

## ASX RELEASE



# MONTEZUMA MINING COMPANY LTD

PO Box 910 West Perth WA 6872  
31 Ventnor Ave, West Perth WA 6005  
Telephone +61 8 6315 1400  
Facsimile +61 8 9486 7093  
info@montezumamining.com.au  
www.montezumamining.com.au

6 June 2011

ASX CODE: MZM  
ISSUED SHARES: 48.60M  
52 WEEK HIGH: \$0.95  
52 WEEK LOW: \$0.26

### CONTACT:

JUSTIN BROWN  
Managing Director  
+61 438 745 675

### BOARD:

Denis O'Meara: Chairman  
Justin Brown: MD  
John Ribbons: Non-Exec

### KEY PROJECTS:

BUTCHERBIRD (100%)  
Manganese, Copper

PEAK HILL (85-100%)  
Gold

DURACK (earning 85%)  
Gold, Copper

MT PADBURY (100% of gold)  
Gold, Manganese, Iron

### KEY SHARE POSITIONS:

AUVEX RESOURCES LTD  
7,500,000 FPO Shares

BUXTON RESOURCES LTD  
3,010,000 FPO Shares

LITHEX RESOURCES LTD  
1,525,000 FPO Shares

EXTERRA RESOURCES LTD  
2,000,000 FPO Shares

## PEAK HILL GOLD RESOURCE TOPS 500K OUNCES

Montezuma Mining Company Ltd ("Montezuma") is pleased to advise it has received Mineral Resource estimates reported in accordance with the JORC Code 2004 for the Harmony, Mainpit/Fiveways, Durack and Enigma gold deposits within the Peak Hill Project. The Mineral Resource estimates were completed on behalf of the Company by Snowden Mining Industry Consultants ("Snowden"), and combined with the Mineral Resource estimate for the Jubilee deposit completed previously by CSA Global Pty Ltd ("CSA"), enable a global Mineral Resource estimate to be presented for the Peak Hill Project.

**Table 1. June 2011 Mineral Resources completed by Snowden.**

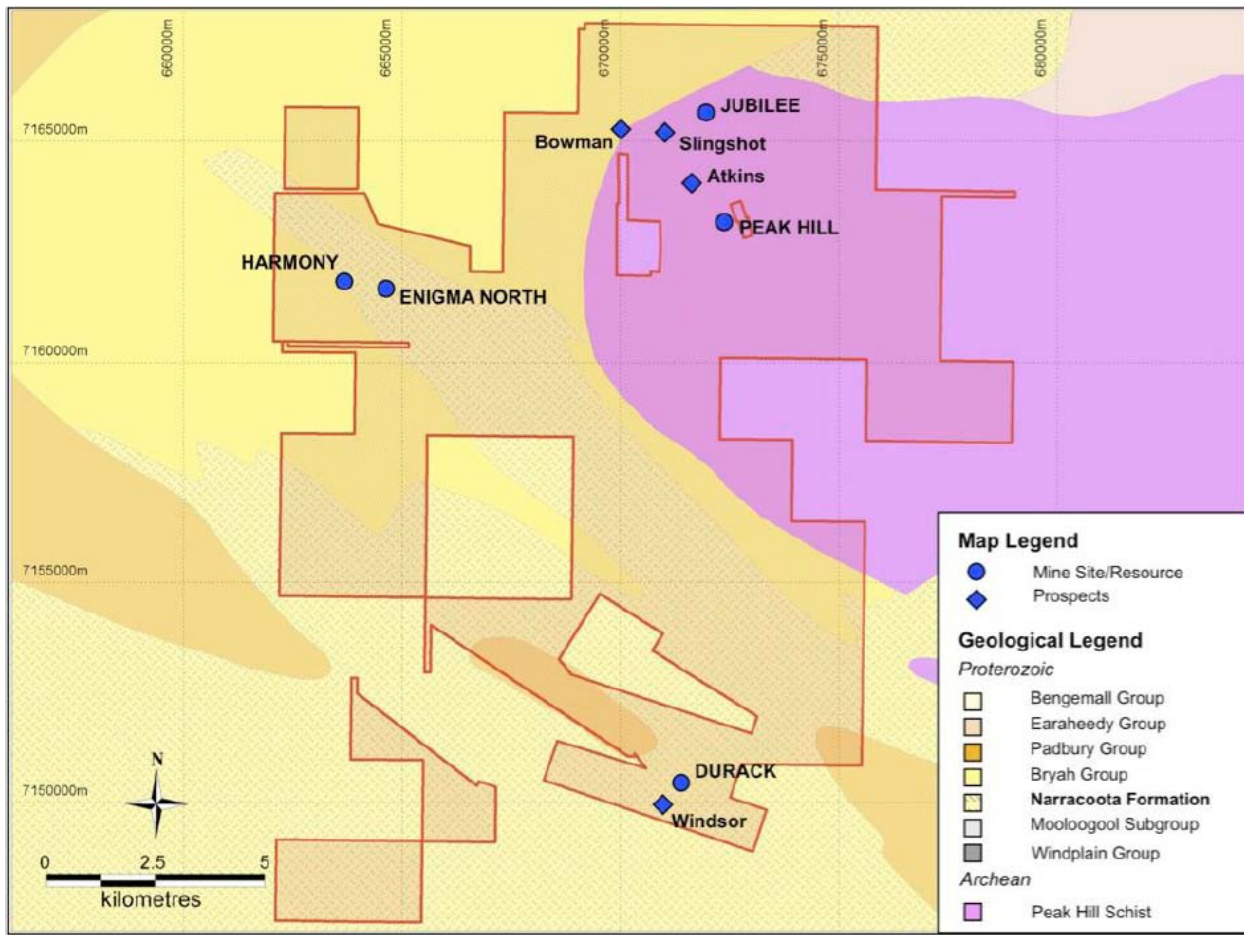
Classification	Material	Tonnes (t)	Au (g/t)	Ounces (Oz)
	Oxide	1,270,000	1.24	50,000
INDICATED	Transitional	2,940,000	1.35	128,000
	Fresh	4,960,000	1.58	252,000
<b>TOTAL INDICATED</b>		<b>9,170,000</b>	<b>1.46</b>	<b>430,000</b>
	Oxide	160,000	1.00	5,000
INFERRED	Transitional	80,000	1.12	3,000
	Fresh	1,510,000	1.57	76,000
<b>TOTAL INFERRED</b>		<b>1,750,000</b>	<b>1.50</b>	<b>84,000</b>
<b>SUBTOTAL</b>		<b>10,920,000</b>	<b>1.47</b>	<b>514,000</b>

**Table 2. September 2009 Mineral Resources completed for the Jubilee Deposit by CSA.**

Classification	Tonnes (t)	Au (g/t)	Ounces (Oz)
INDICATED	100,000	1.95	6,300
INFERRED	505,000	2.49	40,500
<b>SUBTOTAL</b>	<b>605,000</b>	<b>2.41</b>	<b>46,800</b>

**Table 3. Combined Global Mineral Resource Estimated for the Peak Hill Project.**

Classification	Tonnes (t)	Au (g/t)	Ounces (Oz)
INDICATED	9,270,000	1.46	436,000
INFERRED	2,255,000	1.72	125,000
<b>TOTAL</b>	<b>11,525,000</b>	<b>1.51</b>	<b>561,216</b>



**Figure 1:** Regional Geology of the Peak Hill gold field showing known deposit locations.

The Peak Hill district is located approximately 125 km north of Meekathara in the northern extent of the Murchison Goldfield in Western Australia. The Peak Hill field includes the following gold deposits: Harmony, Enigma, Durack, Windsor, Bowman, Jubilee, Slingshot, Atkins and Peak Hill. The Peak Hill project is further subdivided into Main Pit/Fiveways and Mt Pleasant. The individual projects are located within 10 km of one another as shown in **Figure 1** which also shows the regional geology.

The host lithologies for the gold mineralisation comprise mafic and ultramafic volcanic rocks, turbiditic metasedimentary rocks, banded iron formation and associated clastic sediments, all of which are intensely deformed and metamorphosed (Robertson et. al., 2003). Mineralisation extends up to 100 m to 300 m below surface and is open at depth in some areas.

### **Snowden Mineral Resource Estimates**

In preparing the estimates for the Harmony, Enigma, Durack and Mainpit/Fiveways deposits, Snowden considered material within 150 m of the surface to be suitable for open pit mining and chose a reporting cut-off of 0.8 g/t Au based on similar deposits. Material below 150 m will potentially be mined from underground and has been reported at a cut-off of 2.0 g/t Au based on similar deposits. Density values of between 1.9 and 2.6 g/cm<sup>3</sup> were applied dependant on the degree of weathering. The Combined Peak Hill Mineral Resources for Snowden's work are shown in **Table 1** with the breakdown by project area in **Table 4**.

<b>Harmony</b>					
<b>Potential Open Pit and Underground Resource</b>					
<b>Classification</b>	<b>Material</b>	<b>Density</b>	<b>Tonnes</b>	<b>Au</b>	<b>Ounces</b>
Indicated	Oxide	1.9	260,000	1.65	14,000
	Transitional	2.2	850,000	1.54	42,000
	Fresh	2.6	480,000	1.85	29,000
<b>Total indicated</b>		<b>2.3</b>	<b>1,590,000</b>	<b>1.65</b>	<b>84,000</b>
Inferred	Oxide	1.9	40,000	0.88	1,000
	Transitional	2.2	10,000	1.58	1,000
	Fresh	2.6	250,000	2.33	19,000
<b>Total Inferred</b>		<b>2.5</b>	<b>300,000</b>	<b>2.12</b>	<b>20,000</b>

<b>Enigma</b>					
<b>Potential Open Pit and Underground Resource</b>					
<b>Classification</b>	<b>Material</b>	<b>Density</b>	<b>Tonnes</b>	<b>Au</b>	
Indicated	Oxide	1.9	430,000	1.09	15,000
	Transitional	2.2	300,000	1.35	13,000
	Fresh	2.6	780,000	1.15	29,000
<b>Total indicated</b>		<b>2.3</b>	<b>1,510,000</b>	<b>1.17</b>	<b>57,000</b>
Inferred	Oxide	1.9	120,000	1.04	4,000
	Transitional	2.2	0	0.81	0
	Fresh	2.6	190,000	0.93	6,000
<b>Total Inferred</b>		<b>2.3</b>	<b>320,000</b>	<b>0.97</b>	<b>10,000</b>

<b>Durack</b>					
<b>Potential Open Pit and Underground Resource</b>					
<b>Classification</b>	<b>Material</b>	<b>Density</b>	<b>Tonnes</b>	<b>Au</b>	
Indicated	Oxide	1.9	480,000	1.19	18,
	Transitional	2.2	790,000	1.16	30,000
	Fresh	2.6	1,040,000	1.24	41,000
<b>Total indicated</b>		<b>2.3</b>	<b>2,310,000</b>	<b>1.20</b>	<b>89,000</b>
Inferred	Oxide	-	-	-	-
	Transitional	2.2	50,000	0.99	2,000
	Fresh	2.6	530,000	1.26	21,000
<b>Total Inferred</b>		<b>2.6</b>	<b>580,000</b>	<b>1.23</b>	<b>23,000</b>

<b>Main Pit/Fiveways</b>					
<b>Potential Open Pit and Underground Resource</b>					
<b>Classification</b>	<b>Material</b>	<b>Density</b>	<b>Tonnes</b>	<b>Au</b>	
Indicated	Oxide	1.9	100,000	1.03	3,000
	Transitional	2.2	990,000	1.33	42,000
	Fresh	2.6	2,660,000	1.79	153,000
<b>Total indicated</b>		<b>2.5</b>	<b>3,760,000</b>	<b>1.65</b>	<b>199,000</b>
Inferred	Oxide	-	-	-	-
	Transitional	2.2	20,000	1.34	9,000
	Fresh	2.6	540,000	1.75	30,000
<b>Total Inferred</b>		<b>2.6</b>	<b>560,000</b>	<b>1.74</b>	<b>31,000</b>

**Table 4:** Individual Mineral Resource estimates completed by Snowden for the Harmony, Enigma, Durack and Mainpit/Fiveways gold deposits.

Montezuma provided hangingwall and footwall interpretations of the mineralisation for each project area. Snowden used multiple indicator kriging (MIK) as the estimation method due to the multiple mineralisation trends and highly skewed nature of the grade distributions. The laterite at Harmony is the exception as the grade distribution is less skewed and does not show multiple mineralisation trends. The laterite was estimated using ordinary kriging (OK).

The Peak Hill projects of Harmony, Enigma, Durack and Main Pit/Fiveways have been classified as Indicated and Inferred in accordance with the guidelines set out in the JORC Code (JORC, 2004). The sampling methods, drillhole spacing and grade continuity have been considered in the application of the resource categorisation. The absence of Measured Resources, even though there is recent previous mining, is due to the lack of QAQC data and limited density data.

Two of the projects, Harmony and Main Pit Fiveways, have been mined previously by open pit methods to depths in excess of 100 m. All mined areas have been depleted from the reported Mineral Resources.

### **CSA Mineral Resource Estimates**

In addition to the recent work completed by Snowden, in 2009 CSA Global Pty Ltd. ("CSA") was commissioned by Montezuma to undertake Mineral Resource estimates for the J2 and J3 zones at the Jubilee gold project, located 2 km north of the historic Peak Hill Mine site. In preparing the estimates (shown in **Table 2**), CSA used a 1 g/t Au cut off. The deposits were classified, as per the JORC Code (2004), as Inferred and Indicated.

Within the Jubilee project, white mica schist is intruded by a body of metadolerite that has a stratigraphic thickness of up to 250m. Gold mineralisation lies adjacent to both the hanging wall and footwall contacts between the metadolerite and the schist.

The J2 zone is located south of the metadolerite/schist contact with mineralisation occurring within 40m of the contact. Regionally, gold mineralisation is associated with stratabound quartz veins, however locally the quartz can have multiple orientations. The schist dips shallowly to the west.

The J3 zone is located within the hanging wall along the northern margin of the metadolerite/schist contact. Mineralised quartz veins in the J3 zone are regionally stratabound with local minor variation. Mineralisation is more laterally extensive than at the J2 zone, and extends approximately 100 m from the metadolerite/schist contact to the northwest.

Drillholes used for this Mineral Resource estimate include: historical drillholes ranging from 1988 to 1995, with the majority of holes drilled in 1990-1995; and fifteen reverse circulation holes drilled by Montezuma in 2007 totalling 2,511m.

## Investor Coverage

Recent investor relations, corporate videos and broker/media coverage on the Company's projects can be viewed on the Company's website at [www.montezumamining.com.au](http://www.montezumamining.com.au).

## About Montezuma Mining Company Ltd

Listed in 2006, Montezuma (ASX: MZM) is a diversified explorer primarily focused on manganese, copper and gold. Montezuma has a 100% interest in the Butcherbird Manganese/Copper Project and an 85-100% interest in the Peak Hill and Durack Gold Projects in the Murchison region of Western Australia.

---

### More Information

#### Justin Brown

Managing Director

Phone: +61 (8) 6315 1400

Mobile: +61 438 745 675

The Information in this report that relates to exploration results is based on information compiled by Justin Brown, who is a member of the Australian Institute of Mining & Metallurgy. Mr Brown is a geologist who is a full time employee of Montezuma Mining Company Ltd. and 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. Justin Brown consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

---

The information in this report that relates to the Mineral Resources for the Harmony, Enigma, Durack and Mainpit/Fiveways Deposits is based on information compiled by Mr Kevin Lowe (MAusIMM) under the supervision and guidance of Ms Lynn Olssen (MAusIMM (CP)), who are both full-time employees of Snowden Mining Industry Consultants. Lynn Olssen has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration, Results, Mineral Resource and Ore Reserves (JORC, 2004). Lynn Olssen consents to the inclusion in this report of the matters based on the information in the form and context that the information appears.

---

The team of Competent Persons involved in the preparation of the Mineral Resource for the Jubilee J2 and J3 gold deposits is as follows:

The estimate was completed under the overall supervision and direction of Steven Hodgson, MAIG, of CSA Global who is a Competent Person as defined by the Australasian Code for the Reporting of Exploration Results, Mineral Resources or Ore Reserves (JORC Code 2004 Edition) and who consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

The resource estimate in this report relates to information provided by Montezuma Mining Company Ltd. The information including database compilation, geological interpretation and mineralisation wire framing was completed by Craig Richards B.Sc. Hons Grad.Dip. and supervised by Trevor Saul B.Sc.Hons MAusIMM. Mr Saul is a geologist and 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 "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Trevor Saul consents to the inclusion in the report of the matters based on his information in the form and context in which it appear.