

### **ASX Announcement**

### 2<sup>nd</sup> June 2023

# Large Gold System Confirmed at Fortitude North Lake Carey Gold Project

#### **HIGHLIGHTS**

- All assay results from the 2023 RC drill program of 20 holes focussed in the north of Fortitude North have now been received
- Seven of the top twelve intercepts at Fortitude North have come from the 2023 program (hole ids are prefixed with the year drilled):
  - o **25m @ 3.3g/t Au** from 147m (23FNRC006)
  - o 14m @ 3.4g/t Au from 113m, and;
  - o **35m @ 3.0g/t Au** from 150m (23FNRC016)
  - o 19m @ 3.8g/t Au from 100m (23FNRC011)
  - o **11m @ 3.8g/t Au** from 108m (23FNRC017)
  - o **11m @ 4.2g/t Au** from 130m (23FNRC007)
  - o 12m @ 3.4g/t Au from 143m (23FNRC022)
  - o **47m @ 2.55g/t** Au from 42m (18FNAC071)
  - o 4.0m @ 13.6g/t Au from 79m (20FNDD002)
  - o 3.4m @ 12.3g/t Au from 64m (20FNDD003)
  - o **10.3m @ 3.5g/t Au** from 124.6m (20FNDD004)
  - o 9.6m @ 3.3g/t Au from 120.8m (22FNDD009)
- The width and grade of these intersections are confirmation that Matsa has discovered a major gold mineralised system which remains open in all directions and additional drilling could further add significantly to the size of the defined mineralisation
- Key geological observations have established that there are multiple stages and styles of mineralisation, which invites comparisons to the world class 12M oz Sunrise Dam gold deposit located just 23km to the north within the same complex regional structure and geological setting
- The mineralisation at Fortitude North has now been defined by drilling over a strike length of 1.7km and has also been extended to the east by 70m to 250m across strike in the northern area

#### **CORPORATE SUMMARY**

#### **Executive Chairman**

Paul Poli

#### **Directors**

Pascal Blampain

Andrew Chapman

#### **Shares on Issue**

412.07 million

#### **Unlisted Options**

27.15 million @ \$0.08 - \$0.21

#### **Top 20 shareholders**

Hold 59.16%

### Share Price on 1<sup>st</sup> June 2023

3.6 cents

### **Market Capitalisation**

A\$14.83 million

Matsa Resources Limited ("Matsa", "Company") is pleased to advise excellent results from reverse circulation (RC) drilling at Fortitude North, Lake Carey (Figures 1 to 4). The drilling has now extended the Fortitude North discovery by 200m to the north resulting in a strike extent of 1.7km which remains open in both directions along strike. In addition, the drilling has extended mineralisation down dip to the east by 70m for a total width of some 250m across strike. The new 2023 drilling has added significantly to the potential size and scale of Fortitude North.

Of the 20 holes drilled there were:

- o 10 intercepts above 25 gram metres
- o 3 intercepts above 50 gram metres
- o 1 intercept above 100 gram metres, and
- o 13 intercepts greater than 10m thick

Multiple lodes were intersected within a number of holes whose results are highlighted in Table 1 below:

holeid	Comment / Assays (Au @1g/t cutoff)		Grade (Au g/t)	Gram x meter	Intercept (m)	Grade (Au g/t)	Gram x meter
23FNRC006	<b>25m @ 3.3g/t Au</b> from 147m	25	3.3	83			
23FNRC007	11m @ 4.2g/t Au from 130m and 6m @ 2.1g/t Au from 148m	11	4.2	46	6	2.1	13
23FNRC008	1m @ 1.1g/t Au from 99m	1	1.1	1			
23FNRC009	2m @ 1.5g/t Au from 115m	2	1.5	3			
23FNRC010	14m @ 2.9g/t Au from 130m and 30m @ 1.3g/t Au from 160m	14	2.9	41	30	1.3	39
23FNRC011	19m @ 3.8g/t Au from 100m and 3m @ 2.1g/t Au from 134m	19	3.8	72	3	2.1	6
23FNRC012	<b>16m @ 1.4g/t Au</b> from 88m and 4m @ 1.8g/t Au from 124m	16	1.4	22	4	1.8	7
23FNRC013	4m @ 3.3g/t Au from 110m	4	3.3	13			
23FNRC014	11m @ 1.2g/t Au from 67m and 2m @ 1.6g/t Au from 105m	11	1.2	13	2	1.6	3
23FNRC015	<b>7m @ 2.1g/t Au</b> from 119m	7	2.1	15			
23FNRC016	14m @ 3.4g/t Au from 113m and 35m @ 3.0g/t Au from 150m	14	3.4	48	35	3	105
23FNRC017	11m @ 3.8g/t Au from 108m	11	3.8	42			
23FNRC018	21m @ 1.7g/t Au from 120m	21	1.7	36			
23FNRC019	2m @ 1.5g/t Au from 135m	2	1.5	3	4		
23FNRC020	NSA (< 1g/t)	1	1.0	1			
23FNRC021	* NSA (< 1g/t)	3	0.3	1			
23FNRC022	* 12m @ 3.4g/t Au from 143m	12	3.4	41			
23FNRC023	* No lode logged	3	0.3	1			
23FNRC024	* 1m @ 2.4g/t Au from 164m		2.4	2	·	3	
23FNRC025	* 17m @ 0.9g/t Au from 121m	17	0.9	15			

Table 1: Summary of significant 2023 drilling results (expressed as grade times thickness)

Drilling continues to extend the bedrock mineralisation at Fortitude North towards the eastern and northern directions and at depth. Mineralised intersections continue to display excellent downhole thicknesses and good continuity. All drilling results are presented on long section (Figure 2) that highlights interpreted high grade shoot geometry. Drill hole section 6762840N (Figure 3) displays the recent results from holes 23FNRC015 and 23FNRC016 extending the known mineralisation approximately 70 metres towards the east with improved grades and thicknesses.

Mineralisation occurs within intensely deformed and altered basalt and dolerite containing minor interflow sedimentary intercalations and late stage felsic porphyry intrusions. The combination of multiple, thick and high grade mineralised intersections demonstrates the presence of a large hydrothermal gold system and supports Matsa's belief that, with further drilling, Fortitude North will be defined as a major gold deposit.

<sup>\*</sup>Denotes new results

A summary of all the drilling program can be found in Table 1 and Tables 3 & 4 of Appendix 1. JORC Tables can be found in Appendix 2.

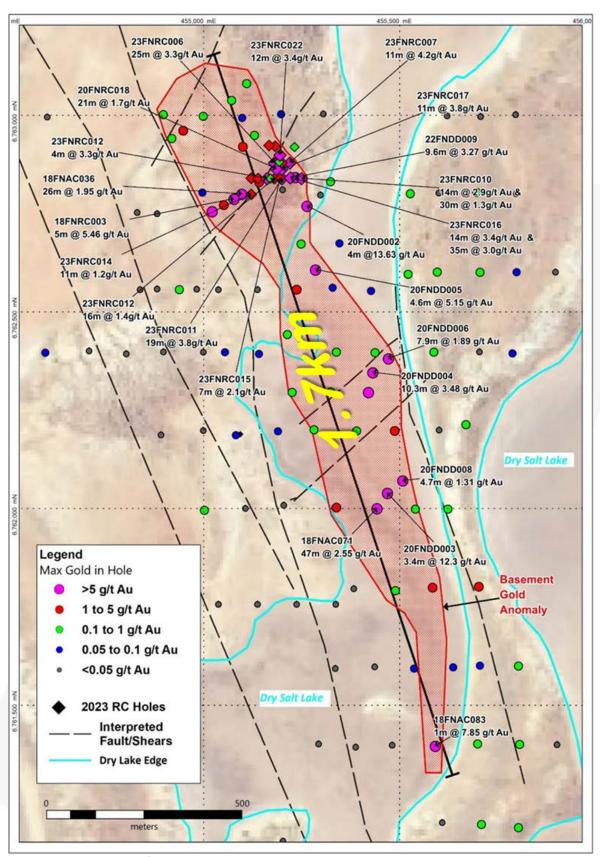


Figure 1: Summary of Fortitude North drilling updated with recent results and showing 1.7km strike extent

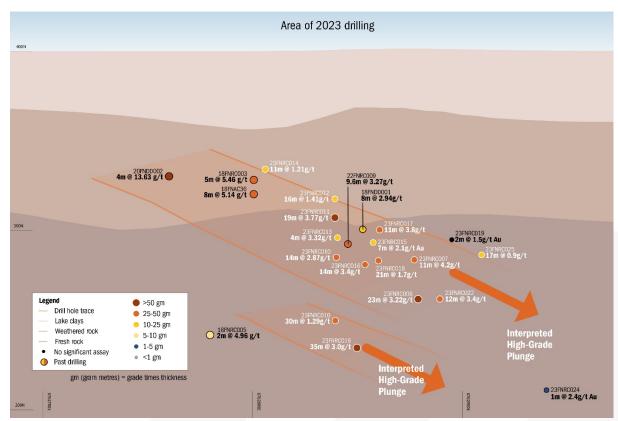


Figure 2: Longitudinal projection of Fortitude North with new drilling showing interpreted high grade plunging shoots

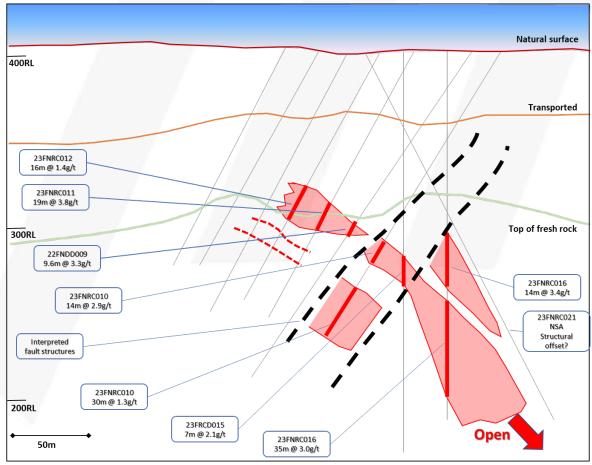


Figure 3: Interpreted drill section at 6762840N showing the best mineralisation is open at depth

#### Matsa Executive Chairman Mr Paul Poli commented:

"These fantastic results speak for themselves and whilst further work is obviously required, we see this as a confirmed significant discovery. In fact, I think Fortitude North will be substantially better than our Fortitude Gold Mine, only 6km to the south, where we have a gold resource of 489,000oz.

Matsa's geology team tell me that they can see multiple phases and styles of mineralisation that speaks to a very long lived system, with up to four gold forming events. Before this drilling, we were targeting another Fortitude, but all this now points to something much more substantial and our target is now much bigger commensurate with these bigger intercepts.

With this new information and the fact that mineralisation is still open in the major directions, we are targeting a mineralised system which is potentially in excess of 1Moz\* at Fortitude North, all the ingredients are there."

\*There has been insufficient exploration to model a JORC 2012 compliant Mineral Resource Estimate at Fortitude North and it is uncertain that further exploration will successfully result in a Mineral Resource Estimate of any size or that a future mining operation can be achieved.

#### **DRILLING AND DISCUSSION**

This focussed RC drilling program was aimed at providing sufficient drilling coverage to establish a maiden resource for the northern portion of the prospect. Through new logging and geological interpretation, it became evident that the Fortitude North mineralised zone could be extended through additional drilling and the program was amended to test lateral continuity both north and east. In this regard, the drilling has been successful in that lateral extensions that are now proven and importantly, the Fortitude North mineralisation remains open in all directions.

The nature of the drilling and assay results, have highlighted the system's potential size and scale. The new results all come from the northern end of the 1,700m long zone of basement gold mineralisation initially defined by aircore drilling. More than 700m of the basement gold footprint at the southern end of the mineralised zone, remains untested below aircore refusal.

The full program (holes 23FNRC006 to 23FNRC025) has substantially enhanced the outlook and expectations for Fortitude North following encouraging results outlined in Table 2 below:

holeid	pre-January model	Drilling results		) Comment ( Assess (	
noieia	Expected Intercept	Actual Intercept	Change (m)	Comment / Assays (Au @ 1g/t cutoff)	
23FNRC006	8	25	17	25m @ 3.3g/t Au from 147m	
23FNRC007	8	17	9	11m @ 4.2g/t Au from 130m and 6m @ 2.1g/t Au from 148m	
23FNRC008	6	1	-5	1m @ 1.1g/t Au from 99m	
23FNRC009	7	2	-5	2m @ 1.5g/t Au from 115m	
23FNRC010	11	44	33	14m @ 2.9g/t Au from 130m and 30m @ 1.3g/t Au from 160m	
23FNRC011	10	22	12	<b>19m @ 3.8g/t Au</b> from 100m and 3m @ 2.1g/t Au from 134m	
23FNRC012	18	20	2	16m @ 1.4g/t Au from 88m and 4m @ 1.8g/t Au from 124m	
23FNRC013	8	4	-4	4m @ 3.3g/t Au from 110m	
23FNRC014	10	13	3	11m @ 1.2g/t Au from 67m and 2m @ 1.6g/t Au from 105m	
23FNRC015	0	7	7	<b>7m @ 2.1g/t Au</b> from 119m	
23FNRC016	0	49	49	14m @ 3.4g/t Au from 113m and 35m @ 3.0g/t Au from 150m	
23FNRC017	13	11	-2	11m @ 3.8g/t Au from 108m	
23FNRC018	0	21	21	21m @ 1.7g/t Au from 120m	
23FNRC019	6	2	-4	2m @ 1.5g/t Au from 135m	
23FNRC020	0	0	0	NSA (< 1g/t)	
23FNRC021	0	0	0	NSA (< 1g/t)	
23FNRC022	0	12	12	12m @ 3.4g/t Au from 143m	
23FNRC023	0	0	0	No lode logged	
23FNRC024	0	1	1	1m @ 2.4g/t Au from 164m	
23FNRC025	0	17	17	17m @ 0.9g/t Au from 121m	

New assay information in blue

Table 2: Summary of 2023 drilling results outlining upside seen in the drilling program

Matsa engaged experienced and highly regarded consultant Economic Geologist, Nigel Maund, to inspect these exciting new mineralised intercepts as well as earlier intercepts in diamond drill-core, in order to provide an appraisal of the implications of these drilling results, including mineralisation style and geological characteristics.

The lithologic package which hosts the several stages of gold + quartz + sulphide stockwork vein and vein breccia styles of gold mineralization at Fortitude North, are comprised of variably hydrothermally altered sheared to massive basalts, dolerites and thin grey to black pyritic argillites invaded by late granodioritic to dacitic feldspar porphyry or micro-granitoid dikes. The latter vary from a few tens of centimetres up to two metres in width.

Both the drill core and RC cuttings testify to the nature of the structural architecture of Fortitude North, with this being comprised of multiple discrete to continuous shear zones developed on lithologic boundaries between basaltic lavas, tuffs, dolerite dikes and sills and thin folded units of grey to black argillites. An important fact in this regard, is the interplay between low angle thrust / shears and moderately to steeply dipping structures that likely relate to high grade shoots.

Three key features of the Fortitude North mineralisation were highlighted as follows:

- a) The paucity of lithologies displaying intense shearing compared to those displaying brittle fracture tectonics;
- b) Dominance by stockwork veining and vein breccias;
- c) The unusual dominance of gold mineralised zones by two or even three phases of stockwork veining and / or brecciation of massive fine to medium grained rocks characterised by intense to extreme pervasive albitisation and aphanitic silicification.

Maund, has observed 4 stages of veining and brecciation as evidence of a long lived gold forming system, which strongly supports the potential for Fortitude North to be a major gold deposit.

- An early, Stage 1, mylonitic shear hosted, quartz + pyrite vein system hosted within intensely sheared actinolite + chlorite ± epidote + disseminated magnetite + disseminated pyrite schists in zones varying from ± 20 to 40 m in width; Stage 1 gold mineralised system appears to be developed around more steeply dipping zones of intense (mylonitic) shearing preferentially developed on lithologic contacts between high Mg basalts (chlorite schists) and dolerite. (This geometric disposition of mineralisation bears direct comparison with the various ore bodies described for the Sunrise Dam Gold deposit (SDG) and exhibits the characteristics of the complex shear duplex structures described for the SDG).
- A complex 2nd stage of brittle ductile, shear controlled gold mineralised tectono hydrothermal breccia is developed within massive, pervasive, albite + quartz + pyrite + chlorite alteration. Stage 2 gold mineralised appears to be developed along gently dipping (20º - 25º) structures.
- A third mineralising event is characterised by the development of pervasive zones of silicification by mid grey to more rarely a bluish grey glassy quartz + disseminated arsenopyrite + ankerite + sericite (roscoelite) alteration over zones varying from 0.5 to 2 m with gold grades ranging from 5 to 10 g/t Au. This event overprints all earlier gold mineralisation events and is mineralogically like the gold mineralization reported for the SDG.
- A late 4th stage is dominated by milky quartz as irregular veinlets and vein breccias. The
  mineralisation styles are similar in style to those described for the SDG by Baker et al, 2010
  and McLelland et al, 2013.

Appendix 3 outlines key observations of the mineralisation from both Sunrise Dam and Fortitude North

Recognition of at least 3 stages of gold-mineralised hydrothermal veins and breccias at Fortitude North emphasises similarities with the giant Sunrise Dam deposit, only 23 km to the north, as described by Baker et al, 2010<sup>1</sup>, McLellan et al, 2013<sup>2</sup> and Porter<sup>3</sup> in their geologic papers and internet articles.

The importance of a complex fault step-over containing both the 12Moz Sunrise Dam and the 8Moz Wallaby deposit was highlighted by Zhang et al 2013 as a major control on these two giant gold deposits (Figure 5). The fault step-over described by Zhang, forms part of a larger regional scale step-over structure which includes Matsa's Fortitude North, Fortitude and Red October deposits and the Lancefield deposit further to the north within the Laverton Tectonic Zone (Figure 5). This complex fault array is interpreted to have been a major control of gold mineralisation in the district.



Photo: Drill site at Fortitude North, April 2023

<sup>1</sup> Baker T, Bartelli M, Blenkinsop T, Cleverley J S, McLellan J, Nugus M and Gillan D; "P – T – X Conditions of Fluids in the Sunrise Dam Gold Deposit. Western Australia. and Implications for the Interplay between Deformation and Fluids," ECON GEOL 2010, Vol 105, No 5, pp 873 – 886.

for the Interplay between Deformation and Fluids," ECON GEOL 2010, Vol 105, No 5, pp 873 – 886.

1 McLellan J G, Blenkinsop T G & Nugus M J; "Fluid Pressure, Geomechanical Evolution and Predictive Targeting of the Sunrise Dam Gold Deposit, Western Australia." World Gold Conference, Brisbane, Queensland, 26 – 29 September 2013

<sup>1</sup> Porter M J; "Sunrise Dam, Sunrise and Cleo Gold Deposits, Western Australia.," PORTERGEO Summary Deposit Report, Internet online

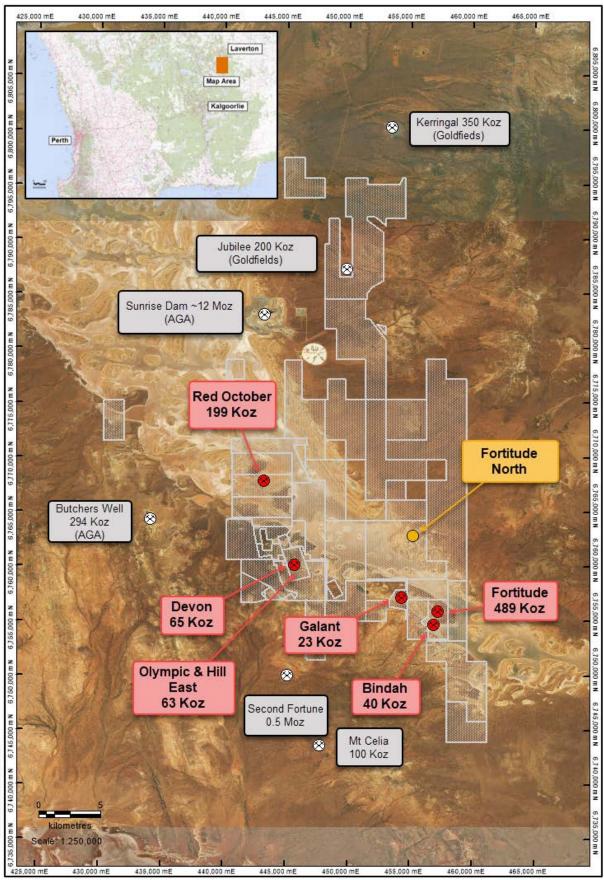


Figure 4: Matsa's Lake Carey Gold Project showing the location of the Fortitude North prospect, Fortitude Gold Mine and nearby significant resources.

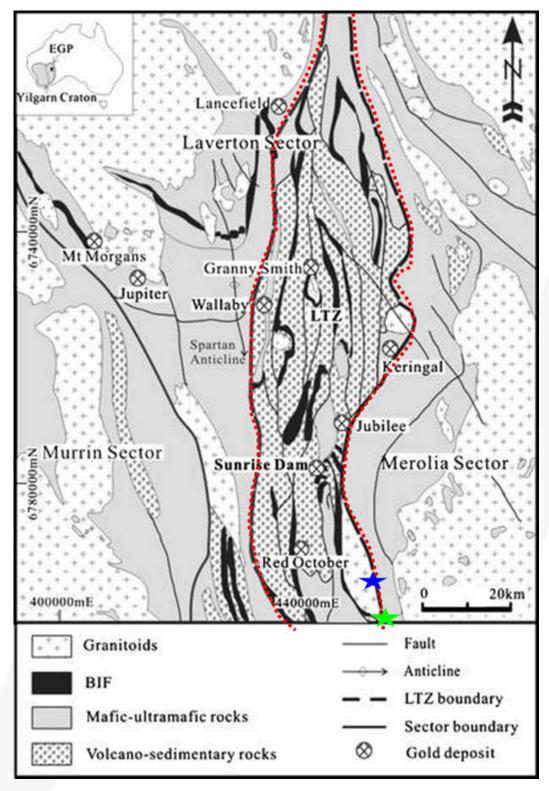


Figure 5: Simplified geological map of the Laverton Greenstone Belt (modified after Salier4 et al. 2005), showing the sectors suggested by Cassidy et al. (2002) and the position of Laverton Tectonic Zone (LTZ) that hosts most gold deposits in this area, including Sunrise Dam, Wallaby, Granny Smith, Fortitude North (blue) and Fortitude Gold Mine (green). Inset: the position of the area shown in the map (rectangle) in the Yilgarn Craton and Eastern Goldfield Province (EGP)

<sup>&</sup>lt;sup>4</sup> Salier, B.P., Groves, D.I., McNaughton, N.J., Fletcher, I.R., 2005. Geochronological and stable isotope evidence for widespread orogenic gold mineralization from a deep-seated fluid source at ca 2.65 Ga in the Laverton Gold Province, Western Australia. Economic Geology 100, 1363-1388



Photo: Drill site at Fortitude North, April 2023

#### **GEOLOGICAL COMPARSIONS TO SUNRISE DAM**

Detailed observations of mineralisation in diamond drill core and RC chips by Nigel Maund has been focused on gangue and ore mineralogy of mineralised vein types, timing relationships between veins and vein breccias and distinctive hydrothermal alteration associated with each of them.

The study concluded that Fortitude North is made up of two broadly different episodes of mineralised veins and vein breccias within which, there is evidence of further overprinting relationships between individual veins sets resulting in a multi episodic gold forming geological environment.

- The earliest stage comprises "ribbon" pyritic quartz veins (Type 1 veins) is characterised by
  ductile textures such as folds (ptygmatic folds) and pinch and swell shapes (boudinage) which
  are restricted to zones of intense shearing. Gold grades tend to vary from 0.8 to +4 g/t Au
  depending on the density of veining. Higher gold grades are typically accompanied by the
  presence of arsenopyrite and carbonate development as shown in Figure 6
- Later mineralisation (Type 2 Veins) characterized by predominantly brittle deformation with development of pyritic quartz crackle veins and breccias with clear overprinting relationships between them into strongly silicified and bleached (albite altered) mafic volcanics (Figure 7)

These findings are taken as evidence that gold mineralisation at Fortitude North is the product of multiple stages of deformation and intense hydrothermal activity which were active over a long period of time.

Such strong evidence of the long lived multi-staged nature of mineralisation at Fortitude North has led to speculation about whether these are linked both in space and time, to the processes which led to the formation of the nearby giant gold deposits at Sunrise Dam (SGD) and Wallaby (W) located 25km and 50km respectively, to the north of Fortitude North in the Laverton Tectonic Zone (LTZ). The report

by Maund, presents a comparison between key geological elements at Fortitude North and SGD and concludes that despite differences in host rocks, structural orientation and vein and alteration chemistry, there is a common thread of episodic pulses of gold mineralised veins and vein breccias which makes the likelihood that they are linked to the same deformation events, worthy of closer consideration.



Figure 6: Core from 188.22-188.44m depth in diamond drillhole 20FNDD005 illustrates Type 1 ribbon quartz veins in strongly sheared mafic volcanics



Figure 7: Core from 107.76 to 108m depth in diamond drillhole 20FNDD001 illustrates Type 2 brittle fracture style of gold mineralisation as crackle veins and vein fill breccia

Analysis by Zhang et at (2013) showed that SGD and W are located within a complex fault step over or thrust duplex structure (Figure 8). This study demonstrated that the world class SGD and W gold

deposits are the product of multiple deformation and fault re-activation events within this regional structure. The orientation and nature of individual bodies of mineralisation within these deposits (there are at least 20 orebodies at Sunrise Dam) varied according to the ambient stress regime, and resulting complex interplay between multiple faults, and local fluid sources.

#### **NEXT STEPS**

Key work plan to advance the Fortitude North prospect include:

- Update geological model
- Continue research into application of 3D seismic survey under R&D to improve drill targeting under 40m of cover
- Design next round of drilling
  - it is likely diamond drilling will be required to obtain critical orientation data, associated with the various phases of mineralisation as well as understanding structural complexities seen in the eastern margins of the mineralised system (eg section 6762840N of Figure 2
  - o drilling initially focussed on the northern section which can use land based drilling rigs
  - o once the northern setting is better understood, progressively work south under the lake where Matsa has identified high grade gold intercepts in previous drilling

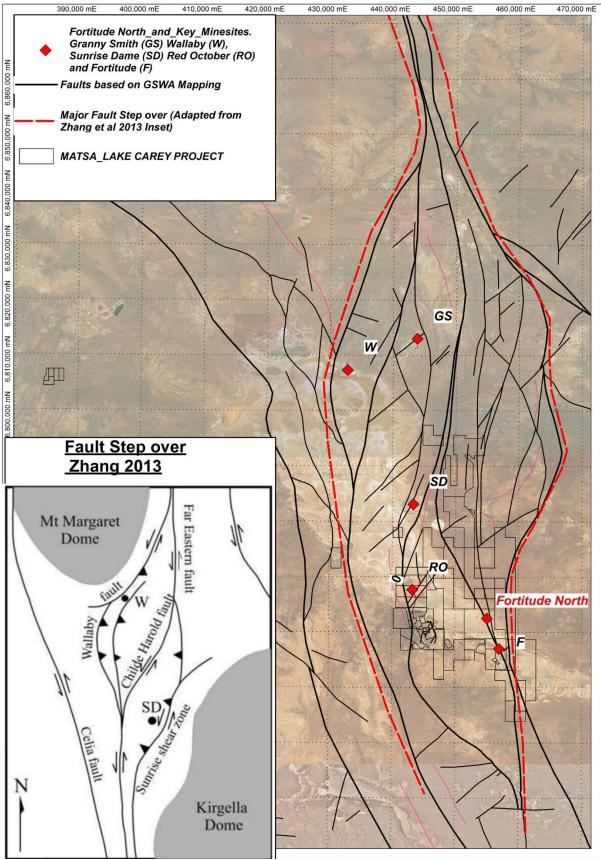


Figure 8 (a) Structural elements of major fault step-over structure related to the giant Sunrise Dam (SD) and Wallaby (W) deposits. (b) Location of SD and W together with Matsa's Fortitude North (FN), Fortitude (F) and Red October (RO) gold deposits on published GSWA structural data demonstrating their position within this major dilational jog.

#### **MINERAL RESOURCES**

The global Mineral Resource Estimate for the Lake Carey Gold Project remains at **886,000oz @ 2.4g/t Au** as outlined in Table 2 below.

	Cutoff Measured		Indic	cated Inferred		rred	Total Resource		urce	
	g/t Au	('000t)	g/t Au	('000t)	g/t Au	('000t)	g/t Au	('000t)	g/t Au	('000 oz)
Red October										
Red October UG	2.0	105	8	483	5.7	411	6.3	999	6.2	199
Red October Subtotal		105	8.4	483	5.7	411	6.3	999	6.2	199
Devon										
Devon Pit (OP)	1.0	-	-	341	4.8	102	3.6	443	4.6	65
Olympic (OP)	1.0	-	-	-	-	171	2.8	171	2.8	15
Hill East (OP)	1.0	-	-	-	-	748	2.0	748	2.0	48
Devon Subtotal		-	-	341	4.8	1021	2.3	1362	2.9	1 <b>2</b> 8
Fortitude										
Fortitude	1.0	127	2.2	2,979	1.9	4,943	1.9	8,048	1.9	489
Gallant (OP)	1.0	-	-	-	-	341	2.1	341	2.1	23
Bindah (OP)	1.0	-	-	43	3.3	483	2.3	526	2.4	40
Fortitude Subtotal		127	2.2	3021	2.0	5,767	1.9	8,915	1.9	<i>55</i> 3
Stockpiles		-	-	-	-	191	1.0	191	1.0	6
Total		232	5.0	3,845	2.7	7,199	2.2	11,467	2.4	886

### Table 2: Lake Carey Resource\*

This ASX announcement is authorised for release by the Board of Matsa Resources Limited.

For further information please contact:

Paul Poli Executive Chairman T 08 9230 3555 E reception@matsa.com.au

#### **Competent Person Statement**

#### **Exploration results**

The information in this report that relates to Exploration results is based on information and compiled by Pascal Blampain, who is a Member of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Blampain serves on the Board and is a full time employee, of Matsa Resources Limited. Mr Blampain has sufficient experience which is relevant to the style of mineralisation and the type of ore deposit under consideration and the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Blampain consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

<sup>\*</sup>Matsa confirms that it is not aware of any new information or data that materially affects the Resource as stated. All material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply and have not changed since the last release.

<sup>\*</sup>Special note: The Resources of the Devon Pit project, representing 65koz, are subject to the profit share Joint Venture Agreement announced on 23 December 2022<sup>5</sup>.

 $<sup>^{\</sup>sf 5}$  ASX Announcement 23rd December 2022-Settlement of Devon Pit JVA With Linden - Devon Gold Project

### Appendix 1

### **Table 2: Collar Details**

Hole_ID 🔼	Hole_Type <u></u>	Depth _	East	North	RL _	Dip _	Azimuth	NAT_Grid_ID	Lease_ID <u></u>
23FNRC006	RC	178	455180	6762880	403	-60	270	MGA94_51	E39/1864
23FNRC007	RC	220	455220	6762880	402	-60	269	MGA94_51	E39/1864
23FNRC008	RC	142	455121	6762841	403	-61	269	MGA94_51	E39/1864
23FNRC009	RC	140	455138	6762841	403	-61	270	MGA94_51	E39/1864
23FNRC010	RC	190	455250	6762840	402	-60	267	MGA94_51	E39/1864
23FNRC011	RC	178	455200	6762840	402	-60	269	MGA94_51	E39/1864
23FNRC012	RC	160	455180	6762840	403	-61	269	MGA94_51	E39/1864
23FNRC013	RC	170	455161	6762840	403	-60	268	MGA94_51	E39/1864
23FNRC014	RC	140	455121	6762800	402	-60	270	MGA94_51	E39/1864
23FNRC015	RC	221	455195	6762840	402	-90	269	MGA94_51	E39/1864
23FNRC016	RC	239	455221	6762842	402	-90	0	MGA94_51	E39/1864
23FNRC017	RC	187	455199	6762863	402	-61	269	MGA94_51	E39/1864
23FNRC018	RC	215	455185	6762864	402	-89	129	MGA94_51	E39/1864
23FNRC019	RC	191	455200	6762880	403	-61	269	MGA94_51	E39/1864
23FNRC020	RC	190	455193	6762882	402	-90	148	MGA94_51	E39/1864
23FNRC021	RC	240	455170	6762840	403	-60	90	MGA94_51	E39/1864
23FNRC022	RC	185	455194	6762899	403	-89	130	MGA94_51	E39/1864
23FNRC023	RC	221	455232	6762921	403	-90	70	MGA94_51	E39/1864
23FNRC024	RC	175	455182	6762923	403	-89	242	MGA94_51	E39/1864
23FNRC025	RC	165	455166	6762924	404	-80	275	MGA94_51	E39/1864

Table 3: Assay Results >1.00g/t Au

Hole_ID	Depth From	Depth To	Au_Batch_No	Au_ppm
	<b>▼</b>	<b>▼</b>	Tu_butch_iv	,T
23FNRC006	147	148	KA23007265	1.65
23FNRC006	148		KA23007265	3.76
23FNRC006	149		KA23007265	6.33
23FNRC006	150		KA23007265	6.44
23FNRC006	151		KA23007265	4.91
23FNRC006	152		KA23007265	2.46
23FNRC006	153		KA23007265	1.16
23FNRC006	158		KA23007265	5.71
23FNRC006	159		KA23007265	7.12
23FNRC006	160		KA23007265	10.60
23FNRC006	161		KA23007265	3.66
23FNRC006	162		KA23007265	1.06
23FNRC006	165		KA23007265	3.14
23FNRC006	167		KA23007265	7.61
23FNRC006	169		KA23007265	5.15
23FNRC006	170		KA23007265	1.58
23FNRC006	171		KA23007265	1.39
23FNRC007	130		KA23007265	1.44
23FNRC007	131		KA23007265	2.04
23FNRC007	132		KA23007265	2.68
23FNRC007	133		KA23007265	3.85
23FNRC007	134		KA23007265	6.42
23FNRC007	135		KA23007265	5.38
23FNRC007	136		KA23007265	6.99
23FNRC007	137		KA23007265	8.11
23FNRC007	138	139	KA23007265	5.52
23FNRC007	139	140	KA23007265	2.23
23FNRC007	140	141	KA23007265	1.57
23FNRC007	148	149	KA23007265	1.72
23FNRC007	149	150	KA23007265	3.71
23FNRC007	150	151	KA23007265	2.77
23FNRC007	151	152	KA23007265	1.69
23FNRC007	152	153	KA23007265	1.56
23FNRC007	153	154	KA23007265	1.16
23FNRC008	99	100	KA23035727	1.09
23FNRC009	115	116	KA23011178	1.74
23FNRC009	116	117	KA23011178	1.32
23FNRC010	86	87	KA23059245	1.78
23FNRC010	87	88	KA23059245	1.91
23FNRC010	130	131	KA23011513	5.48
23FNRC010	131	132	KA23035727	3.96
23FNRC010	132	133	KA23011513	3.13
23FNRC010	133	134	KA23011513	3.09
23FNRC010	134		KA23011513	3.25
23FNRC010	135		KA23011513	2.34
23FNRC010	136	137	KA23011513	1.49
23FNRC010	137		KA23011513	1.26
23FNRC010	138	139	KA23011513	3.21

23FNRC010	140	141	KA23011513	4.67
23FNRC010	141	142	KA23011513	1.01
23FNRC010	143	144	KA23011513	3.45
23FNRC010	148	149	KA23011513	1.01
23FNRC010	151	152	KA23011513	1.92
23FNRC010	154	155	KA23011513	1.88
23FNRC010	160	161	KA23011513	4.38
23FNRC010	164	165	KA23011513	1.18
23FNRC010	165	166	KA23011513	1.57
23FNRC010	167	168	KA23011513	1.17
23FNRC010	176	177	KA23011513	1.11
23FNRC010	177	178	KA23011513	1.41
23FNRC010	178	179	KA23011513	3.09
23FNRC010	179	180	KA23011513	1.22
23FNRC010	180	181	KA23011513	1.57
23FNRC010	182	183	KA23011513	1.58
23FNRC010	183	184	KA23011513	1.08
23FNRC010	184	185	KA23011513	2.54
23FNRC010	188	189	KA23011513	1.16
23FNRC010	189	190	KA23011513	1.07
23FNRC011	100	101	KA23011513	4.47
23FNRC011	101	102	KA23011513	6.54
23FNRC011	102	103	KA23011513	4.92
23FNRC011	103	104	KA23011513	4.53
23FNRC011	104	105	KA23011513	4.42
23FNRC011	105	106	KA23011513	4.72
23FNRC011	109	110	KA23011513	1.56
23FNRC011	110	111	KA23011513	1.72
23FNRC011	111	112	KA23011513	8.07
23FNRC011	112	113	KA23011513	8.81
23FNRC011	113	114	KA23011513	4.46
23FNRC011	114	115	KA23011513	1.57
23FNRC011	115	116	KA23011513	2.54
23FNRC011	116	117	KA23011513	1.21
23FNRC011	117	118	KA23011513	1.03
23FNRC011	118	119	KA23011513	1.02
23FNRC011	135	136	KA23011513	1.59
23FNRC012	88	89	KA23012035	1.14
23FNRC012	89	90	KA23012035	1.12
23FNRC012	91	92	KA23012035	3.93
23FNRC012	94	95	KA23012035	1.14
23FNRC012	97	98	KA23012035	3.35
23FNRC012	98	99	KA23012035	2.42
23FNRC012	101	102	KA23012035	2.46
23FNRC012	124	125	KA23012035	1.48
23FNRC012	126		KA23012035	1.77
23FNRC012	127	128	KA23012035	1.15
23FNRC013	110		KA23013028	1.78
23FNRC013	111		KA23013028	1.66
23FNRC013	112	113	KA23013028	6.27

23FNRC013	113	114	KA23013028	3.56
23FNRC014	67	68	KA23013003	2.13
23FNRC014	69	70	KA23013003	3.72
23FNRC014	74	75	KA23013003	1.43
23FNRC014	76	77	KA23013003	1.23
23FNRC014	77	78	KA23013003	1.04
23FNRC014	105	106	KA23013003	1.35
23FNRC014	106	107	KA23013003	1.85
23FNRC014	116	117	KA23013003	1.56
23FNRC015	119	120	KGI23-10282	1.86
23FNRC015	120	121	KGI23-10282	3.52
23FNRC015	121	122	KGI23-10282	3.05
23FNRC015	122	123	KGI23-10282	1.31
23FNRC015	123	124	KGI23-10282	1.32
23FNRC015	124	125	KGI23-10282	1.68
23FNRC015	125	126	KGI23-10282	1.72
23FNRC015	133	134	KGI23-10282	2.85
23FNRC015	139	140	KGI23-10282	1.91
23FNRC015	152	153	KGI23-10282	1.12
23FNRC015	153	154	KGI23-10282	1.11
23FNRC015	206	207	KGI23-10282	1.02
23FNRC016	103	104	KGI23-10282	1.05
23FNRC016	106	107	KGI23-10282	2.09
23FNRC016	107	108	KGI23-10282	3.92
23FNRC016	113	114	KGI23-10282	3.78
23FNRC016	114	115	KGI23-10282	9.03
23FNRC016	115	116	KGI23-10282	6.96
23FNRC016	117	118	KGI23-10282	3.62
23FNRC016	118	119	KGI23-10282	2.78
23FNRC016	121	122	KGI23-10282	3.56
23FNRC016	122	123	KGI23-10282	4.45
23FNRC016	123	124	KGI23-10282	3.49
23FNRC016	124	125	KGI23-10282	1.16
23FNRC016	126	127	KGI23-10282	1.51
23FNRC016	150	151	KGI23-10282	1.26
23FNRC016	153	154	KGI23-10282	9.98
23FNRC016	154	155	KGI23-10282	8.38
23FNRC016	155	156	KGI23-10282	4.22
23FNRC016	156	157	KGI23-10282	3.22
23FNRC016	158	159	KGI23-10282	1.86
23FNRC016	159	160	KGI23-10282	1.38
23FNRC016	160	161	KGI23-10282	1.79
23FNRC016	164	165	KGI23-10282	2.84
23FNRC016	165	166	KGI23-10282	9.66
23FNRC016	166	167	KGI23-10351	3.57
23FNRC016	167	168	KGI23-10351	1.86
23FNRC016	168	169	KGI23-10351	1.93
23FNRC016	169	170	KGI23-10351	1.45
23FNRC016	170	171	KGI23-10351	9.73
23FNRC016	171	172	KGI23-10351	5.77

23FNRC016	172	173	KGI23-10351	2.58
23FNRC016	174	175	KGI23-10351	4.88
23FNRC016	176	177	KGI23-10351	1.97
23FNRC016	178	179	KGI23-10351	1.45
23FNRC016	179	180	KGI23-10351	1.42
23FNRC016	180	181	KGI23-10351	3.06
23FNRC016	181	182	KGI23-10351	2.13
23FNRC016	182	183	KGI23-10351	1.89
23FNRC016	183	184	KGI23-10351	2.37
23FNRC016	184	185	KGI23-10351	1.35
23FNRC017	108	109	KGI23-10351	3.80
23FNRC017	109		KGI23-10351	9.14
23FNRC017	110	111	KGI23-10351	3.37
23FNRC017	111		KGI23-10351	2.28
23FNRC017	112		KGI23-10351	1.92
23FNRC017	113		KGI23-10351	4.28
23FNRC017	114		KGI23-10351	2.73
23FNRC017	115		KGI23-10351	7.82
23FNRC017	116		KGI23-10351	3.22
23FNRC017	117		KGI23-10351	1.66
23FNRC017	118		KGI23-10351	1.49
23FNRC018	120		KGI23-10412	2.54
23FNRC018	121		KGI23-10412	2.15
23FNRC018	122		KGI23-10412	1.53
23FNRC018	123		KGI23-10412	2.29
23FNRC018	124		KGI23-10412	1.57
23FNRC018	126		KGI23-10412	2.27
23FNRC018	127		KGI23-10412	1.36
23FNRC018	128		KGI23-10412	1.62
23FNRC018	132	133	KGI23-10412	5.01
23FNRC018	133		KGI23-10412	1.91
23FNRC018	134	135	KGI23-10412	1.73
23FNRC018	138		KGI23-10412	1.37
23FNRC018	139	140	KGI23-10412	5.07
23FNRC018	140		KGI23-10412	1.68
23FNRC018	164		KGI23-10412	1.41
23FNRC018	173		KGI23-10412	1.41
23FNRC019	119		KGI23-10437	1.43
23FNRC019	130		KGI23-10437	1.07
23FNRC019	135		KGI23-10437	1.62
23FNRC019	136		KGI23-10437	1.45
23FNRC020	No significant assays			
23FNRC021	No significant assays			
23FNRC022	143	144	KGI23-10547	2.11
23FNRC022	144		KGI23-10547	13.89
23FNRC022	145		KGI23-10547	1.76
23FNRC022	146		KGI23-10547	1.17
23FNRC022	147		KGI23-10547	6.02
				0.02
23FNRC022	148	149	KGI23-10547	6.03

23FNRC022	152	153	KGI23-10547	1.48
23FNRC022	153	154	KGI23-10547	2.57
23FNRC022	154	155	KGI23-10547	3.02
23FNRC023	No significant	assays	•	
23FNRC024	140	141	KGI23-10549	1.41
23FNRC024	153	154	KGI23-10549	1.14
23FNRC024	164	165	KGI23-10549	2.37
23FNRC025	121	122	KGI23-10549	2.79
23FNRC025	124	125	KGI23-10549	1.05
23FNRC025	125	126	KGI23-10549	1.47
23FNRC025	127	128	KGI23-10549	1.38
23FNRC025	137	138	KGI23-10549	1.93
23FNRC025	138	139	KGI23-10549	2.13
23FNRC025	149	150	KGI23-10549	2.07

### **Appendix 2** - Matsa Resources Limited

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> </ul>	RC samples were collected directly off the drill rig cyclone in pre-numbered calico sample bags after passing through a rig mounted cone splitter. The splitter and cyclone were free flowing at all times and were cleaned at the end of each rod.  3 metre composite samples were taken while drilling through the transported overburden using a scoop. All composite samples that assay >0.1g/t Au will have the original 1m splits assayed at a later date.
	<ul> <li>Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	Duplicate sample were taken every 20m and the assays compared to the original.
	<ul> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Samples up to 3kg were pulverised to produce a 30g charge for fire assay. Samples >3kg were split prior to pulverization.
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>	Drilling was carried out using a truck mounted RG rig and face sampling hammer.
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Sample recovery was determined as being appropriate if the bulk residue volume was reasonably consistent.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Every effort was made to clean sample system at the end of each 6m rod. The cyclone was kept free flowing even when samples became wet. Drill penetration was paused at each meter if the samplers could not keep up.

Criteria	JOF	RC Code explanation	Commentary
	•	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.	Not applicable, no relationship between sample recovery and grade has been identified.
Logging	•	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	All holes were logged for colour, lithology, regolith, alteration, mineralization and texture directly into Logchief software using standard geological logging codes.
	•	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging is qualitative in nature and washed samples were stored in chip trays and photographed.
	•	The total length and percentage of the relevant intersections logged.	All sample intervals were logged.
Sub-sampling techniques	•	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable.
and sample preparation	•	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Samples were collected directly off a rig mounted cone splitter in calico sample bags. When samples became wet the cyclone was kept free flowing. Composite samples were collected using a scoop from bagged RC residues. The 1m original samples were stored for later assay if required.
	•	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	All samples dried and subject to conventional crushing and pulverizing appropriate for 30g fire assay.
	•	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples	Matsa employed detailed QAQC procedures utilising field duplicates every 20m as well as having standard and blank samples inserted into the sample sequence.
	•	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	Field duplicates were taken every 20m and compared with the original results.
	•	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample weights of 2-3kg are adequate for gold.
Quality of assay data and	•	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	30g fire assay is standard for gold and considered total.

Criteria	JOF	RC Code explanation	Commentary
laboratory tests	•	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.	Not Applicable.
	•	Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie. lack of bias) and precision have been established.	The use of standards, blanks and field duplicates have established that there is no significant bias cause by sampling or laboratory procedures and an appropriate level of precision has been established.
Verification of sampling and assaying	•	The verification of significant intersections by either independent or alternative company personnel.	All assay and sampling procedures have been verified by Company personnel. All results reviewed and cross checked internally.
	•	The use of twinned holes.	No twinned holes were completed.
	•	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological and sampling data recorded using Logchief software in the field. Data was verified both in the database as well as in section and plan.
	•	Discuss any adjustment to assay data.	Not Applicable, no adjustment has been made to assay data.
Location of data points	•	Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	Collar location was set out using a DGPS and after completion of the program will be picked up by DGPS accurate to 10cm
	•	Specification of the grid system used.	GDA94 UTM co-ordinate system Zone 51.
	•	Quality and adequacy of topographic control.	DGPS set out and pickups are accurate to 10cm.
Data spacing and	•	Data spacing for reporting of Exploration Results.	Drill hole spacing for this program varies between 40m x 40m and 20m x 20m.
distribution	•	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.	Not Applicable, no Mineral Resource or Ore Reserve figure have been quoted from this drilling.
	•	Whether sample compositing has been applied.	Samples were composited to 3 metres only in the barren transported overburden.

Criteria	JOI	RC Code explanation	Commentary
Orientation of data in relation to geological structure	•	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	The lode orientation was determined by previous RC and Diamond drilling. Drilling was planned to intersect both the primary lodes and supergene mineralization at a high angle.
	•	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.	Drilling was planned to intersect both the primary lodes and supergene mineralisation at a high angle.
Sample security	•	The measures taken to ensure sample security.	Samples are delivered directly to the laboratory in Kalgoorlie by Matsa Staff. Sample submission (chain of custody) forms were completed and verified with the samples delivered by laboratory staff. Any discrepancies were corrected prior to sample preparation and assay.
Audits or reviews	•	The results of any audits or reviews of sampling techniques and data.	Not applicable, no audit carried out.

# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <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 license to operate in the area.</li> </ul>	Exploration was carried out over the following tenements: E39/1864, the tenement is 100% held by Matsa Gold Ltd, a wholly owned subsidiary of Matsa Resources Ltd.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Not applicable.
Geology	Deposit type, geological setting and style of mineralisation.	Drilling was carried out based on a target concept of orogenic gold mineralisation along major NNW trending shear zones including the Fortitude Fault.

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	Drill hole information including set out co-ordinates, dip, azimuth and hole depths are tabled in Appendix 1 of this report.
	• 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.	Not applicable, no significant information was excluded.
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> </ul>	Gold results were averaged to a cut-off of 0.5g/t and included up to 2m of internal waste. No high grade cuts were applied.
	<ul> <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 shown in detail.</li> </ul>	Short lengths of high grade results >3g/t Au were reported within larger lower grade intersections. Where this occurred, it was clearly noted in the report as "including".
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	Not Applicable, no metal equivalents have been used.
Relationship between mineralisation	These relationships are particularly important in the reporting of Exploration Results.  If the result of the relationships are particularly important in the reporting of Exploration Results.	All intercepts quoted relate to downhole depth and true widths have not been quoted.
widths and	• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	Drilling was planned to intersect the mineralisation at a high angle, however true widths still have not been reported.
intercept lengths	• 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').	Intercepts are expressed in downhole metres.
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>	Appropriate maps and sections have been included in the body of the report.

Criteria	JORC Code explanation	Commentary
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>	All drill intercepts >1 g/t Au are reported and tabled in Appendix 1.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	Not applicable, no other substantive data is being reported.
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>	The nature of further work is discussed in the report including the completion of the current drilling program as a priority.

### Appendix 2

A Comparative Geologic Study between the key characteristics of Sunrise Dam Gold Deposit and the Fortitude North Gold project

Geologic Features	Sunrise Dam	Fortitude North
Geologic Structural Regime	Complex Multistage Shear Duplex	Complex Multistage Shear Duplex
	Controlled within a NE structural corridor measuring 4.5 to 5 km in strike extent	Controlled within a structural corridor extending over 1.6 km. However, it is open along strike in both directions
Key Structural Controls	The twenty defined gold orebodies are centred upon a series of parallel, gently dipping (~ 30°), and NE – trending shear zones with a thrust duplex architecture and high-strain character.	Suggestion of both gently NE dipping mineralized NNW (?) striking structures and steeply dipping mineralised structures suggesting the presence of a low angle thrust duplex.
Number of Deformation Events	Four recognised deformation events D1 to D4 (divided into (a) and (b). The earliest deformation (D1) formed F1 folds and thrusts in response to N – S directed compression and shortening (S1). The second event (D2) was characterised by regional E – W shortening associated with the formation of the regional Spartan Anticline. The two following stages, D3 and D4, were responsible for the bulk of the gold mineralisation. D3 produced major shearing and / or fault because of deformation caused by NNW – SSE to NW – SE orientated stress. This event was responsible for the reactivation of S1 and S2 with sinistral strike slip movement as well as development of mineralised S3 fractures and NE striking extensional vein arrays.	At least three and, most likely, four deformation events although the structural architecture is not understood. Age relationships between the various deformation stages remains to be established and fully documented. Likely there are two main deformation events with D2 mineralisation separated by a hiatus between the later D3 and D4 events. The styles of mineralisation between D2 and D3 & D4 are substantial in terms mineralisation style and hydrothermal alteration mineralogy.
Influence of several deformation events on gold mineralization with multi- stage gold mineralization	The D1 and D2 deformation stages were associated with hydrothermal alteration of the rocks by carbonate + chlorite + sericite attended by low grade gold mineralization of typically < 1 g/t Au.  The D3 and D4 veins differ in terms of mineralogy, texture, and their geochemical signatures. The vein	Interpreted D2 mineralization is characterised by the formation of a 0.5 to 5 vol% system of sheeted quartz + chlorite veins / veinlets hosted within intensely sheared quartz + Fe chlorite + epidote + disseminated pyritic schists. The gold grade in this style of mineralisation varies from 0.5 to

	filling consists of quartz and	3.5 g/t Au but typically averages
	carbonates in various proportions.	around 1 to 1.5 g/t Au.
	Quartz predominates in the D <sub>4b</sub>	
	veins. Pyrite is the main ore	There is an indicated substantial
	mineral present in all veins with	hiatus between D2 and D3 and
	arsenopyrite being particularly	possibly D4 stages. The latter (D3?)
	rich in D4a, and base metal	are characterised by an earlier
	sulphides and Pb – Sb sulfosalts	pale to mid grey, aphanitic quartz
	found in D <sub>4b</sub> veins. Tellurides are	+ pyrite veinlets as a stockwork,
	present in both types of D <sub>4</sub> veins,	crackle fill and hydrothermal jig –
	but it is particularly abundant in	saw breccia styles within a zone of
	the D <sub>4b</sub> veins. Coarse native gold is	intense pervasive albitisation (30
	common in the D <sub>4a</sub> veins. Evidence	to 60 vol%) alteration +
	of overlap between D4 and D3	disseminated pyrite
	events / stages are ubiquitous. D4	mineralisation. This stage ids
	veinlets contain dark internal	overprinted by later stage of
	laminae which often are stylolitic	irregular stockwork type, milky
	and comprise a complex	white quartz + remnant chlorite
	mineralogy of muscovite,	veinlets ± disseminated pyrite
	tourmaline, apatite, and rutile as	attended by pervasive silicification
	well as containing pyrite, native	and sericite + disseminated pyrite
	gold and tellurides. So termed	alteration. This may be a D4 stage.
	Group II ore bodies are located	A late pervasive style of pale glassy
	within steeply dipping ore bodies.  In these, mineralisation is	grey + fine grained arsenopyrite mineralisation replaces earlier
	In these, mineralisation is dominantly hosted within tectono	mineralisation replaces earlier mineralisation styles and is
	<ul> <li>hydrothermal jig – saw breccia</li> </ul>	attended by roscoelite (V sericite)
	zones and veins. Breccia zones	alteration.
	may be up to a few meters wide.	aiteration.
	Multiple ore-shoots in 20 defined	Multiple ore shoots are indicated
	ore bodies. These vary in their	with drill hole intercepts indicating
Ore Body Geometry	width and geologic strikes with	shoots varying from 2 to 4 up to
	withs varying from 2 to 10 meters.	6m in width.