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AACHEN



DR.-ING. R. KLEINERT

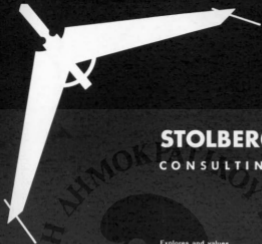
**I. FA. STOLBERG INGENIEURBERATUNG
FÜR BERGBAU UND HÜTTENBETRIEB GMBH**

STOLBERG CONSULTING ENGINEERS FOR MINING AND SMELTING

AACHEN

THEATERSTRASSE 37

TEL. 48131



STOLBERG CONSULTING

Explores and values
deposits of industrial minerals

Develops
economical processes
up to final product

Plans and projects
plants for mining, dressing and smelting

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CONSULTING ENGINEERS FOR MINING AND SMELTING

AACHEN, THEATERSTR. 37 · TELEFON 48131 · TELEX 08/32850

STOLBERG CONSULTING

SOLVES YOUR PROBLEMS

IN AN EFFECTIVE, RAPID, CORRECT AND SURE WAY

DEPOSITS

OF ALL INDUSTRIAL MINERALS

mineralogical and geological investigation and valuation of deposits
mapping and surveying above ground and underground

MINING

OPEN CAST AND UNDERGROUND MINING

opening, planning and carrying-out
rational methods and organisation - plant management
equipment - conveyance - transport
expertises - mining economy

DRESSING

development and carrying-out of economic processes
planning and carrying-out of plants for metallic and
non-metallic raw materials
alteration and improvement of existing plants

SMELTING

scientific basic research
processes, planning and carrying-out of metallurgical plants
leaching - smelting - refining - founding - rolling
testing and improvement of materials
refining of non-metallic raw materials
building materials - ceramics - phosphates etc.
reorganisation and management

PLANT MANAGEMENT · ORGANISATION

development, introduction and supervision of rational methods
for the works and management
operation research - wage systems - cost calculation
training programs for employees and workmen of
mines - smelting plants - workshops - management
as well as of other auxiliary and subsidiary plants

RESEARCH STATION · LABORATORIES

In order to solve the problems and tasks arising from
mining - dressing and smelting
our experts have
laboratories with most modern equipment at their disposal

RESEARCH



PRACTICAL EXPERIENCE



BEST RESULTS BY STOLBERG CONSULTING

THE FIELD OF ACTIVITY OF

STOLBERG CONSULTING

IS WORLD WIDE



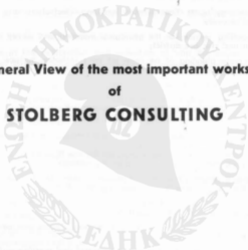
EXTENDING FROM THE

RAW MATERIAL

UP TO THE SALEABLE

FINAL PRODUCT

**General View of the most important works
of
STOLBERG CONSULTING**



EGYPT

- a) Consulting service for the geological mapping and survey of a vast region in the high mountains of the Arabian desert;
Prospecting of lead, zinc and copper deposits;
Mining exploration;
Development of underground stoping systems;
Investigation of dressing processes for difficult and complex ores;
Assistance in the solution of transport problems in unexplored terrain;
Metallurgy up to final product including electrolysis and sulphuric acid recovery.
- b) Consulting service for the geological mapping and survey of a vast lead and zinc ore district;
Complete planning of an open pit mine including surface plant for the enrichment of the raw materials up to milling grade;
Final treatment of the ore in combination with project a).
- c) Preliminary study of a system for economic recovery and treatment of phosphate ores of deposits northwest of Koseir.

BOLIVIA

- a) Assistance in the efficiency program for the Bolivian tin mines, including improvement of the ore dressing methods.
- b) Dressing research and plant-economic research to improve the results of the tin, pyrite and silver dressing plant Potosi.
- c) Geological research of the mines and the region around Potosi to improve the ore-reserve economy and
fixation of the work required for the exploration and development of the mines.
- d) Chemical, mineralogical, dressing technical and metallurgical research by means of ore samples in order to improve the procedures applied, or to fix new possibilities regarding the manufacturing.
 1. Zinciferous pyrite residues of the EMPRESA MINERA COLQUIRI.
 2. Franckeit concentrate of the Franckeit dressing plant LA COLO-RADA. — Here the rare metals have particularly been taken into account.
 3. Copper-bismuth-ore of the mine CATAVI.
 4. Residues of the dressing plant CATAVI.
 5. Pyrites of the dressing plants CATAVI and SAN JOSE, which have a considerable content of non-ferrous metal.

6. Research order Souxite;

Elaboration of a procedure for the recovery of the tin and the non-ferrous metals which occur in small quantities.

BRAZIL

Assistance in the planning of an iron ore open pit mine in the district of Urucum (State of Mato Grosso).

FRANCE

Exploration and valuation of antimony ore deposits near Hyères.

IRAN

Assistance in the exploration and valuation of iron ore deposits and planning of open pit mining in the district of Shamsabad.

ITALY

Geological mapping of vast lead ore districts near Trento;

Exploration and valuation of the lead ore deposits;

Development of the necessary ore dressing procedures.

MOROCCO

Consulting service for the prospecting and exploration of lead and zinc ore deposits at Talsinnt, Midelt and Agadir.

SOUTH AFRICA

a) Exploration and valuation of chromite ore deposits near Rustenburg and preparation of the purchase conditions for these deposits.

b) Exploration and valuation of a large andalusite deposit near Zeerust and preparation of the purchase conditions for this deposit;

Installation of open pit mining;

Execution of the ore dressing project for the production of high-grade andalusite concentrates.

c) Investigation and valuation of a fluorspar deposit for opencast production near Pretoria/Warmbath and preparation of the purchase conditions for this deposit;

Installation of plant;

Investigation of new ore dressing processes.

- d) Investigation and valuation of a fluorspar deposit for opencast production near Durban and preparation of the purchase conditions for this deposit;

Installation of plant;

Investigation of new ore dressing processes.

- e) Elaboration of an economic ore dressing procedure for the recovery of lead, zinc, copper, iron, pyrite and arsenic concentrates;

Execution of preliminary studies on the metallurgical recovery of the above mentioned metals of the large Sanyati deposit in South Rhodesia.

SPAIN

- a) Geological and mining exploration of bismuth deposits in the Pozoblanco district (Province of Córdoba) and

Development of a new recovery procedure for the leaching of nickel, cobalt, bismuth and silver ores.

- b) Mining geological investigation of the lead and zinc ore district of Mazarrón (Province of Murcia).

- c) Consulting service for the improvement of the dressing procedures and for an economic recovery of the tailings of the Linares district.

- d) Consulting service to improve the efficiency of mining, dressing and smelting plants.

TURKEY

Exploration of lead and zinc ore deposits near the Black Sea Coast and of chromite ore deposits east of Ankara.

In addition to these projects which have been carried out during the last years expert opinions on various ore deposits in

Greece, Austria, Sardinia and Spain have been made.

Moreover STOLBERG CONSULTING has been engaged in the projecting and planning of a factory for the fabrication of sand-lime bricks made from tailings;

output of this factory per year: 32 million sand-lime bricks of standard shape.