

# QUARTERLY ACTIVITIES REPORT PERIOD ENDED 30 SEPTEMBER 2009

### **SNAPSHOT OF MEDUSA:**

- Expanding gold producer operating solely in the Philippines
- Debt free and un-hedged
- Forecast production FY 2009/10 revised upwards from 82,000 ozs to 86,000 ozs
- Long term cash costs at Co-O Mine circa US\$200 per oz
- > Total resources of 2.03M ozs gold
  - Co-O Mine: 1.38M @ 10.8 gpt
  - Bananghilig: 0.65M @ 1.3 gpt
- Co-O Mine reserves of 500,000 ozs
  @ 14.9 gpt gold
- Phase II expansion to increase gold production at Co-O Mine from 60,000 ozs to 100,000 ozs per annum on target for Q1 2010
- Excellent exploration upside: high grade vein and disseminated bulk gold targets, plus six porphyry copper targets

#### **Board of Directors**

Kevin Tomlinson (Non-executive Chairman) Geoffrey Davis

(Managing Director) Rov Daniel

(Finance Director)

Robert Weinberg (Non-executive Director)

Peter Hepburn-Brown (Non-executive Director)

#### **Capital Structure:**

Ordinary shares: 168,841,960 Unlisted options: 2,880,000 Market capitalization: ~A\$600M

lization:

Listings: ASX and AIM (Code: MML)

#### Address and Contact Details:

PO Box 860 Canning Bridge WA 6153 Telephone : +61 8 9367 0601 Facsimile : +618 9367 0602 Email : admin@medusamining.com.au Website : www.medusamining.com.au

### **OVERVIEW:**

### **Co-O MINE PRODUCTION**

- Record gold production of 18,054 ozs (compared to 16,009 ozs in the previous quarter) at an average grade of 14.7 g/t gold and average cash cost of US\$193 per oz (US\$150 per oz before taxes, royalties and local production taxes);
- Gold production forecast for the fiscal year now revised from 82,000 to 86,000 ozs.

### **Co-O EXPANSION**

- **Phase II expansion** to raise production from 60,000 ozs to 100,000 ozs per annum in early 2010 is on schedule;
- Mill expansion is on schedule for completion in December.

#### **Co-O RESOURCES DRILLING**

- Six surface diamond rigs continuing with extensional drilling at the Co-O Mine;
- Three surface rigs continuing with testing veins away from the Co-O Mine;
- A drilling update is expected late next quarter.

### **BANANGHILIG MAIDEN RESOURCE**

- Maiden Inferred Resource of 650,000 ounces of gold in 15,000,000 tonnes at a grade of 1.3 g/t gold ;
- Drill hole intersections in the deposit include 205.90 metres at 2.42 g/t gold, 182.00 metres at 2.13 g/t gold, 116.50 metres at 3.96 g/t gold, 64.00 metres at 8.40 g/t gold and 569.90 metres at 0.64 g/t gold;
- Additional nearby potential open-pit targets identified.

### LINGIG COPPER

- Drilling has extended mineralisation now identified in two distinct geological settings;
- Thrust-hosted mineralisation new intersection 159.7 metres at 0.40% copper;
- Porphyry-associated mineralisation first intersection 209.10 metres at 0.25% copper.



### **PROJECT OVERVIEW**



The locations of the Company's projects are shown on Figures 1 and 2.

Figure 1. Location diagram showing the Company's tenement areas and prominent East-West structures.



Figure 2. Regional tenement map showing mines and prospects.

# **Co-O MINE**

### GOLD PRODUCTION

The production statistics for the current quarter with comparatives for the June 2009 quarter and corresponding 2008 quarter are summarised in Table I.

Period	Unit	Quarter ended 30 Sep 2009	Quarter ended 30 June 2009	Quarter ended 30 Sep 2008
Tonnes mined	tonnes	40,434	38,196	21,443
Ore milled	tonnes	40,467	36,622	21,443
Head grade	gpt	14.78	14.28	11.40
Recovery	%	94%	94%	90%
Gold produced (1)	ounces	18,054	16,009	6,986
Cash costs (2)	US\$	US\$193	US\$198	US\$243
Gold sold	ounces	18,054	19,510	6,986
Average gold price received	US\$	US\$975	US\$926	US\$818

Note:

(1) Gold production, is actual gold poured during the period and does not reflect changes in the balance of gold in circuit

(2) Cash costs refers to the cost of gold mined (net of development costs), produced and sold and includes taxes, royalties and local production taxes of US\$43 per ounce (Jun 2009 qtr of US\$46 per ounce; Sep 2008 qtr of US\$34 per ounce)

Gold production for the quarter increased to 18,054 ounces (a 12.5% increase from the previous quarter's production) at an average grade of 14.78 g/t gold and cash costs of US\$193 per ounce.

Medusa is an unhedged gold producer and received an average gold price of US\$975 per ounce from the sale of 18,054 ounces of gold for the quarter.

Phase II of the Company's expansion programme is on schedule, and the incremental benefits of that expansion are flowing through as evidenced by the record gold production of 18,054 ounces. The forecast gold production for the fiscal year to 30 June 2010 has been revised upwards from 82,000 ounces to 86,000 ounces at an anticipated average cash cost of US\$200 per ounce.

A breakdown of actual and forecasted production ounces and cost per ounce by quarters for the last five quarters and the remaining three quarters of this fiscal year is highlighted in Graph 1.



Graph 1. Co-O quarterly production graph with unit costs (actual-fiscal year 2008/09, actual-Sep 2009 quarter and forecast-remainder fiscal year 2009/10)

#### PHASE II EXPANSION

Work on the Phase II expansion is on schedule.

#### (a) Baguio Shaft

The Baguio Shaft is now operational with its new winder installed. From October 2009 this shaft is expected to contribute significantly to ore production.

#### (b) Mill Expansion

Fabrication of the expanded crushing circuit is progressing on schedule for completion in December 2009.

#### (c) Tailings Dam

Construction of a new two year life tailings dam has been completed and a larger eight year life dam is due for completion in the first quarter of 2010 subject to favourable weather conditions.

### **RESOURCE DRILLING**

Extensional drilling is continuing along and across strike at the Co-O Mine using six surface diamond drill rigs. This work will continue into 2010. Three underground rigs are in use for pre-development drilling.

A further three surface rigs are testing new veins around the Co-O Mine. Figure 3 shows the veins located to date around the Co-O Mine.

The aim of this drilling is to extend the vein system so that additional production scenarios can be considered through replicating mining infrastructure.

A drilling update is expected late in the next quarter.



Figure 3. Co-O Mine area showing adjacent veins.

# LINGIG COPPER PROJECT

The Lingig prospect is covered by a Mines Operating Agreement ("MOA") over Mineral Production Sharing Agreement ("MPSA") application number APSA 024-XIII comprising two parcels situated to the north and to the east (the Lingig porphyry copper prospect) of the Co-O Mine and millsite as shown on Figure 2.

### BACKGROUND

Figure 4 shows the current interpretation of the regional geology with drill hole locations and a summary of results. Table II contains drill hole results and Figures 5 and 6 show selected cross-sections. Additional background information is contained in announcements dated 13 November 2007 and 17 March 2008 and the quarterly report for the period to 31 December 2007.

The 17 March 2009 announcement reported copper mineralisation contained within an extensive east-dipping 200 to 300 metre thick thrust zone. The thrust footwall is an un-mineralized medium-grained biotite-hornblende quartz diorite which intruded the basaltic sequence (numerous basalt xenoliths are present near the diorite contact in both core and in outcrop). The approximate intrusive contact subsequently became the footwall of a regional thrust zone. The 200 to 300 metre thick thrust zone is mineralised in some sections with disseminated and hairline veined chalcopyrite and minor bornite, with widespread epidote alteration, magnetite, pyrite, local shearing, and carbonate veining. A 'quartz diorite sill' immediately above the thrust contact is mineralised with chalcopyrite as disseminations and veining and bornite, with common quartz veins to two centimetre thick hosting centre-line pyrite, chalcopyrite, and bornite. The bornite and increased chalcopyrite content contributed to the higher copper assay grades. The 'quartz diorite sill' mineralisation is accompanied by magnetite disseminations and veining.

The continuing drilling program is designed to test the lateral extent of the thrust contact and its associated copper mineralisation. Interpretations of results to date indicate that the geology is structurally complex, with a predominance of NE, NW and ENE trending structures. Some of these structures may be controlling mineralisation, whilst some appear to be overprinting and possibly remobilising the original copper mineralisation. Within the shear corridors the veining and alteration destroy the primary magnetite in the basaltic units.

The drill results at the Northern Discovery Area highlight two zones of significant copper mineralisation in distinct geological settings. One is as previously reported (**Zone 1**) with a second zone located approximately 400 metres to the south (**Zone 2**).

#### Drilling

Since the last announcement on 17 March, 2009, the Company has drilled approximately 6,400 metres in 17 angled holes using three rigs. All holes were cored from surface. Drilling difficulties were experienced in LIN 9, which was abandoned and twinned by LIN 10. Whilst assay results are still awaited for holes LIN 21 to LIN 25, all other holes have been sampled and assays returned. Only minor intervals of interest in LIN 12 were sampled.

Holes LIN 11, LIN 12 (re-drilled as LIN 13) and 15 were drilled on the large complex to the south. All other holes were drilled in the northern area around the 1974 discovery hole JDH 1.

#### NORTHERN DISCOVERY AREA

#### Zone 1 Thrust-hosted mineralisation

The recent drilling has confirmed the continuation of the copper mineralised 'quartz diorite sill' above the thrust contact (Figs 4 and 5), with the 'sill' dipping both to the north and to the east at moderate angles (LIN 2 to LIN 6, and LIN 2 to LIN 19 respectively). Further down dip however, the 'sill' diverges from the thrust contact, and the contained copper grades are considerably reduced.

An alternative interpretation of the 'quartz diorite sill' is that it represents a zone of carbonate, sericite and pyrite alteration that produces rounded white 'spots' as wall rock alteration around fractures and veins. The alteration is destructive to primary rock textures, and produces a porphyritic to slightly dioritic textured rock in appearance. What has been previously identified as a 'diorite sill' may alternatively represent a highly altered zone overprinting a protolith host of dolerite, minor quartz diorite, or andesite porphyry.

The variably copper mineralised basaltic units above the altered 'sill', which are characterised by local shearing, epidote alteration, and pyrite and chalcopyrite veining with disseminated magnetite, become less altered and copper mineralised further away and down dip from LIN 2 and LIN 3. The pyrite occurs both as part of the mineralisation and as a sulphide halo around the mineralisation. The orientation of the pyrite halo suggests influence by both NW and NE trending structures.

The significance of the re-interpretation of the 'diorite sill' and its associated mineralisation is that the copper mineralisation is not necessarily then confined to the thrusted zone above the thrust contact. The enriched chalcopyrite + bornite + pyrite + magnetite mineralisation and alteration around LIN 2 and LIN 3 may be attributed to a concentration of porphyry style mineralisation focused within a NE trending structural corridor. Under this interpretation, the mineralisation would dip steeply to the north and/or northwest.

#### Zone 2 Porphyry-associated mineralisation

Zone 2 is located approximately 400 metres south of Zone 1, separated by a hill of strongly pyrite veined and epidote altered basalt. Zone 2 is characterised by three styles of mineralisation. Figure 6 shows the cross-section for this zone.

The first style is similar to that hosted by the basaltic units above the 'diorite sill' in LIN 2 (Zone 1), being variably sheared basalt hosting chalcopyrite with trace bornite and weak magnetite mineralisation within a pyrite and pyrite + carbonate halo. This mineralisation is interpreted as representing a zone of up-dip fluid migration, from either the underlying mineralised intrusive breccias or the mineralised "diorite sill".

The second style is disseminated chalcopyrite hosted by a medium-grained quartz diorite. The quartz diorite has a distinct lack of sulphidic quartz veins, and is relatively non-magnetic. It is characterised by common small golf ball sized mafic xenoliths (?) and fine-grained pale brown retrograde biotite. Clots of remnant chlorite rimming chalcopyrite grains are noted within the pale brown biotite alteration. The mineralisation is considered to be primary and related to the biotite alteration, and has a sill-like orientation beneath the regional thrust contact. The sill is interpreted to pinch out to the north, but remains open to the east and south. Observations from LIN20 suggest that at least part of the diorite hosted disseminated copper mineralisation may have been truncated by the overlying thrust contact. The dolerite immediately above the contact is generally not mineralised. A halo of pyrite alteration occurs in the hanging wall of the thrust contact.

The third style of mineralisation is hosted by polylithic intrusive breccias. Variably sized clasts up to 40cm of quartz diorite, basalt and minor dolerite host up disseminated fine-grained chalcopyrite in both the matrix and in some clasts. The chalcopyrite is associated with secondary pale brown biotite, which is noted in both the matrix and in some of the breccia clasts. A distinct lack of mineralised quartz veining and limited magnetite characterise the breccia. The breccia appears to be blind, probably not reaching the surface, and is enveloped by a weak pyrite halo.

The chalcopyrite mineralised, pale brown biotite-altered diorite appears to pinch to the north, but may widen to the south, suggesting that it is open to the east (down dip), south, and vertically (within intrusive breccias).

#### QUARTZ DACITE PORPHYRY COMPLEX

Interpretations suggest that the complex is a flow of dacitic composition underlain by flat-lying to low angle amygdaloidal basalt and basalt flows with flow breccias tops. The units have been strongly sheared with strongly developed wide spread zones of clay + pyrite +/- minor copper and lead sulphides + variable silica alteration. Surficial weathering processes have enriched gold in near surface zones as indicated by previously reported anomalous rock chip values. Three holes drilled into selected sites within the complex intersected only minor copper mineralization (LIN 11, LIN 12 re-drilled as 13 and LIN 15).

Links to the Zone 1 and Zone 2 mineralised systems to the north are unclear. Outcropping copper minerals with anomalous rock chip values to 1000 ppm copper occur in east-trending drainages immediately south of the Silver Belt Prospect indicate that the potential for the altered dacitic complex area to host a larger copper mineralised system remains for the altered dacitic complex area to host a larger copper mineralised system.

#### Work Programme

There are currently three drill rigs in operation at the project which will continue to test the evolving geological models and extensions to the mineralised zones for the remainder of the year.



Figure 4. Lingig regional geology map.



Figure 5. Cross section through A-A" showing the outline of the mineralised zone.



Figure 6. Cross-section through section B-B'.

							Cut-o	ff 0.1% cop	ber			Cut-o	off 0.3% cop	per	
Hole	East	North	Azimuth	Dip	From (metres)	To (metres)	Width (metres)	Grade (% Cu)	Gold (g/t)	From (metres)	To (metres)	Width (metres)	Grade (% Cu)	Gold (g/t)	
LIN 1	652072	896918	0	-90	71.00	196.10	125.10	0.26	0.03	118.50	153.50	35.00	0.32	0.02	
										161.50	196.10	34.60	0.35	0.04	
LIN 2	652075	896844	0	-90	2.00	269.30	267.30	0.62	0.06	26.00	240.65	214.65	0.72	0.07	
										including					
										132.00	142.65	10.00	1.00	0.27	
			ļ							172.00	240.65	68.65	1.03	0.08	
LIN 3	652075	896844	180	-60	0.00	224.00	224.00	0.77	0.11	10.00	222.00	212.00	0.80	0.07	
										including					
										68.00	146.00	78.00	1.16	0.21	
										180.00	190.00	10.00	1.02	0.06	
										206.00	218.00	12.00	0.98	0.20	
LIN 5	651994	897150	0	-90	389.40	408.70	19.30	0.10	0.01						
LIN 6	651994	897150	166	-62	94.10	114.10	20.00	0.13	0.01	364.20	400.20	36.00	0.37	0.03	
					280.40	294.40	14.00	0.14	0.01						
					362.20	421.60	59.40	0.31	0.02						
JDH 1	652073	896908	0	-90	52.00	250.00	198.00	0.34	0.01	100.00	112.00	12.00	0.43	0.00	
										134.00	146.00	12.00	0.40	0.00	
										200.00	250.00	50.00	0.67	0.04	
JDH 3	651865	895926	0	-90	12.00	100.00	88.00	0.14	0.00						
JDH 5	651828	895648	0	-90	18.00	100.00	82.00	0.18	0.00						
					224.00	242.00	18.00	0.15	0.00						
LIN 10	652272	896565	270	-60	175.75	212.30	36.55	0.12	0.07						
LIN 13	651466.	894756	180	-50	3.00	212.10	209.10	0.25	0.07	27.95	83.85	55.90	0.44	0.10	
					232.10	242.10	10.00	0.11	0.01	94;60	124.55	29.95	0.36	0.03	
LIN 17	652469	896366	270	-60	144.75	170.70	25.95	0.33	0.03	150.70	170.70	20.00	0.37	0.03	
					230.80	275.30	44.50	0.34	0.09	234.80	273.30	38.50	0.37	0.10	
LIN 19	652236	896845	242	-60	148.10	307.80	159.70	0.40	0.04	206.10	284.10	78.00	0.66	0.06	
									including						
										260.10	278.10	20.00	1.23	0.10	
LIN 20	652681	896364	270	-60	280.10	318.10	38.00	0.20	0.02	282.10	294.10	12.00	0.36	0.05	

#### Table II. Summary of all new Lingig drilling results (LIN holes) and relevant 1974 drilling results (JDH holes) for intersections >10 metres wide (including sub-grade material up to 10 metres wide). LIN 5 and 10 to 20 results returned since 17 March 2009.

Notes:

Assaying undertaken by McPhar Geoservices in Manila using :

Gold by fire assay on 30g. samples with Atomic Absorption Spectrometry finish.
 Cu - by AAS following concentrated HCI and HCI/HNO3/HCIO4 leach in latter stages on 1g. sample.

# TAMBIS-BAROBO REGION

#### Background

The Tambis project, currently comprising the Bananghilig Gold Deposit and the Kamarangan copper porphyry prospect (Fig. 2), is operated under a Mining Agreement with Philex Gold Philippines Inc. over Mineral Production Sharing Agreement ("MPSA") application APSA-000022-XIII which covers 6,262 hectares.

In the 1980s and 1990s a large amount of diamond and reverse circulation drilling totalling 29,477 metres in 344 holes was undertaken by various explorers to investigate a large area of known mineralisation.

From 2005 to 2007, Philsaga undertook underground exploration through a 50 metre deep shaft and development, adits, and underground and surface drilling totalling 7,715.50 metres in 31 holes.

Figure 2 shows the location of the Bananghilig Deposit and Figure 7 shows the surface geology. Table III summarises some of the significant drillhole intersections from the Bananghilig drilling.

Hole	East	North	Dip (°)	Azimuth (°)	From (metres)	Length (metres)	Gold (uncut) (g/t gold)
DD34-3	612486	945509	-45	130	0.00	170.10	2.09
DD34 -46A	612515	945493	-45	130	0.00	182.00	2.13
DDH-G1	612541	945476	-80	90	0.00	116.50	3.96
DDH-G3	612541	945476	-80	30	0.00	108.81	2.03
RC38-35	612680	945409	-60	130	0.00	64.00	8.40
RC40-16	612515	945493	-45	130	0.00	55.00	4.14
TDH 10	612827	945226	-50	135	10.50	106.00	1.60
TDH 11	612808	945224	-55	320	0.00	569.90	0.64
TDH 12	612848	945259	-50	327	0.00	137.80	0.94
TDH 18	612765	945263	-45	324	0.00	256.20	1.30
TUG 05	612748	945247	-1	153	0.00	205.90	2.42

#### Table III. Summary of significant Bananghilig intersections

Notes:

(i) Holes pre-fixed TDH and TUG are Philsaga surface and underground diamond drill holes

(ii) All other holes pre-date Philsaga.

#### **Resource estimation**

A global Inferred Resource estimation for Bananghilig was undertaken by Cube Consulting Pty Ltd of West Perth, Western Australia. The estimation was based on historical and more recent Philsaga drillhole data.

Table IV summarises the resource at various cut-offs with 0.6 g/t gold being taken as the base case resource estimate. The majority of the resource is contained within a 0.2 g/t gold domain (Domain 1) which measures 850 metres east to west and 550 metres north-south, with the mineralisation defined to variable depths of between 100 to 150 metres due to drill hole density constraints. The mineralisation is also open in all other directions. A smaller domain (Domain 2) to the northeast is approximately 375 metres long in a northeasterly direction, approximately 100 metres wide and open beyond 75 metres depth and has increasing grades towards the northeast.

Cut-off (g/t gold)	tonnes	g/t gold	ounces
0.50	20,000,000	1.1	730,000
0.60	15,000,000	1.3	650,000
0.70	12,000,000	1.5	580,000
0.80	10,000,000	1.7	530,000
0.90	8,000,000	1.9	480,000
1.00	7,000,000	2.1	440,000

Table IV.	Resource	estimate	as at	August 2009

The Bananghilig Mineral Resource estimate is based on a number of factors and assumptions, some of which are listed below:

- All available drilling data were used for the Mineral Resource estimate.
- There is no available QA/QC information (sample duplicates, blanks and certified reference materials) for the historical drilling data. Drilling completed by Philsaga undergoes internal QA/QC and assays greater than 1 g/t gold are checked by an independent laboratory (McPhar). The average grade for drilling completed by Philsaga supports the average grade for the historical drilling data within the mineralised domains.
- A theoretical bulk density of 2.6 t/m<sup>3</sup> was used throughout the model, based on average bulk densities for the modelled lithologies.
- The mineralisation has been defined using gold only assay data at a plus 0.2 g/t gold lower cut off. This interpretation has resulted in two broad domains, the principal one, domain 1 and a smaller domain 2 to the northwest. High grade assay cuts (30 g/t gold in domain 1 and 2 g/t gold in domain 2) have been applied to 2.5 metre downhole composite data.
- The Resource has been estimated using Ordinary Block Kriging and Uniform Conditioning(UC). UC is a mathematical method that allows the discrimination of ore and waste at an assumed selective mining unit size within an estimated panel of significantly larger size. In theory, this provides a more correct prediction of estimated resource grade and tonnes above a cut off than an Ordinary block Kriging alone. The method draws information from the composite data variogram model and Krige's Relationship.
- The application of the (UC) technique at Bananghilig is based on the premise that mining would be by open pit extraction. A Selective Mining Unit ("SMU") of 5 metres by 5 metres by 2.5 metres was evaluated within Ordinary Kriged panels Y=25 metres; X=25 metres and Z=5 metres for the purposes of reporting recoverable resources.



Figure 7. Bananghilig surface geology map.

# **BANANGHILIG DEPOSIT**

#### **Regional Geology**

The Bananghilig Gold Deposit is located on the northern edge of a large aero-magnetically defined alteration zone measuring approximately 9.5 kilometres by 7.3 kilometres and which also contains the Kamarangan copper porphyry target. The Tambis District is generally underlain by fine to coarse-grained andesitic and dacitic flows of probable pre-Tertiary age that constitute the basement rocks. Locally, the basement rocks show agglomeratic features and in places are cut by andesite to dacite porphyry dykes and bodies of hydrothermal breccias of various shapes and sizes.

The southeastern part of the Tambis District is covered by a younger bedded sedimentary formation comprising basal mudstone, sandy clastics and agglomerates with massive white limestone to approximately 60 metres thick as the uppermost member. The limestone bounds the Bananghilig area along the southeast and extends and possibly dips to the southeast.

Structurally the Bananghilig Deposit is located near the intersection of the Barobo Fault (parallel to the Philippine Rift Fault) and the Lianga Bay Fault system.

#### Local Geology and Mineralisation

The Bananghilig Deposit is located partly within an elliptical-shaped diatreme breccia body (Fig.7) measuring approximately 1,000 metres long and 750 metres wide within a larger interpreted caldera measuring approximately 10 kilometres by 6 kilometres.

The diatreme breccia is open to the south beneath the younger massive white limestone rocks.

The gold mineralisation styles in the diatreme are generally associated with pyrite and sphalerite along and around vein-like zones, in fractures and/or breccia in-fill in milled/fluidised muddy matrix breccia bodies and coarsely brecciated/fractured andesitic-dacitic wallrock. The mineralisation is also contained in intensely altered coarse-grained porphyritic (colloquially "peanut brittle") andesitic intrusive rocks located mainly on the northern margin of the diatreme breccia.

Widespread silica-clay-sericite-pyrite hydrothermal alteration affects the volcanic wallrocks, the various breccia bodies and the hypabyssal intrusives associated with them. The alteration assemblage typifies that found in advanced argillic alteration systems.

#### Rock hardness

Observations from the underground exploration activities conducted by the Company, and observations from recent drilling, both indicate that the deposit is likely to be "free dig" to well beyond 50 metres from surface. The softness of the ore is due to the ubiquitous argillic alteration. Further work is required to ascertain the extent of these favourable characteristics.

#### **Future work**

Future work at Bananghilig will involve:

- Extensional drilling to increase the deposit size and determine its boundaries,
- Infill drilling to upgrade the resource categories, extend and define higher grade zones,
- Detailed metallurgical studies.
- Detailed geotechnical studies, and
- Preliminary engineering studies.



Figure 8. Barobo Corridor showing the gold mineralisation potential .

# MINERALISATION POTENTIAL - BAROBO FAULT CORRIDOR

Figure 8 shows the regional structure and geology highlighting the mineralisation potential in favourable limestone and calcareous clastic rocks along the Barobo Fault Corridor. Mineralisation has been located in numerous outcrops and in drill holes which are summarised in Table V. The mineralisation located to date is generally associated with silica and sphalerite-galena replacement of the host rocks.

The calcareous sequence along the Barobo Fault Corridor is the same sequence that has been extensively skarned and mineralised at the Kamarangan copper porphyry prospect. This sequence is interpreted as the oldest calcareous sequence known to date in the district and may be up to 1,600 metres thick.

The sequence is regarded as favourable for hosting large disseminated bodies of gold mineralisation.

Table V summarises some of the more significant drill hole intersections from scout drilling (four holes at Guinhalinan, seven holes at Saguilsuilan and six holes at Alikway). The focus of this scout drilling was on potential high grade mineralisation, not potentially open-pittable targets. All show that gold mineralisation is contained with this calcareous sequence. It should be noted, as also shown in soil sampling on Figure 8, that zinc is commonly associated with gold in this environment

Hole	East	North	Dip (°)	Azimuth (°)	From (metres)	Length (metres)	Gold (uncut) (g/t gold)	<b>Zinc</b> (%)
<u>Guinhalinan</u>								
DGN 002	615640	936325	-55	315	22.60	7.30	2.72	0.62
DGN 003	615639	936323	-50	275	27.55	8.15	1.30	0.27
DGN 004	615593	936377	-45	140	15.40	6.00	0.67	0.02
					27.40	6.70	2.08	0.38
					41.10	17.60	0.81	0.05
<u>Saguilsilan</u>								
SAG 006	613277	939478	-45	230	36.60	24.00	0.52	No assay
Alikway								
ALK 001	616646	934544	-50	180	116.40	1.90	21.20	0.85

Table V. Summary of scout drilling on Barobo Corridor limestone hosted prospects

# ANOLING

The Mines Operating Agreement ("MOA") with Alcorn Gold Resources Inc. covers MPSA application number 039-XIII situated approximately 8 kilometres north from the millsite as shown on Figure 2. Processing of the MPSA is progressing.

Mapping and sampling is continuing.

# OTHER PROJECTS

#### **Bunawan Joint Venture** (Medusa earning 70% interest)

The Company, through its Philippines operating company, Philsaga Mining Corporation ("Philsaga"), signed a joint venture agreement ("JVA") with Bunawan Mining Corporation ("Bunawan") on 23 August 2007, the Philippine operating company of ASX listed Sierra Mining Limited ("Sierra"), whereby Philsaga will earn a 70% joint venture interest in Exploration Permit application ("EPA") 000037-XIII and MPSA 000003-XIII (together the "Bunawan JV").

Following the announcement dated 17 June 2009 of Bunawan's Australian listed parent company, Sierra Mining Limited, advising that EPA 000037-XIII had been denied on "the basis of certification of non-consent issued by the National Commission of Indigenous People", the Company has withdrawn the Demand Letter for Arbitration from the Philippine Dispute Resolution Centre Inc.

#### Sur-sur Project.

The Company is advancing the tenement applications.

#### Saugon Project

Re-mapping and sampling is continuing.

# FINANCIALS

- The Company received proceeds of US\$17.6 million from the sale of 18,054 ounces of gold at an average sale price of US\$975 per ounce;
- As at 30 September 2009, the Company which is debt free, had a consolidated cash balance of US\$25.2 million (Jun 2009: US\$26.6 million);

The reduction in the Company's cash balance during the quarter (aside from operating cash costs and corporate overheads) were attributable to:

- Reduction of the June 2009 creditors balance by approximately US\$6 million;
- o US\$2.4 million was spent on mine development;
- o Capital works associated with the mine and mill expansion of US\$2.3 million; and
- Exploration expenditure of US\$3.4 million for the quarter.

For further information please contact: Geoff Davis Managing Director Phone: +618 9367 0601 Website: www.medusamining.com.au

#### ABOUT MEDUSA MINING LIMITED

**Medusa Mining Limited** ("Medusa" or the "Company"), a public company listed on the ASX and AIM, is an Australian based gold producer, focussed solely on the Philippines.

With total current resources of over 2,000,000 ounces of gold, Medusa's corporate strategy is to become a mid tier 300,000 to 400,000 ounce per year, low cost gold producer. The Company is currently expanding its high grade Co-O Mine operations (1,380,000 ounces at 10.8 g/t gold) to increase its production capacity to 100,000 ounces per year, and is conducting near mine exploration to assess the possibilities of further expansion to 200,000 ounces per year. Current cash costs at the Co-O Mine are approximately US\$200 per ounce.

A pipeline of deposits is now being established with the Bananghilig Deposit (650,000 ounces at 1.3 g/t gold) recently added and which is expected to expand, potentially in conjunction with new nearby discoveries.

Further potential upside exists in the discovery of substantial copper deposits within the tenement holding of > 800km<sup>2</sup>.

#### JORC COMPLIANCE - CONSENT OF COMPETENT PERSONS

#### Medusa Mining Limited

Information in this report relating to **Exploration results**, is based on information compiled by Mr Geoff Davis, who is a member of The Australian Institute of Geoscientists. Mr Davis is the Managing Director of Medusa Mining Limited and has sufficient experience which is relevant to the style of mineralization and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Davis consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Cube Consulting Pty Ltd**

Information in this report relating to **Mineral Resources** has been estimated and complied by Mark Zammit of Cube Consulting Pty Ltd. Mr Zammit is a member of The Australasian Institute of Mining & Metallurgy and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Zammit consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Cube Consulting is an independent Perth based resource industry consulting firm specialising in geological modelling, resource estimation and information technology.

#### Crosscut Consulting

The information in this report that relates to **Ore Reserves** is based on information compiled by Declan Franzmann, B Eng (Mining), MAusIMM. Mr Franzmann is a full-time employee of Crosscut Consulting.

Mr Franzman has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Franzmann consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.