

# De Grey Mining Ltd

A.B.N. 65 094 206 292

*The Bold Explorer*

9 June 2011

## ASX/MEDIA RELEASE

### EXPLORATION UPDATE – SIERRA MORENA PROJECT, ARGENTINA

De Grey Mining Ltd (**De Grey** or the **Company**) is pleased to provide an update with results from the recently completed stream sediment geochemistry survey at the Sierra Morena project, Santa Cruz Province, Argentina.

The stream sediment sampling campaign was designed to rapidly and cost-effectively screen the 140 sq km project area.

Low-level multi-element assays have highlighted eleven areas associated with NW and NNW-trending structures for follow-up exploration.

Sierra Morena is subject to an option agreement with Minera Sudamericana S.A. Previous exploration on the property has located an epithermal breccia vein yielding rock chip samples up to 0.69g/t Au and 20g/t Ag<sup>1</sup>, along with elevated arsenic, antimony and mercury, over approximately 1km strike length.

De Grey's Managing Director Gary Brabham commented: *"Results to date have given us, outside of the already outlined breccia vein system, further significant targets within the Sierra Morena Project. Individual results of up to 85ppb Au and multi-element anomalies for a suite of elements typical of low sulphidation vein targets have outlined multiple zones for follow-up early in the next field season. This work also gives us confidence that this type of efficient screening approach allows us to evaluate large areas of ground and generate targets within a short period of time"*.

#### For further information:

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<sup>1</sup> Refer to De Grey's December 2010 Quarterly Report for details

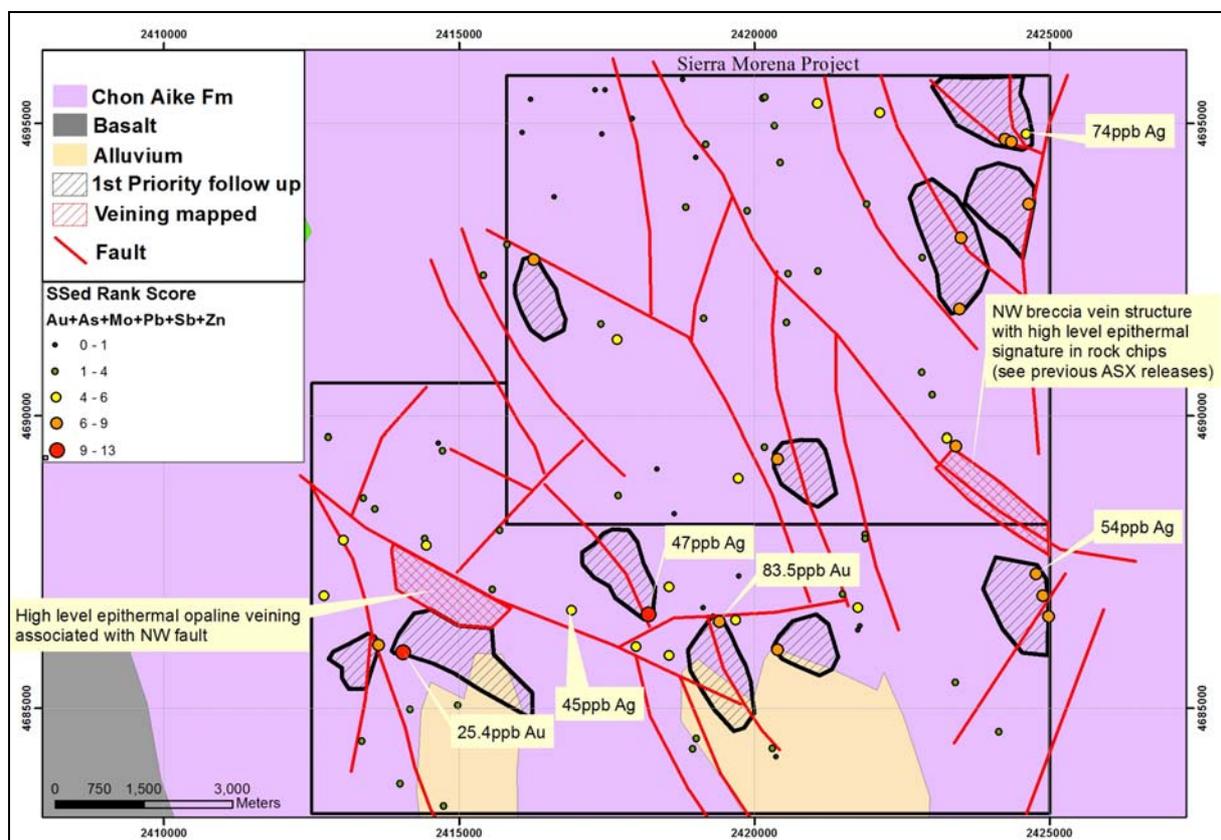
## SIERRA MORENA STREAM SEDIMENT GEOCHEMISTRY SURVEY

Stream sediment sampling was completed at 91 sites with two samples taken at each site. The samples were submitted for ultra-low level assays; in the context of the target mineralisation style and the type of sampling undertaken, significant targets may be represented by very low levels of metal concentrations.

Results were initially evaluated based on individual elements, with several sites displaying strongly anomalous Au (to 85ppb Au) and Ag (to 57ppb Ag) values. Assays of individual elements were then 'ranked' and the ranks combined into a score based on a combination of elements (Au+As+Mo+Pb+Sb+Zn) that are typical of the upper levels of low-sulphidation epithermal vein systems. The score was then used to highlight areas of anomalous geochemistry.

The survey has outlined eleven target areas of elevated gold and/or multi-element signatures (Figure 1). Those areas are predominantly associated with northwest trending faults, the typical control of most known epithermal vein deposits in the Deseado Massif. Importantly, sample sites immediately downstream of the known breccia vein in the eastern part of the project area returned second and third rank scores, validating the sampling approach.

The stream sediment geochemistry survey has outlined priority areas for ground based geological/geochemical prospecting immediately next field season commences, expected to be September 2011.



Element			Au (ppb)	Ag (ppb)	As (ppm)	Mo (ppm)	Pb (ppm)	Sb (ppm)	Zn (ppm)	**Rank Score
Detection Limit			0.2	2	0.1	0.01	0.01	0.02	0.1	
Background Value			2	20	3	0.33	5.53	0.2	16.5	
*Sample	East	North								
A117	2418202	4686608	2.2	47	29.2	1.71	11.19	0.77	33.9	13
A983	2414049	4685959	<b>25.4</b>	35	7.7	0.81	10.30	0.70	21.9	10
A930	2424248	4694729	0.4	42	8.8	0.83	15.08	0.31	47.2	9
A877	2424774	4687307	0.1	54	7.3	0.89	12.47	0.40	52.3	9
A1114	2419409	4686846	<b>83.5</b>	26	7.5	0.67	8.69	0.39	37.3	8
A974	2420392	4689269	3.1	25	5.9	0.84	12.73	0.37	42.1	8
A871	2424986	4686574	2.0	25	3.7	0.89	11.51	0.32	45.4	8
A977	2413627	4686089	1.3	28	7.4	1.60	8.59	0.68	34.9	8
A927	2424651	4693618	0.3	34	7.4	0.86	13.94	0.34	47.2	8
A1050	2416257	4692670	1.8	36	5.9	0.60	11.87	0.42	48.2	7
A1138	2420396	4686008	1.4	24	8.2	0.74	9.51	0.46	38.2	7
A924	2423503	4693043	0.9	36	7.2	0.86	13.17	0.27	36.1	7
A904	2423472	4691829	0.1	28	4.0	0.86	19.76	0.38	33.6	7
A874	2424885	4686930	0.1	28	3.9	0.90	12.81	0.29	48.6	7
A892	2423417	4689490	0.1	32	6.5	1.04	10.70	0.43	43.7	7
A933	2424352	4694689	0.1	32	6.5	0.91	11.03	0.39	41.2	7
A1041	2417675	4691302	1.3	36	7.0	0.83	9.53	0.40	33.9	6
A1120	2417994	4686060	0.4	36	11.3	0.99	7.91	0.48	23.0	6
A936	2424602	4694817	0.1	74	7.3	0.40	12.57	0.26	56.2	6
A1000	2412705	4686928	0.1	39	7.3	0.83	8.91	0.58	31.7	6
A895	2423265	4689621	0.1	25	4.6	0.85	12.40	0.38	30.4	6
A968	2419728	4688941	0.1	30	7.0	0.79	11.78	0.38	32.4	6
A1012	2416900	4686679	0.1	45	11.5	1.01	8.20	0.45	20.1	6

*Table 1: Sierra Morena – Significant Stream Sediment Results, Santa Cruz, Argentina*

\*Samples were analysed by ACME Analytical Laboratories, Mendoza, Argentina. ICP Mass Spectrometer analysis of 30g sample split from original 500gm (minimum) sample after Aqua Regia digestion for ultra-low determinations. Basic suite of elements consisted of 37 elements including those listed above. Note that some elements will report partial concentrations due to the presence of refractory minerals.

\*\*Rank value was calculated for elements which displayed a positive correlation with Au. For each element the top 3 statistical populations were determined (Jenks Natural Break), after which a score was assigned to each sample for each population. For each element, Rank 3 = 1<sup>st</sup> order population, Rank 2 = 2<sup>nd</sup> order population, Rank 1 = 3<sup>rd</sup> order population. Rank values for each element with a positive correlation with Au were combined into a "Rank Score".

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 JORC Code Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves." 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.