REPORT

ON

THE MINERAL EXPLORATION

IN

THE SAN JOSE AND ARROYO GRANDE AREA

ORIENTAL REPUBLIC OF URUGUAY

CONSOLIDATED REPORT

FEBRUARY 2003

JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN

PREFACE

In response to the request of the Government of the Oriental Republic of Uruguay, the Japanese Government decided to conduct a Mineral Exploration Project in the San Jose and Arroyo Grande Area and entrusted the project to the Japan International Cooperation Agency (JICA) and the Metal Mining Agency of Japan (MMAJ).

This project was carried out in three years from 2000 to 2002 in the San Jose and Arroyo Grande areas and completed on schedule with the valuable collaboration of DINAMIGE that is the counterpart relevant governmental agency of Uruguay. This report is a summary of the survey results conducted during these three years.

We hope that this report will be useful for the development of the mineral resources in Uruguay and contribute to the promotion of friendly relations between Japan and Uruguay.

We wish to express our deep appreciation to the officials concerned with the Government of Uruguay for their close cooperation extended to the team.

February 2003

Takao Kawakami
President
Japan International Cooperation Agency

Norikazu Matsuda
President
Metal Mining Agency of Japan

Fig.1 Location map of the project areas in Uruguay

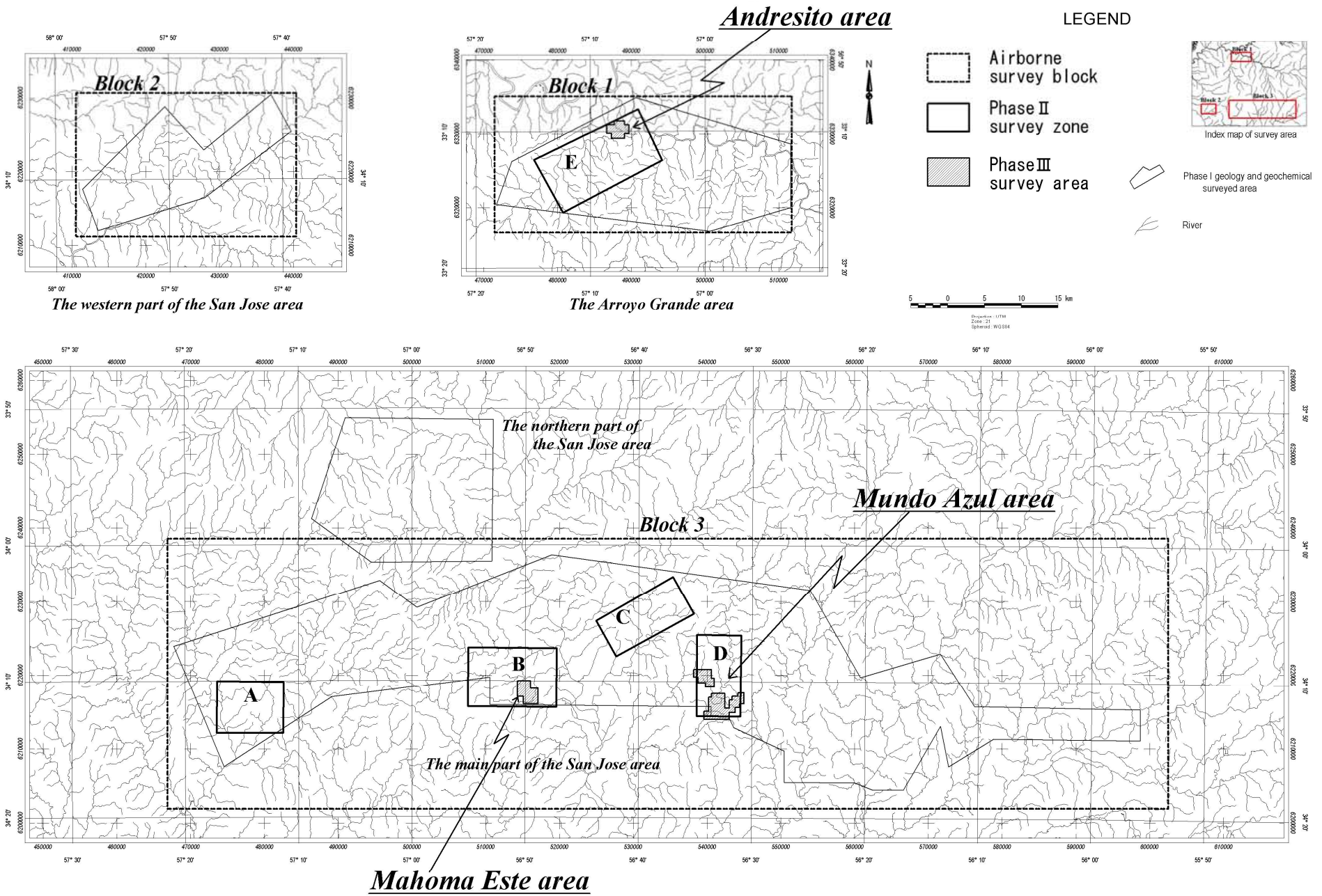

Fig.2 Location map of the survey areas in the San Jose and Arroyo Grande area

ABSTRACT

The present study is based on the Scope of Work signed between the Japanese government and the Oriental Republic of Uruguay on 24 November 2000. The purpose of this survey is to discover a new ore deposits in the San Jose and Arroyo Grande Areas.

The survey was conceived as a three-year project that started in 2000. The present report contains the compilation of these three years and includes the analysis of the existing data, geological interpretation of satellite image, airborne geophysical survey, geological mapping, geochemical survey and trench survey. From the initial survey area of 2,500km^2 only three areas, named Mahoma East, Andresito and Mundo Azul were surveyed during Phase III. The survey results of these three areas are described below.

Mahoma East area: 399 soil samples were collected and analyzed. Geophysical survey including VLF-EM and magnetic surveys were carried out within anomalies detected in the soil by the geochemical prospecting. Trench survey was carried out with length of 2,245m and volume of 3,220m^3. Shear zones of varied width and ENE-WSW preferential direction were identified and diabase dykes with maximum width of 26m and quartz veins lenses were found filling these shear structures. The maximum gold value confirmed in 1m-width channel sample was 745ppb. Other channel samples results are: trench 515600 with gold between 0.13ppm and 0.75ppm, trench 515700 with gold between 0.13ppm and 0.27ppm, trench 515800 with gold between 0.25ppm and 0.54ppm, trench 515900 with gold between 0.14ppm and 0.31ppm were confirmed in trench sections where quartz veins and veinlets are filling dolerite and granite. Gold mineralization in Mahoma East area is of low grade and it lacks in homogeneity of gold content, in veins thickness and length.

Andresito area: The analysis of a total of 310 soil samples collected in this area indicated a maximum gold value in soil of 60ppb. Low dip quartz veins filling granodiorite presented visible gold in its fractures. Ground magnetic survey and VLF-EM survey were conducted and trench sites were selected. 1m-wide channel samples taken from trenches showed maximum gold values of 2.06ppm and several others gold anomalies where quartz veins and veinlets are filling granodiorite, gabbro or diabase dykes. The best gold results are as follows: Trench 486900: Au0.95ppm～1.09ppm, Trench 487000: 0.22ppm～2.06ppm, Trench 487100: 0.08ppm～0.57ppm, Trench 487200: 0.09ppm～0.35ppm and Trench 488500: 0.39ppm. Gold mineralization are probably related to the last stage of granodioritic intrusion, with gold rich hydrothermal fluids filling shear structure in the form of quartz veins and quartz veinlets. Gold mineralization detected in quartz veins of southern trenches shows spots with intermediate gold grade, but it lacks in homogeneity of gold content, in veins thickness and lengths. These characteristics indicate the low potentiality of the area for finding an economical gold deposit.

Mundo Azul area: Analysis from a total of 980 soil samples showed threshold values of Au of only 8ppb. No concentration of soil anomalies were detected in Mundo Azul north area, while only very restricted gold anomalies were detected in Mundo Azul south area, with maximum gold value of 20ppb. Due to these low results, it was decided to cancel the previously programmed geophysical survey and trench survey.

As results of the three years survey, the following conclusions and recommendations regarding further studies in Mahoma East, Andresito and Mundo Azul areas are as follow:

(1) Mahoma East area

Trench survey confirmed gold values between 0.13ppm and 0.75ppm in several 1m-wide channels samples. However, further survey cannot be recommended in this area due to the low grade in the gold mineralization together with a lack in width and length.

(2) Andresito area

1m-wide channel samples taken from the southern trenches showed maximum gold values of 2.06ppm and several others gold values between the range of 0.1ppm and 2.0ppm within quartz veins. However, these gold values of low to intermediate grade lack in width and length and therefore, further survey cannot be recommended in this area.

(3) Mundo Azul area

Analysis of 980 soil samples collected in this area showed threshold values of Au of only 8ppb. No concentration of soil anomalies were detected in Mundo Azul north area, and only very restricted gold anomalies were detected in Mundo Azul south area. Due to these low results, it was decided to cancel the previously programmed geophysical survey and trench survey. Consequently, no further survey is recommended in the area.

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