

# De Grey Mining Ltd

A.B.N. 65 094 206 292

25th July 2012

## ASX/MEDIA RELEASE

### Vein Breccia Zone Drill Results

#### HIGHLIGHTS

- Drillhole SM-12-01 returns significant results including 0.45m @ 0.53% Zn and 95ppb Au from 118.50m
- Drillhole SM-12-02 returns significant results including 1m @ 2.16% Zn from 82.80m, 1m @ 329ppb Au and 14g/t Ag from 186.80m and 1m @ 59g/t Ag from 219.80m
- Results confirm that drilling at the Vein Breccia Zone has intersected a low sulphidation epithermal system
- Excellent potential for the Vein Breccia Zone to host Au-Ag mineralisation at depth

De Grey Mining Ltd (**ASX: DEG**) recently completed a diamond drilling program at the Vein Breccia Zone, part of the Sierra Morena Project in the Deseado Massif, of Santa Cruz, Argentina (Figure 1 & 2).

De Grey's initial drilling program completed a total of 366m in two drill-holes (Figure 2) prior to the program being abandoned due to an early onset of winter. Both drillholes intersected highly anomalous geochemical associations (Table 1) typical of the upper levels of a low sulphidation epithermal system. The upper portions of these systems are typically barren, but due to strong vertical zonation and lithological controls in the localisation of Au-Ag mineralisation, the presence of anomalous Au-Ag and typical pathfinder elements (As-Ba-Cu-Hg-Mo-Sb-Pb-Zn) in the recent drilling is highly encouraging at this early stage.

Quartz veining and alteration in the drillholes was dominantly chalcedonic (Figure 3), also typical of the upper zones of a low sulphidation system.

De Grey's Executive Chairman, Peter Batten, commented: *"These results are highly encouraging for De Grey, and confirm that our exploration model is valid. The prospect covers a large area that is, for a substantial portion, covered by a layer of volcanic ash. However, what we see on surface and in this drilling is that we are exploring the upper levels of a mineralised epithermal system. Positive results in this initial phase of drilling enhance the prospectivity of this project which will be advanced in the 2012-2013 field season"*.

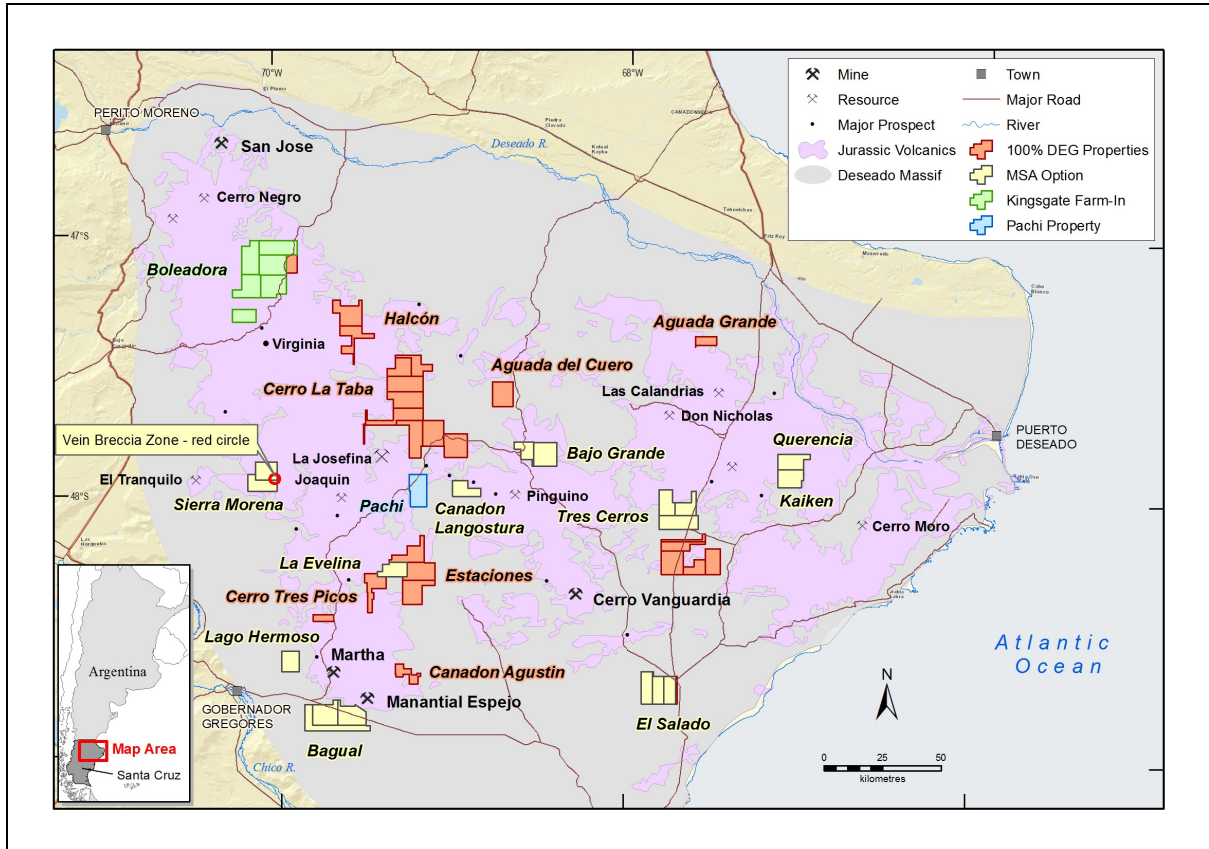


Figure 1 – Location map of De Grey properties in Deseado Massif, Santa Cruz, Argentina. Note red circle denotes location of the Vein Breccia Zone

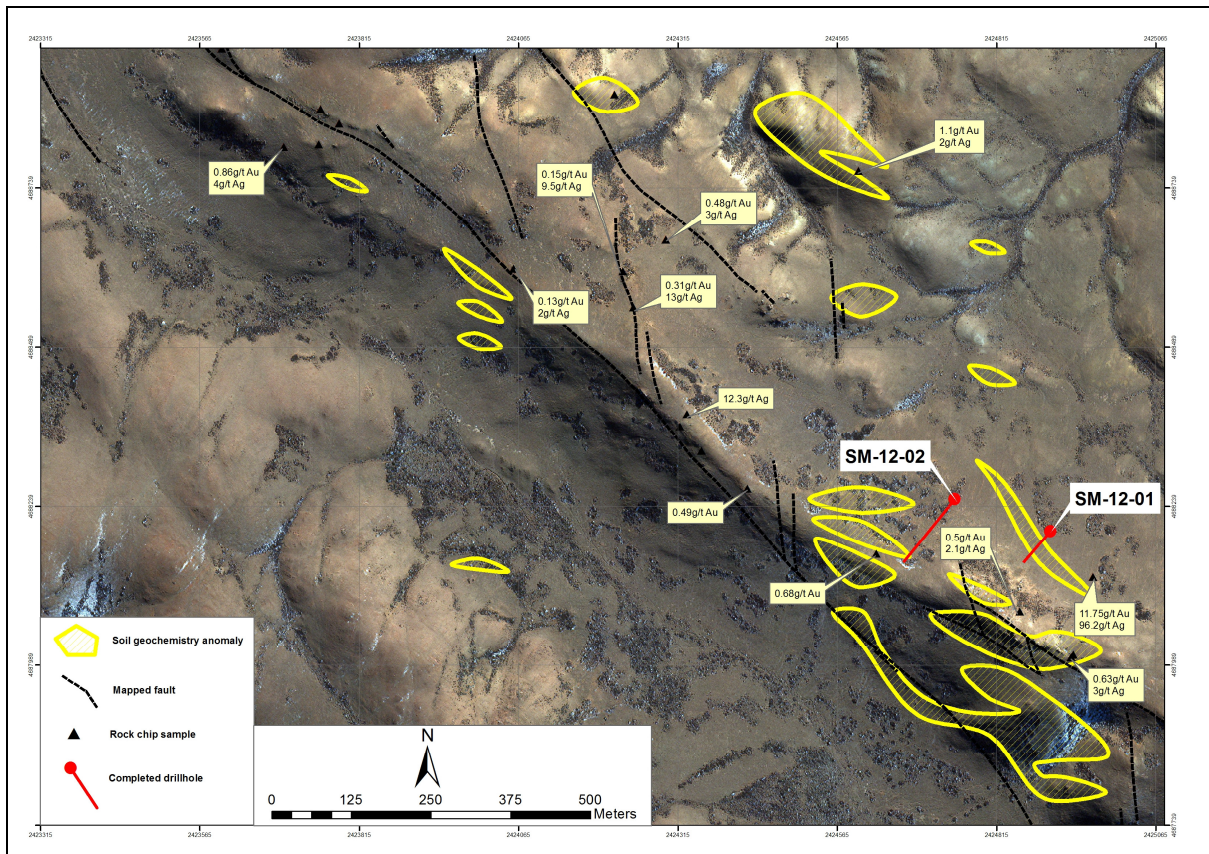


Figure 2 – Sierra Morena Project - Vein Breccia Zone showing drillhole location





Figure 3 – Chalcedonic quartz veining SM-12-02 82.3m depth

## Vein Breccia Target - Background

The Vein Breccia Zone is located in the eastern portion of the Sierra Morena Project, Santa Cruz Province in Argentina. De Grey Mining Ltd has been exploring the project since 2010 and has completed rock chip and soil sampling, geological mapping and diamond drilling.

The Vein Breccia Target is a zone of low temperature quartz veining, brecciation and alteration developed along a >800m long north-west trending duplex fault system, with north-south striking extensional faults developed within this overall north-west oriented fault system. A large proportion of the area is covered by a thin layer of recent volcanic ash, which has limited geological mapping and sampling generally to the crests of hills.

Sampling of the area has located numerous vein and vein float occurrences with rock samples returning up to **11.75g/t Au and 96.2g/t Ag**<sup>1</sup> accompanied by significant arsenic, lead and zinc over an area of approximately 750 metres by 800 metres (Figure 1). These high metal grades appear to be associated with both the northwest striking faults and north-south striking extensional faults.

With the encouraging 1<sup>st</sup> results from a limited drilling program, the company plans to continue exploration at the Vein Breccia Zone in the 2012-2013 field season. Initially the company will complete trenching and further geological mapping in the area to better understand structural controls on mineralisation, and then proposes a Gradient array IP program prior to further drilling. This next stage of drilling will aim to test the deeper parts of

<sup>1</sup> Refer to De Grey's ASX release dated 8 December 2011 for details.

the epithermal system (100-400m below surface) which typically contain the Au-Ag rich zones.

### **About the Deseado Massif**

The Deseado Massif is a distinct geological province extending over a 400km by 240km area, between the Andes Mountains to the west and the Atlantic Ocean to the east, in the Patagonian region of Argentina.

Epithermal gold-silver vein systems are spatially and temporally associated with Jurassic volcanic activity, with most mineralisation hosted by felsic volcanic rocks of the Chon Aike Formation.

The gold and silver potential of the Deseado lay unrecognized until 1989 when the giant Cerro Vanguardia vein field (7.4Moz Au and 140Moz Ag) was discovered. A boom in exploration activity in recent years has seen new mines opening, high grade Au-Ag resources announced and a continuing procession of new exploration discoveries. The high-grade epithermal style of mineralisation presents an attractive exploration target.

Notable mines and recent discoveries include:

- Cerro Vanguardia Mine - AngloGold Ashanti (ASX:AGG) and Formicruz 7.4Moz Au and 140Moz Ag reserves plus historic production
- Mina Martha - Coeur d'Alene (NYSE:CDE) 30,000oz Au and 24Moz Ag produced to Jan 2010
- Manantial Espejo mine – Pan American Silver (NASDAQ:PAAS) 0.75Moz Au and 55Moz Ag resources
- San Jose Mine – McEwen Mining (NYSE:MUX) 1.4Moz Au and 90Moz Ag resources
- Cerro Negro Mine – Goldcorp (NYSE:GG) 5.3Moz Au and 44Moz Ag in resources
- Cerro Moro Project - Extorre Gold Mines Ltd (NYSE:XG) +1Moz Au equivalent in resources

Other advanced gold-silver prospects or resources discovered in recent years in the Deseado Massif include:

- Don Nicholas Project – Minera IRL (TSX:IRL)
- La Josefina Project – Hunt Mining (TSX:HMX)
- Joaquin Project - JV between Coeur d'Alene Mines Corporation (NYSE:CDE) and Mirasol Resources Ltd (TSX:MRZ)
- El Tranquilo Project – Patagonia Gold (LSE:PGD)
- Pinguino Project – Argentex (TSX:ATX)
- Virginia Project – Mirasol (TSX:MRZ)
- Las Calandrias Project – Mariana Resources (AIM:MARL)

Despite the recent recognition of its mineral endowment, the Deseado Massif remains a comparatively under-explored region. Exploration to date has largely comprised surface prospecting for outcropping vein systems, with few companies reporting systematic application of geophysics or geochemical sampling except in brownfields situations after an initial discovery.

Prospecting has been very effective and is still producing new discoveries but several recent finds have demonstrated that significant mineralisation may show only a very subtle surface expression or be of an unexpected style. De Grey considers that application of more

sophisticated exploration techniques will result in further such discoveries, and is actively applying these techniques to unlock the next generation of mineral discoveries in the region.

**For further information:**

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Hole	From	To	Au (ppb)	Ag (ppm)	Pb (ppm)	Zn (ppm)
SM-12-01	19.55	20.55	15	1	1010	NSR
SM-12-01	21.85	22.85	10	1	1630	NSR
SM-12-01	60.85	61.85	58	1	NSR	745
SM-12-01	69.85	70.85	93	1	NSR	NSR
SM-12-01	118.5	118.95	95	4	1040	5380
SM-12-01	118.95	119.95	105	NSR	NSR	NSR
SM-12-02	26.8	27.8	86	5	780	NSR
SM-12-02	76.8	77.8	16	NSR	2430	800
SM-12-02	77.8	78.8	18	4	6670	1000
SM-12-02	78.8	79.8	13	NSR	570	330
SM-12-02	79.8	80.8	16	1	610	740
SM-12-02	80.8	81.8	13	1	1710	2780
SM-12-02	81.8	82.8	8	NSR	1870	2320
SM-12-02	82.8	83.8	7	1	200	21600
SM-12-02	101.8	102.8	98	1	NSR	NSR
SM-12-02	115.8	116.8	15	6	9760	8520
SM-12-02	122.8	123.8	23	1	1130	2560
SM-12-02	178.8	179.8	106	6	NSR	NSR
SM-12-02	186.8	187.8	329	14	NSR	NSR
SM-12-02	215.8	216.8	5	21	NSR	NSR
SM-12-02	219.8	220.8	19	59	NSR	NSR
SM-12-02	224.8	225.8	117	11	NSR	NSR

Table 1 – Significant intersection from Vein Breccia Zone

\*Samples were analysed by ALS Minerals Laboratories, Mendoza, Argentina. Au was analysed using fire assay and AAS finish of a 30g nominal sample weight. Ag and all other elements (33) were analysed using aqua regia digestion with ICP-AES finish. Note that the aqua regia digestion is limited to determining the acid leachable portion of the elements.

Hole ID	East	North	Elevation	Azimuth	Dip	Depth
SM-12-01	2424900	4688200	772.0	225	-60	125.05
SM-12-02	2424750	4688250	769.0	225	-60	240.95

Table 2 – Vein Breccia Zone Drillhole locations

The information in this report that relates to exploration results is based on information compiled by Mr Glenn Martin, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Martin 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." (the JORC Code). Mr Martin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.