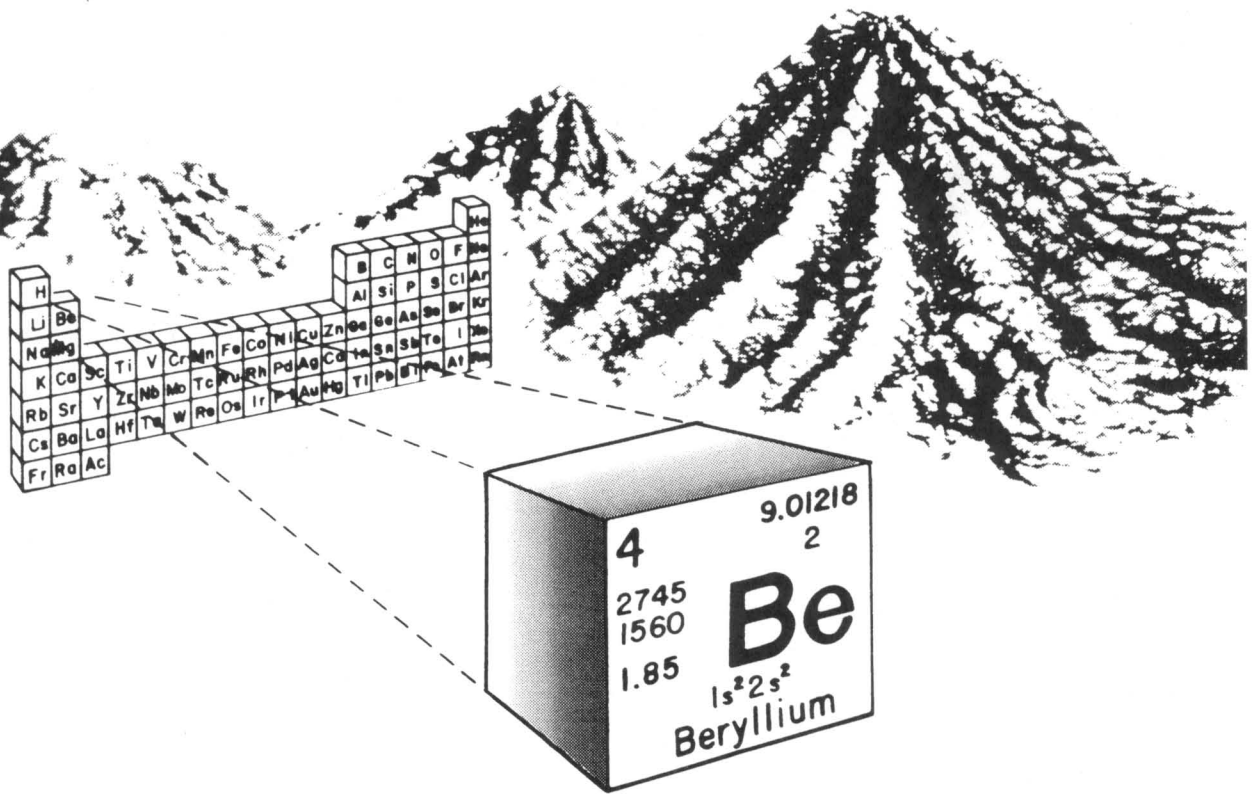




Cyprus Sierra Blanca Inc.

BERYLLIUM PROJECT



June 1988

Introduction

The Sierra Blanca project is located in Hudspeth County, approximately 75 miles southeast of El Paso, Texas and six miles northwest of the town of Sierra Blanca. The project area is three miles north of Interstate 10 between El Paso and Sierra Blanca.

The community of Sierra Blanca has a population of 775 people. Principal occupations involve the Southern Pacific Railroad, State and County road departments, ranching, farming and the U.S. Border Patrol.

The Sierra Blanca project currently comprises 25,000 acres of State prospecting permits, State mining leases, and fee mining leases. Cyprus has anticipated that negotiations with the State of Texas and private land owners will result in acquisition of surface ownership. This surface acreage will be utilized for the mine and mill facilities. Cyprus has met with numerous State officials in the Mineral and Legal Services Divisions in order to familiarize the State with the project. We have received valuable support and assistance from the agencies involved in the process.

Interest in the Sierra Blanca area was first generated by W. N. McAnulty, Sr. in 1969, primarily for fluorspar. McAnulty, with various sponsors, drilled approximately 22 holes and dug prospect trenches on Round Top Mountain, Little Blanca Mountain and Little Round Top Mountain between 1971 and 1980.

Cabot Corporation became interested in the Sierra Blanca area during 1982 when beryllium anomalies were discovered by a U.S.-wide beryllium geochemical reconnaissance survey. Subsequent mapping and sampling programs led to the establishment of a land position in 1984. A rotary drilling program commenced on Round Top Mountain late in 1984.

In January 1987, Cyprus Metals Company entered into a joint venture agreement with Cabot Corporation to continue beryllium exploration in the Sierra Blanca project area. Focus was on the West End Structure of Round Top Mountain, as this structure was believed to contain the highest concentration of beryllium at the best mineral grades indicated on the property. This exploration involved driving a 10' X 10' decline (gradually sloping mine opening) to the mineralized zone and surface and underground drilling.

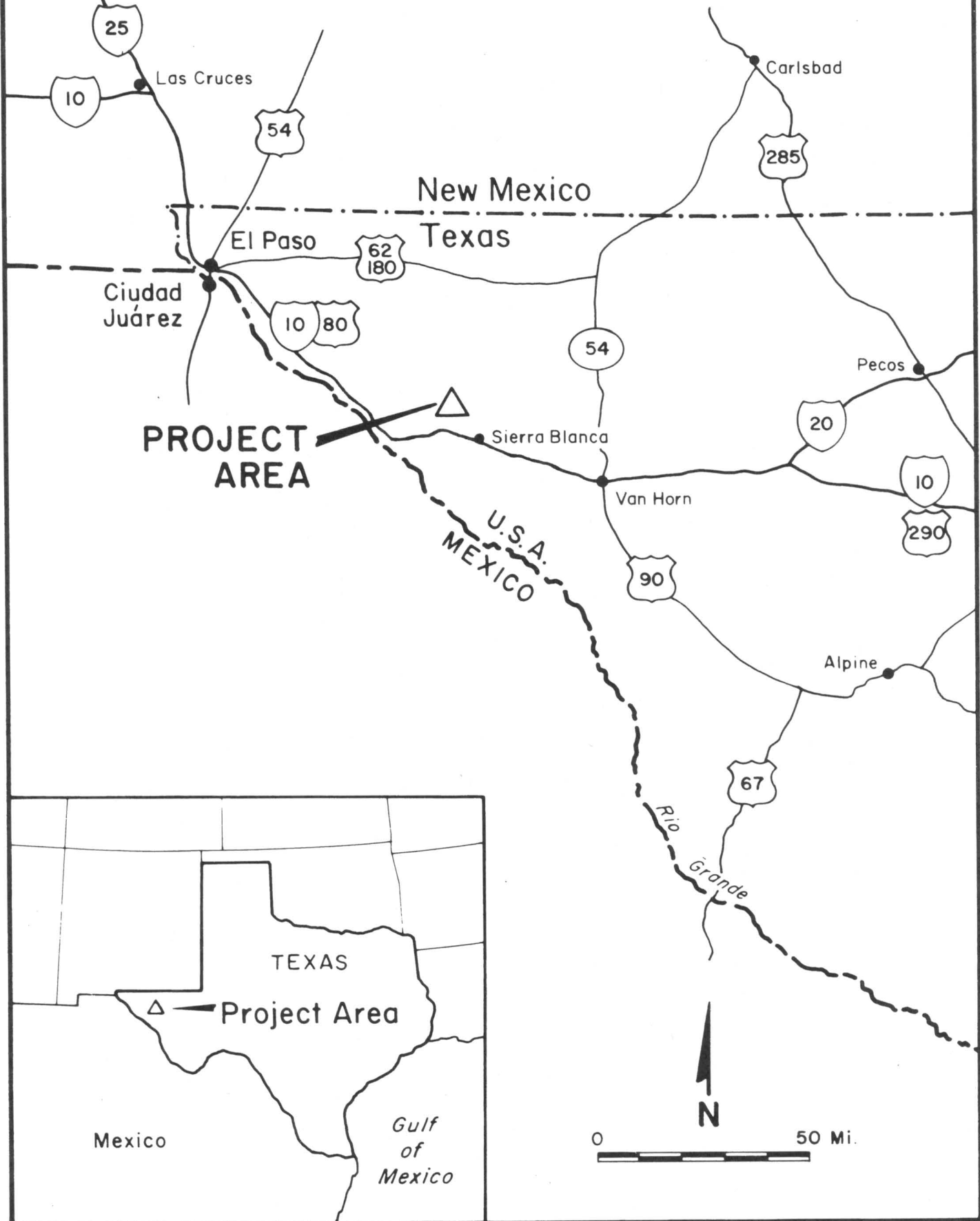
The test mine, mine feasibility study and mill feasibility study have now been completed. Design plans for the process facilities and heap leach operations are in the final design stages. Marketing and permitting activities are proceeding well. Because of the high grade ore reserves, a unique mine plan and the excellent economics of our process facility, Cyprus is confident they can supply a high quality beryllium hydroxide product to the marketplace at a very competitive price.

Uses of Beryllium

Beryllium is one of the lightest metals known to man. Beryllium has a very high strength to weight ratio which is lighter than aluminum, stronger than steel. It also has good electrical conducting capabilities.

CYPRUS SIERRA BLANCA PROJECT

LOCATION MAP

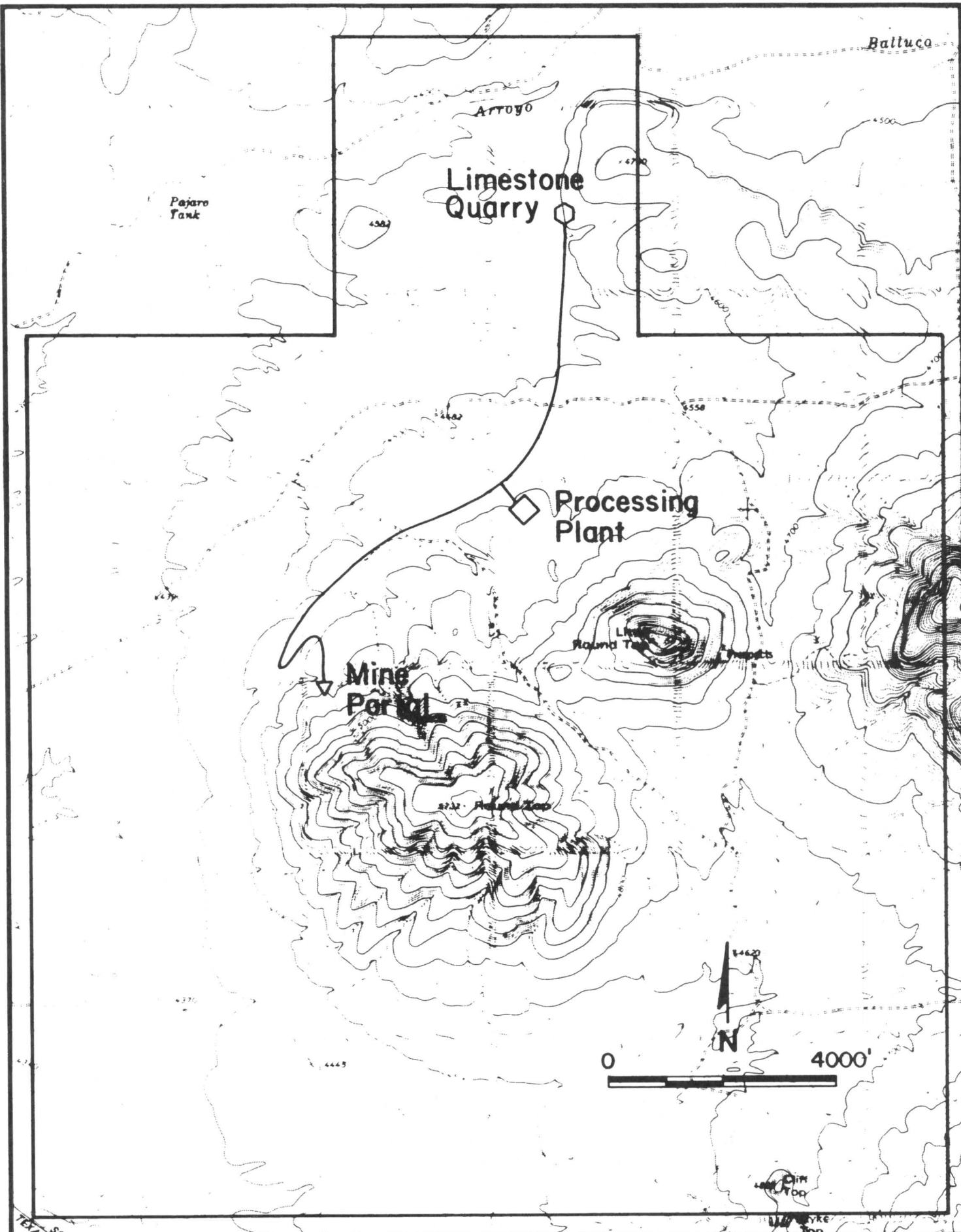




Sierra Blanca Project Area



Cyprus' Exploration Decline



CYPRUS LAND POSITION

One of the major uses of beryllium is in the formations of copper alloys. The 2-4% beryllium used in copper alloys make a product which is harder, stronger, more elastic and resistant to fatigue and corrosion than other copper alloys. Some uses for pure beryllium metal are nuclear technology, rocket guidance systems, aircraft brakes, and heat shields for the space shuttle. Beryllium copper is used in electrical contacts, nonsparking tools and precision casting aircraft engine parts. Beryllium oxide ceramics are used in rocket guidance systems, electric furnace liners, microwave windows, laser tubes, high voltage electrical parts and in computer components.

Employment

The Sierra Blanca project anticipates employing 85-90 people during the construction phase of the project. After construction is completed, the beryllium processing facilities will utilize approximately 35 people and the underground mine will employ an additional 20 persons.

Geology

The Sierra Blanca project area lies within the Trans-Pecos Trend. The Trans-Pecos Trend is a northwest trending structural zone where thrust faulting and volcanic activity occurred millions of years ago.

Locally, the project area is characterized by five microgranite bodies that intruded sedimentary rocks. These microgranites occur as laccoliths or mushroom-shaped bodies emplaced at relatively shallow depths. Today the laccoliths form peaks with relief up to 2,000 feet. These peaks are: Sierra Blanca Mountain; Little Blanca Mountain; Round Top Mountain; Little Round Top Mountain and Triple Hill. Chemically, the microgranites are enriched in lithium, beryllium, fluorine, zinc, rubidium, yttrium, zirconium, niobium, tin, thorium, molybdenum and rare earth elements. To date only beryllium has been found in concentrations that appear to be economically feasible. Beryllium mineralization within the Sierra Blanca District is thought to be the result of magmatic, hydrothermal fluids leaching beryllium and fluorine from the microgranite source rocks and redepositing it in the limestones.

Exploration 1984 Through 1986 - Cabot Corporation

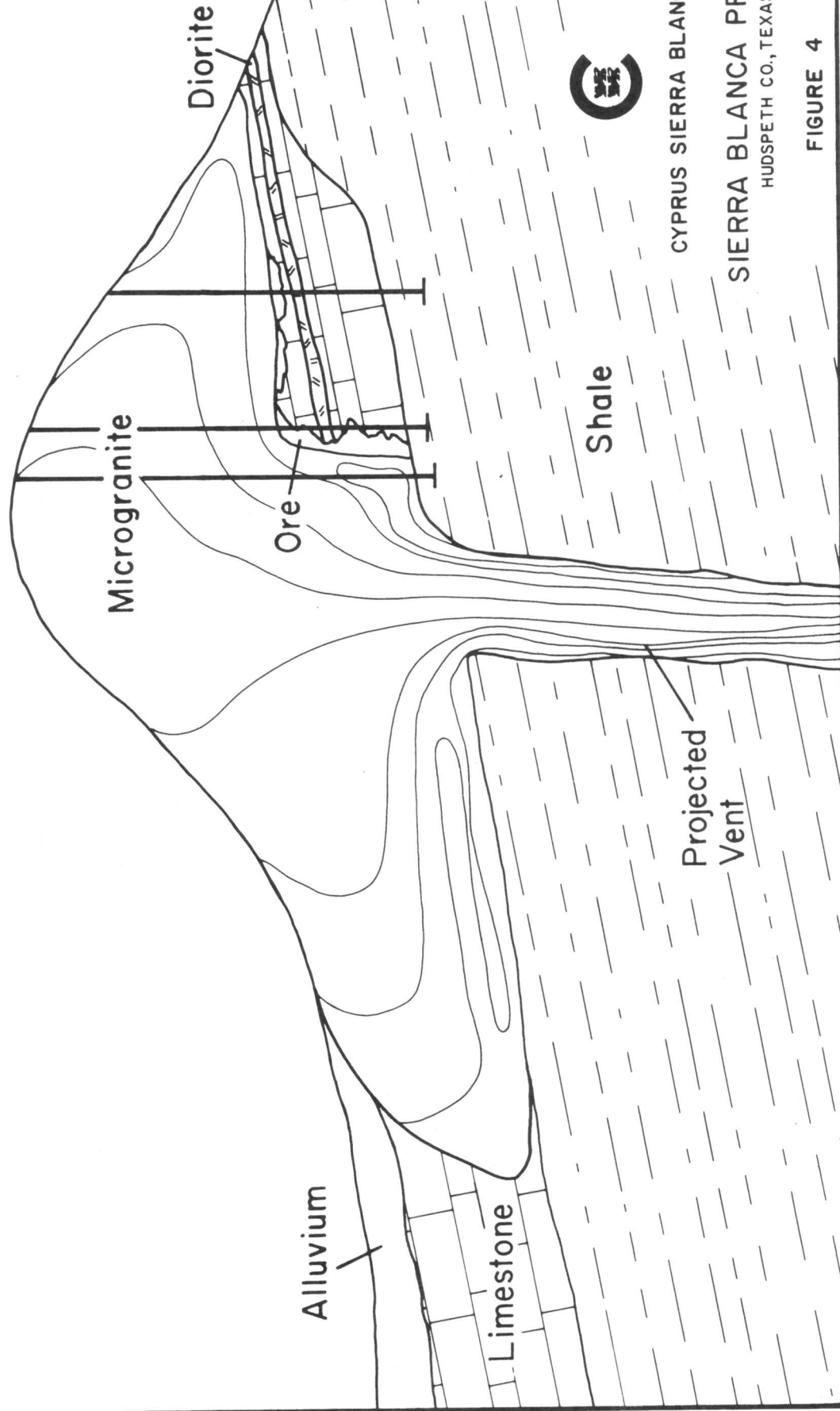
Cabot Corporation initiated a drilling program on Round Top Mountain in October of 1984, and by December 1985, 240 holes were completed. Early surface sampling indicated Round Top Mountain to be the most favorable target area, where 153 holes were drilled. Beryllium mineralization was found to occur in minable thickness at the microgranite-limestone contacts beneath the northwest portions of the mountain. A near vertical contact was encountered on the west side of the mountain that appeared to contain continuous high grade mineralization. This near vertical contact later became known as the West End Structure.

Exploration 1987 - Cyprus Beryllium Corporation

Cyprus' exploration program began in January of 1987. Plans were drawn for a surface drilling program and driving a decline beneath Round Top Mountain.

ROUND TOP MOUNTAIN CROSS SECTION

Showing Exploration Drilling



CYPRUS SIERRA BLANCA, INC.

SIERRA BLANCA PROJECT
HUDESPETH CO., TEXAS

FIGURE 4

Exploration was concentrated on the West End Structure of Round Top Mountain where the greatest potential existed to produce an economically viable ore body. Previous Cabot drilling showed this near vertical, brecciated contact zone to be the highest grade and more favorable for underground mining than other mineralized areas.

Cyprus initiated the driving of a 10' x 10' exploration decline to the West End Structure in April 1987. The decline was driven 867 feet down to the structure and 1,000 tons of ore were extracted. A crossing drift was driven parallel to the structure to accommodate underground drilling. Drilling was designed to test the grade and thickness of beryllium mineralization along the near vertical microgranite-limestone contact. This program allowed us to make a more accurate assessment of the tons and grade of ore contained in the structure. The underground drilling and test mining revealed a high grade, limestone replacement ore body.

Mine Safety

A negative ventilation system was used to maintain a safe mine environment. Fresh air was drawn into the decline at the portal by negative pressure. A fan at the portal drew this air out of the mine and forced it through a high efficiency dust collector before discharging it into the atmosphere. This process effectively prevented contamination of the walls of the decline with beryllium dust, recirculation of contaminated air, and the pollution of the outside environment. We used water sprays in the decline and at the muck piles to further prevent dust. Together these measures established the viability of underground mining from the standpoint of meeting the applicable Federal safety standards.

Employee Health and Hygiene

To prevent accidental exposure to beryllium dust during mining, all new situations were approached with maximum protection for the miners in mind. This meant the use of battery powered air filtering units which were worn on the belt, and which blew purified air through a hose into the face mask worn by the miner. High efficiency (99.97%) powered air purifying respirators are used when contaminants are above acceptable levels. Employees receive extensive training on respiratory protection, safe job procedures and hazard identification prior to beginning work and regularly thereafter.

Protection of employee health has received top priority since the beginning of the project. The program includes extensive medical examinations, workplace air monitoring, hazard assessment, high efficiency dust collectors, respiratory protection and employee training. Pre-placement and annual medical examinations are given to screen employees and contractors for sensitivity to beryllium. Persons sensitive to beryllium are not allowed to work in areas with potential exposure.

Workplace Air Monitoring

Routine workplace monitoring is conducted to ensure exposure levels of contaminants are kept low and to continually evaluate the effectiveness of engineering controls. Employees wear respirators on all new job assignments until workplace monitoring establishes that the levels of contaminants are acceptable. A dedicated respirator cleaning and laundry facility was

established on site to guarantee that all respirators are cleaned and inspected daily and to insure that dirty work clothes will not leave the property.

Mining Method

The mining method selected for the West End ore body is mechanized cut and fill. This method permits the selectivity required to separate ore from waste while providing good ground support.

Access to the top of the ore body would be gained from the existing decline. Access to the bottom of the ore body would be provided by a second decline to be driven in from the surface. The lower decline would provide the haulage route to bring the ore to the surface. It would provide ventilation and the second opening required by law. A spiral ramp connects the top and bottom of the ore body. As ore is mined on the various levels, it is hauled by truck down the ramp and out the haulage ramp.

Planned surface facilities include ore storage bins, mine office, air compressor station, electrical substation and maintenance shop. These would be located near the portal to the lower decline.

Process Description

Run of mine ore moves by dump truck to the ore storage bins where it is again sprayed to control dust. The ore is then crushed or ground in a semi-autogenous (SAG) wet mill for its introduction to the tanks or heaps for leaching.

In the leaching tanks the ore slurry is blended with sulfuric acid and steam in order to recover the beryllium values in a solution form. Lower grade ores are handled in a parallel heap leach circuit which solubilizes beryllium in large plastic lined leach piles. Here beryllium is slowly acid leached into a beryllium solution known as pregnant liquor.

Pregnant liquor solutions from either the agitated leach or heap leach systems go through a series of filters and washing cycles. This separates the pregnant solution from waste materials called filter cake or tailings. After separation from the waste, the pregnant solutions are pumped to the solvent extraction circuit.

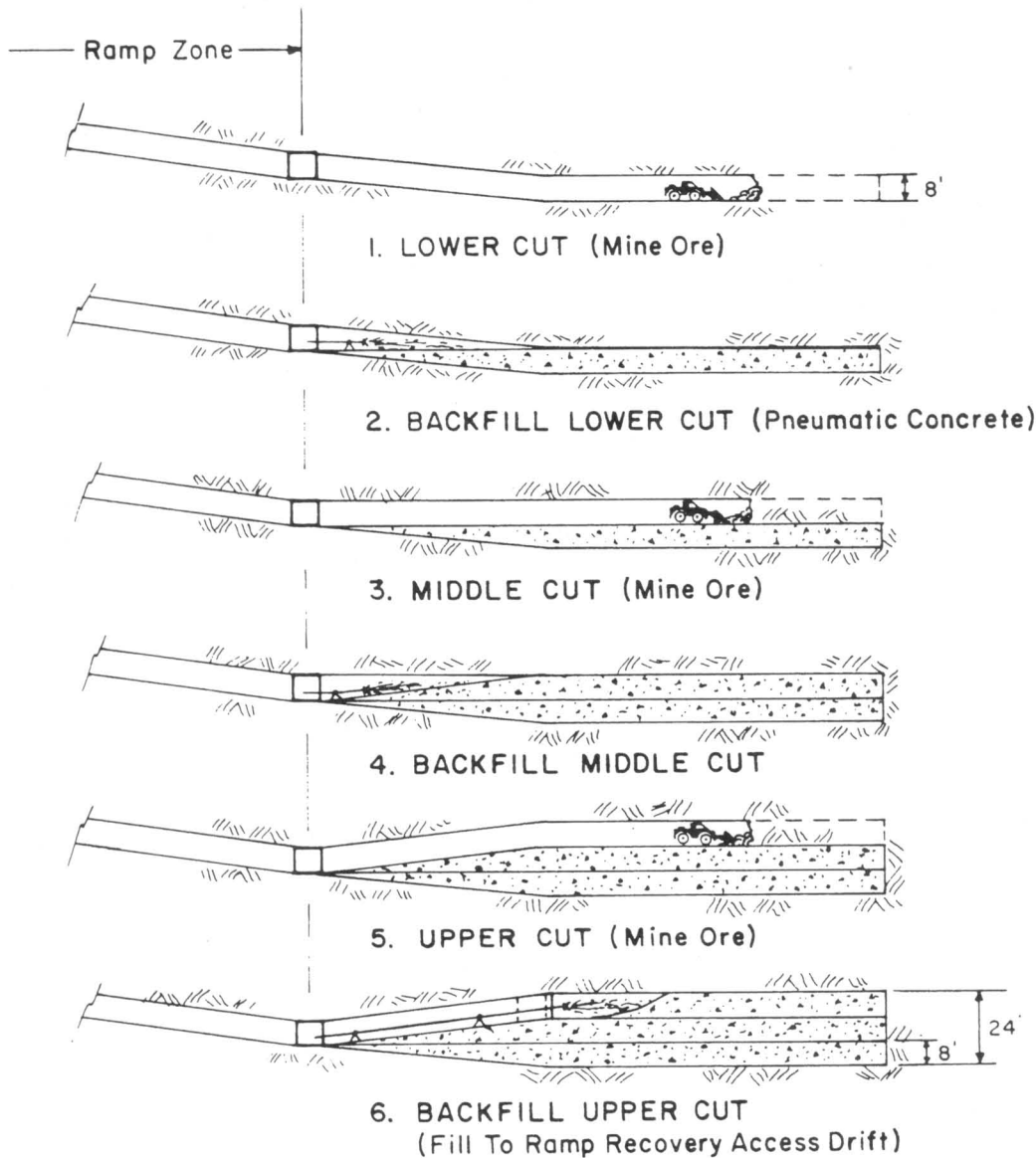
In the solvent extraction circuit, pregnant liquor flows into mixer-settler tanks with an organic solution called DEHPA (diethylhexyl phosphoric acid). The solvent extraction circuit concentrates the beryllium values plus aids in the removal of impurities. The beryllium is separated in the ammonium carbonate stripping circuit. The newly formed ammonium beryllium carbonate precipitate is then heated to produce the final product beryllium hydroxide. The beryllium hydroxide is packaged in drums for shipment to the various users of beryllium.

Environmental Quality

Cyprus Beryllium Corporation began working in 1987 with Radian Corporation, an environmental consulting group, and Stearns-Roger, an engineering firm, to obtain construction and operating permits for a one million pound per year beryllium processing plant. Beryllium mining and processing is controlled

MINING METHOD

Triple Cut & Pneumatic Cement Fill



CYPRUS SIERRA BLANCA, INC.

SIERRA BLANCA PROJECT
HUDSPETH CO., TEXAS

by strict State and Federal regulations and Cyprus is using the best available control technology to fully comply with all requirements. Recycling of liquids and state-of-the-art process design programs are used to minimize emissions.

Controlling beryllium air emissions is the primary environmental challenge at the Sierra Blanca project. The stringent, but attainable State emissions standard is only 10 grams of beryllium emissions (1/3 ounce) per day. Starting in June of 1987 a baseline air monitoring program began. This baseline project was designed to measure pre-existing beryllium and total suspended particulate levels prior to actual mining and process plant activities. This baseline information has been used in our environmental and permitting studies.

Air Emission Controls

High efficiency dust collectors will be used to recycle captured beryllium dusts and slurries from the emission control systems at Sierra Blanca's plant and mine sites. Captured dusts from these collectors are recycled through the system to recover beryllium. Water used for wetting is recycled for use in plant operations, such as grinding and extraction, and for dust control at ore storage bins. Beryllium values are recovered as these fluids are recirculated through the process plant.

Water Discharge Controls

Process waters will not be discharged. Stormwater runoff, vehicle cleanup water and grey water from shower and laundry facilities will be used to control dusts from tailing wastes. Process spills will be contained within process areas and recycled by sump pumps. Waters from washdown, spillage and cleanup will be returned to the extraction process.

Solid Waste Controls

The tailings from the chemical plant are non-hazardous. Containment technology chosen for project design exceeds the minimum requirements of the State solid waste disposal statutes. Solid waste management plans include provisions for wetting and covering to provide dust control. In addition, tarps may be used to further reduce fugitive dusts until tailings become stable enough to allow reclamation by covering with dirt and rock.

Heap leaching operations will leach low grade ore placed in lined containment pits. The potential for windblown dust emissions will be minimized by wetting with leach solutions, augmented by rubberized tarps similar to the dust elimination systems for the tailing areas. Pregnant liquors recovered from the heap leaching operations are pumped to the process plant where beryllium is recovered.

Reclamation

As mining areas are depleted, and at the completion of operations, closure plans will be implemented to stabilize the site. Final closure will include preparing the site for an appropriate post-mining land use -- probably as wild-life habitat and livestock grazing.