

## **ASX Announcement**

31st October 2016

## **Quarterly Activities Report – 30<sup>th</sup> September 2016**

#### **HIGHLIGHTS**

## Lake Carey Project

- All works and mine planning targeting commencement of mining at Fortitude in the new year are well advanced and on schedule
- The Fortitude mineral resource was upgraded, to fully comply with JORC 2012 guidelines, and confirms the previously announced resource estimate of 385,300 oz Au
- Further resource definition, metallurgical, hydrogeological and geotechnical drilling together with fauna and flora surveys commenced during the quarter and are almost complete with final results expected towards the end of the year
- Applications for statutory permits to enable mining operations to commence at Fortitude, are well advanced with approvals expected early in the new year
- Exploration programme on advanced targets including Bindah and Galant to commence shortly with POW's granted

## Paisali Base Metal Project Thailand

- Diamond drilling of coincident soil copper and IP anomalism within a large complex magnetic feature, is well advanced with four of seven planned drill holes currently completed for 766m of drilling
- Potentially significant disseminated chalcopyrite mineralisation associated with magnetite and quartz carbonate veining was intersected in all drill holes
- Visible trace chalcopyrite observed in all holes including intersections over significant widths in excess of 100m e.g. 16SCDH03

#### Mt Day Nickel Project

- RC drilling intersected strongly enriched Ni values in deeply weathered ultramafic rocks with a best intercept of 44m @ 0.50% Ni, 0.02% Cu and 0.05% Co from 28m including 16m @ 0.85% Ni, 0.05% Cu and 0.08% Co
- Enriched Ni values occur in iron rich laterite containing fragments displaying textures suggestive of the presence of a sulphide source

#### Mt Weld Gold Project

• RC drilling confirms continuity of gold mineralisation at depth at Wilga Bore prospect with a best intercept of 4m @ 0.94 g/t Au from 188m

#### **Corporate**

Cash and liquid investments as at 30<sup>th</sup> September was in excess of \$11 million

#### **CORPORATE SUMMARY**

### **Executive Chairman**

Paul Poli

#### **Director**

Frank Sibbel

### **Director & Company Secretary**

Andrew Chapman

#### **Shares on Issue**

144.15 million

### **Unlisted Options**

8.44 million @ \$0.25 - \$0.40

### **Top 20 shareholders**

Hold 52.15%

## **Share Price on 31st October 2016**

17.5 cents

## **Market Capitalisation**

\$25.32 million

### **INTRODUCTION**

Matsa Resources Limited ("Matsa" or "the Company" ASX: MAT) is pleased to report on its exploration and corporate activities for the quarter ended 30<sup>th</sup> September 2016.

Background information about the methods and data used in compiling this report, are attached as Appendix 1 in accordance with the JORC 2012 Code.

## **COMPANY ACTIVITIES**

### **LAKE CAREY GOLD PROJECT**

The Lake Carey gold project area which consists of 12 tenements covering an area of 128km² was acquired by Matsa during the quarter from the liquidators of Fortitude Gold Pty Ltd. Mineral Resources at Fortitude were defined at the time of acquisition under JORC 2004 guidelines and comprise 6.289Mt @ 1.9g/t for 385,300oz (MAT announcement to the ASX 22<sup>nd</sup> July 2016).

The project package which includes the Lake Carey, Phantom Well and Wilga projects are located approximately 220km northeast of Kalgoorlie-Boulder and 70km south of Laverton within the north-eastern goldfields of Western Australia. The acquired project area is located in the highly productive Laverton Tectonic Zone (LTZ) 25km south of AngloGold Ashanti's Sunrise Dam gold mine, 60km south of the Granny Smith gold mine and 12 km south of the Red October gold mine (Figure 1).

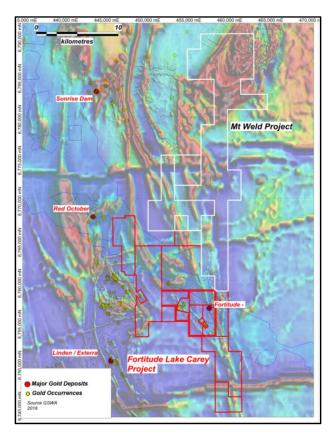


Figure 1: Lake Carey Project on Aeromagnetics

Matsa acquired the Lake Carey project due to its excellent potential for near term production and a very favourable return on investment. The Fortitude project has a number of significant advantages including:

- granted mining licences;
- excellent existing haul roads and nearby processing facilities;
- comprehensive database, and development studies to provide a fast track to production; and

 strong exploration upside potential with identified targets and proximity to several world class gold deposits.

It is Matsa's intention to commence mining at Fortitude with treatment by a local third party processing facility. Discussions on favourable terms with processing facilities are at an advanced stage. Purchase and mine development costs are to be funded from Matsa's existing cash and liquid assets.

Exploration potential within the combined project area is considered excellent with initial high priority targets at Bindah and Galant which could increase short term production potential. Historically, the highly prospective Fortitude and Bindah Shears are under-explored with mostly wide spaced shallow aircore drilling. There is consequently excellent potential for Matsa to make new gold discoveries.

Strategically, the Lake Carey gold project is an excellent geographical fit with Matsa's adjoining Mt Weld gold project with a combined project area of 340km<sup>2</sup> (Figure 1).

### **Work Completed in the Current Quarter**

The aggressive work programme which commenced during the quarter, is targeted on progressing the project through to production as quickly as possible (Figure 2). The following activities were carried out during the quarter:

- Acquisition of E39/1863 and E39/1864;
- A total of 21 diamond drill holes for 2292.9m were completed to validate and enhance the resource model, provide additional metallurgical samples and provide geotechnical data for mine design;
- A total of 5 water bores were completed for 518m;
- The Fortitude resource model was comprehensively reviewed with the resource estimate upgraded to comply with 2012 JORC code guidelines;
- Advanced discussions were held with owners of nearby treatment plants;
- Detailed Fauna and Flora surveys commenced within the mining project area of interest; and
- Exploration targets were developed and ranked by experienced consultant.

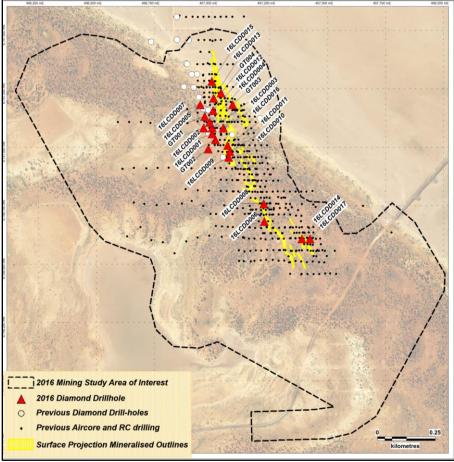


Figure 2: Fortitude Project Area of Interest and drilling

## **Diamond Drilling**

Drilling commenced during the quarter and is nearing completion with 17 drill holes completed (Figure 2, Table 1). Drilling was carried out using a truck mounted Hydco diamond drill rig. Diamond coring commenced at the base of unconsolidated surface materials (typically a depth of 1-6 metres) employing the triple tube technique to maintain core integrity particularly in the weathered profile and in zones of strong fracturing.

Hole_ID	Туре	MGA East	MGA North	RL	Depth	Azimuth	Dip
16LCDD001	DD	457014	6757033	400.5	130	90	-60
16LCDD002	DD	457000	6757058	400.5	150.8	90	-60
16LCDD003	DD	457001	6757083	400.5	160.8	90	-60
16LCDD004	DD	456990	6757108	401	240.6	90	-60
16LCDD005	DD	456968	6757133	402	211	90	-60
16LCDD006	DD	457226	6756683	400.4	30	90	-90
16LCDD007	DD	456949	6757183	403.5	210.8	90	-60
16LCDD008	DD	457223	6756758	400	87.8	90	-90
16LCDD009	DD	457072	6756958	401.6	30	90	-90
16LCDD010	DD	457076	6756983	401.5	35.4	90	-90
16LCDD011	DD	457067	6757009	401.4	65	90	-90
16LCDD012	DD	457004	6757158	402	140	90	-60
16LCDD013	DD	457006	6757211	399	100	90	-60
16LCDD014	DD	457388	6756608	400	35	270	-60
16LCDD015	DD	456998	6757283	399	85	90	-60
16LCDD016	DD	457048	6757083	399	100	90	-60
16LCDD017	DD	457423	6756608	399	70	270	-60
GT001	DD	456963	6757083	399	70	240	-55
GT002	DD	456983	6756993	399	125.7	50	-55
GT003	DD	457088	6757183	399	105	60	-60
GT004	DD	457038	6757233	399	110	35	-50
TOTAL					2292.9		

**Table 1: Fortitude Project Diamond Drilling 2016** 

Logging and sampling of diamond drill core is in progress and it is anticipated that assays and other results from the drilling programme will be incorporated into the project study before the end of the year.

## **Water Bore Drilling**

Five water bores were completed, four were developed into production bores and one was converted to a monitor bore in order to manage and monitor ground-water inflow and recharge rates within the Fortitude mine study area. Pumping flow-rate and water level data are currently being measured with results expected to be incorporated into the ongoing study before the end of the year.

### **Resource upgrade to JORC 2012**

The original resource estimate of the Fortitude deposit was carried out in 2010 by Runge Limited under instruction from the previous owners, Midas Resources Limited (MAT announcement to ASX 22<sup>nd</sup> July 2016).

Matsa, as recently announced, appointed CSA Global Pty Ltd to audit that resource and bring the resource up to a JORC 2012 compliant level (MAT announcement to ASX 1st September 2016).

The upgrade involved re-importing the Mineral Resource block model and completing a detailed audit of the mineral resource estimate with particular emphasis on:

- Review of relevant input data;
- Review of the geological interpretation;
- Review of wireframe construction methods;
- Analysis of basic statistics, composite extraction and high grade cuts;
- Review of the grade estimation process, block model construction and other methodologies; and

- Confirmation of the reported Mineral Resource from the block model.

## Geology and Geological Interpretation

Gold mineralisation is associated with the Fortitude Shear Zone, a north-northwest striking D3 shear which extends the length of the Lake Carey project. Primary mineralisation is characterised by near vertical, sheeted quartz veins hosted along the sheared contact between intermediate volcanics in the west and a package of highly deformed ultramafic rocks to the east (Figure 3). The occurrence of strong quartz veining together with sulphide minerals is indicative of better Au grades. Sulphide minerals include pyrite +/- arsenopyrite. Secondary mineralisation is characterised by flat lying supergene lodes.

### Resource Estimate

The Fortitude gold deposit contains a global JORC 2012 Indicated and Inferred Mineral Resource Estimate of 6,289,000t @ 1.9g/t for 385,300 ounces as announced by Matsa to the ASX 1st September 2016. There has been no material change in the resource figures since that announcement.

	Indicated			Inferred			Total		
Time	Tonnes	Au	Au	Tonnes	Au	Au	Tonnes	Au	Au
Туре	t	g/t	Ounces	t	g/t	Ounces	t	g/t	Ounces
Oxide	572,800	2.1	38,700	221,000	1.9	13,500	794,000	2.0	51,400
Transitional	150,900	1.8	8,700	148,200	1.9	9,100	299,000	1.9	18,000
Fresh	2,034,700	1.9	124,900	3,161,200	1.9	190,900	5,196,000	1.9	315,800
Total	2,758,000	1.9	172,000	3,530,000	1.9	213,300	6,289,000	1.9	385,300

Table 2: Fortitude Gold Deposit Mineral Resource Estimate (1g/t Cut-off)

## Metallurgical

Discussions are well advanced with several local treatment plant owners. Metallurgical sampling is being carried out in collaboration with nearby operators in order to determine likely gold recoveries for different ore types, as the basis for an ore sales or toll milling agreement. Metallurgical results awaited.

#### **Detailed Fauna and Flora surveys**

Fieldwork was completed and laboratory and associated research is currently underway. No adverse issues were encountered and it is expected that results will provide strong support for a positive outcome for the ongoing mining study before the end of the year.

## **Review of Exploration Potential**

This review was focused on the potential to increase the resource base for the Fortitude project through targeted exploration. The review took advantage of the comprehensive drilling and exploration database and previous reports which Matsa acquired with the Fortitude Project. The review was carried out by Simon Rigby of Beaumont Consulting who was able to apply his detailed knowledge of gold mineralisation in this prolific gold district. Key recommendations were as follows (Figure 3):

- Early drill-testing of known gold mineralisation at Bindah and Galant because of their potential to contribute additional gold resources in the short term;
- Aircore drilling along the NW extension of the Bindah shear where sparse and broad-spaced past drilling achieved some anomalous gold intercepts including 4m @ 0.87g/t Au and 4m @ 0.69g/t Au
- Aircore drilling along the N extension of the Fortitude Shear corridor which remains untested by past drilling; and
- Aircore drilling of the poorly tested southern extension of the Fortitude Shear at the Fortitude Far South prospect.

Gallant

Gallant

Fortitude North

Gallant

Bindah TMS

Fortitude Far Sth

Stealth

Stealth

Intermediate Volcanics/Sediments/BIF

Mafic Volcanics/Intrusives

Advanced Prospect

Programmes of work applications have been approved and drilling is expected to commence shortly.

Figure 3: Lake Carey Project Exploration Targets

**Project Tenure Outline** 

Ultramafic Volcanics/Intrusives

Granitoids

## **KILLALOE PROJECT (GOLD/NICKEL)**

The Killaloe Project comprises 11 licences as summarised in Figure 4. Most previous gold exploration has been carried out on three licences: (E63/1018, E63/1199 and P63/1672) which is subject to a joint venture between Matsa and Cullen Resources Limited (MAT80%, CUL20%). The remaining licences are held 100% by Matsa except for E63/1655, which is subject to a joint venture between Matsa (85%) and Yilun Pty Ltd (15%). Exploration of the project is managed by Matsa.

S2 Resources Ltd's (S2R) recent announcements of high grade gold at its Polar Bear project have highlighted a gold "corridor" defined by new gold discoveries at Baloo, Monsoon and Nanook within S2R's Polar Bear project. (S2R announcement to ASX 14<sup>th</sup> April 2016).

The corridor can be extended to the SE over a distance of ~20km into the Killaloe project area, thereby highlighting extensive soil gold anomalism and shallow gold intersections in previous drilling including 2m @ 6g/t Au in drill hole KRC023 at the Cashel prospect (Figure 4).

Past drilling for gold at Killaloe by Matsa and others has been shallow RAB drilling and very limited shallow RC drilling. (MAT announcement to ASX 5th July 2016).

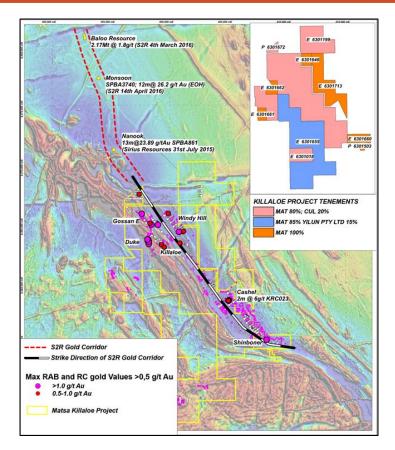


Figure 4: Killaloe project, gold prospects on regional aeromagnetic image

Dipole-dipole array IP surveys were completed over the Duke and Shinboner prospects during the June quarter to test for the presence of sulphides at depth, as a potential vector for primary gold mineralisation beneath extensive soil gold anomalies and sporadic intersections in shallow drill holes.

## **Work Completed in the Current Quarter**

Exploration carried out at Killaloe during the current quarter included the following:

- Gradient array IP surveys at the Duke and Windy Hill prospects (Figure 6);
- Dipole-dipole array IP surveys at the Cashel and Shinboner prospects for a total of 6 line kilometers;
- Audio-frequency magnetotellurics (AMT) soundings were carried out as a Research and Development project using data collected during the gradient array IP surveys;
- 16 RC holes for 2,241m of drilling were completed at Duke, Windy Hill, Cashel and Shinboner; and
- Assays of 567 composite RC samples for gold only.

### **Dipole-dipole IP surveys**

These were carried out over the Cashel and Shinboner prospects. Survey parameters are described in Appendix 1 and survey lines are shown in Figure 5.

#### Shinboner

A single orientation line was completed parallel with the geological strike over a distance of 3.4 kms. Results clearly show three strong chargeability anomalies SB01 to SB03, with each of these coinciding in part, with moderate strength resistive zones. SB01-SB03 were interpreted to reflect zones of strongly developed disseminated sulphides (pyrite). The three targets are reasonably similar in amplitude and character which could be attributable to the presence of a stratabound chargeable unit located immediately adjacent to and sub-parallel with the survey line. Accordingly, RC drilling was carried out to test the strongest chargeable zone to determine the source.

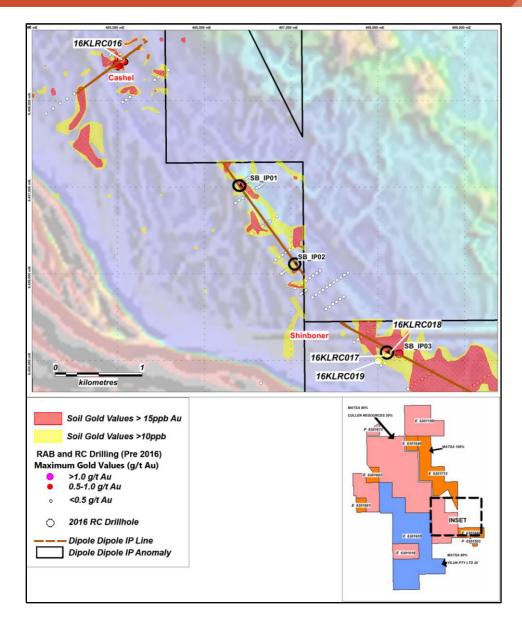


Figure 5: Induced Polarisation Surveys and RC Drilling Duke and Windy Hill

### Cashel

A single orientation line was completed over a distance of 1 km in a NE direction approximately at right angles to the geological strike. IP and resistivity data was strongly influenced by "EM effects" probably caused by the presence of strongly conductive carbonaceous and pyritic shale units at shallow depth. The survey did not define a disseminated sulphide type response.

## **Gradient Array (GAIP) IP Surveys**

Two gradient array IP surveys were carried out over targets selected from the first pass dipole dipole IP surveys carried out during the June quarter at the Duke and Windy Hill prospects (Figure 6). AMT data is being retrieved from the gradient data measurements and the final data is expected to be received early in the next quarter.

A description of the GAIP survey parameters is presented in Appendix 1.

## Duke IP03

The GAIP survey confirmed the chargeability and resistivity features at this target and was interpreted to indicate a SE trending 200m x 400m chargeable zone thereby confirming the IP anomaly. The orientation of this chargeable zone was used to design a fence of three RC drill holes as described below.

## Windy Hill IPO2

The GAIP survey defined a complex chargeability feature bounded by a NE trending fault and partly coinciding with a well-defined soil gold anomaly but did not confirm the deeper IP anomaly that the GAIP survey was centred on. A fence of three RC drill holes was designed to test this chargeability anomaly.

### **AMT-IP trial survey**

Trial audio-frequency magnetotellurics (AMT) – survey was carried out in conjunction with the GAIP surveys on the Windy Hill IPO3 and Duke O2 dipole-dipole IP targets. The AMT survey was carried out as part of an R & D study making use of data which was not used in the past due to limitations in sensor technology and computing power.

The aim of the R&D project was to test and demonstrate the ability to glean AMT data from IP time series using Zonge receiving equipment and software. The AMT data derived from time series collected for a GAIP survey has the potential to provide resistivity information at depth for each survey line. Inversion modelling incorporating AMT data, extends the usual 2D nature of GAIP data at depth to allow a 3D visualisation of the structure. This has the potential to increase the effectiveness of this comparatively cost-effective survey technique.

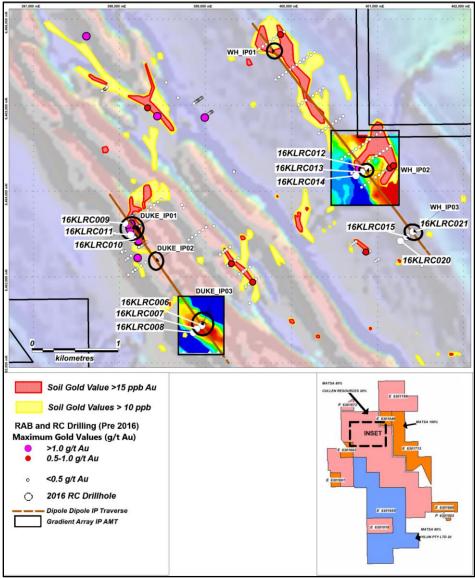


Figure 6: IP Surveys and Drilling Cashel and Shinboner

## **RC Drilling**

A total of 16 RC holes for 2,241m were drilled this quarter at Killaloe primarily to test new IP targets at Duke, Windy Hill and Shinboner, and to test depth extents of known mineralisation at Duke and Cashel prospects (Table 3, Figures 5 and 6).

Sampling comprised 4m composite samples with gold assays carried out by ALS Kalgoorlie. Significant results are tabulated in Table 4.

Hole_ID	Hole_Type	Orig_East	Orig_North	Max_Depth	Azimuth	Dip	Prospect/Target
16KLRC006	RC	398958	6462437	150	54	-60	DUKE IP03
16KLRC007	RC	398897	6462397	150	54	-60	DUKE IP03
16KLRC008	RC	398859	6462352	150	54	-60	DUKE IP03
16KLRC009	RC	398060	6463626	163	90	-60	DUKE IP01
16KLRC010	RC	398158	6463446	163	90	-60	DUKE IP01
16KLRC011	RC	398129	6463491	163	90	-60	DUKE IP01
16KLRC012	RC	400889	6464272	139	54	-60	WINDY HILL IP02
16KLRC013	RC	400817	6464221	150	54	-60	WINDY HILL IP02
16KLRC014	RC	400750	6464179	85	54	-60	WINDY HILL IP02
16KLRC015	RC	401339	6463468	150	54	-60	WINDY HILL IP03
16KLRC016	RC	405047	6458474	100	234	-60	CASHEL
16KLRC017	RC	408060	6455055	103	54	-60	SHINBONER
16KLRC018	RC	408122	6455069	150	54	-60	SHINBONER
16KLRC019	RC	408006	6454992	147	54	-60	SHINBONER
16KLRC020	RC	401267	6463421	151	54	-60	WINDY HILL IP03
16KLRC021	RC	401411	6463529	127	54	-60	WINDY HILL IP03

Table 3: Killaloe 2016 RC Drill holes

## Duke

RC drill holes 16KLRC006 to 16KLRC008 were completed over the Duke IPO3 target and encountered predominantly serpentinised olivine orthocumulate komatiites together with minor spinifex textured komatiites and gabbro. Only trace amounts of sulphides were encountered at this target and in this case, fibrous minerals in the serpentinised komatiite appear to be the source of a non-metallic IP response and are interpreted to explain this moderate strength chargeability anomaly. There were no significantly elevated gold values in composite sample assays.

RC drill holes 16KLRC009 to 16KLRC011 were targeted on the down-dip extension of the gold mineralisation at Duke IP01. These holes also encountered serpentinised olivine orthocumulate komatiites and sheared talc-serpentinite rock. Weak gold anomalism associated with quartz veining was intersected in sheared komatiites and correspond with the down-dip extension of the gold mineralisation at this target. Anomalous gold intercepts are presented in Table 4 below.

Hole_ID	Sample	m from	m to	Au ppm
	109908	60	64	0.11
	109911	72	76	0.34
16KLRC009	109912	76	80	0.15
	109913	80	84	0.15
	109917	96	100	0.11
4.6141.0604.0	109957	92	96	0.15
16KLRC010	109958	96	100	0.17
16KLRC011	110000	100	104	0.13

Table 4: Duke Prospect RC Drilling Assays > 0.1 g/t Au

## Windy Hill

Drill holes 16KLRC012, 16KLRC013 and 16KLRC014, was completed over the Windy Hill IPO2. They intersected predominantly mafic volcaniclastics and fine grained metasediments including siltstones and pyritic black shales. Blocky spinifex fragments are common in the volcaniclastics sections which suggests proximity to ultramafic source rocks. Pyrite disseminations and blebs were observed through most of the metasedimentary sequence and the presence of these sulphides adequately explains the strong IP anomaly at this target. The last 1m sample from

16KLRC014 which was terminated due to adverse ground conditions, returned the best gold result from this target of 1m @ 0.26 g/t Au from 84m. Further work is contemplated.

Drill holes 16KLRC015, 16KLRC020 & 16KLRC021 were completed over Windy Hill IP03. These drill holes intersected a similar sequence of rocks to those at Windy Hill IP02 which intersected strongly pyritic volcaniclastics and siltstones which are interpreted to be the source of the IP anomaly. No significant assays were returned from these holes.

## **Cashel**

A single hole, 16KLRC016, was drilled to test the structural target beneath the gold lode at Cashel. This hole intersected several narrow quartz veins within the regolith profile followed by fine grained metasediments and volcaniclastics. No significant assays were returned.

## **Shinboner**

Three RC holes, 16KLRC017 to 16KLRC019, were completed to test IP anomaly SB\_IP03. The geology is similar to Windy Hill prospect and these holes encountered a sequence of mafic volcaniclastics and fine grained metasediments. Spinifex textured komatilitic basalt fragments are common in the volcaniclastics. The sequence is moderately to strongly pyritic and is interpreted to be the source of the IP anomaly at this target. Weakly anomalous gold values were intersected in hole 16KLRC018 and 16KLRC019 (Table 5).

Hole_ID	Sample	m from	m to	Au ppm
16KLRC018	108682	104	108	0.12
16KLRC019	108698	16	20	0.15
	108702	32	36	0.11

Table 5: Shinboner Prospect RC Drilling Assays > 0.1 g/t Au

## MT DAY PROJECT (NICKEL)

The Mt Day nickel project is located 25km north of Maggie Hayes and Emily Anne nickel mines near Lake Johnstone (Figure 7).

Shallow drilling at Mt Day by previous explorers achieved nickel intercepts up to 1.51% Ni with strong supporting copper values up to 0.17% Cu in weathered ultramafics (MAT announcement to the ASX 31st May 2016). These anomalous intercepts occur within a distinctive hook shaped high amplitude magnetic anomaly reflecting concealed komatiite lavas which may be an extension of the host rocks to the Emily Anne and Maggie Hayes deposits 25km to the south. This ultramafic belt is referred to as the Johnson Sandplain (JS) prospect. While significant past drilling has been carried out over the JS prospect, only two diamond holes intersected unweathered basement.

MLEM surveys were carried out during the June quarter, over two prospective komatiite targets where ground EM surveys had not previously been carried out. This led to discovery of a moderate EM conductor MDC01 associated with a discrete magnetic anomaly 4km east of the JS prospect. (MAT announcement to the ASX 31st May 2016).

## **Exploration carried out during the September quarter:**

- RC drilling, a total of 7 drill holes were completed for a total of 1049m; and
- Assays of 265 composite RC drill samples.

#### **RC Drilling**

The drilling program at Mt Day comprised 7 RC drill holes, for a total of 1049m, to test a number of nickel targets in the JS prospect. Two of these holes tested EM anomalies with the remainder testing for the presence of nickel sulphides in fresh komatiite beneath a nickel anomalous regolith zone, with previous intercepts of up to 1.5% Ni.

A total of 265, 4m composite samples were submitted to ALS Laboratories in Perth for analysis using 33-element assay suite. (Appendix 1).

			GDA				
Hole ID	GDA E	GDA N	-	RL	Dip	Azi	Depth
			Zone				
16MDRC01	240348	6449573	51	455	-60	280	169
16MDRC02	239953	6447149	51	460	-60	280	120
16MDRC03	240002	6447140	51	460	-60	280	118
16MDRC04	240051	6447130	51	460	-60	280	198
16MDRC05	240200	6447100	51	460	-60	280	162
16MDRC06	240795	6446170	51	422	-90	360	75
16MDRC07	244370	6450260	51	469	-60	208	208

Table 6: Mt Day Project RC Drilling

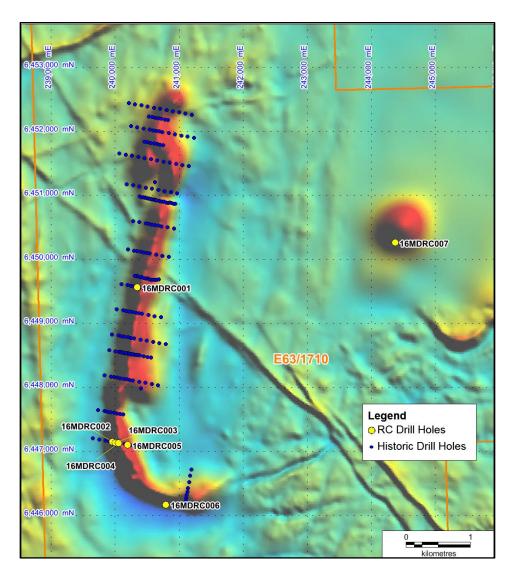


Figure 7: Mt Day Project drill hole locations on aeromagnetic image

Hole_ID	m from	m to	Intercept (m)	Ni_ppm	Cu_ppm	Co_ppm	Cr_ppm	Comments
16MDRC001	28	72	44	5002	278	496	7932	inc. 16m @ 0.85%Ni, 0.05% Cu and 0.09% Co
	88	96	8	1355	38	99	1583	
	140	152	12	1077	64	80	1258	
16MDRC002	48	68	20	2793	159	136	1008	
	12	36	24	4560	978	337	2543	
16MDRC003	48	52	4	1250	70	80	260	
	68	92	24	2383	41	92	281	
	72	76	4	3670	181	97	871	
16MDRC004	84	88	4	1550	13	74	412	
	108	124	16	1675	33	107	1135	
1614DDC005	32	40	8	1120	22	162	3015	
16MDRC005	48	52	4	1050	14	165	1860	

Table 7: RC drilling 2016 Mt Day Supergene Enriched nickel intercepts

### JS Prospect

Holes 16MDRC01 to 16MDRC06 were designed to test for primary nickel sulphide mineralisation in fresh rock beneath the nickel anomalous weathered zone defined by past RAB and aircore drilling at the JS prospect. Top of fresh rock is between 65m to 100m from surface.

With the exception of two diamond drill holes, most past drill holes, on this prospect did not reach the unweathered basement and the current RC drill holes were designed to provide bedrock information at depth below the strongly nickel-enriched weathered zone. Drilling on the JS prospect encountered dominantly olivine meso-cumulate komatiite, with lesser felsic pegmatites and granitic intrusions. Drilling is briefly described below. Drill holes 16MDRC02-16MDRC05 were drilled on the same section (Figure 7 and Figure 8).

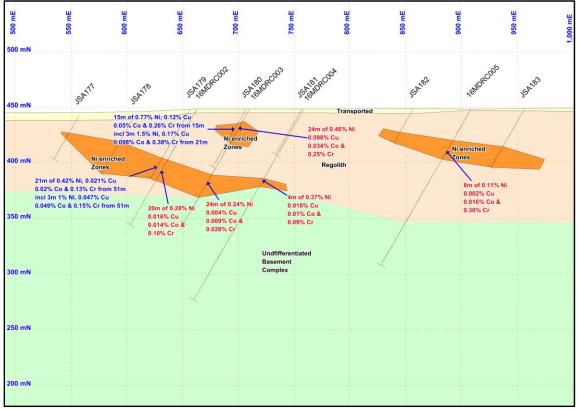


Figure 8: Mt Day RC Drilling Summary Section 6447250N

16MDRC01 intersected olivine meso-cumulate komatiite cut by several felsic pegmatite intrusions, up to 8m wide. Assay results returned 44m of 0.5% Ni from 28m including 16m at 0.85%Ni from 32m within the nickel anomalous regolith zone above fresh olivine meso-cumulate containing maximum nickel values of  $\sim$  0.1% Ni.

16MDRC02 is located close to past drill hole JSA179 which intersected 3m of 1% Ni from 51m, in weathered ultramafic rocks. 16MDRC02 confirmed this nickel enrichment in the weathered zone, with assays returning 20m 0.28% Ni and 0.016% Cu from 48m, but did not detect any significant mineralisation in underlying fresh rock.

16MDRC03 is a deeper drill hole at the same location as past JSA180 which returned an intercept of 15m of 0.77% Ni & 0.12% Cu from 15m, including 3m of 1.5% Ni and 0.17% Cu from 21m. 16MDRC03 intersected 2 zones of strongly nickel anomalous regolith with a best intercept of 24m of 0.46% Ni from 12m. No significant mineralisation was identified in unweathered rocks

16MDRC04 (198m) intersected nickel enriched regolith with a best intercept of 8m of 0.37% Ni from 72m. Olivine meso-cumulates and lesser felsic pegmatites passed into a suite of felsic pegmatite and gabbro a depth of 126m and granodiorite from 182 to the bottom of the drill hole at 198m. A 6m zone of matrix sulphides, up to 5% by volume, was observed in the olivine meso-cumulate from 101m. Selected rock chips from this interval will be sent for petrographic analysis to determine if the sulphides seen in this section are of magmatic origin and potentially increasing the prospectivity of the JS target for primary nickel sulphide mineralisation.

16MDRC05 encountered comparatively deep weathering to 118m down hole. Fresh rock is mostly gabbro with minor BIF, felsic pegmatite and komatiite. Two narrow zones of weak nickel enrichment up to 0.11% Ni in the weathered profile, occur between 32m to 52m.

16MDRC06 was located in the sparsely drilled southern extremity of the hook shaped JS komatiite trend where Matsa's recent EM survey detected a moderate "stratigraphic" conductive zone. This drill hole intersected variably feldspathic gabbro. No sulphides were noted and the source of the conductive zone was not resolved.

The last hole in the Mt Day program, 16MDRC07 was drilled to test the MDC01 target a moderate strength EM conductor detected by Matsa's ground EM survey carried out during the June quarter. MDC01 is located adjacent to a discrete magnetic anomaly which was interpreted to represent a faulted offshoot of the main western komatiite trend at the JS prospect. This interpreted komatiite location had not been previously tested by drilling. 16MDRC07 intersected granitic rocks with trace disseminated pyrite. A downhole EM survey is planned on 16MDRC07 to test for the presence of an off-hole conductor in the vicinity.

## MT WELD PROJECT (GOLD)

Mt Weld gold project is located 60km south of Laverton, 12km SE of AngloGold Ashanti's Sunrise Dam gold mine and 11km NE of Saracen Minerals Ltd (ASX:SAR) Red October gold mine. The project is immediately adjacent to Matsa's newly acquired Lake Carey gold project and includes areas with potentially significant shallow drill intercepts at Wilga South (Figure 9).

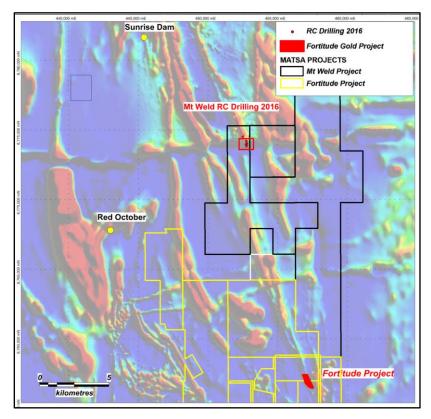


Figure 9: Mt Weld Project Location of RC drilling on aeromagnetic image

The current exploration target is gold mineralisation associated with a ~2km long gold anomaly at Wilga South, defined by historic RAB and aircore drilling along the sheared contact between intermediate and mafic volcanics in the Laverton Tectonic Zone.

Basement rocks have been weathered to depths greater than 30m and weathered basement is overlain in places by transported sediments associated with the Lake Carey drainage system. Strong linear magnetic features in aeromagnetic data are evident and these are interpreted to define major structural and stratigraphic boundaries in the archaean basement. Basement in the area of interest, is made up mostly of basalts with lesser andesitic volcanics, felsic porphyry and dolerite.

## **Exploration during the September Quarter**

A total of 5 RC drill holes, for 1037m, was completed at the Wilga South prospect in the Mt Weld project during this quarter (Table 8). These holes were designed to test the down-dip continuity of the gold mineralisation defined from historic drilling on this target. Rocks encountered from these holes are mainly basalts and dolerite with lesser andesitic volcanics and metasediments. Mineralised zones are associated with weakly sulphidic narrow quartz veins in foliated basalt and dolerite.

Hole_ID	Grid ID	GDAE	GDAN	Orig_RL	Max_Depth	Azimuth	Dip
16MTWRC01	MGA94 51	452761	6773814	416	199	270	-60
16MTWRC02	MGA94 51	452718	6773952	416	211	270	-60
10WITWINCO2	WIGA94_31	432710	0773332	410	211	270	-00
16MTWRC03	MGA94_51	452780	6773957	416	211	270	-60
16MTWRC04	MGA94_51	452781	6774057	416	217	270	-60
16MTWRC05	MGA94_51	452738	6774218	416	199	270	-60

Table 8: Wilga South Prospect RC Drilling 2016

A total of 260 composite samples were submitted to ALS in Kalgoorlie and analysed for gold (Appendix 1). Better composite sample assays are summarised in Table 9 and Figures 10 and 11.

Hole ID	Sample ID	Au g/t	m from	m to	Remarks
16MTWRC01	109624	0.44	172	176	8m @ 0.63 g/t Au from 172m
	109625	0.81	176	180	
16MTWRC02	109659	0.92	112	116	
	109769	0.82	128	132	
16MTWRC04	109784	0.94	188	192	Waste gap at 192-196m
	109786	0.18	196	200	
16MTWRC05	109827	0.19	140	144	

Table 9: Wilga South RC Drilling, Assays >0.1g/t Au

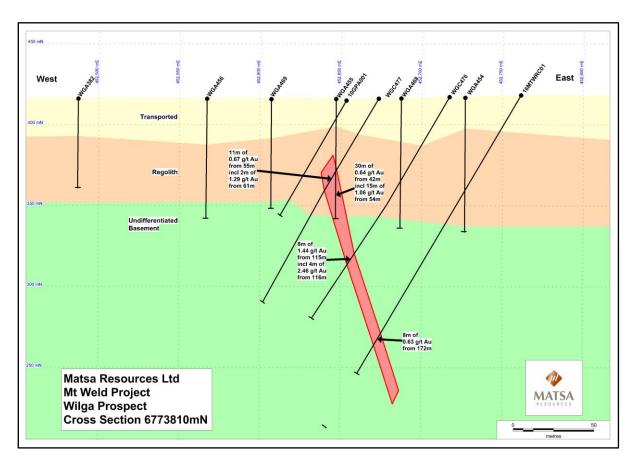


Figure 10: Wilga South Prospect RC Drilling Summary Section 6773810N

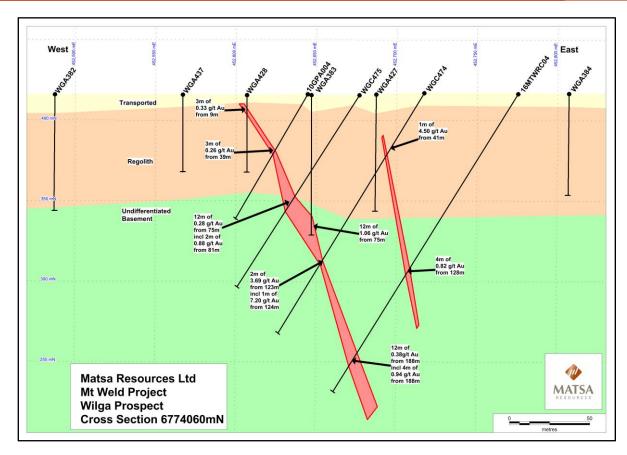


Figure 11: Wilga South Prospect RC Drilling Summary Section 6774060

Assays from the current programme have shown the steeply dipping gold mineralised zone to extend at depth with a best intercept of 4m @ 0.94 g/t Au from 188m in 16MTWRC04. Further work on this prospect is being considered as part of a broader programme including Matsa's newly acquired Lake Carey gold project.

## **SYMONS HILL PROJECT (NICKEL)**

E69/3070 of 96km² is located within the Fraser Range Tectonic zone, 6kms SSW of Independence Group Ltd's (ASX:IGO) Nova nickel mine. There is currently significant M&A activity in the locality and accordingly the Symons Hill project is recognised as a valuable area for any accumulator of tenements in this highly prospective locality.

## **Collaborative Research Project with CSIRO**

A collaborative research project jointly funded by Matsa and the Commonwealth Scientific and Industrial Organisation (CSIRO), was set up to review the very large exploration database in this area of deep weathering and variable depths of transported cover. The project is intended to integrate geochemical data, drilling data and airborne and ground geophysical data to provide a more complete understanding of geological processes in this highly prospective belt, to determine improved exploration techniques for Nova style Ni-Cu massive sulphide deposits and to define new exploration targets.

The following activities were carried out during the quarter:

- A subset of drill cuttings and core from Matsa's diamond RC drill holes were selected for re-logging and sampling. A total of 90 drill holes were re-logged; and
- Field survey and collection of samples for geochemical and petrographic analysis. Geochemical sampling
  comprised collection of regolith and basement rock samples from selected locations and drill holes to
  characterize the mineralogy and geochemistry of the stratigraphic units of the cover as well as the
  basement.

The research team have now collected sufficient samples and observations and a report is expected to be completed during the December 2016 quarter.

#### **THAILAND**

Matsa's Thailand projects cover 909km² within the Loei–Ko Chang fold belt which contains important mineral deposits including the >5MOz Chatree gold mine of Kingsgate Consolidated Ltd (ASX:KCL). The Loei-Ko Chang arc is an arcuate palaeo – island arc terrane which is more than 600km long and oriented approximately north—south. This terrane extends from Ko Chang Island in the south to Loei in the north of Thailand and beyond into Laos.

During the quarter exploration work comprised diamond drilling of Matsa's recently discovered Chang 1 copper project. Whilst works at Siam 1 have been temporarily suspended, works at Chang 1 have progressed smoothly without interruption. Community leaders and regional authorities are keen to see Matsa develop opportunities around the Chang 1 region and have demonstrated significant support and enthusiasm towards Matsa. Recent disruptive events relating to Thailand gold mining activities which have impacted the Chatree gold mine have had little or no adverse impact to Matsa's ongoing exploration programme for copper. It is important to recognise that the negativity surrounding the Chatree gold mine is limited to gold mining activities only and the Thai government departments are clear that copper and base metal exploration and mining remain unaffected.

### **PAISALI PROJECT (BASE METALS)**

Multi-element assays prior to the current quarter, identified a soil copper anomaly over an area of ~1km x 1.8km with copper values up to 0.11% Cu. Geochemical zoning is evident with a central zone of highly anomalous Cu with supporting Ag and Ni values, surrounded by anomalous Pb, Zn etc. values on the periphery. (MAT announcements to ASX 27th April 2016 and 29th April 2016).

Dipole-dipole IP surveying during the previous quarter at Chang 1 returned moderate IP responses up to 12mV/V over three central lines (742800N, 742600N and 742400N). The IP anomalies in the central lines partly coincide with the soil copper anomaly and were interpreted to reflect disseminated sulphides in fresh underlying rocks. The soil copper and IP anomalies are located within a large complex magnetic anomaly containing scattered diorite rubble. This association is taken as strong support for intrusion related hydrothermal copper sulphide mineralisation (Figures 12, 13 and 14).

### During the quarter, exploration comprised:

- Diamond drilling of 4 drill holes for a total of 766m; and
- Ground magnetic surveys over Chang 1 for a total of 11 lines totaling 14.2 line km.

## **Diamond Drilling**

Activity for the quarter comprised 4 diamond drill holes for 766m at Chang 1. Drilling progress was comparatively slow with productivity hampered by the wet season.

Hole	East	North	RL	Azimuth	Dip	Depth (m)	Target
16SCDD003	87150	742600	77.19	270	-60	249.5	IP high
16SCDD004	87220	742600	77.625	90	-60	200.1	IP high
16SCDD005	87935	742600	78	270	-60	130	Geochem high
16SCDD006	87980	742800	78	225	-60	186.2	IP and Geochem high

Table 10: Chang 1 Prospect Diamond Drill holes

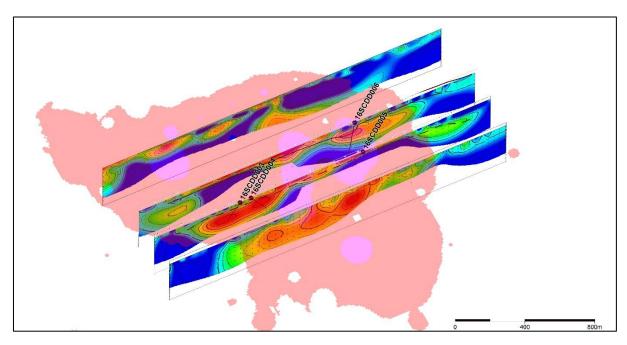


Figure 12: Chang 1 Oblique view of drilling on IP sections and geochemistry. (Red >200ppm Cu, Pink > 400ppm Cu)

Drilling to date has targeted IP chargeable anomalies within the broader 2km x 1km >200ppm Cu soil geochemical target area. Drilling has intersected coarse grained diorite with weak potassic and propylitic alteration and up to 1% fine to coarse grained interstitial and euhedral disseminated chalcopyrite. Pyrite and chalcopyrite are also present in veining.

Results have been received for only 2 of the 4 drill holes completed to date. Both have returned encouraging elevated copper values. Trace disseminated chalcopyrite has been intersected in all drill holes drilled to date over significant widths in excess of 100m, e.g. 16SCDD03. Best results to date include 2m @ 0.26 % Cu in hole 16SCDD003. A summary of received results is presented in Table 11.

A further two holes are planned to be drilled in the upcoming quarter.



Figure 13: 16SCDD03 176.3m Pyrite, chalcopyrite and magnetite in discordant vein



Figure 14: 16SCDD05, Disseminated Chalcopyrite in variably altered diorite at depth of 100m

On the significance of the Chang 1 discovery, Matsa Executive Chairman Paul Poli made the following comments: "It was pleasing that diamond drilling at the soil anomaly discovered by Matsa has produced such wide intersections of copper over a large area. The area of copper mineralisation is large and this could be interpreted that the mineralisation seen to date at Chang 1 is significant with potential for higher grade areas or shoots nearby. The extensive copper mineralisation is viewed as a geologically significant occurrence. The fact that chalcopyrite is being seen in every hole drilled to date is highly encouraging and with further work in the area it is hoped that an economic ore body can be defined".

Work is being accelerated in the other currently untested areas with further drilling planned in the near future.

	From	To		
Hole ID	(m)	(m)	Cu_ppm	Summary
16SCDD003	142	144	1080	2m at 0.1% Cu from 142m
	176	178	1188	
	178	180	140	6m at 0.13%Cu from 176m
	180	182	2590	
	196	198	1359	2m at 0.14%Cu from 196m
16SCDD004	148	150	1246	
	150	152	1246	
	152	154	1144	10m at 0.13%Cu from 148m
	154	156	1677	
	156	156	1107	
	172	174	1357	2m at 0.14%Cu from 172m

Table 11: Chang 1 Diamond Drilling Assays >0.1% Cu

## **Ground Magnetics**

A ground magnetic survey has commenced at the Chang 1 Prospect. The ground magnetic survey is being undertaken over the area of anomalous Cu geochemistry and IP chargeability responses. To date 11 line (14.2 line km) of data has been collected on 100m line spacing with readings taken every 10m. Weather delays have interfered with the data acquisition.

## **SIAM PROJECT (COPPER)**

Matsa completed an induced polarisation (IP) ground electrical survey at Siam 1 in December 2015. The survey comprised 6 lines at Siam 1 West and 7 at Siam 1 East. (MAT announcements to the ASX 29th October 2015 and 29th January

2016). The Siam 1 prospect was prioritised for IP surveys because of Matsa's discovery there of widespread boulders containing visible native copper and the previously announced discovery of supergene chalcocite containing very high copper and silver grades of up to **54.6% Cu and 148 g/t Ag**.

Work carried out during the quarter comprised collection of 190 Soil auger samples focused within the extensive Siam 2 soil anomaly. Assays are awaited.

#### **CORPORATE**

Cash and liquid assets total approximately \$11 million as at 30<sup>th</sup> September 2016. Matsa remains debt free.

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Web <u>www.matsa.com.au</u>

## **Exploration results**

The information in this report that relates to Exploration results is based on information compiled by David Fielding, who is a Fellow of the Australasian Institute of Mining and Metallurgy. David Fielding is a full time employee of Matsa Resources Limited. David Fielding has sufficient experience which is relevant to the style of mineralisation and the type of ore deposit under consideration and 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'. David Fielding consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## **Competent Person Statement**

The information in this Report that relates to Mineral Resources is based on, and fairly represents, information reviewed by Mr Aaron Green, a Competent Person, who is a Member of the Australian Institute of Geoscientists (MAIG). Mr Green is a full-time employee of CSA Global Pty Ltd, an independent consulting company. Mr Green has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity 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 Green 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** - Matsa Resources Limited

# **JORC Code, 2012 Edition – Table 1 report**

## **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> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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>	<ul> <li>Diamond Drill Core Fortitude (WA) Chang 1, Siam 1 (Thailand). Core is split with diamond saw and sampled based on geological boundaries with intervals in the range 0.5-2m.</li> <li>Mt Weld, Killaloe and Mt Day RC cuttings. Bulk residues bagged in 1m intervals. Automated collection of Stage 2 samples through cone splitter on cyclone at 1m intervals. Stage 1 sampling of 4m composites collected by hand from bulk residue bags.</li> <li>Auger Soil Sample Phaisali and Siam Copper (Thailand) Approximately 300 g of soil collected with Power auger at depth of ~0.8m Dipole Dipole IP survey parameters at Killaloe remain unchanged from MAT announcement to ASX 26th June 2016.</li> <li>Gradient array IP (GAIP) Contractor Zonge Engineering and Research Organisation (Australia) Pty Ltd The line spacing for the GAIP, 100 meters with receiver dipoles positioned 50 meters along line.</li> <li>At least two readings were acquired at each station to ensure data repeatability. Quality assurance and quality control (QA/QC) of the IP data was independently verified by Value Adding Resources in Perth.</li> <li>The survey parameters and geophysical equipment used by Zonge: Survey Parameters</li> <li>Configuration: Gradient IP in Time domain Survey direction: N-S &amp; E-W</li> <li>Total number of survey lines: 15</li> <li>Station interval: 50</li> <li>Base frequency: 0.125 Hertz</li> <li>Duty cycle: 100%</li> <li>Survey Equipment</li> <li>Transmitter: GGT30</li> <li>Receiver: GDD</li> <li>Sensor: Porous pots</li> </ul>

Criteria	JORC Code explanation	Commentary
		The IP system is fully calibrated and daily tests were carried out to ensure data quality All primary analytical data recorded digitally and sent in electronic format to Value Adding Resources in Perth for independent quality control and evaluation. The data points of Zonge's IP survey were located using standard GPS positioning.
		The expected accuracy is +/- 5 metres for easting and northings and 10 metres for elevation coordinates. Elevation values were in AHD. The grid system used is Map Grid of Australia (MGA) GDA94 Zone 51.
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>Diamond Drilling at Fortitude, Chang 1 and Siam 2</li> <li>RC drilling at Mt Weld, Killaloe, Mt Day</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>Diamond drilling, core is measured and recorded as a percentage of drilled metres with visual check of lost core intervals</li> <li>RC drilling, the difference in bag sizes is taken as a measure of sample recovery</li> </ul>
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>Diamond core Chang1 and Siam1. Geology, orientation, structure, magnetic susceptibility, photography.</li> <li>Fortitude core is logged for metallurgical and geotechnical parameters and characteristics</li> <li>RC Geology, magnetic susceptibility</li> <li>Logging is carried over 100% of drill hole</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</li> </ul>	<ul> <li>Diamond core at Fortitude is split with 50% for assay. Half core selected for metallurgical testwork is resplit with ¼ for assay and remaining quarter submitted for metallurgical test work</li> <li>Diamond Core Chang1 and Siam 1, core is split in half with half marked up and left in tray and ½ submitted for assay</li> <li>Non-core samples, Stage 2 samples cone split at 1m intervals</li> <li>Sample preparation techniques for Diamond and RC drilling comprises a coarse crush ~6mm, riffle split with around 300-500 gram pulverised to &lt;75 microns.</li> </ul>

Criteria	JORC Code explanation	Com	mentary	y							
	<ul> <li>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>	•									
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 (ie lack of bias) and precision have been established.</li> </ul>	Ag Al As Ba Be Bi Ca Co	ssayed for ssay (AL on core lement signs me  ppm	or gold S Meth sample uite bas thod. (a	only using od Code of the sed on a sed	g 30g I Au-AA t Day N 4 acid G E ME IC S1 33 Ele Mo Na Ni P Pb S Sb Sc ine with	(Fortitude Fire Assa (25)) Nickel prodigest. To CP61 4 acment Assa (25)  ppm (25) ppm (26) pp	oject which is to cid IC y Suite Sr Th Ti U V W Zn y stand f known Mt V	ppm	peing a ayed for as a telement	r a 33 otal t suite ppm ith one
Verification of sampling and assaying  Location of	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> <li>Accuracy and quality of surveys used to locate drill holes (collar and days holes as a participation), trapples mine workings and other locations.</li> </ul>	hi Aca	storic dr t mt Day arried ou ata is ma aintaine ogging d ssay data Il drill ho	illing da , where at on 2 c aintaine d inhou ata is e a are lo les are	the targ drill holes d in Data se ntered in aded ele set up by	et is en by twireshed votes the fie the fiectronical	neld GPS	i value se. a data imize s to 3n	es, verific base sys transcrip	cation votem whation errors	vas nich is rors,
data points	<ul> <li>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>D</li><li>lo</li><li>D</li></ul>	rilling un cated us	der the sing the	Fortitude MGA GI	e, Killal DA94 U	npletion uoe, Mt Da JTM ocati ng the Ind	ay and ion Zo	d Mt Wel one 51.	d proje	ct is all

Criteria	JORC Code explanation	Commentary
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>Data spacing has been taken into account at Fortitude, in particular to increase the amount of diamond drilling in the upper part of the resource in order to improve the mineralisation model</li> <li>Sample compositing has been applied all non core holes drilled during the quarter to reduce assay cos</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>	Drilling is oriented as far as possible at right angles to geological strike
Sample security	The measures taken to ensure sample security.	Samples are managed and transported by Matsa personnel who maintain chain of custody until delivery to laboratory
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>The JORC 2004 resource at Fortitude was upgraded and validated during the quarter and upgraded to JORC 2012 status. This was carried out only after a complete audit of the block model and drill hole database as announced (MAT announcement to ASX 1<sup>st</sup> September 2016)</li> </ul>

## **Section 2 Reporting of Exploration Results**

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

Criteria	J	ORC Code explanation	С	commentary
Mineral tenement and land tenure status	•	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.		The tenement status at Fortitude changed during the quarter by acquisition of E39/1863 and E39/1864 from Willie Grocer Pty Limited. All activities have been carried out on granted leases held by Matsa. The equity situation at Killaloe is illustrated in the body of the report.
Exploration done by other parties	•	Acknowledgment and appraisal of exploration by other parties.	•	Exploration by other parties at Fortitude,/Lake Carey, Killaloe, Mt weld and Mt Day has been previously announced
Geology	•	Deposit type, geological setting and style of mineralisation.		At Fortitude, Mt Weld, Killaloe the principal target is orogenic gold associated stratigraphic contacts associated with major faults At Mt day, the target is early archaen age nickel sulphide mineralisation in ultramafic volcanics/Komatiites

Criteria	JORC Code explanation	Commentary			
		<ul> <li>At Chang 1 and Siam 1, the target is base metal mineralisation associated with major boundary between the Indian and Chinese plates which was active in permo Triassic times</li> </ul>			
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> <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>	All drill hole information is included in the body of the report			
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 shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Intercepts at Mt Weld, Killaloe, Mt Day and Chang01 are quoted on the basis of simple weighted averages.</li> </ul>			
Relationship between mineralisatio n 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 intercepts quoted are explicitly downhole depths and not true widths.</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>	Appropriate diagrams are included in the body of the report			
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>	<ul> <li>Intercepts are presented in a balanced way, with better intercepts illustrating why Matsa is maintaining an interest in a particular project.</li> </ul>			

Criteria	JORC Code explanation	Commentary
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>Signficant use is made of geophysical datasets, particularly aeromagnetics.</li> <li>Geophysical surveys carried out are presented under sampling in Section 1.</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>Comments on likely outcomes for future exploration is fully accounted for.</li> </ul>