MINISTRY OF MINES AND PETROLEUM

REPUBLIC OF COLOMBIA

MINERAL RESOURCES SURVEY PROJECT

(AID Loan Agreement No. 514-L-030)

Monthly Operations Report, June 1964

and

Second Quarterly Report

Technical and administrative activities of the Colombian Mineral Resources Survey Project, conducted principally by this Ministry in collaboration with the U.S. Geological Survey, are described in this report.

Objectives of the Project

As specified in the Loan Agreement and its corresponding Letters of Implementation, the purpose of the project is to determine those areas in four selected zones designated 1, 2, 3, and 4 in Colombia that are most likely to contain substantial mineral deposits in order to encourage exploration for commercial production. The project consists of the following sub-Projects, as quoted from the Loan Agreement:

Sub-Project I: Advanced education for one school year for ten (10) Colombian students selected by the Ministry of Mines at schoold Universities or other appropriate institutions in the United States pursuant to curricula, approved by the Colombian Project Manager and the Chief U.S. Advisor, as representitive for, and by, AID, for purpose of qualifying the students for the various field, laboratory or office phases of the mineral resources survey;

Sub-Project II: Photogeological studies conducted by firms under contract with the Ministry,

Sub-Project III: Field investigations including drilling, trenching, taking samples, in areas

indicated by photogeological studies as containing conditions favorable for mineral deposits, and field geological, geophysical, and geochemical studies in said zones as may be necessary,

Sub-Project IV: Laboratory support including chemical and X-Ray analysis, assays of metallic ores and preparation of sections.

SUB-PROJECT I - Trainees

Under this title, there is nothing new to report.

SUB-PROJECT II - Photogeology

In continuity from the situation described in May's Operation Report in which the negotiators of the Geophysical Services Inc.-Geophoto Companies and of the Ministry of Mines were endeavoring to arrive at a mutually acceptable price for the photogeobgical work, it became evident quickly that there could not be a meeting of the minds.

From the original indicated bid price of \$393.819 (which included taxes only up to that levied upon American corporations operating in the Western Hemisphere, of 35%), the companies informed that they could reduce price only including to cover the revisions of program requested by MMP, to \$389.000. They moreover reiterated that this price was contingent upon the proviso that Colombian taxes would not be greater than those imposed upon U.S. firms operating in the Western Hemisphere. On June 5th, however, the companies informed that by making substantial revisions in work arrangements (e.g. by compressing field checking to 9 months from 12 months, by allowing treatment of the two zones (I and II) as if there were one, and by allowing report preparation to extend into the thirteenth month after completion of field and laboratory work in 12 mombs), they might possibly be able to meet the ceiling price of \$340.000 tentatively acceptable to MMP negotiators, providing however that a satisfactory solution could be reached regarding the tax question.

In a special consultation to the Income Tax authorities entered by the legal firm of Raisbeck and Raisbeck dated June 1, two queries were presented regarding Colombian Taxability under the circumstances, and the official response of 18 June was negative in both cases ite: that the contracting firm would be subject fully to existing tax laws regardless of formula used. In this case, the taxes upon the contract would ascend to over \$80.000 or approximately 20 percent of the gross value of the contract, and to drive the unit price for the work up to over \$25.00 US per square mile.

Under these circumstances the GSI-Geophoto companies and MMP negotiators agreed that satisfactory pricing of the contract was insoluble, and on June 20th agreed to suspend negotiations.

The Ministry of Mines in a letter dated June 25th thereupon advised the second preferred firm, International Aero Service Inc. of its willingness to enter into negotiations for the photogeological program, but within certain limitations so as to avoid unnecessary loss of time and expenses to all concerned. At month-end the Company was giving consideration to the matter.

Preliminary studies of the overall bilateral agreement between Colombia and the United States as regards the AID program (Alianza para el Progreso) indicates that private American contracting firms and their imported personnel may not be subject fully to Colombian Tax law. This however requires confirmation.

At month-end, 133 Cronaflex direct positive prints of 1:25.00 scale topographic base maps corresponding to Zone I were completed, and the preparation of similar base maps for Zone II was initiated.

SUB-PROJECT III- Field Investigations

After completion of brief, intensified training courses for the Junior Geologists in various fields (mineralogy, petrology, economic geology, photogeology and field geological techniques), completion of bibliographic research of literature, and completion of arrangements for inmediate

equipment needs, eight (8) Junior geologists and their supervisors (Restrepo and Vásquez) proceeded June 20th to Medellín to organize and set themselves up in the Ministry's Regional field office there. After installation, the first week or two was consumed in becoming acquainted with the geological formations of the region with the collaboration of Dr. Gerardo Botero Arango, Docent of the School of Mines, under whose guidance a great deal of geological field mapping of the immediate vicinity has been accomplished.

In July, two field groups will be formed under their respective supervisors.

Restrepo's group will initiato geologic mapping in western part of Zone II (at the north) placing special attention on the known ultrabasic formations of the area as regards iron laterites, nickel associated with them, chromite, and the asbestos that at one time attracted the The Johns Manville Company to spend sizeable sums in the area, and to include study of the Buritica disseminated sulfide deposits, as well as any other important resources coming to attention.

Vásquez's group, it is proposed, will initiate mapping of the eastern side of Zone II (also at the north) placing special attention to the large indicated reserves of Paleozoic and younger limestones, and associated sedimentary formations, that form the encasing rocks on the east side of the Antioquia batholith. The Dorado-Santa Marta section of the National Railroad as well as the Magdalena River provide arterial transport possibilities for the economic handling of bulk products from this area, north to the coast, or south inland, such that the area has appeal for cement production, also for the production of cheap agricultural lime. It is conceivable that pipe-line transport of slurries from favorable quarry sites in the mountains to such points along arterial transport lines could be developed, again to reduce delivered costs.

The north to south mapping program of Zone II, divided bilaterally, permits strike-mapping of the rock formations along the west and east sides of the central An-

14 900

tioquian batholith and its appendages. In this way the geologists should encounter greater continuity of geological formations, thus to enhance the rate of field mapping. Proceding from north to south, moreover, allows additional time for authorities to bring civil disorders under control that still exist in the south.

In the meantime, four (4) Junior geologists and two Senior geologists (Cruz and Barrero) destined for Zone I were preparing for departure to Santa Marta in early July.

Senior geologist Arce with three Junior geologists initiated preliminary reconnaissance of Zone IV, particulary the thick Cretaceous stratigraphic section between Bogotá and Villavicencio.

USGS geologists McLaughlin and Blade, approved by GOC for the project, will remain in Washington until such time that the Participating Agency Service Agreement (PASA), and its budget. is signed, and ratified by the Ministry.

No further progress can be reported for the remaining USGS geologist planned for the project for the same reasons explained above.

SUB-PROJECT IV - Laboratory Support

Nothing new to report.

MATERIALS, EQUIPMENT AND SUPPLIES

Requisitions for vehicles, diamond drills, and office equipment presented as long ago as November, 1963 are still in the General Services Department awaiting affidavits as to the availability of funds. A ministerial decree from the Department of Finance is required, and while some progress has been made, this essential document has not yet been forthcoming.

that may appear as regards the contract for photogeologi-cal work to be negotiated in the nera future.

Respectfully submitted,

AURELIO DARA AGUDELO Project Manager

EARL M. IRVING

Chief U.S. Advisor