Gold Price: US $1,605.6/ounce

Projects

Porquinho

Advanced Gold Projects Other Gold Projects
Agua Azul Mato Grosso Mato Velho Bom Jardim União Porquinho
Photos Maps

Overview

The Porquinho district is regarded by the CNPM (Brazil Geologic Survey) as one of the most prospective areas in the Tapajós gold district. The area is 100% controlled by Magellan and has an estimated historic production in excess of one million ounces of gold. The heart of the district consists of a series of primary and alluvial gold occurrences localized along the Chico Torres Shear Zone, a 10+ km long, NW-SE shear zone system that comprises the northwestern end of the Tocantinzinho Trend, a crustal scale lineament that controls most of the known gold deposits within the Tapajos Mineral Province. Magellan holds approximately 40,000 hectares covering the central part of this important structure. Work to date includes an airborne geophysical survey totaling 1362 line km, extensive gridding (113 line km), collection of over 2400 soil samples, geological mapping and channel sampling.

Geology and Mineralization

The Porquinho-Chico Torres district hosts a mineralized shear zone system at least 10 km in length, that has produced in excess of one million ounces of gold, about 95% of it from alluvial/saprolitic sources. Numerous primary sources have been identified by the garimpeiros, but always in the drainages due to lack of exposure on the slopes and ridges.

The bedrock exposures in some of the old garimpeiro pits indicates that gold mineralization occurs within quartz veins and quartz stockworks hosted in granites.

The host granites are typical of the Tapajós, usually red to grayish in color, coarse to medium grained, with 20% or greater coarse gray, subhedral quartz, 10% dark ferromagnesian minerals, mostly biotite, and accessory magnetite (distal to the hydrothermally altered zones). Alteration is generally weak to moderate sericitization of feldspars and chloritization of ferromagnesian minerals. Strongly altered and mineralized areas are intensely sericitized and weather to a white-gray plastic clay, with only the quartz remaining as relict mineral grains and veins. Most mineralized areas also contain narrow 0.2 to 1.5m wide andesite dykes with mineralisation often occurring on the contacts between the andesites and the enclosing granite. This is possibly due to the fact that the dyke margins are zones of rheological contrast and are therefore ideal sites for mineral deposition.

The observed quartz veins are several millimeters to 25cm wide, but average 2 to 10cm width, and occur in sub-parallel arrays and coarse stockworks. The vein mineralogy consists of hard, gray translucent quartz, often weakly banded, with accessory calcite, ubiquitous sericite, and 2% to 10% sulfides. Sulfide mineralization is predominately pyrite, with rare base metal sulfides. Occasionally visible gold is observed. Alteration selvedges consist of sericite, clays, iron oxides and minor chlorite.

Magellan's has defined a north-south trending mineralized corridor comprising six garimpo workings and target areas which together extend over an area of 7km. From south to north, these are:

- Facão
- Mutuca
- Galeria
- Melexete
- Cetrífugo
- Macarrão

Subsidiary structures within the pits controlling veins and dykes are generally northeast or northwest striking. All of the pits have been sampled and the major ones have been mapped. Channel sample results include:

- 4m @ 5.71g/t Au and 3.5m @22.7g/t Au at Centrífuga
- 3.8m a 6.03g/t Au at Macarão
- 3.0m @ 4.7g/t Au at Chico Torres
- 1.0m @ 78.1g/t Au at Melexete.

Exploration Program

Work conducted at Porquinho to date by Magellan includes:

- Establishment of a base camp at the Porquinho airstrip, including a year-round water supply;
- Geological mapping and sampling of the known pits (110 channel and chip samples);
- A high resolution aero-geophysical survey (1362 line kilometers with 100m line spacing at 100m altitude);
- The completion of a 113 line kilometer grid (predominately 400m x 50m spacing);
- The collection and analysis of 2458 soil samples, and about 120 standards for QA/QC purposes;
- Expenditures to date, including payments to the owners of the traditional surface rights, are of US$220,000;
- Additional ground geophysics and sampling is planned during early 2008 to better define drill targets.