



## Corporate Information

### Fast Facts

ASX Code	PIR
Ordinary shares	155M ORD
Quoted options	75.2M
Unlisted Options	10.5M
Cash at bank	\$3.9m

### Investment Highlights

- 650,000oz gold indicated and inferred mineral resource grading 3.17g/t at Medinandi Project, Mali West.
- PIR's attributable oz Au = 522,000oz.
- 1,800km<sup>2</sup> licences over prospective Birimian greenstone belt.
- 25km strike length within 40M oz gold province on the Kéniéba-Kedougou Inlier.
- Maiden drilling programme at Medinandi demonstrated mineralisation remains open along strike and at depth.
- Multi-pronged exploration programme focused on increasing resource inventory. Excellent green-fields exploration potential.



### Board and management

Jeremy Shervington  
Chairman

Alan Campbell  
Managing Director

Alec Pismiris  
Non Executive Director

Stuart Hall  
Non Executive Director

Dennis Wilkins  
Company Secretary

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# ASX Release

23 September 2010

## Continued Strong Gold Intercepts at Medinandi

- Fadougou North East (FNE) mineralised zone at least 700m strike**
- New ore grade intercepts at FNE**
- Strong intercepts from the early-stage Fadougou South East (FSE)**
  - 12m @ 8.59g/t Au, including 2m @ 36.48g/t Au**
  - 7m @ 4.83g/t Au**
- 700m along strike at FSE encouraging early-stage results**
- Fekola scout drilling results seen as excellent early-stage confirmation that soil anomalism is reflective of underlying bedrock mineralisation.**

### DRILLING PROGRAMME OBJECTIVES AND ACCOMPLISHMENTS

Papillon Resources Limited (ASX: PIR) ("Papillon" or "the Company") advises that all outstanding assay results from the maiden RC drilling program at its flagship Medinandi Project in Mali, West Africa (Figure 1 and 2) have now been received. Ore grade intercepts continued to be returned from the new **Fadougou North East (FNE)** zone, as well as strong intercepts from the early-stage **Fadougou South East (FSE)**



prospect, and very encouraging first drill assays from the **Fekola** soil anomalies. These results complement the results announced on the 12<sup>th</sup> July 2010 (“Drilling Results Confirm Outstanding Potential – High Grade Intercepts at Medinandi”); 29<sup>th</sup> July 2010 (“Wider Zones and High Grade Gold Intercepts at Medinandi”) and 3<sup>rd</sup> September 2010 (“New Gold Discovery at Medinandi”).

The project is located on the Senegal/Malian Shear Zone, where in excess of 42M oz of gold has been discovered (Figure 1). Papillon has tenements extending over 25km strike length of the shear zone. Immediately north of Papillon’s tenements, 20Moz of gold have been discovered over a 50km strike length of the same structure as Papillon’s tenements.

#### **FADOUGOU NORTH EAST (FNE) ASSAY RESULTS RECEIVED**

Reverse circulation drilling at the **FNE** zone has continued to return significant gold intercepts in a north-south trending mineralised zone extending in excess of 700m of strike. Initial discovery results were announced on the 3<sup>rd</sup> September 2010 (ASX Announcement: “New Gold Discovery at Medinandi”) and the remainder of the program is reported here. The balance of drill holes was mostly completed in the southern portion of the zone and has only partially tested the strike of the FNE at this location (Figure 2: Medinandi Project – Fadougou Main Zone and Exploration Targets). A dedicated follow-up RC drilling program scheduled to commence October 2010 will provide systematic drill-coverage within the north-south trending zone, including extensional drilling to the north and south.

Significant new FNE drill results include **3m @ 4.55g/t Au**, **4m @ 3.70g/t Au**, and **8m @ 1.96g/t Au** on the southern-most drill-section (Figure 3: Medinandi Project – Fadougou North East Drill Hole Location Plan).

The FNE program has defined a mineralised zone of at least 700m strike containing a central 240m zone of strong bedrock gold mineralisation in steeply-dipping zones associated with silicification within predominantly sedimentary host rocks (Figure 4: Medinandi Project – Fadougou North East Cross Section 1391400mN). The structure remains open to the north, south and at depth.

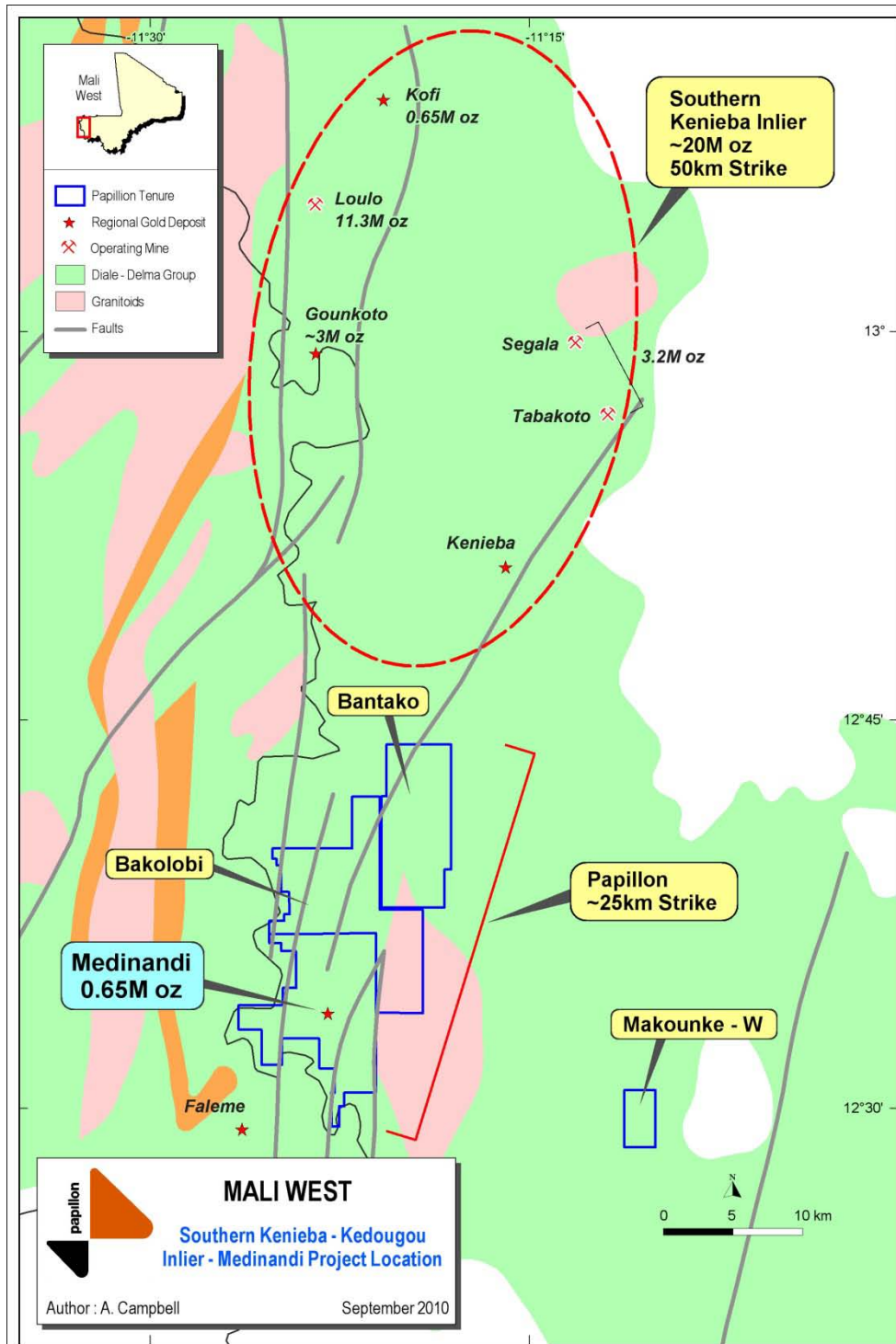
Papillon considers that the FNE drill results thus far are indicative of a significant mineralising system. The prospect warrants detailed infill and extension drilling program to determine the near-surface resource potential at this location.

#### **FADOUGOU SOUTH EAST (FSE) ASSAY RESULTS RECEIVED**

The **FSE** prospect refers to a cluster of shallow previous drill holes and minor artisanal diggings in an area located some 300m east of the Fadougou Main Zone (FMZ). It is considered that the occurrence may reflect a mineralised structure sub-parallel to the FMZ, which has been only partially drill-tested to date (Figure 2).



Figure 1: Mali West - Southern Kenieba-Kedougou Inlier – Medinandi Project Location



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Papillon completed four RC holes on three sections at this location in order to follow up zones of anomalous geochemistry in earlier drill holes. Strong intercepts of **12m @ 8.59g/t Au**, including **2m @ 36.48g/t Au**, and a separate intercept of **7m @ 4.83g/t Au** were returned from a central traverse. Whilst drill density is not sufficient to determine the geometry of mineralisation Papillon is greatly encouraged by the potential of the zone to deliver high-grade intercepts. Follow-up drilling will be carried out in the forthcoming program.

Initial RC drilling by Papillon in an area some 700m along strike to the north of FSE has also returned encouraging early-stage results including **1m @ 8.21g/t Au**, **1m @ 7.12g/t Au**, and **3m @ 2.53g/t Au**. Again the geometry of mineralised structures is still to be determined but initial results are encouraging and suggest additional drilling should be carried out here.

#### **FEKOLA SOIL ANOMALISM ASSAY RESULTS RECEIVED**

The Fekola area refers to several areas of soil anomalism extending over 3.5km in the southern portion of the Medinandi licence (Figure 2). Soil geochemical results include individual samples returning up to 6.13g/t Au in the soil profile (see 11<sup>th</sup> May 2010 ASX Announcement "Medinandi Project – New Geochemical Anomaly"). Access and rig availability constraints prevented systematic testing of the Fekola anomalies in the maiden RC program but a total of nine shallow drill holes were completed along two reconnaissance traverses to obtain bedrock geological information in areas of soil anomalism.

Separate soil anomalies were drilled 1.7km apart. The northern traverse has returned very encouraging bedrock geochemical anomalism over broad zones in all four drill-holes on the traverse, including results of **11m @ 1.38g/t Au** and **6m @ 1.26g/t Au** in adjoining holes. These lie within very wide anomalism including **41m @ 0.76g/t Au** and **32m @ 0.66g/t Au**. The southern traverse returned results of up to 1m @ 2.11g/t Au.

The Fekola results are seen as excellent early-stage confirmation that soil anomalism is reflective of underlying bedrock mineralisation, and that additional work is warranted in this large area of soil anomalism.

The Fekola area will be subject to detailed geological and geophysical interpretation ahead of systematic RAB and/or RC drilling later in the year.

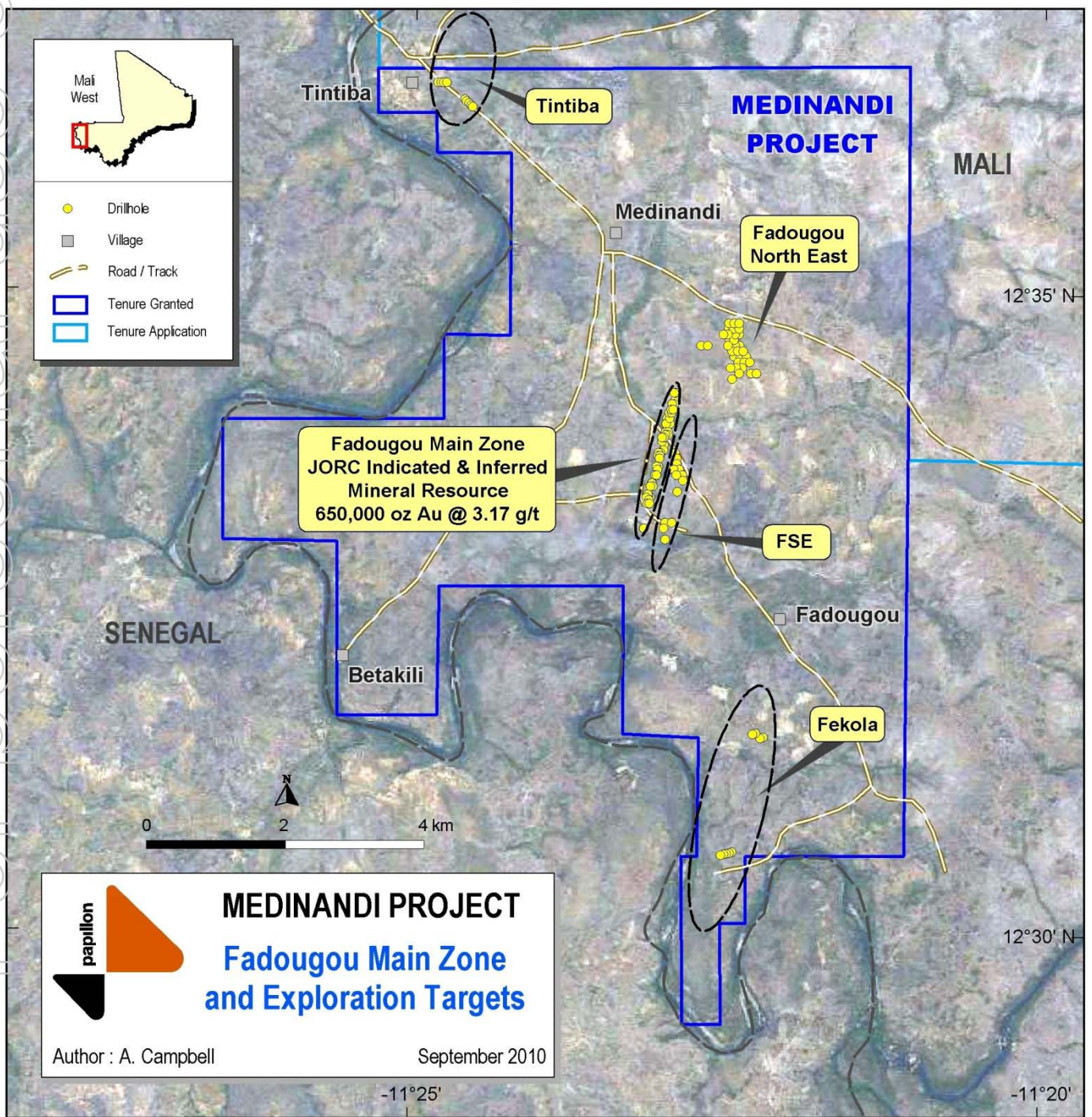
#### **TINTIBA SOIL ANOMALY ASSAY RESULTS RECEIVED**

Access constraints prevented drill-testing of the main Tintiba prospects located near the northern boundary of the Medinandi licence where previous trenching has returned values to 14m @ 5.44g/t Au.

Two reconnaissance traverses totalling nine shallow holes were drilled over soil anomalism 500m to the SE of the Tintiba trenches, returning best anomalism of 6m @ 0.52g/t Au.

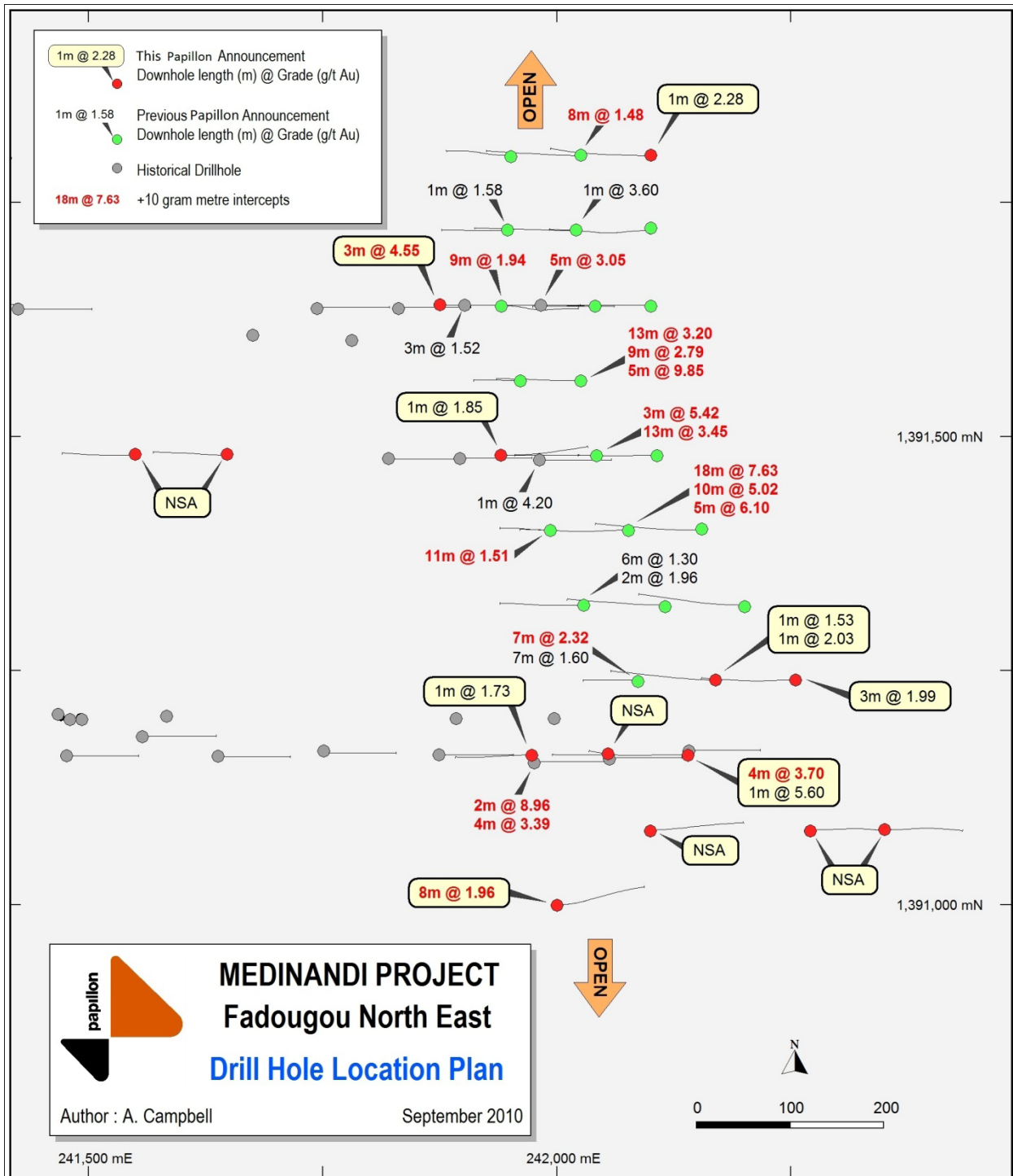


Figure 2: Medinandi Project – Fadougou Main Zone & Exploration Targets





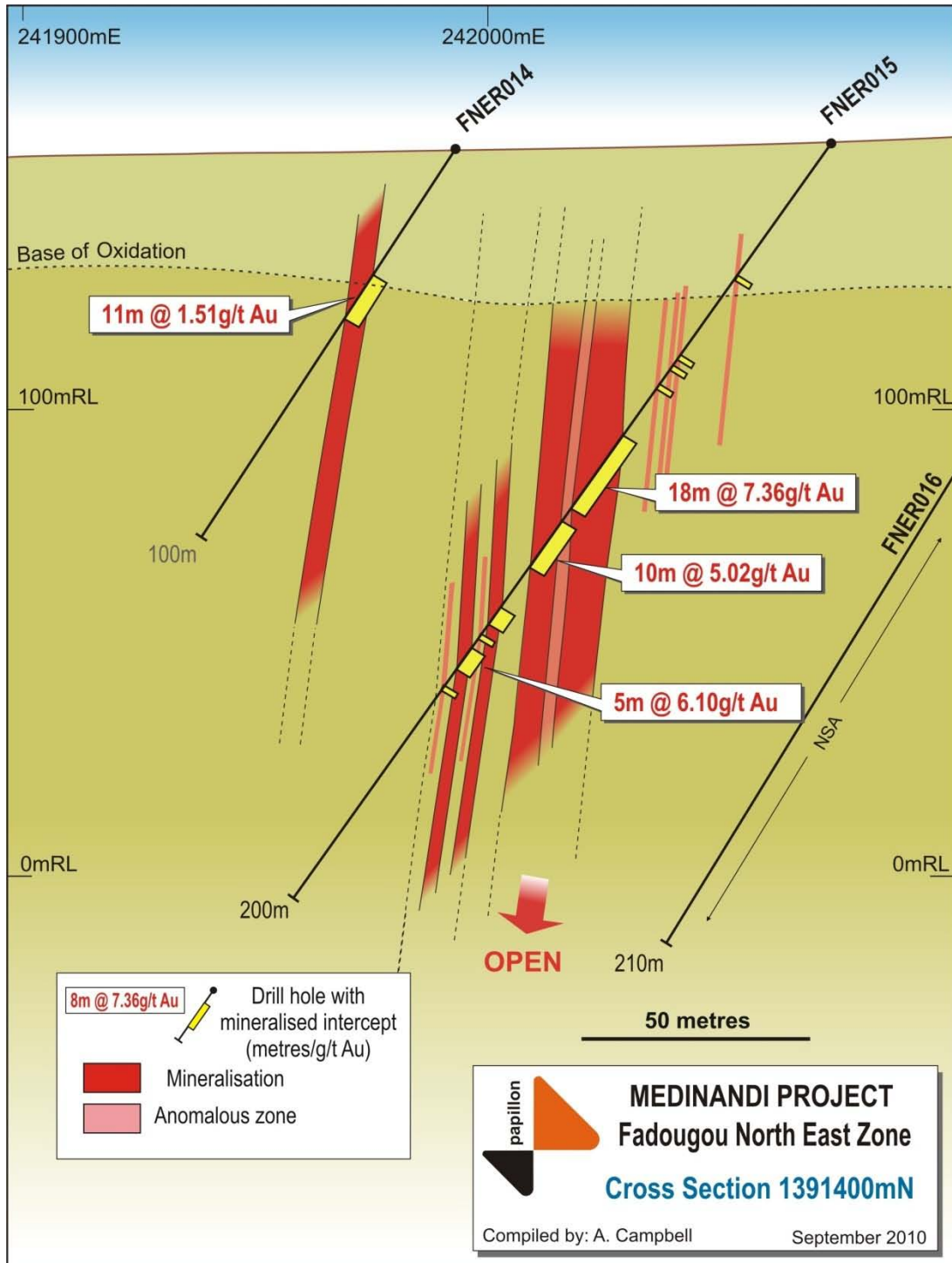
**Figure 3: Medinandi Project – Fadougou North East Drill Hole Location Plan**



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Figure 4: Medinandi Project – Fadougou North East Cross Section 1391400mN



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Table 1: Medinandi Project – Fadougou North East; Fadougou South East; Fekola and Tintiba Drill Hole Summary

Fadougou North East (FNE)								
Drill Hole	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
FNER_024	242140	1391160	-55	270	21	22	1	5.60
FNER_024	242140	1391160	-55	270	192	196	4	3.70
FNER_037	241940	1391640	-60	90	47	50	3	4.55
Fadougou South East (FSE)								
Drill Hole	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
FRC_338	241010	1388850	-55	270	2	9	7	4.83
FRC_338	241010	1388850	-55	270	19	31	12	8.59
FRC_338	241010	1388850		including	22	23	2	36.48
FRC_338	241010	1388850	-55	270	70	71	1	6.51
FER_003	241200	1389780	-55	90	82	83	1	8.71
FER_004	241240	1389700	-55	90	16	18	2	2.87
FER_007	241195	1389620	-55	90	6	10	4	1.67
FER_007	241195	1389620	-55	90	83	84	1	7.12
FER_007	241195	1389620	-55	90	95	98	3	2.53
Fekola								
Drill Hole	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
FKC_001	242440	1385840	-55	80	3	20	17	0.95
FKC_001	242440	1385840	-55	including	10	13	3	2.29
FKC_002	242400	1385830	-55	80	9	50	41	0.76
FKC_002	242400	1385830	-55	including	39	50	11	1.38
FKC_003	242330	1385900	-55	80	12	44	32	0.66
FKC_003	242330	1385900	-55	including	13	18	5	1.26
FKC_003	242330	1385900	-55	including	29	35	6	1.26
FKC_004	242290	1385890	-55	80	28	70	42	0.24
Tintiba								
Drill Hole	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
TSR_001	238155	1395030	-55	135	37	43	6	0.52

See Appendix 1 for full drill results



## FUTURE EXPLORATION FOCUS

At the Medinandi Project future exploration work will include and focus on the following activities:

- ▶ Infill and step-out drilling at the Fadougou North East (FNE) prospect, which remains open to the north and south along strike.
- ▶ Diamond drilling at the Fadougou Main Zone (FMZ) to test mineralisation at depth.
- ▶ Step-out drilling on the Fadougou Main Zone (FMZ) to test extension of mineralisation, which remains open to the north and south along strike.
- ▶ Infill and step out drilling at the Fadougou South East (FSE)
- ▶ Follow up drilling at the Fekola Soil Anomaly
- ▶ Drilling at Tintiba where previous trenching has returned values to 14m @ 5.44g/t Au.
- ▶ Drilling of targets generated from the recently completed ground geophysical (IP survey).
- ▶ Preliminary metallurgical test work from selected RC drill samples.

**Table 2: Medinandi Project – Mineral Resource Statement for Fadougou Main Zone**

### Mineral resource statement for Fadougou Main Zone

May 2009	Tonnes	g/t Au	Total oz Au	PIR's attributable oz Au (80%)
Measured	-	-	-	-
Indicated	2,772,097	3.14	280,776	224,621
<b>Total Indicated</b>	<b>2,772,097</b>	<b>3.14</b>	<b>280,776</b>	<b>224,621</b>
Inferred	3,626,456	3.19	372,207	297,766
<b>Total</b>	<b>6,398,553</b>	<b>3.17</b>	<b>652,983</b>	<b>522,386</b>

Reported in accordance with SAMREC and JORC Code for mineral resource statements  
- calculated at a bottom cut-off grade of 1.0g/t and top cut-off of 80g/t



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**Competent Persons Statement**

*Information in this report relates to exploration results or mineral resources are based on information compiled by Mr. Stuart Hall who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Hall has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Hall consents to the inclusion in the report of the statements based on his information in the form and context in which it appears.*

**Forward Looking Statement**

*Statements regarding plans with respect to the Company's mineral properties are forward-looking statements. There can be no assurance that the Company's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that the Company will be able to confirm the presence of additional mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of the Company's mineral properties.*



## Appendix 1 – Full Drill Results

Fadougou North East (FNE)								
Drill Hole ID	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
FNER_013	242100	1391800	-55	270	149	150	1	2.28
FNER_021	242170	1391240	-55	270	3	4	1	2.03
FNER_021	242170	1391240	-55	270	162	163	1	1.53
FNER_021	242170	1391240	-55	270	174	175	1	1.44
FNER_022	242255	1391240	-55	270	155	158	3	1.99
FNER_023	Not drilled							
FNER_024	242140	1391160	-55	270	21	22	1	5.60
FNER_024	242140	1391160	-55	270	173	174	1	2.00
FNER_024	242140	1391160	-55	270	192	196	4	3.70
FNER_025	242054	1391160	-55	270	NSA			
FNER_026	241975	1391160	-55	90	61	62	1	1.73
FNER_027	242100	1391080	-55	90	NSA			
FNER_028	242270	1391080	-55	90	NSA			
FNER_029	242350	1391080	-55	90	NSA			
FNER_030	242000	1391000	-55	90	58	66	8	1.96
FNER_031	Not drilled							
FNER_032	Not drilled							
FNER_033	Not drilled							
FNER_034	241550	1391480	-55	270	NSA			
FNER_035	241650	1391480	-55	270	NSA			
FNER_036	241940	1391480	-60	90	93	94	1	1.05
FNER_036	241940	1391480	-60	90	97	98	1	1.27
FNER_036	241940	1391480	-60	90	144	145	1	1.85
FNER_036	241940	1391480	-60	90	159	160	1	1.09
FNER_037	241940	1391640	-60	90	13	14	1	1.55
FNER_037	241940	1391640	-60	90	47	50	3	4.55
Fadougou South East (FSE)								
Drill Hole ID	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
FRC_336	241030	1388930	-55	270	NSA			
FRC_337	241125	1388930	-55	270	NSA			
FRC_338	241010	1388850	-55	270	2	9	7	4.83
FRC_338	241010	1388850	-55	270	19	31	12	8.59
FRC_338	241010	1388850		including	22	23	2	36.48
FRC_338	241010	1388850	-55	270	35	36	1	2.61
FRC_338	241010	1388850	-55	270	70	71	1	6.51
FRC_338	241010	1388850	-55	270	142	143	1	1.43



## Appendix 1 – Continued

Fadougou South East (FSE)								
Drill Hole ID	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
FRC_340	241030	1388690	-55	90	NSA			
FER_001	241180	1389940	-55	90	57	58	1	4.96
FER_002	241200	1389860	-55	90	NSA			
FER_003	241200	1389780	-55	90	82	83	1	8.71
FER_003	241200	1389780	-55	90	93	94	1	3.72
FER_004	241240	1389700	-55	90	16	18	2	2.87
FER_004	241240	1389700	-55	90	25	26	1	3.46
FER_005	241160	1389700	-55	90	42	43	1	2.18
FER_005	241160	1389700	-55	90	103	104	1	3.92
FER_005	241160	1389700	-55	90	150	152	2	1.98
FER_006	241285	1389620	-55	90	124	125	1	1.19
FER_007	241195	1389620	-55	90	6	10	4	1.67
FER_007	241195	1389620	-55	90	40	41	1	1.79
FER_007	241195	1389620	-55	90	83	84	1	7.12
FER_007	241195	1389620	-55	90	95	98	3	2.53
FER_007	241195	1389620	-55	90	118	119	1	3.92
FER_008	241290	1389540	-55	90	NSA			
FER_009	Not drilled							
FER_010	Not drilled							
FER_011	Not drilled							
FER_012	Not drilled							
FER_013	241205	1389380	-55	90	NSA			
Fadougou Main Zone (FMZ)								
Drill Hole ID	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
FRC_339	240725	1388850	-55	270	112	113	1	1.21
FRC_339	240725	1388850	-55	EOH	119	120	1	2.49



## Appendix 1 Continued

Fekola								
Drill Hole ID	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
FKC_001	242440	1385840	-55	80	3	20	17	0.95
FKC_001	242440	1385840	-55	including	10	13	3	2.29
FKC_001	242440	1385840	-55	including	16	17	1	1.21
FKC_002	242400	1385830	-55	80	9	50	41	0.76
FKC_002	242400	1385830	-55	including	13	14	1	2.06
FKC_002	242400	1385830	-55	including	20	21	1	1.73
FKC_002	242400	1385830	-55	including	39	50	11	1.38
FKC_003	242330	1385900	-55	80	12	44	32	0.66
FKC_003	242330	1385900	-55	including	13	18	5	1.26
FKC_003	242330	1385900	-55	including	29	35	6	1.26
FKC_003	242330	1385900	-55	80	79	80	1	1.24
FKC_004	242290	1385890	-55	80	28	70	42	0.24
FKWM_001	241990	1384190	-55	80	40	41	1	2.05
FKWM_001	241990	1384190	-55	80	49	50	1	1.4
FKWM_002	241950	1384180	-55	80	NSA			
FKWM_003	241910	1384170	-55	80	NSA			
FKWM_004	241870	1384160	-55	80	NSA			
FKWM_005	241830	1384150	-55	80	75	76	1	2.11
Tintiba								
Drill Hole ID	Location		Orientation		Intersection (m)		Interval (m)	Gold g/t
	Easting	Northing	Dip	Azimuth	From	To		
TNR_001	237770	1395270	-55	90	NSA			
TNR_002	237810	1395270	-55	90	NSA			
TNR_003	237850	1395270	-55	90	NSA			
TNR_004	237890	1395270	-55	90	NSA			
TSR_001	238155	1395030	-55	135	37	43	6	0.52
TSR_002	238180	1395000	-55	135	NSA			
TSR_003	238210	1394970	-55	135	NSA			
TSR_004	238240	1394945	-55	135	NSA			
TSR_005	238265	1394920	-55	135	NSA			

## Notes:

1. All results from Reverse Circulation (RC) drill holes.
2. Samples at 1m intervals.
3. Assaying conducted by SGS Analabs, Kayes, Mali using industry standard 50g lead collection fire assay with AAS finish.
4. Reference standards, field duplicates and blank samples are routinely inserted; quality control samples are routinely monitored.
5. NSA – No Significant Assays (<1g/t within the hole)