of the estimation technique(s) applied and key including treatment of values, domaining, parameters, maximum distance of extrapolation from data points.

The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.

grade

assumptions,

interpolation

extreme

- The assumptions made regarding recovery of by-products.
- Estimation of deleterious elements or other non-grade variables of economic significance (e.g. 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 behind modelling of selective mining units.
- Anv assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- 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.

New estimates were generated for Hippolyte North – Zone 3, Lazare South and Sadi deposits. Existing estimates for the remainder of Hippolyte North, Hippolyte South and Lazare North were updated using recent outcrop mapping to excise areas that may not be amenable to free digging.

The uranium concentrations were estimated by recoverable Multiple Indicator Kriging (MIK) using the GS3 geostatistical software. The uranium grades at the Tiris deposits exhibit a positively skewed distribution and therefore show reasonable sensitivity to a small number of high grades. MIK is considered an appropriate estimation method for the uranium grade distribution at the Tiris deposits because it specifically accounts for the changing spatial continuity at different grades through a set of indicators variograms at a range of grade thresholds. It also reduces the need to use the practice of top cutting.

All drill hole intervals were composited to 0.5 m for estimation.

No top-cuts were applied but the average of the mean and median grades was applied to the top indicator class to address any potential extreme values.

The five deposits were subdivided into a number of Subzones for estimation, with conditional statistics generated for each of the Subzones. All class grades used for estimation of the mineralised domains were derived from the class mean grades, except the top indicator class.

Only U<sub>3</sub>O<sub>8</sub> was estimated. No assumptions were made regarding the correlation of uranium with any other variable. No deleterious elements or other non-grade variables of economic significance were estimated.

The base surface created to represent the top of the less-weathered granite was used to limit the extrapolation of grades into volumes that had no data.

The proportion of outcrop was estimated for each block based on digitising provided by Aura and used to deplete the MRE on the assumption that this material cannot be dug freely.

No assumptions were made regarding the recovery of by-products. Uranium was assumed to be the only element present in economically significant concentrations, although vanadium is known to occur with the uranium in the main ore mineral carnotite and could potentially be recovered.

The Recoverable MIK technique employed by H&SC in this case requires a set of 14 variogram models, one for each of the fourteen grade bins used. A set of variogram models were created for Subzones of the Hippolyte North, Lazare South and Sadi deposits. These variogram models were applied to Subzones that did not have sufficient data to generate reliable models.

Most deposits have areas that have been drilled on 50x50 m or 70x70 m grids whereas the Hippolyte South areas have only been drilled on a 100x100 m grid. Separate block models were created for Hippolyte North, Lazar North, Lazar South, Hippolyte South and Sadi deposits. Nominal downhole sampling interval is 0.5 m. Drill hole grade data were composited to 0.5 m intervals. The block dimensions were 50 x 50 m in plan view and 1 m vertically. The plan dimensions were chosen as it is the nominal drill hole spacing (preferable for MIK estimation). The vertical dimension was chosen to reflect the anisotropy of the mineralisation and the downhole data spacing.

The minimum selective mining unit size is assumed to be 10x10x0.5 m.

A three-pass search strategy was used to estimate the U3O8 grades at each of the deposits. Each pass required a minimum number of samples with data from a minimum number of octants of the search ellipse to be populated. Discretisation was set to 5x5x2 points in X, Y and Z respectively. The search criteria are shown below. The last short axis of the search ellipse is vertical.

1. 80x80x2.0m search, 16-48 samples, minimum 4 octants

2. 160x160x2.0m search, 16-48 samples, minimum 4 octants

3. 240x240x3.0m search, 8-48 samples, minimum 2 octants

The maximum distance of extrapolation of the reported estimates from drill hole data points is limited to around 220 m.

The Hippolyte North and Lazar North deposits were estimated by Mr. Mapeto of Coffey Mining in 2011. Lazar South was estimated by Mr. Mapeto in 2012. H&SC has access to these block models and considers that the current Mineral Resource Estimate takes appropriate account of these models. Significant additional drilling has occurred since these estimates were produced so the volume and confidence category have increased. Reasonably large differences exist between the current and previous estimates due to differences in estimation methodologies.

No check estimates were produced.

		No mining has occurred on the Tiris deposits so mine production data were unavailable for comparison.
		The final H&SC block model was reviewed visually by H&SC <mark>a</mark> , and it was concluded that the block model reasonably represents the grades observed in the drill holes. H&SC also validated the block model statistically using histograms, boxplots, scatter plots and summary statistics.
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated on a dry weight basis. The moisture constant was not determined.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	A cut-off of 100 ppm U3O8 cut off is used to report the resources as it is assumed that ore can be economically mined at this grade in an open pit scenario. This cut-off is considered to be relatively low compared to operating uranium mines, but metallurgical test work indicates that a significant upgrade in uranium and decrease in sulphates can be achieved by a simple screening process.
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. Where no assumptions have been made, this should be reported.</li> </ul>	All of the resources reported here have been estimated on the assumption that the deposits will be mined by open-pit. Recoverable MIK allows for block support correction to account for the change from sample size support to the size of a mining block. This process requires an assumed grade control drill spacing and the assumed size of the Selective Mining Unit (SMU). The variance adjustment factors were estimated from the U3O8 metal variogram models assuming a minimum SMU of 10x10x0.5 metres (east, north, vertical) with high quality grade control sampling on a 10x10x0.5 metre pattern (east, north, vertical). The application of the variance adjustments to the resource estimates is expected to provide estimates of recoverable resources without the need to apply additional mining dilution or mining recovery factors. Internal dilution, that is, within the SMU unit is accounted for. If a larger SMU size or a broader grade control drill pattern is implemented the selectivity assumed in the
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources. Where no assumptions have been made, this should be reported.	reported resources may not be realised. The metallurgical test work information supplied to H&SC indicates that the Tiris deposits are amenable to a process of crushing, screening and an alkaline carbonate leach in order to recover uranium. Bench scale test work indicates that a significant upgrade in uranium and decrease in sulphate concentrations can be achieved through screening.
		No penalty elements identified in work so far. No other assumptions have been made.
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	Aura has informed H&SC that an Environmental and Social Impact Assessment has been completed which concluded there are no known issues arising from native title, historical sites, environmental or

	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.	third-party matters which are likely to materially affect exploitation. H&SC therefore assume that there are no known unusual aspects of the Tiris deposits that may lead to adverse environmental impacts beyond what is expected from a mining operation. Waste rock and process residue is expected to be disposed of in the areas surrounding the deposits and processing facility in a responsible manner and in accordance with all mining lease conditions.
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, size and representativeness of the samples.	Dry bulk density of diamond drill core was measured at the ALS facility in Nouakchott using an immersion method (Archimedes principle) on selected PQ diamond drill core intervals ranging in size from 10 to 30 cm. Competent pieces of drill core were selected on a nominal interval of 50 cm. The samples chosen are believed to be representative of the surrounding rock type. All density samples are wrapped in cling film to avoid water absorption. A total of 412 density measurements have been taken from drill core at the Tiris deposits with values ranging from 1.50 to 2.66 t/m3 and averaging 2.13 t/m3. Measured density values show that there is a reasonable correlation between density and the depth of the sample. A regression was used to assign densities to each block in the block model based on the depth below surface.
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	The classification is based on the search pass used to estimate the block. In some cases, the blocks at surface were populated in a later search pass than blocks immediately below, as these blocks did not meet the minimum search criteria due to the fact that there are no samples above the topography. In order to alleviate this, the minimum search pass from a column of blocks was propagated upwards. Pass one nominally equates to Measured Resources, pass two translates to Indicated Resources and Pass three equates to Inferred Resources. This scheme is considered by H&SC to take appropriate account of all relevant factors, including the relative confidence in tonnage and grade estimates, confidence in the continuity of geology and metal values, and the quality, quantity and distribution of the data. The classification appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	This Mineral Resource estimate has been reviewed by Aura personnel. The estimation procedure has also been internally reviewed by H&SC. No material issues were identified as a result of these reviews.

Aura Energy Limited Suite 1, Level 3, 62 Lygon Street

Carlton South, VIC 3053

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 JORC Mineral Resource categories. This has been determined on a qualitative, rather than quantitative, basis, and is based on the estimator's experience with a number of deposits at NPM and similar deposits elsewhere. The main factors that affect the relative accuracy and confidence of the estimate are the drill hole spacing and the style of mineralisation.

No independent external audits have been completed on the Mineral Resource estimates.

The estimates are local, in the sense that they are localised to model blocks of a size considered appropriate for local grade estimation. The tonnages relevant to technical and economic analysis are those classified as Measured and Indicated Mineral Resources.

This deposit remains unmined so there are no production records for comparison.

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Section 3. Estimation and Reporting of Mineral Resources – PART 2 Note: This Section 3 has been prepared by Oliver Mapeto and relates to the Hippolyte zones C, E, F, G (Marie, Hippolyte West), Ferkik East & Ferkik West Resources

Criteria	Explanation	Deposit Specific Information
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	Aura's database was managed by the independent organisation Reflex Hub, based in Perth. The consultant conducted data validation checks including comparing assay certificates to database records and a variety of checks for internal inconsistencies such as overlapping intervals, records beyond end of hole depth, unassayed intervals, and unrealistic drill hole data. Additional checks included collar details checks. Unrealistic RL on historical data based on new survey data were adjusted using nearest neighbour.
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	Site visit to the project area was conducted by the Consultant in April 2012 (Coffey Mining). No site visit was conducted during the recent 2015 Sadi South extension drilling campaign. However, based on previous site visit the consultant is familiar with geological setting and mineralisation style.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	The uranium mineralisation generally forms shallow horizontal tabular bodies ranging in thickness from 1 to 12m hosted in weathered granite, granitic sediments, and calcrete. Differentiation of the weathered granite from granitic sediments is unreliable from AC sample returns. A purely geological model of the Tiris deposits has not been produced.
		The material above the top of ore is waste largely made of loose sandy material. The base of ore defines the top of consolidated material, harder going into unmineralized granite basement. Ore surfaces representing the top and base of the mineralisation using a grade cut-off of 100 ppm U308 were generated across all project areas and mineralised zones. The top and base of ore surfaces were used as hard boundaries to control grade estimation.
		A lower cut-off grade of 75 ppm U308 was used to model the Sadi South. Due to the nature of the mineralisation, the change in lower cut-off grade had marginal changes on the mineralised volumes.
		The grade varied significantly within the drill hole intersections.
		At the time that the estimates were completed, the natural topographical surface was not available. The 2012 drill data had no topographic survey data available. Most of the 2015 and 2017 drill collar locations were surveyed using a Differential Global Positioning System (DGPS). The consultant used drill hole collars that had been located with the DGPS to create a wireframe representing the topographic surface. The

		elevations of all drill holes with no survey were then interpolated using the nearest neighbour.
		The interpretation of the mineralisation as flat lying tabular bodies was defined with high confidence by the top and base of ore surfaces.
		In some zones, pods of low-grade mineralisation occur showing moderate continuity of both grade and geology. The mineralisation is recent and unaffected by faulting.
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 Mineral Resource as reported in the 2011 Resource estimate lie in the following areas, Sadi South, Sadi North, Marie, Hippolyte W, Hippolyte E, Oum Ferkik West and Oum Ferkik East. Sadi South resource has since been updated following infill and extension drilling campaign in 2015.
		The Mineral Resources estimates applied a lower a cut-off grade of 100 ppm U3O8 was applied across all project's areas.
		Marie occurs in an area 1.2 km east-west and 6 km north-south. This region is comprised of six separate zones that range in plan dimensions from 200m to 1.2 km wide and 500 m to 1.4km long.
		Hippolyte W occurs in an area 0.8 km east-west and 2.0 km north-south. This region is comprised of three separate zones that range in plan dimensions from 150m to 400m wide and 400 m to 1.0km long
		Hippolyte E occurs in an area 3.0 km east-west and 4.0 km north-south. This region is comprised of three separate zones that range in plan dimensions from 150m to 600m wide and 400 m to 600m long.
		Oum Ferkik West occurs as a single zone with dimensions of 1.6 km east-west and 2.5 km north-south.
		Oum Ferkik East occurs in an area 2.0 km east- west and 2.0 km north-south. This region is comprised of six separate zones that range in plan dimensions from 150m to 400m wide and 400 m to 1.2km long
		Mineralisation forms flat lying tabular bodies ranging in thickness from 1 to 12m with some internal waste patches occurring within the mineralisation envelope. In places, there the top of mineralisation is covered by sand or waste overburden.
Estimation and modelling	<ul> <li>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters, maximum distance of extrapolation from data points.</li> <li>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> </ul>	The uranium concentrations were estimated using the Ordinary Kriging estimation method.
techniques		Sample database has assays samples at a nominal 1m sample interval. Some samples were sampled at 0.5m interval using overburden-ore contact depending on thickness of topsoil (sand).
		2m sample composite were created for grade estimation.
		Area specific high-grade assays top cuts were applied to minimise grade spearing. The top-cut values were chosen by assessing the high-end

- Estimation of deleterious elements or other nongrade variables of economic significance (e.g. 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 behind modelling of selective mining units.
- Any assumptions about correlation between variables.
- Description of how the geological interpretation was used to control the resource estimates.
- 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.

distribution of the grade population within each zone and selecting the value at which the distribution became erratic

Each zone was divided into subzones for grade estimation. The subzones were based on defined solid using a 100ppm lower U308 grade cut-off. Each zone was coded and only samples within the same matching zone code were used in estimation. Additional estimation parameters were applied as follows:

A three-pass estimation strategy was adopted to estimate the  $U_3O_8$  grades. The estimation search parameters are shown below for estimation run pass 1, 2 and 3. The short first axis of the search ellipse is vertical.

Pass 1. 300x200x6m search, 8-24 samples

Pass 2. 360x250x6m search, 6-24 samples

Pass 3. 600x400x6m search, 4-24 samples

In addition, upper cut-off grade specific to the ore zones were applied.

Vanadium is a potential by-product and vanadium oxide ( $V_2O_5$ ) has been estimated for the mineral resources using the stoichiometric  $V_2O_5/U_3O_8$  ratio for carnotite group minerals. These  $V_2O_5$  values represent potentially recoverable vanadium in carnotite and not total vanadium occurring in mineralisation, which is significantly higher in almost all cases. These potentially recoverable  $V_2O_5$  values are based on the analysis of a substantial database of available sample data and represent average values that may be conservative. This procedure relies on the correlation between uranium and vanadium in carnotite group minerals, which are the only uranium minerals identified to date at Tiris.

No deleterious elements or other non-grade variables of economic significance have been identified or estimated.

Vanadium resource was estimated using the stoichiometric  $V_2O_5/U_3O_8$  ratio for carnotite group minerals as discussed above

Drill hole drill spacing is generally regular grid approximately 100x 200m over 2.5 x1.4km

Parent block model size was 50 x 50x 2m

Sub-block size 5 x 5 x 0.5m

The vertical dimension was chosen to reflect the anisotropy of the mineralisation and the downhole data spacing.

A three-pass search strategy was used to estimate the  $U_3O_8$  grades in Sadi South 2021 Mineral Resource update. Each pass required a minimum number of samples with data from a minimum number of samples in the search ellipse to be populated with discretistion 5x5x2.

The search criteria are shown below. The short first axis of the search ellipse is vertical.

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		Pass 2. 350x350x12m search, 8-24 samples
		Pass 3. 500x500x12m search, 6-24 samples
		Block model grade estimates were validated using the following methods:
		Statistical comparison of block model grades against drill composite grades by zone
		Visual check of cross sections, transverse, and long sections
		Plan views of grade distribution
		Comparison of block model and drill data grade distribution using histograms
Moisture	• Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.	Tonnages are estimated on a dry weight basis. The moisture constant was not determined.
Cut-off parameters	• The basis of the adopted cut-off grade(s) or quality parameters applied.	A cut-off of 100 ppm $U_3O_8$ cut off is used to report the resources as it is assumed that ore can be economically mined at this grade in an open pit scenario. This cut-off is considered to be relatively low compared to operating uranium mines, but metallurgical test work indicates that a significant upgrade in uranium and decrease in sulphates can be achieved by a simple
		Mineralisation occurs as a Uranium vanadate mineral and there is potential of recovery of vanadium as by product which justifies a lower U308 grade cut-off based on information supplied to the Consultant following recent leaching test work on the Tiris Uranium Project on uranium and Vanadium.
Mining factors or assumptions	<ul> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It may not always be possible to make assumptions regarding mining methods and parameters when estimating Mineral Resources. Where no assumptions have been made, this should be reported.</li> </ul>	The resources reported here have been estimated on the assumption that the deposits will be mined by open pit mining method.
		Analysis was done for grade continuity and variography. However, in some cases, no reliable variogram structure could defined on a zone by zone basis. The global variogram was assumed as this could have been affected by lack of data due to limited extend of the individual mineralised zones.
		Parent block model size was 50 x 50x 2m
		Sub-block size 5 x 5 x 0.5m
		The selected sub-blocks were appropriate for minimum selective mining unit.
Metallurgical factors or assumptions	• The basis for assumptions or predictions regarding metallurgical amenability. It may not always be possible to make assumptions regarding metallurgical treatment processes and parameters when reporting Mineral Resources. Where no assumptions have been made, this should be reported.	The metallurgical test work information supplied to the consultant is based on reports by H&SC which indicates that the Tiris deposits are amenable to a process of crushing, screening and an alkaline carbonate leach in order to recover uranium. Bench scale test work indicates that a significant upgrade in uranium and decrease in sulphate concentrations can be achieved through screening.
		No penalty elements identified in work done to date.

Pass 1. 250x250x12m search, 12-24 samples

		No other assumptions have been made.
		Metallurgical test work on Tiris ore has shown that about 55% to 58% of vanadium was also extracted during the alkaline leach. The $V_2O_5/U_3O_8$ ratios for the final leach liquor are close to the carnotite $V_2O_5/U_3O_8$ ratio, indicating that effectively only vanadium from carnotite is being leached under these conditions. To date, no vanadium extraction test work has been carried out for the recovery of vanadium from the pregnant leach solution, so further work is required to demonstrate that a marketable vanadium product can be produced on a commercial basis.
		No further assumptions have been made.
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.	Aura completed an Environmental and Social Impact Assessment which concluded there are no known issues arising from native title, historical sites, environmental or third-party matters which are likely to materially affect exploitation. The consultant therefore assumes that there are no known unusual aspects of the Tiris Uranium deposits that may lead to adverse environmental impacts beyond what is expected from a mining operation. Waste rock and process residue is expected to be disposed of in the areas surrounding the deposits and processing facility.
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, size, and representativeness of the samples.	The Mineral Resource estimates for Marie, Hippolyte W, Oum Ferkik West and Oum Ferkik East used an average density of 2.0/g/cc dry bulk density based on test done by Aura Energy. This was considered realistic for material and ore similar ore deposits. In the August 2021 Sadi South resource update, an average density value of 2.1g/cc dry bulk density was applied based on previous work as reported by H & S Consultants
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (i.e., relative confidence in tonnage/grade estimations, confidence in continuity of geology and metal values, quality, quantity, and distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	The Mineral Resource estimates for Marie, Hippolyte W, Oum Ferkik West and Oum Ferkik East were based on:
		Drill hole drill grid spacing
		Mineralisation and grade continuity
		The grade estimation search pass used to estimate the block.
		All mineral Resource estimates estimated in 2011 were classified as Inferred.
		Regions where grade was assigned an average grade due to insufficient drill data or isolated drill holes were not classified.
Audits or reviews	• The results of any audits or reviews of Mineral Resource estimates.	This Mineral Resource estimates for Marie, Hippolyte W, Oum Ferkik West and Oum Ferkik east are based on 2011 models and these were reviewed internally by Coffey Mining Consultants.

No material issues were identified as a result of these reviews.

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 in line with the generally accepted accuracy and confidence of the nominated JORC CODE (2012) Mineral Resource categories. This has been determined on both qualitative and quantitative basis. The main factor that affects the relative accuracy and confidence of the Mineral Resource estimate is sample data density and high variability in uranium grades. Confidence in mineralisation continuity is moderate. Most blocks were estimated in estimation run pass 1 and 2.

In regions where the geology and mineralisation are continuous and grade was estimated in estimation run pass 1, the confidence in the grade estimates is high and the resource was classified as indicated. The rest of the resource estimated was classified as inferred.

Some blocks were not estimated due to insufficient drill data particularly at the margins of the mineralised pods. Block not estimated in were assigned an average grade and these blocks were not classified.

Closer spaced drilling is necessary prior to detailed mine planning studies to increase confidence in the mineralisation variability.

There is no record available of historical production data.

Aura Energy Limited