

# De Grey Mining Ltd

A.B.N. 65 094 206 292

*The Bold Explorer*

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## ASX/MEDIA RELEASE

### DE GREY LAUNCHES ARGENTINA EXPLORATION

De Grey Mining is pleased to announce that through a farm-in agreement, an option agreement and tenement applications in its own right, it has secured exploration rights over 2,193km<sup>2</sup> of highly prospective ground in Santa Cruz Province, Argentina.

De Grey has established an Argentine subsidiary, De Grey Argentina S.A., to facilitate its exploration push into Argentina.

Jurassic rocks of the Deseado Massif, in southern Patagonia, host numerous low-sulphidation epithermal gold-silver deposits discovered over the past decade making it one of the world's premier exploration regions for this style of mineralisation.

De Grey's Managing Director, Gary Brabham, commented "This is a significant ground position in a region where mineral tenure is tightly held. Exploration is in its infancy in the Deseado and new discoveries are being announced just about every other month. The target mineralisation style is appealing, the majority of deposits being high-grade and with simple metallurgy. The low population density, scarcity of high-value conservation estate and the pro-mining policies of the Santa Cruz provincial government make exploration access relatively straightforward. Andean Resources' success at their Cerro Negro project demonstrates the potential of the region."

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## De Grey's Santa Cruz Projects

De Grey has acquired, by applications over vacant ground and through option and joint venture agreements with other parties, a portfolio of 14 projects over a total area of 2,193km<sup>2</sup> (Figure 1) in Santa Cruz Province, Argentina.

All of the areas have seen little or no previous exploration and represent early stage exploration opportunities in the Deseado Massif.

The majority of projects were originally acquired following target generation exercises using regional aeromagnetic data to identify structural corridors thought to be important controls on the location of the epithermal gold-silver mineralisation. Further targets were selected on the basis of alteration anomalies interpreted from the processing and analysis of Aster satellite data. Such signatures can reflect hydrothermal alteration associated with gold-silver mineralisation in epithermal systems. These alteration targets provide De Grey with areas for immediate field investigation.

De Grey has established an Argentine subsidiary, De Grey Argentina S.A., through which its work in Argentina will be conducted.

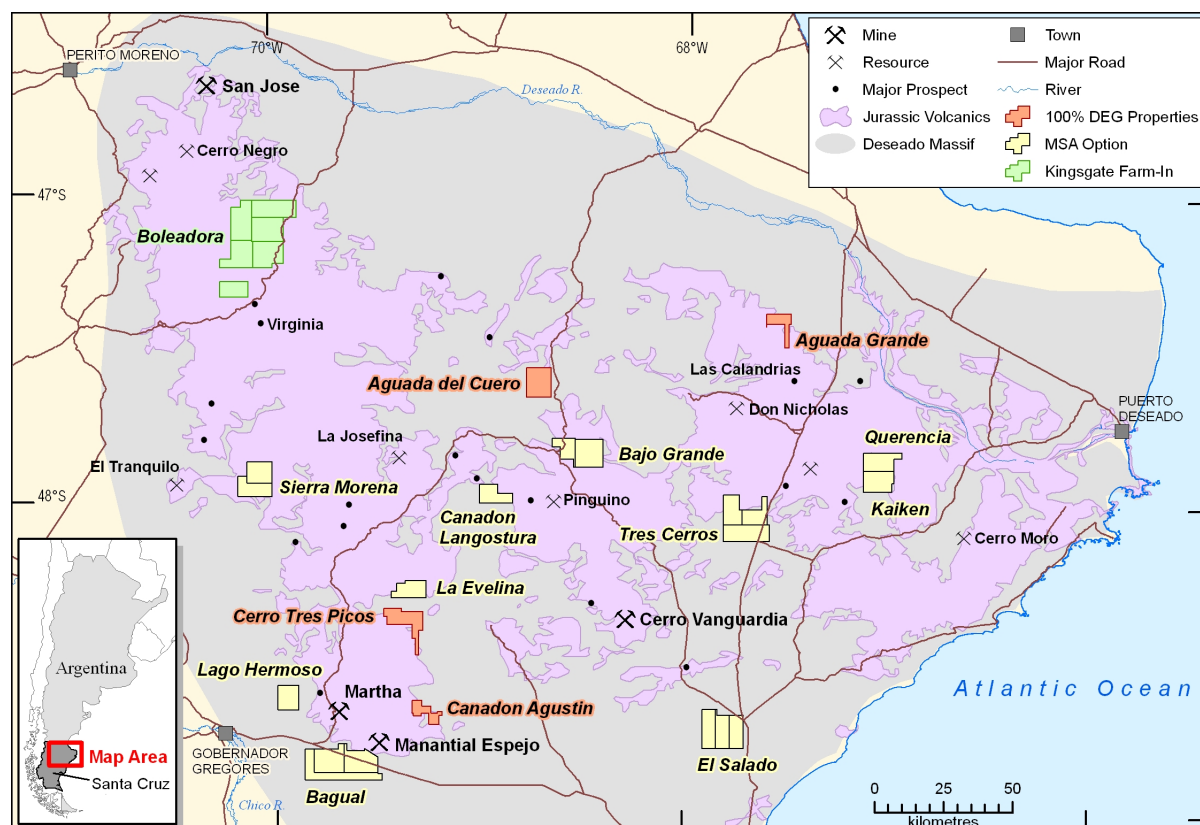


Figure 1: Locations of De Grey Argentina SA projects

## **Prospectivity of 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 (7Moz Au and 104Moz 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 and Formicruz, 7Moz Au and 104Moz Ag reserves plus historic production);
- Mina Martha, (Coeur d'Alene, 28,000oz Au and 21Moz Ag produced to December 2009);
- Manantial Espejo mine (Pan-American Silver, 0.4Moz Au and 45.8Moz Ag resources);
- San Jose mine (Hochschild Group and Minera Andes, 0.5Moz Au and 33.4Moz Ag resources);
- Cerro Negro project (Andean Resources, 3.2Moz Au and 25Moz Ag in resources);
- Cerro Moro project (Extorre Gold Mines Ltd, +1Moz Au equivalent in resources including the exceptionally high grade Escondida vein containing 357,000 oz Au and 15.3Moz Ag at a gold equivalent grade of 32.3g/t. Recent bonanza intersections announced in April 2010 include 8.93m at 102g/t gold and 4,397g/t silver and 2.4m at 128g/t gold and 3,542g/t silver).

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

- Minera IRL Ltd's Don Nicholas project;
- Hunt Mining's La Josefina project;
- the Joaquin JV between Coeur d'Alene Mines Corporation and Mirasol Resources Ltd;
- Patagonia Gold's El Tranquilo project;
- Argentex's Pinguino vein system;
- Mirasol's grass roots Virginia silver vein field, discovered in November 2009 with surface channel samples up to 1.79m at 2,234g/t silver;
- Mariana Resources' Las Calandrias project with drill intercepts including 91.5m @ 1.6g/t Au, 17g/t Ag, 71m @ 1.1g.t Au, 23g/t Ag and 102m @ 1.2g/t Au, 17g/t Ag.

Despite the recent recognition of its mineral endowment, the Deseado 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. The Central Zone deposit at Hunt Mining's La Josephina project features high-grade gold mineralisation in a flat-lying silica sinter zone with no significant veining. Mariana Resources' Calandria Sur deposit comprises broad zones of disseminated Au-Ag mineralisation hosted by a rhyolite dome.

De Grey considers that application of more sophisticated exploration techniques will result in further such discoveries, including discoveries through the thin basalt and gravels that mask parts of the region.

### **100% De Grey Argentina (DGA) Properties**

DGA has made applications for four projects over a total area of 276km<sup>2</sup> within the Deseado Massif (Figure 1). The properties were acquired following the identification of anomalous Aster (multispectral satellite) signatures over Jurassic volcanic rocks that may reflect hydrothermal alteration associated with epithermal mineralisation.

Initial field reconnaissance has confirmed the presence of Jurassic felsic volcanic rocks within all four projects.

### **Minera Sudamericana Option Agreement**

De Grey Argentina SA (**DGA**) has entered into a binding letter of intent for an option-to-purchase agreement with Minera Sudamericana SA (**MSA**) over nine project areas covering a total of 1,390 km<sup>2</sup>.

MSA is a private Argentine company headed by experienced geologists who pegged the properties in 2008 and 2009 after undertaking a targeting study using regional aeromagnetic data and Aster imagery.

The option agreement comprises two stages, an exploration stage and a project acquisition stage:

- By paying US\$15,000 per quarter, DGA retains exclusive rights to conduct exploration, excluding drilling, on any or all of the MSA projects (a project being one or more contiguous mineral tenements) for up to 3 years from 1 April 2010. DGA must complete payments totaling US\$60,000 prior to terminating the agreement. DGA is then free to exclude any one or more of the projects from the agreement or to withdraw from the agreement in entirety.
- At any time until 31 March 2013, DGA may elect to enter into an option-to-purchase agreement over any one or more of the projects. The purchase of any one project requires DGA to make a series of escalating purchase

payments over 3 years from the date that the purchase agreement is entered into, those payments to total not more than US\$2 million in respect of any one project. In the event that DGA completes the purchase of any project, MSA retains a 1.5% net smelter royalty, 50% of which may be purchased by DGA for US\$1.5 million at the time of a decision to mine.

MSA has conducted only limited field reconnaissance on some of the properties but their rapid discovery of a series of Au-Ag mineralised, siliceous breccias at the Sierra Morena project supports the targeting approach. At Sierra Morena, MSA's surface rock chip samples returned assays of up to 0.69g/t Au and 12g/t Ag from a series of breccia outcrops up to 3 metres thick and exposed over distances of up to 50 metres (Figure 2). The results are significant considering that only seven samples were collected by MSA over 1.4km strike length.

Also after only brief field reconnaissance, MSA located banded, epithermal vein quartz at the Tres Cerros project (Figure 3). Limited rock chip sampling returned elevated signature elements (arsenic and mercury) but no anomalous gold or silver. The assays are not regarded as discouraging since the vein textures indicate exposure at a high level in the hydrothermal system.

Other targets yet to be evaluated in the field feature Aster anomalies in Jurassic volcanic rocks or windows of Jurassic volcanic rocks and Aster anomalies within a thin cover of later basalt or gravel deposits.



*Figure 2: One of several outcrops of siliceous breccias in Chon Aike volcanics at Sierra Morena project. (Photograph by MSA)*





*Figure 3: Colloform banded quartz vein at Tres Cerros project, interpreted to be exposed at a high level in the vein system. (Photograph by MSA)*

### **Boleadora Project Farm-in**

DGA has executed a binding letter of intent with Minera Kingsgate Argentina SA, a wholly owned subsidiary of Kingsgate Consolidated Ltd, over Kingsgate's Boleadora project. Terms include:

- DGA may earn 60% interest in the project by sole funding US\$200,000 exploration expenditure over not more than 3 years;
- Upon earning 60% interest, DGA may elect to:
  - a) form a joint venture with Kingsgate and the two parties contribute proportionally to further exploration expenditures, or;
  - b) increase its interest to 80% by sole funding a further US\$1 million expenditure, including at least 1000 metres of drilling, over a further period of not more than 2 years at which point an 80:20 joint venture will be formed;
- DGA can withdraw at any time provided that it must incur minimum expenditure of US\$50,000 per year for so long as it is sole funding exploration;

- After formation of a joint venture, the parties will contribute proportionally to exploration expenditures or dilute in accordance with a standard dilution formula. Should either party dilute to less than 10% interest that party's interest will convert to a 2% net smelter royalty.

The Boleadora Project comprises six tenements covering 527km<sup>2</sup> area in the north western Deseado Massif (Figure 1). The project is strategically located between Andean Resources' Cerro Negro Project and Mirasol Resources' recent grass roots Virginia silver vein field discovery.

Kingsgate undertook limited surface sampling of the project area prior to that company refocusing its South American exploration efforts in early 2008. The area hosts large areas of Chon Aike Formation, the Jurassic volcanic rocks that are host to most of the epithermal gold-silver mineralisation in the Deseado Massif.

### **About Argentina**

In Argentina minerals are vested in the provinces and provincial governments administer mineral rights and mining under Federal Mining Law 24196 (1993). The mining law allows for 100% ownership of projects by foreign entities and enshrines the right of the holder of an exploration permit to convert to an exploitation concession. It also provides for 100% offset of exploration and development costs against profits and specifies that provincial government royalties may not exceed 3% of the mine gate value of product. Upon presentation of a feasibility study, a mine developer has the right to negotiate a 30 year fiscal stability agreement.

Argentina and Australia are signatories to a Bilateral Investment Agreement that protects foreign investment, allows repatriation of profits and avoids double taxation. Argentina's corporate tax rate is 35%.

Mineral exploration tenements are of two types. A *cateo* gives exclusive prospecting rights for the requested area for a set period of time, with area reduction requirements depending upon the cateo area. The maximum size of each cateo is 10,000 hectares, which confers one thousand days to explore the area. A maximum of 20 cateos can be held by a single entity (individual or company) in any one province. A *manifestación de descubrimiento* (manifestation of discovery, MD) can be filed as either a vein or disseminated discovery. A protection zone of up to 840 hectares for a vein MD or up to 7,000 hectares for a disseminated discovery can be declared. An MD grants the discoverer exclusive rights for an indefinite period during which the discoverer must present a annual reports describing exploration and evaluation progress.

An MD can later be upgraded to a *mina* (mine claim), which gives the holder the right to progress to commercial extraction of minerals. A mine concession is unlimited in time and only ends when exploitation ceases. Titles can be transferred by any of the means used for transfers of common property.

All of the tenements in Santa Cruz Province to which De Grey has rights are at the application stage. It is common practice to maintain tenements as applications during preliminary, non-ground disturbing exploration programs, with progression to

grant only upon commitment to substantial expenditures such as trenching and drilling.

### **About Santa Cruz Province**

Santa Cruz is a mining friendly province that actively encourages mining and exploration. In November 2009 an 'Area of Special Interest for Mining' was defined by the provincial government in which mining activities are encouraged. De Grey's properties fall entirely within the permitted mining zone.

The region is sparsely inhabited, semi-arid, treeless and has low topographic relief comprising plains and low hills. The climate is cool and dry. During most winters, snow is sufficient to prevent access to remote areas and to obscure the ground surface.

### **Forward Programs**

The acquisition of this extensive portfolio of exploration properties gives De Grey an opportunity to use low cost exploration techniques to efficiently evaluate their potential.

Specific exploration targets have already been identified in these early stage exploration areas including new discoveries of outcropping mineralised breccias and veins, Aster alteration signature anomalies, and linear features in remote sensing data. Detailed sampling and mapping will be completed over these areas to rapidly define more advanced drill targets.

This targeted work will be complemented by systematic reconnaissance of all outcropping areas of prospective Jurassic volcanic rocks within the projects to identify any additional unrecognized vein, alteration or breccia systems.

Systematic soil and stream sediment geochemical sampling will provide an initial assessment of less well exposed areas where there is potential for more subdued or partially concealed mineralisation.

Fieldwork campaigns using experienced Argentine geological personnel are scheduled to commence in the December quarter after winter snows have receded.

The information in this report that relates to exploration results, mineral resources and ore reserves is based on public domain information compiled by Mr David Hammond, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Hammond 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 Hammond consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.