

Directory of Active Mines In Arizona 1997

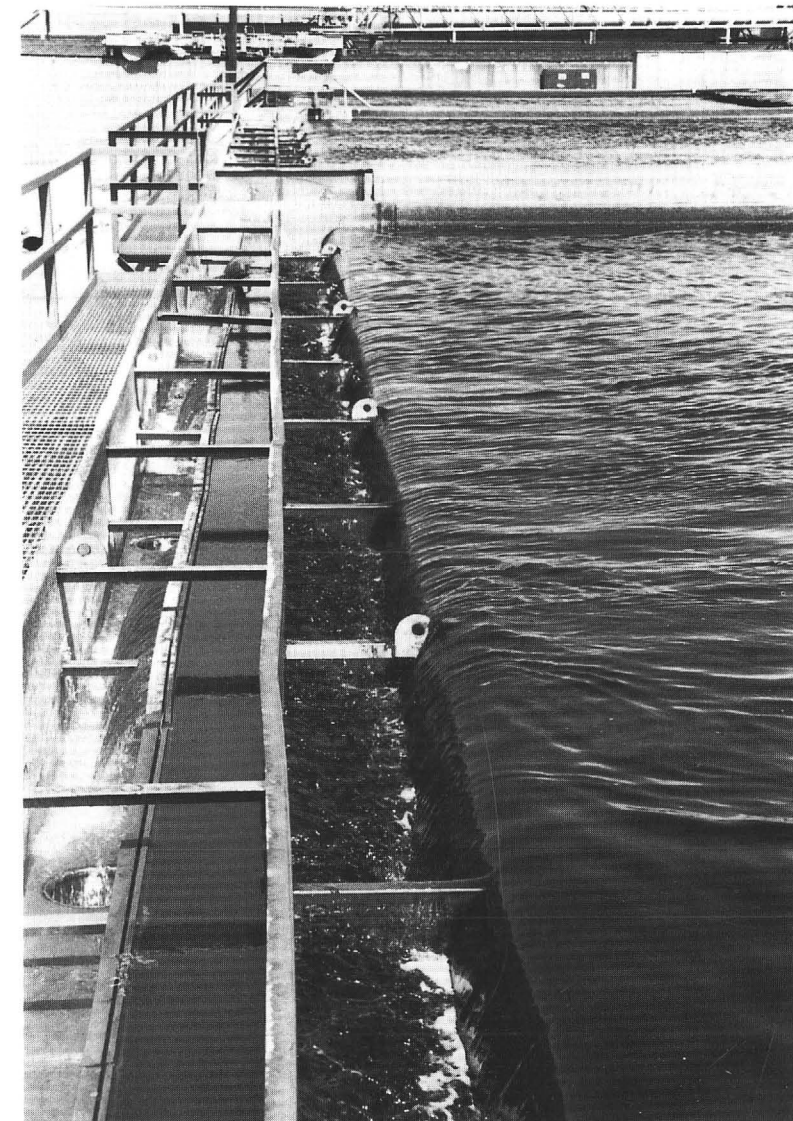
THE ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

The objective of the Department is to promote the development of Arizona's mineral resources. This is accomplished through technical research, field investigations, compilation of information into a mineral occurrence data base, and disseminating information through publications, personal contacts, and seminars.

The Department's mining engineers and geologists assist mining and exploration companies, prospectors and others interested in Arizona's minerals with mineral processing, mineral land acquisition, exploration, mine development, financing, government regulations, and marketing.

The Department is a service agency and does not regulate, tax, or require any type of registration. The agency provides assistance that is tailored to meet the diverse needs of the public. The following is a partial list of services that the Department offers:

- Maintain a site specific data base of unpublished reports and maps that includes 4,000 mine files and indexes of 10,000 computerized Arizona mineral occurrences.
- Maintain an information bank and library of mineral and mining information including a mine map library (hard copy and microfilm), government publications, periodicals, and unpublished master and doctorate theses.
- Gather and disseminate information on commodities and markets.
- Suggest target areas for exploration activity.
- Suggest properties for acquisition and development.
- Assist individuals and companies in their dealings with regulatory agencies to facilitate their mining and exploration activity.
- Produce publications in the form of mineral reports, annual directories, technical reports, annual mineral industry surveys and information circulars. These publications include: *Laws and Regulations Governing Mineral Rights in Arizona*, *Directory of Active Mines in Arizona*, *Manual for Determination of Status and Ownership of Arizona Mineral and Water Rights*, and others. A listing of the Department publications is available upon request.
- Operate the Arizona Mining and Mineral Museum.



Arizona Department of Mines and
Mineral Resources

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

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Active Mines in Arizona - 1997

by K.A. Phillips, N.J. Niemuth, and D.R. Bain

Department of Mines and Mineral Resources

Directory 45



State of Arizona
Fife Symington, Governor

Phoenix, Arizona
December, 1996

Directory of Active Mines in Arizona

1997

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This directory was compiled in November, 1996 from field visits and information received by the Department's technical staff. For the purpose of this directory, an active mine is defined as a mine in continuous operation, either in production or under full-time development for production. Custom milling operations that are active or available on a full-time basis are also included in the directory.

It is acknowledged that there are additional mines not listed that are in an exploration, evaluation, or part-time development phase. There are others where production is on an intermittent basis that are not listed. The report is dependent on the cooperation of government agencies, private industry, and individuals who voluntarily provide information on their projects and activities.

The directory is arranged alphabetically by company name. Each listing includes corporate addresses, mine name and location, commodities, operation description, and key personnel.



Do you need this information in an alternative format? Please call the Department office at 255-3791.

COMMODITY INDEX

CEMENT/LIME

Clarkdale Quarry
Douglas Quarry
Nelson Quarry
Rillito Quarry

CINDERS

Darling Cinder Pit
Wildcat Hill

CLAY

Cheto No. 1
Cheto No. 2
Burro Creek Clay Pit
Dewey Ranch Quarry
Lyles Mine
Pantano Clay Pits
Rim Quarry
Tolleson Mine
Weary Lode Mine

COAL

Black Mesa Mine
Kayenta Mine

COPPER

Bagdad Mine
Copper Queen Mine
Emerald Isle
Johnson Camp Mine
Magma Mine
Miami Mine, Cyprus
Miami Mine, Magma
Mineral Park Mine
Mission Mine
Morenci Mine
Oracle Ridge Mine
Pinto Valley Mine
Ray Mine
San Manuel Mine
Sierrita Mine
Silver Bell Mine
Tohono Mine

CUSTOM MILLS

Black Canyon Mill
Golden Rule Mill

DIATOMITE

White Cliff Mine

GEMSTONES

Sleeping Beauty Mine
Mineral Park
Morenci

GOLD and SILVER

Devils Wash Placer
Gold Prince
Gold Road

Magma Mine*
Mission Mine*
Oracle Ridge Mine*
Pinto Valley Mine*
Ray Mine*
Morenci Mine*
San Manuel Mine*
Sierrita Mine*
Yarnell Mine

GRANITE/DECORATIVE STONE

Aztec Quarry
Kilauea Quarry
Madison Granite
Red Mountain Quarry
Star Valley Granite Quarry
Treasure Chest Granite Quarry

GYP SUM

Camp Verde Gypsum Mine
Feldman Quarry
Salome Gypsum Mine
Snowflake Gypsum Mine
White Cross Mine
Winkelman Gypsum

LIMESTONE/MARBLE

Andrada Marble Quarry
Davidson Marble Quarry
Queen Creek Marble Quarry
Santa Rita Quarry
Shipley Pit

MOLYBDENUM

Bagdad Mine*
Morenci Mine*
Pinto Valley Mine*
San Manuel Mine*
Sierrita Mine*

PERLITE

Superior Perlite Mine

PIGMENT

Swansea Mine
Iron Chancellor Mine

PUMICE

Crown Claims
More Sand, Moon Sand
White Vulcan

SALT

Morton Salt Mine

SAND & GRAVEL

See listing of sand and gravel

SAND, INDUSTRIAL

Ajo Plant & Slag Stockpile
Houck Silica Sand

SILICA SMELTER FLUX

Copper Hill
Evening Star
Gold Hill Mine
Gold Prince

SILVER

Bagdad Mine*
Mission Mine*
Morenci*
Pinto Valley Mine*
Ray Mine*

SLATE

New River Slate Quarry

SMELTERS

Hayden
Miami
San Manuel

STONE, DIMENSION

Arizona Picture Rock Quarry
Arizona Gold
Black Cat Quarry
Blue Bell Schist Quarry
Brown Quarry
Buckskin Quarry
Cucamonga Quarry
Dunbar Quarries
Flagstone Quarries
Golden Buckskin
Little Rock Quarry
Lizard Canyon Quarry
M C Quarry
Mayer Onyx Quarry
New River Slate Quarry
Rainbow Schist Quarry
Rattlesnake Quarry
Red Rock Quarry
Rock House Quarry
Sidewinder Quarry
Sierra Quarry
Trick Tank Quarry
Western States Stone Quarries
Yellow Wasp Quarry

ZEOLITES

Bowie Chazazite Mine
Grace Chabazite Mine
Union Pass Mordenite

* Produced as a byproduct

SUPPLEMENTAL INFORMATION

Arizona State Agencies

Arizona Geological Survey

416 West Congress, Tucson, AZ 85701
Phone (520) 770-3500

Arizona Mines and Mineral Resources

1502 West Washington, Phoenix, AZ 85007
Phone (602) 255-3791

Land Department - Minerals Section

1616 West Adams, Phoenix, AZ 85007
Phone (602) 542-4628

Mine Inspector

State Capital, West Wing, Room 403, Phoenix,
AZ 85007 Phone (602) 542-5971

Federal Agencies

Bureau of Land Management

Arizona State Office, 222 North Central, Phoenix,
AZ 850004-2203 Phone (602) 417-9528

Forest Service

Arizona Zone Office - Minerals, 2324 East
McDowell Rd., Phoenix, AZ 85006
Phone (602) 225-5262

Mine Safety and Health Administration (MSHA)

63 East Main #303, Mesa, AZ 85201
Phone (602) 649-5452 Fax: 649-5662

U.S. Geological Survey

Minerals Information, Environment and Natural
Resources Bldg. 120, 520 N. Park Ave., University of
Arizona, Tucson, AZ 85721
Phone (520) 670-5544

To obtain commodity information, state production,
etc. use: Mines FaxBack (703) 648-4999.

Industry Associations

Arizona Mining Association

2702 North 3rd Street, #2015, Phoenix, AZ
85004
Phone (602) 266-4416, FAX (602) 266-4418
President Charles Shipley
Administrative Assistant . . . June Castelhana
Director of Education Larry McBiles

AMIGOS (Arizona's Mining & Industry Gets Our Support)

2907 North 2nd Street, Phoenix, AZ 85012,
P.O. Box 25187, Phoenix, AZ 85002
Phone (602) 279-3199, FAX (602) 263-0363
Executive Director Sydney Hoff Hay

Arizona Rock Products Association

1825 West Adams, AGC Building, Phoenix,
AZ 85007
Phone (602) 271-0346, FAX (602) 255-0363
Executive Vice President . . Ken Quartermain
Deputy Director David Martin
Director of Administration Jill Smith

Society For Mining, Metallurgy, and Exploration, Inc. - National Headquarters

P. O. Box 625002, Littleton, CO 80162-5002
Phone (303) 973-9550, FAX (303) 973-3845
Executive Director Gary Howell
Director of Publications Joseph Zullo
Assoc. Executive Dir.

for Members Helga Gruenerud
Editor - Mining Engineering . . . Tim O'Neil
Director of Administrative
Services John Orologio

Additional copies of the Directory of Active
Mines in Arizona 1997 may be obtained for
\$5.00 (\$6.50 by mail). Circulars with complete
listings of mining related Federal, Arizona, and
County agencies as well as mine permitting information
are available. For more information
or a publication list contact the Department.

ARIZONA'S MINERAL INDUSTRY - 1997

Arizona set an all-time record in copper production in 1995, producing 1.3 million tons valued at over \$3.6 billion. Arizona continues leading the nation in the production of copper as well as in total non-fuel mineral production. The value of all mineral output was \$4.48 billion, an increase of 24 percent over 1994. In addition to copper, Arizona also leads or is among the leaders in the production of gemstones, molybdenum, silver, perlite, and sand and gravel. Excluding sand and gravel operations, there are 113 active mines in Arizona producing the above commodities plus additional metals and 18 varieties of industrial minerals. There are 78 sand and gravel producers in the state. More than 18,000 people are directly employed by the mining industry.

COPPER

Copper represents about 85 percent of Arizona's non-fuel mineral value. Significantly higher prices in 1995, when the producer cathode price averaged \$1.38 per pound, combined with record output of 2.6 billion pounds, gave the copper industry record operating earnings. Through the first five months of 1995 the price remained strong, averaging \$1.22. However, a major trading scandal involving Sumitomo was uncovered in late May that severely depressed prices in spite of tight inventories. The price for the period June through October fell \$.25, averaging only \$.97 per pound. As this time (11/96), the price seems to be firming at over a \$1.00/lb due to increasingly tight inventories and the belief that damage from the scandal is over. For the first 10 months of '96 the producer cathode price has averaged \$1.10.

Arimetco Incorporated

Arimetco produces cathode copper from the Johnson Camp mine and holds additional reserves at their Van Dyke, Zonia, and Emerald Isle copper properties.

Johnson Camp, located 65 miles east of Tucson, produced 6.3 million pounds of copper in 1995, up from 5.6 million pounds in 1994, as crushing of ore was implemented to improve leaching. Reserves at Johnson Camp's producing Burro Pit are estimated at 10 million tons, while the undeveloped Copper Chief orebody contains reserves estimated at 17.8 million tons.

The Emerald Isle open-pit mine and SX-EW plant located near Kingman has been on care and maintenance, but may reopen in 1997. Ore reserves are estimated at 0.87 million tons of 0.57 percent copper.

Asarco Incorporated

Asarco's Arizona operations consist of the Hayden copper smelter, two major open-pit mines, Mission and Ray, and a dump leaching/cementation operation at the Silver Bell mine. The mines' production was 556 million pounds of copper in 1995.

Mission complex, 18 miles south of Tucson, consists of

two pits, Mission and the smaller, but separate, San Xavier North. Sulfide ore is treated at two mills, Mission and South. They have the capacity to process 63,000 tons of ore daily, resulting in an annual capacity of 124,000 tons of copper in concentrates. Mission produced 228 million pounds of copper in 1995.

In 1994 Asarco began developing a 5 million ton underground deposit located 400 feet lower and outside of the

1995 Copper Mine Production

Mine/Company	Production (lbs)	% of total
Morenci/Phelps Dodge	874,523,599	33.5
Ray/Asarco Inc.	329,106,694	12.6
San Manuel/BHP Copper	282,971,000	10.8
Sierrita/Cyprus Copper Co.	240,214,000	9.2
Mission/Asarco Inc.	227,762,115	8.7
Bagdad/Cyprus Copper Co.	214,931,000	8.2
Pinto Valley/BHP Copper	188,930,171	7.2
Miami/Cyprus Copper Co.	129,046,000	4.9
All others	125,840,837	4.9
Total	2,609,986,416	

open pit limits at Mission. Access to the orebody is through declines driven from the base level of the Mission pit. The underground operation will add about 28 million pounds of copper per year.

The Ray mine, the second largest in Arizona, produced 329 million pounds in 1995. It consists of an open-pit mine, dump and heap leach operations, a 40,000 ton per year SX-EW plant at Ray, and two mills - a concentrator at Hayden and a 30,000 ton per day concentrator at Ray. The Ray mine is in an elite group of three deposits in the U.S. with reserves in excess of 1 billion tons. The Hayden smelter consists of an INCO flash furnace rated at 720,000 tons of charge per year for an estimated production of 175,000 tons of blister copper. A surplus of concentrates at

the Hayden smelter has Ray reducing concentrate output from October, 1996 through March, 1997.

Asarco's Silver Bell mine continues to produce copper by dump leach precipitation while construction of a new \$70 million SX-EW plant is underway. The project is being developed with Mitsui and Co. Ltd. as a 25percent partner. Production is expected to commence in mid to late 1997 with a capacity of 18,000 tons of refined cathode copper annually. Oxide ore for the project will come from a new area of the property known as Silver Bell North that contains nearly 200 million tons of reserves.

Asarco, along with joint venture partner Freeport McMoran Copper and Gold, continues the in-situ leach research project at the Santa Cruz property in cooperation with the U.S. Bureau of Reclamation who took over this function from the eliminated Bureau of Mines. In early 1996 construction of the test well site and SX-EW recovery plant was finished and injection of sulfuric acid into the undisturbed copper bearing formation begun. This technology, if successful, has the potential of extracting copper from deep deposits with very little impact on the environment.

BHP Copper

Magma Copper was acquired by Broken Hill Proprietary Company Ltd. (BHP) of Australia effective January, 1996. The merger made the BHP Copper the second largest copper producer in the world with 9 percent of mine production. San Manuel and Pinto Valley are the company's two active mining divisions in Arizona. The Magma mine at Superior closed in June of 1996. It produced 38 million pounds of copper in 1995. BHP has begun engineering and permitting for an in-situ leach SX-EW for the Poston Butte deposit.

San Manuel is the largest underground operation in the United States and the one of the largest underground copper mines in the world. The San Manuel Division consists of a block-caving underground copper mine, a 62,000 ton per day concentrator, heap leach, in-situ leach, SX-EW plant, a 1,300,000 ton per year smelter with a 3,000 ton per day acid plant and a 345,000 ton per year electrolytic refinery, and a 180,000 ton per year rod plant. It produced 282 million pounds of copper in 1995. Heap leach SX-EW production declined dramatically from 98 million pounds in 1994 to 48 million pounds in 1995 as no ore has been placed on the heap since the January, 1995 depletion of the open pit.

Development of the Lower Kalamazoo ore body at San Manuel is continuing. Its estimated ore reserves of 2.1 billion pounds contained copper will add 12 years to the San Manuel underground mine. Production is planned to be phased in with the depletion of the San Manuel orebody over the period from 1997 through 1999.

Magma's San Manuel smelter accounts for about 25 percent of U.S. copper smelting capacity. The Outokumpu flash smelting furnace is the largest single furnace smelter

**MINERAL PRODUCTION
IN ARIZONA - 1995**

COMMODITY	QUANTITY	VALUE
Clay (tons)	110,000	\$463,000
Copper (tons)	1,317,000	3,600,000,000
Gemstones		3,761,000
Gold (troy ounces)	62,400	23,297,000
Sand & gravel(tons)	40,800,00	179,500,000
Silver (troy ounces)	6,327,000	33,116,000
Stone-crushed(tons)	5,950,000	27,500,000
Pigments (tons)	85	62,000
Coal (tons)	13,000,00	310,000,000
Other ¹		309,178,000
TOTAL		\$4,486,877,000

Nonfuel figures from U.S.Geological Survey, preliminary

2/ Cement, clays (bentonite), gypsum, lime, molybdenum, perlite, pumice, salt, sand & gravel (industrial), dimension stone, lead.

in the industry and a 20 percent expansion of its capacity was completed in March, 1994.

The Pinto Valley division includes the Pinto Valley mine and the Miami in-situ and Miami No. 2 tailings leach operations. The Pinto Valley mine consists of an open-pit mine, a 63,000-ton-per-day concentrator, dump leach and 8,000 ton per year SX-EW plant. Miami's leach operations recover copper from in-situ leaching of the old Miami mine block cave area and by hydraulic mining and leaching of the old Miami tailings. The resulting pregnant leach solutions are processed through Miami's 10,000 ton per year SX-EW plant. Pinto Valley produced 189 million pounds of copper and the two Miami leach units 23 million pounds in 1995.

Cambior U.S.A.

Construction of the Carlota mine of Carlota Copper Company, a subsidiary of Cambior U.S.A., continues to be delayed. The long awaited Environmental Impact Statement from Tonto National Forest, expected to be received by January 1996, was still not completed as of November, 1996. It is hoped to be obtained in early 1997 with construction to immediately follow. The property consists of four oxide ore bodies, Carlota, Cactus, and North and South Eder. Mineable reserves total 96 million tons grading 0.44 percent copper. Production is planned at a rate of 30,000

VALLEY CONCRETE & MATERIALS

820 E. Hwy. 89-A, P.O. Box 634, Cottonwood, AZ 86326
- Phone (520) 634-4250 - Employees: 45 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.
Plant Manager David Heath

VALLEY ROCK & SAND CO.

10700 E. Irvington Road, P.O. Box 18469, Tucson, AZ 85731 - Phone (520) 296-1733 - Employees: 3 - Sand, gravel, and rock products.
President Martin McCann

**W.A. MORRIS SAND, GRAVEL & CONCRETE
INC.**

US Highway 191 South, Safford, AZ 85546 - Phone (520) 428-1371 - Employees: 25 - Sand, gravel, rock products, ABC, ready mix concrete, and asphaltic concrete.
Owner Jack Gilbert

WHEELER CONSTRUCTION INC.

1310 N. 24th Street, Phoenix, AZ 85008 - Phone (602) 254-3179 - Employees: 25 - Sand, gravel, rock products, and ABC.
Executive Vice President Bob Johnson
Ashfork Pit

Located near Ashfork, AZ - Operated on an as needed basis.

Dixileta Pit

Located north of Phoenix - Captive production of rock products for construction contractors and rock products marketed by others.

WESTERN SAND & ROCK, INC.

4175 S. Litchfield Rd., P.O. Box 65, Avondale, AZ 85323
Phone (602) 932-1391 Employees: 3 - Sand, gravel, rock products, and ready mix concrete.
President Mike Quackenbush
Secretary and Operations Jennifer Quackenbush

WICKENBURG CONCRETE & MATERIALS

U.S. Hwy. 60, M.P. 117.5, P.O. Box 1450, Wickenburg, AZ 85358 - Phone (520) 684-3402 - Employees: 25 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.
President Edwin Dillard
Vice President George Dillard

WILLCOX ROCK & SAND

1401 E. Maley, P.O. Box 156, Willcox, AZ 85644 - Phone (520) 384-2181 - Employees: 12 - Sand, gravel, rock products, ABC, and ready mix concrete.
Owners: Keith, Robert, and William Gallagher

YAVAPAI MATERIALS, INC.

5899 Wilkinson Drive, P.O. Box 814, Prescott, AZ 86302 - Phone (520) 445-7305 - Employees: 17 - Sand and gravel.
President/Owner John Pemberton

SUPERIOR COMPANIES

Hayfield Draw & Cherry Pit, Camp Verde, AZ 86322 - Phone (520) 567-2244 - Employees: 75 - Sand, gravel, ock, and ready mix.

General Manager Ed Davidson
Maintenance Supervisor Randy Austin
Foreman Jerry Piper
Ready Mix Plant Foreman Storm Phillips

SUPERSTITION CRUSHING

2323 E. Hale, Mesa, AZ 85213 - Phone (602) 962-5326.
Owner John Weik
Owner/Manager Myron Jones
Yuma Pit

Southwest of intersection of Avenue 3E and County 19 east of Yuma, 2755 4th Avenue #938, Yuma, AZ 85364 - Phone (520) 341-9866 - Employees: 25 - Sand, gravel, rock products, and ABC. Aggregate also supplied to company's ready mix concrete and asphaltic concrete plants at another Yuma location.

Plant Foreman Conrad Mulhauser

THE TANNER COMPANIES

2088 E. 20th Street, P.O. Box 1449, Yuma, AZ 85366 - Phone (520) 343-4100, FAX (520) 343-4190 - Employees 200.

President Gerald Janney

Plant 180 - Yuma

13 miles east of Yuma on S.R. 95 @ M.P. 37.5 - Phone (520) 343-4180 - Sand, gravel, and asphaltic concrete.

Plant Foreman Dave Brooks

Plant 185 - Parker

4.5 miles north of Parker on S.R. 95 - Phone (520) 669-9251, FAX (520) 669-9253 - Aggregate, ready mix concrete, and asphaltic concrete.

Plant Foreman Jim Brock

Plant 486 - Lake Havasu City

- 1785 Kiowa Blvd. Lake Havasu City, AZ 86403 - Office Phone (520) 855-7210, FAX (520) 855-0506 - Plant Phone (520) 764-3277 - Aggregate, ready mix concrete, and asphaltic concrete.

Plant Foreman Wallace Opie

TUCSON ROCK AND SAND

6601 N. Casa Grande Hwy., Tucson, AZ 85743, P.O. Box 36030, Tucson, AZ 85740-6030 - Phone (520) 744-3222, Fax (520) 744-4394 - Employees 150 - Two operations in the Tucson area - Sand, gravel, rock products, ready mix concete, ABC, and asphaltic concrete.

President Richard Hrubes

Sales Manager Ron Green

Operations Manager Mike Smith

UNITED METRO MATERIALS, INC.

701 North 44th Street, Phoenix, AZ 85008, P.O. Box 52140, Phoenix, AZ 85072 - Phone (602) 220-5000 - Employees: 825 - Sand, gravel, ready mix concrete, and asphalt material.

President John Fowler

Vice President Sales Bill Heeter

Chief Engineer Bill Peck

Plant Safety Dir./Environmental Coord. . . Tom Dunwell
Safety Administrator David Chavez

Plant 1 - Central Avenue Plant

2800 S. Central Ave., Phoenix, AZ 85066 - Phone (602) 243-7080 or (602) 220-5000 Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.

Plant Superintendent Randy Patheal

Plant 2 - Mesa Plant

2830 North Beeline, Mesa, AZ 85256 - Phone (602) 990-0844 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.

Plant Superintendent Jim Shields

Plant 6 - El Mirage Plant

8507 N. El Mirage Road, El Mirage, AZ 85335 - Phone (602) 935-2653 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete - Inactive.

Plant 11- 19th Avenue Plant

3640 S. 19th Avenue, Phoenix, AZ 85009 - Phone (602) 262-1391 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.

Plant Superintendent Randy Patheal

Plant 12 - Glendale Plant

11920 W. Glendale Road, Glendale, AZ 85307 - Phone (602) 935-3562 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.

Plant Superintendent Norris Fish

Plant 33 - Flagstaff Plant

5200 E. Railroad Avenue, Flagstaff, AZ 86004 - Phone (520) 526-5250 - Plant site - Material shipped in from various company pits, ready mix, asphaltic concrete.

Plant Superintendent (Area Manager-N. Arizona) Gough

Plant 35 - Hill Pit

Hwy 89, 12 miles north of Flagstaff - Sand and gravel pit - Portable curshing and screening plant - Operated on a seaonal basis.

Plant 36 - McCormick Pit

Highway 89 and Sunset Crater - Sand and gravel pit - Portable crushing and screening plant - Operated on a seasonal basis.

Plant 41 - Maricopa Plant

Maricopa Road and the Gila River, Maricopa - Phone (602) 220-5540 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.

Plant Superintendent David Arbo

Plant 47 - Coolidge Plant

Highway 287 and Attaway Road, Coolidge, AZ - (520) 220-5454 - Sand, gravel, rock products, ready mix concrete, and ABC.

Plant Superintendent Don Wofford

Plant 48 - Sacaton Plant

Highway 93, 1 mile north of Casa Blanca Road, Sacaton, AZ - (602) 262-1453 - Sand, gravel, rock products, ready mix concrete, and ABC.

Plant Superintendent Llyn Fulmer

Plant 49 - Casa Grande Plant

2305 S. Rooftile Rd., Casa Grande, AZ 85222 - Phone (520) 836-8705 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.

Plant Superintendent Will Wodkins

tons of copper per year for the first ten years via open-pit mining, heap leaching, and SX-EW.

Cyprus Climax Metals Company

Cyprus is Arizona's second largest producer of copper and the world's largest producer of molybdenum. Copper totals for 1995 were 621 million pounds of copper. Cyprus Climax Minerals Company maintains corporate headquarters in Tempe, Arizona and operates five copper mines in the State: Bagdad, Tohono, Miami, Mineral Park, and Sierrita.

The Sierrita property consists of three open-pit copper-molybdenum mines, a 110,000 ton per day concentrator, two molybdenum roasting plants, a ferromolybdenum plant, a rhenium plant, a dump leaching operation, and an SX-EW plant. More than three quarters of Cyprus' molybdenum concentrate from Thompson Creek (Idaho), Bagdad, and Sierrita is processed at Sierrita through roasters to produce molybdenum oxide and ferromolybdenum. Sierrita is recognized as one of the most efficient mines in the world as it operates with the lowest average copper grade, 0.27 percent, of any milling operation. Sierrita contains proven and probable reserves to last 20 years at its present mining rate of almost 50 million tons per year.

The Bagdad operation consists of an open-pit copper-molybdenum mine, a 85,000 ton per day concentrator, a dump leach operation, and a SX-EW plant. In 1995 Bagdad produced 31 million pounds, or 15 percent of its total copper production, as electrowon copper cathode. Cyprus reported in 1995 that Bagdad has over a billion ton proven and probable ore reserve of 0.38 percent copper and 0.021 percent molybdenum.

Cyprus' Tohono operations consists of an SX-EW plant fed by a newly developed test open pit and heap leach. In 1995 Tohono produced 34 million pounds of copper, an increase of over 10 million pounds. Cyprus mined 8.4 million tons in 1995 despite reporting only 12 million tons of reserves. A 600 million ton resource could become reserves if heap leaching operations continue to be successful.

The Miami mine consists of an open-pit copper mine, an SX-EW plant, a 650,000 tons per year capacity smelter, an acid plant, a 380 million pound electrolytic refinery, and a 135,000 ton per year rod plant. Miami produced 129 million pounds of copper in 1995 and has increased the capacity of its SX-EW plant to increase production in 1995. The investments in the smelter and refinery at Miami have made Cyprus more efficient and self sufficient in domestic copper smelting and refining.

At the Mineral Park open-pit copper-molybdenum mine in Mohave County, Cyprus converted the in-place leach and precipitate operation to an SX-EW operation capable of producing 6 to 8 million pounds of copper per year. Production resumed in November 1994 and during 1995 produced over 3 million pounds of copper. A research project study-

ing the feasibility of in-situ leaching a fracture hosted chalcocite deposit is underway.

Oracle Ridge Mining Partners

The Oracle Ridge Mining Partnership consists of Santa Catalina Mining Corp., (formerly South Atlantic Ventures Ltd.) who hold a 70 percent interest and operate the mine, and Continental Materials holding the remaining 30 percent. The underground Oracle Ridge mine produced concentrates containing 7.48 million pounds of copper in 1995. The company suspended operations in mid 1996 and Santa Catalina was reported to be interested in selling its interest in the mine.

Phelps Dodge Corporation

Phelps Dodge Corporation, headquartered in Phoenix, is the nation's largest copper producer and the world's largest producer of SX-EW cathode copper. Its mining division, Phelps Dodge Mining Company, produces about one-third of the U.S.'s mined copper at its properties in southeastern Arizona and southwestern New Mexico. The company broke all production and financial records in 1995. In Arizona Phelps Dodge operates the Morenci mine complex in Greenlee County and the Copper Queen in Bisbee, and hold significant undeveloped copper resources throughout the state. Phelps Dodge owns an 85 percent interest in the Morenci mine; the remaining 15 percent is owned by Sumitomo Metal Mining Company, Ltd. The mine employs more than 2,000 people.

Morenci is the largest copper producer in North America and the fourth largest copper mine in the world. In 1995, Morenci produced a record 875 million pounds of copper!, one third of Arizona's total, from 74 million tons of ore. This copper production is 25 percent more than the record set in 1994. For the first time ever copper recovered by leaching SX-EW exceeded that from flotation concentrates.

The Morenci operation consists of the Morenci, Metcalf, and Northwest Extension open-pit copper mines, the 100,000 ton per day Morenci concentrator with a molybdenum circuit, the 40,000 ton per day Metcalf concentrator, four dump leaches with SX plants, the new Southside EW plant with a 130 million pound capacity, and, at a capacity of 370 million pounds annually, the worlds largest EW plant. Morenci's milling and leaching reserves total over 1.5 billion tons.

The Coronado depsoit hosts 480 million tons of sulfide and oxide mineralization. The near-by Western Copper deposit is estimated to contain 530 million tons of milling material at a grade of 0.55 percent copper, and 500 million tons of leach material at a grade of 0.31 percent copper. In 1994-95, a large resource of leachable material called Garfield, containing one billion tons grading 0.27 percent copper, was outlined north of the Metcalf mine. It is anticipated that continued drilling will result in a doubling of this resource.

The company's Copper Queen mine consists of a small dump leaching and precipitation operation at the depleted Lavender pit. No decision has been made as to when to bring the adjacent Cochise deposit, containing 210 million tons of 0.4 percent leach material, to production.

Phelps Dodge has a district office in Safford where evaluation and permitting of the Lone Star, Dos Pobres, and San Juan deposits continues. In late 1995, the Sanchez deposit was acquired from AZCO Mining. This increases the company's open pit, leachable copper resources in the district to nearly 2.4 billion tons. Dos Pobres also contains 330 million tons of sulfide reserves. Work is underway on a land exchange to facilitate development in the district.

The New Cornelia mine at Ajo remains inactive. During the last couple years the obsolete recovery plant and smelter have been dismantled and scrapped. The copper resource there is 160 million tons grading 0.56 percent copper.

Phelps Dodge and Cominco announced a joint venture agreement for the United Verde massive sulfide deposit at Jerome. The property contains a 21 million ton resource at 6.6% zinc, plus copper and precious metals.

COAL

Coal is a distant second to copper in economic importance of mineral commodities produced in the State. In 1996 Arizona's coal production was 13,192,000 short tons, having an estimated value of \$300 million. All production is from land leased from the Navajo and Hopi Nations by Peabody Western Coal Company. Royalties from coal production total \$30 million annually. Peabody is the nation's largest coal producer and Kayenta is their largest operation.

High-quality coal is strip mined from the Kayenta and Black Mesa mines in central Navajo County. The coal is subbituminous with an average quality of 11,000 Btu, 0.5 percent sulfur, and 10 percent ash. Both mines are now using 300-ton capacity tractor trailer bottom-dump trucks to transport coal from the mine to the conveyors and pipeline feed plants.

Kayenta Mine's production capacity is 8 million tons annually. The coal from the mine is carried by a conveyor system 17 miles to storage silos. From there it is transported by the electric-powered trains of the Black Mesa & Lake Powell Railroad to the Salt River Project Navajo Generating Plant 78 miles away.

Black Mesa Mine's annual capacity is 4.5 million tons. Here, the coal is powdered and mixed with water prior to transport by the world's longest coal-slurry pipeline. The 273-mile journey to the Mohave Generating Station at Laughlin, Nevada takes about three days.

Peabody's operations at Black Mesa are model reclamation programs. Mining and reclamation proceed at the same rate of approximately 500 acres annually. As an area is mined, the topsoil is removed and stored. After mining is completed, the topsoil is returned and the surface is contoured. The resultant reclaimed land, used for grazing, is more productive than the original land.

GOLD

Addwest Minerals Inc., was sold by Addington Resources in December, 1995 to a group of private investors. The company continues to operate the Gold Road mine and mill at Oatman. The Gold Road has recently acquired the

PHOENIX REDIMIX COMPANY

3635 S. 43rd Ave., Phoenix, AZ 85009 - Phone (602) 272-2637 - Employees: 200 - Operates 2 quarries - Sand, gravel, and ready mix concrete.
President Thomas M. Valente
Vice President Timothy Valente
Marketing Director Allan Ladd
Plant Manager Bob Strom
Controller Toby Ballintine

PIONEER SAND COMPANY

745 N. Gilbert #124-360, Gilbert, AZ 85234 - Phone (602) 926-8200 - Employees: 125.
Pioneer Sand #7
5901 W. Broadway Rd., Phoenix, AZ 85043 - Phone (602) 233-2971 - Sand, natural river rock, crushed rock, and ABC.
Owner Gary Schnurr
Superintendent Dave Sawyers
Office Manager Tammie MixDorf
Florence Pit
19925 East Price Road, Florence, AZ 85232 - Phone (520) 868-4616 - Natural river rock and sand.
Casa Grande Quarry
Grande Rose decorative landscape rock and boulders.
Pioneer Pit #10
335th Avenue and Indian School Road, Tonopah - Produces natural rock, and plaster, motor, and golf course sand.

REIDHEAD SAND & ROCK, INC.

P.O. Box 7, Paper Mill Rd., Taylor, AZ 85939 - Phone (520) 536-4519 - Employees - 35 - Sand, gravel, and ready mix concrete.
Manager Jack Zellner

RUE HALE PIPELINE SERVICE

611 S. Voight St., P.O. Box 221, Springerville, AZ 85938 - Phone (520) 333-4483 - Employees: 2 - Sand and gravel.
Owner Rue Hale
Sales Manager Lori Hale

SALT RIVER SAND & ROCK

Dobson Road and McKellips Road, P.O. Box 728, Mesa, AZ 85211 - Phone (602) 990-1987 - Employees: 300 - Sand and gravel - Second largest sand and gravel mine in the United States.
Owner Maricopa-Pima Salt River Indian Nations
Manager Wayne Hills
Sales Manager Denny Willcox

SAND SPECIALTIES, INC.

5570 N. Bush Highway, Mesa, AZ 85205 - Phone (602) 832-2120 - Employees: 4 - Aggregate products.
Manager Ernest Perkins

SAN XAVIER ROCK & MATERIALS

3895 N. Business Center Dr., Tucson, AZ 85745, P.O. Box 551, Cortaro, AZ 85652 - Phone (520) 293-6833 - Employees: 180 - Sand, gravel, ABC, ready mix concrete, and asphaltic concrete.
Vice President and Division Manager Al Wilcox
Sales Manager Benny Bingham
Nogales Plant

91 Old Ruby Road, Nogales, AZ 85621 - Phone (520) 281-9669 - Sand, gravel, ABC, and ready mix concrete.
Plant Superintendent Dave Sunderman
Plant Superintendent Bill Wion
Tucson Plants
6200 Cortaro Farms Road, Tucson; 10011 Valencia Road, Tucson; Southwest of Tucson International Airport - Sand, gravel, ABC, ready mix concrete, and asphaltic concrete.
Green Valley Plant
24560 S. Old Nogales Highway, Green Valley.
Pinal County Plant
North of Catalina at Golder Dam.

SCARBOROUGH SAND & GRAVEL

920 Stratton Dr., Safford, AZ 85546 - Phone (520) 428-3138 - Employees: 5 - Sand, gravel, and rock products.
Owner/Manager Winfred Scarborough

SIERRA READY MIX AND MATERIALS CO.

5231 E. Buffalo Soldier Road, P.O. Box 520, Sierra Vista, AZ 85636 - Phone (520) 378-2321 - Employees: 55 - Sand, gravel, and ready mix concrete.
Quality Control Manager Joe Mueller

SMITH AND BELL CONSTRUCTION

Smith, Bell, and Findley Concrete and Materials
1711 N. 8th Avenue, Safford, AZ 85546 - Phone (520) 428-4747 - Employees: 10 - Sand, gravel, ABC, rock products, and ready mix concrete.
Owner Rick Findley

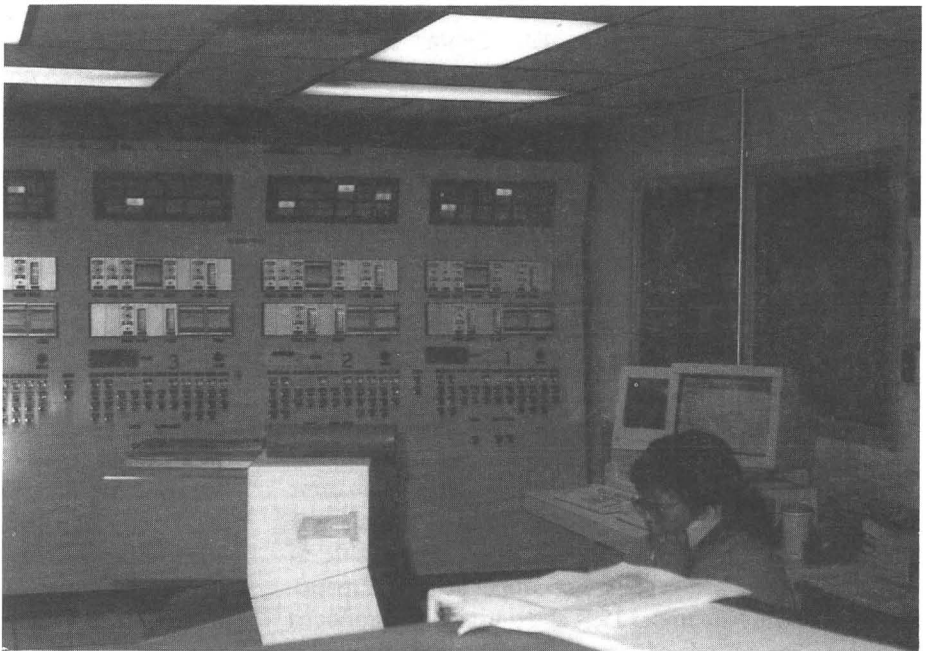
SUN STATE ROCK & MATERIAL CORP.

P.O. Box 1340, Sun City, AZ 85372 - Phone (602) 566-3000 - Employees: 40 - Sand, gravel, ABC, and rock products.
Owner Dolores Walker

SUNWARD MATERIALS

Executive Office, 2625 S. 19th Ave., Phoenix, AZ 85009 - Phone (602) 253-2505 - Employees: 300 - Sand, gravel, rock products, and ready mix concrete.
Vice President Operations Chris Reinesch
Plant 21, El Mirage
4515 N. El Mirage Road, Glendale, AZ - Phone (602) 256-4024
West Plant 62 and 72
11701 W. Indian School Road, Phoenix, AZ 85037 - Phone (602) 256-4022
North Plant 63
21001 N 7th Street, Phoenix, AZ 85024 - Phone (602) 582-4436
Sun City Plant 67 and 77
24004 N. 107th Avenue, Sun City, AZ 85373 - Phone (602) 256-4029
Mesa Plant 61 and 71
1901 N. Alma School Road, Mesa, AZ 85201 - Phone (602) 256-4049
Tucson Division
Office phone (602) 256-4032, Aggregate Plant Phone (520) 744-2500

Control room, Pinto Valley



- Employees: 60 - Sand, gravel, rock, road materials, ready mix concrete, and asphaltic concrete.
President Mike Guzman Jr.
Vice President Wes Bryant
Superintendent Bruce Herman

HAMILTON SAND & GRAVEL
Hamilton Rd., RR 1 Box 1350, Willcox, AZ 85643 - Phone (520) 384-2582 - Employees: 4 - Sand, gravel, and rock.
Owner David May

HATCH CONSTRUCTION & PAVING
Hwy. 77, Taylor, AZ 85939 - Phone (520) 536-7213 - Employees: 40 - Sand, gravel, road materials, and ready mix concrete.
President Jerrold L. Hatch
Vice President Lynn R. Hatch
Vice President Lenn B. Hatch
Secretary Danny F. Hatch

HUACHUCA CONCRETE, INC.
423 S. Scrader Rd., Sierra Vista, AZ 85635 - Phone (520) 456-1600 - Employees: 15 - Sand, gravel, aggregate products, ABC, leach rock, and rip rap.
General Manager Mike Berry

J.D.'S SAND & GRAVEL INC.
1512 W. Frontage Rd., P.O. Box 4435, Rio Rico, AZ 85648-4435 - Phone (520) 281-7980 - Employees: 6 - ABC, fill, and aggregate.
President Michael Williams

JIM BUSH SAND & GRAVEL
1015 N. Cameron, Ajo, AZ 85321 - Phone (520) 387-6250 - Employees: 4 - Sand, gravel, and landscaping material.
President Patti Bush
Vice President David Bush

KINGMAN REDIMIX
9985 Shipping Lane, Kingman, AZ 86401 - Phone (520) 757-7446 - Employees: 12 - Sand, gravel, and ready mix concrete.
President Pete Campbell

KOCJAN ASSOCIATES, INC.
2030 E. Frontage Rd. P.O. Box 3748, Page, AZ 86040 - Phone (520) 645-3602 - Employees: 10 - Sand, gravel, ABC, ready mix concrete, and asphaltic concrete.
President John Kocjan
Vice President Gerald Kocjan
Secretary Ted Kocjan

MADDUX & SONS, INC.
1927 Pan American, P.O. Box 1077, Douglas, AZ 85608 - Phone (520) 364-7564 - Employees: 40 - Sand, gravel, ready mix, and rock products.
President Lenard Maddux
Office Manager Toni Vance
Sales and Orders Roxy Maddux

MCCORMICK CONSTRUCTION
1941 Richardo Ave., P.O. Box 545, Bullhead City, AZ

86430 - Phone (520) 763-2272 - Employees: 19 - Sand, gravel, rock products, and asphaltic concrete.
President Scott Merrill
Office Manager Sharon Hartman

MESA MATERIALS, INC.
3410 N. Higley Road, P.O. Box 20040, Mesa, AZ 85277 - Phone (602) 830-1521 - Fax (602) 981-9255 Employees: 50 - Operates multiple quarries - Sand, gravel, and asphaltic concrete.
Owner Edward C. Levy
Vice President Wayne Stamper
Office Manager Bruce Erickson
Accounts Payable Belinda Beck
Operations Manager, East Side Dave Scheffler
Operations Manager, West Side Ron Ernst
Receptionist Tess Sanderlin
Safety Manager Frank Vallie

MOHAVE CONCRETE & MATERIALS INC.
4502 N. Hwy. 95, Lake Havasu City, AZ 86404 - Phone (520) 764-2226 - Employees: 30 - Sand, gravel, rock products, and ready mix concete.
General Manager Dan Porter
Treasurer Veronica Polidori
Foreman Stan Grulke
Mohave Concrete S&G No. 1
Mohave Concrete S&G No. 2
1781 E. Boundary Cone Road, Mohave Valley, AZ - Phone (520) 330-3750.
Mohave Concrete S&G No. 3
2699 West Hwy. 66, Kingman, AZ - Phone (520) 753-5554.

PADILLA SAND & GRAVEL HCR
409 Camino Ramanote, Rio Rico, AZ 85648 - Phone (520) 761-4998 - Employees: 10 - Sand, gravel, and ready mix concrete.
Owner Manuel Padilla

PAULDEN SAND & ROCK REDIMIX
Division of Dunbar Stone Co., Inc.
P.O. Box 403, Paulden, AZ 86334 - Phone (520) 636-2500 - Employees - 11 - Sand, gravel, and ready mix concrete.
Vice President Warren Dunbar
Office Manager/Sales & Orders Barbara McGirr

PAYSON CONCRETE & MATERIALS, INC.
1900 E. Hwy. 260, Payson, AZ 85541 - Phone (520) 474-2231 - Employees: 40 - Aggregate, sand, gravel, rock products, ready mix concrete, and asphaltic concrete.
Plant Manager George Randall
Plant Manager John Chillson
Asphalt Plant Manager Fred Randall
Sales Representative Tim Hughes

PEARCE, JOY T. CONSTRUCTION, INC.
1020 Pearce Road, Show Low, AZ 85901 - Phone (520) 537-7454 - Employees: 28 - Rock, sand, cinders, ready mix concrete, and asphaltic concrete.
Owner/President Mr. Joy T. Pearce
Secretary Beth Pearce

distinction of being the sole producing primary gold mine in Arizona, although hopefully it will not hold that distinction for long.

BEMA Gold, doing business in Arizona as Yarnell Mining Company, continued permitting efforts for its Yarnell deposit that contains 7.3 million tons of 0.037 oz. per ton Au. The planned open pit heap leach hopes to receive the final EIS in September, 1997 and to begin construction immediately thereafter.

Cochise Resources closed the Golden Rule mine in Cochise County. Its 20 ton per day gravity and flotation mill is available as a custom mill.

Gold continues to be produced as a by-product of the copper industry in Arizona. Last year the major copper mines produced approximately 50,000 ounces of gold from the following mines: San Manuel, Magma, Morenci, Ray, Mission, Sierrita, Pinto Valley, and Oracle Ridge.

INDUSTRIAL MINERALS

Although copper accounts for three-fourths of the State's mineral production by value, mining in Arizona continues to be a diversified activity. Industrial minerals mined in the state last year include calcium carbonate as limestone and marble for mineral filler and as raw material for lime and cement plants, bentonite for desiccants and for bleaching and clarifying of edible oils, sand and gravel for construction aggregate, diatomite for metallurgical process insulation, tile and brick clay, salt, cinders, smelter slag, pumice for laundry uses and light-weight aggregate, zeolites for molecular sieves, crushed stone, decomposed granite, perlite for filters, gypsum for wall board and agriculture, silica flux, hematite for pigments, quarried flagstone, and hydrafrac sand.

Construction aggregates in the form of sand and gravel lead this industrial mineral group, both in volume and value of production. For 1994 and the first quarter of 1995 Arizona's sand and gravel production ranked third in the United States. For the same period Arizona's position in total construction aggregate production (sand and gravel combined with crushed stone) was eleventh in the country. In 1995 Salt River Sand & Rock located in Maricopa County operated the second largest sand and gravel plant in the U.S.

The Arizona Department of Mines and Mineral Resources continues to encourage exploration, development, and production of industrial mineral deposits in Arizona to supply southwestern United States and northern Mexico markets.

GEMSTONES

Arizona is a leading state in the value of mined gemstones in the United States. Approximately \$3.7 million worth of commercial gemstone production is reported for Arizona annually. Turquoise, peridot, and petrified wood

account for most of the value, with amethyst, chrysocolla, azurite, malachite, and fire agate making up the remainder.

Turquoise, a hydrous phosphate of aluminum and copper, is the leading gemstone produced in Arizona. Prized for its color, turquoise is the traditional gemstone used in Southwestern Native American jewelry. It is mined as a by-product by contractors at a number of Arizona porphyry copper deposits. The best quality material is sold by the piece, and the remainder sold or processed for sale by weight. Byproduct turquoise is produced by Yellow Hair Trading and Mining from the Sleeping Beauty Mine at Pinto Valley and by Colbaugh Processing from the Mineral Park Mine. Although long known for their turquoise, the Morenci Mine and the deposits at Bisbee are currently yielding very little.

Peridot is the gem variety of the mineral olivine. The translucent green material comes from the Peridot Mesa area of the San Carlos Apache Reservation east of Globe. Arizona material is suitable for faceting and is the finest quality in the world.

Petrified wood, although occurring in nearly every state, is best known as an Arizona gem material. Petrified wood is a fossil in which a mineral material, usually silica, has replaced the original cellular structure of the wood. Petrified wood occurs in all Arizona counties, but that occurring in Navajo and Apache counties in the Triassic Chinle Formation supplies nearly all of the gem market. Commercial production comes only from private lands.

Gem material, mineral specimens, and fossils collected by the rockhound hobbyist are not included in the reported gemstone production, but it is likely that rockhound production is higher than the reported mine production. Some portion of rockhound-collected material goes directly into collections, however much of it is processed by lapidaries, and sold privately or at gem shows. The gem show in Quartzsite, for example, is the largest in the world, drawing in excess of 100,000 visitors. The prestigious Tucson Gem And Mineral Show attracts visitors and dealers from around the world. More than 25 additional gem shows are held in the state annually and 37 organized earth science clubs are currently active.

RECREATIONAL PROSPECTING

An important segment of the Arizona mineral industry is that of recreational mining. This group includes primarily gold-panners and operators of small hobby-type suction dredges. Although some gold is likely recovered by nearly all who participate in this form of recreation, the recreational value nearly always out weighs the value of gold produced. Economic data for recreational mining is difficult to quantify, but the impact on the Arizona tourism industry is significant.

Government regulations are leaning heavier and heavier on the recreational 'rockhound' and are likely to get even more restrictive.

COMPANY LISTING

The following list is arranged alphabetically by company. To locate a specific mine use the index on page 26.

ADDWEST MINERALS INC.

P.O. Box 869, Oatman, AZ 86433 - Phone (520) 768-1600
- Employees: 120.

General Manager Ron Short
Mine Superintendent Ken Shiell
Mill Superintendent Terry Rice
Gold Road T19N R20W Sec. 11

Located at Oatman - Underground gold mine - 500 TPD CIP mill.

AMERICAN SANDSTONE

Blaser Corporation

2600 N. Highway 89, P.O. Box 1154, Chino Valley, AZ 86323 - Phone (520) 636-4454, Fax (520) 636-2780 - Employees: 50 - Quarries and processes Arizona flagstone into flagging, dimension stone and tiles.

President Donald Blaser
Vice President W. Larry Blaser
Sec./Treas. & Mgr. Operations - Orders . . . Dayle Blaser
Transportation Coordination Marcia Stewart

Blaser Stoneyard T16N R2W Sec. 22

Black Cat Quarries T22N R1W Sec. 17

Yellow Wasp No. 2 T22N R1W Sec. 9

Little Rock Quarry T22N R2W Sec. 24

Lizard Canyon Quarry T20N R1E Sec. 32

Red Rock Quarry T22N R1W Sec. 20

Golden Buckskin T19N R2E Sec. 19, 20, 29, and 30

Cucamunga T22N R1W Sec. 9

Trick Tank T23N R2W Sec. 26

ANASAZI COMPANY

7486 E. Adobe Drive, Scottsdale, AZ 85255 - Phone (602) 585-9882 - Employees: 25 - Operates flagstone quarries in Coconino County and slate quarry in Maricopa County - Fabrication yard in Scottsdale - Marketed in the United States and Asia.

Co-owner & Fabrication Manager Grady Dawe

Co-owner & Mining Supervisor Neil Cowie

Anasazi Stoneyard T4N R4E Sec. 14

New River Slate Quarry T7N R3E Sec. 5

Rattlesnake Quarries T20N R1E Sec. 19

Sidewinder Quarries T23N R2W Sec. 36

APACHE STONE DIVISION

Halquist Stone Co. Inc.

22040 N. 21st Ave., Phoenix, AZ 85027 - Phone (602) 267-8658 - Employees: 9 (including contractors) - Quarries

located near Mayer - Onyx marble quarry - Schist quarries - Landscape boulders, building and dimension stone.

President Perry Halquist

Manager Wayne Evans

Mayer Onyx Quarry T12N R1E Sec. 22

Blue Bell Schist Quarry T11.5N R1E Sec. 24

Rainbow Schist Quarry T12N R1E Sec. 23

ARIMETCO INTERNATIONAL INC.

Arimetco Inc.

335 N. Wilmot Rd., Suite 400, Tucson, AZ 85711 - Phone (520) 748-2600 - Fax (520) 748-2494.

President, Chairman, CEO H. Roy Shipes

Senior Vice President

and Chief Financial Officer John McKinney

Corporate Secretary Lori McBurney

Controller Andrew Keating

Chief Geologist Harrison Matson

V.P. and General Manager, U.S.

Operations Henry Shipes

Johnson Camp T15S R22E Sec. 26

Johnson Mine Road, Dragoon, AZ 85609- Phone (520)

586-2241. Employees: 79 - Located north of exit 322 off

I-10 - Open pit copper mine - Heap leach - Solvent extrac-

tion-electrowinning plant - Capacity 30,000 lb. copper per day.

Mine Manager Henry Shipes

White Cliff Diatomite T9S R17E Sec. 24

P.O. Box 1049, San Manuel, AZ 85618 - Phone (520)

385-2515 - Employees: 2 - Open pit diatomaceous earth

mine and processing plant.

Mine Manager Nic Arrieta

Zonia T11N R4W Sec. 12

P.O. Box 649, Yarnell, AZ 85362 - Phone (520) 427-3564

- Employees: 2 - Open pit copper mine - Heap leach -

Solvent extraction-electrowinning plant-Permitting and engineering stage.

Emerald Isle T23N R18W Sec. 22

Old Chloride Road, Chloride, AZ 86431 - Phone (520)

565-4554 - Open pit copper mine - Heap leach - Solvent

extraction-electrowinning plant - Capacity 10,000 lb. copper per day - On standby.

Van Dyke T1N R15E Sec. 30

P.O. Box 747, Miami, AZ 85539 - Phone (520) 473-2421 -

In-situ leach - Under care and maintenance.

11351 Casa Grande Hwy., Tucson, AZ 85743 - Phone (520) 884-7768 - Sand, gravel, rock products, and ABC.

CAMPBELL REDI-MIX

1510 Copper Lane, Lake Havasu, AZ 86403 - Phone (520) 855-6535 - Employees: 50 - Sand, gravel, and rock products.

Owner Delbert Campbell

CASHWAY CONCRETE AND MATERIALS

650 W. McKellips Road, Mesa, AZ 85201 - Phone (602) 835-0207 - Employees: 100 - Blended sand and gravel products.

President Terese Sanders

Vice President Joe Moody

CENTRAL ARIZONA MATERIALS

9699 E. Hwy. 287, Coolidge, AZ 85228 - Phone (520) 723-5719 and (602) 649-0244 - Employees: 7 - Landscaping and construction materials.

Manager Russ Star

CHANDLER READY MIX

3250 E. Lehi Road, P.O. Box 928, Mesa, AZ 85211 - Corporate phone (602) 892-0501 - Quarry phone (602) 830-3464 - Employees: 30 - Sand, gravel, and ready mix concrete.

President David Hudder

CHURCHMAN SAND & GRAVEL

P. O. Box 42874, Tucson, AZ 85733 - Phone (520) 325-1611 - Employees: 4 - Sand and gravel.

President Dick Smith

Vice President Doug Smith

CKC MATERIALS DIVISION

1234 E. Airport Road, Safford, AZ 85546 - Phone (520) 428-3423 - Employees: 25 - Aggregate base, mineral base, and ready mix concrete.

President David Cluff

General Manager Carl Bryce

CSR WEST

2550 Silver Creek Wash, P.O. Box 31, Bullhead City, AZ 86430 - Phone (520) 763-3887 - Employees: 37 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.

Manager Bob Swartzman

DESERT CONSTRUCTION INC.

4490 E. Hwy. 66, Kingman, AZ 86401 - Phone (520) 757-2213 - Employees: 45 - Paving materials, ready mix concrete, and rock products.

President Tom Short

Secretary/Treasurer Jim Short

DOWNEY, L. A. & SONS INC.

11600 E. Poorman Rd., Tucson, AZ 85747 - Phone (520) 886-2315 - Employees: 9 - Sand and gravel.

President Dennis C. Downey

Vice President Darrell Downey

Secretary/Treasurer David Downey

EADS CONSTRUCTION & REDI-MIX INC.

608 Highway 92, 46 Cochise Row, Bisbee, AZ 85603 - Phone (520) 432-4121 - Employees: 7 - Sand, gravel, and Redi-Mix concrete.

President Charles R. Eads

Vice President Sunny Quinn

Secretary/Treasurer Louise Eads

EARTH PRODUCTS

7563 E. Highway 69, Prescott Valley, AZ 86314 - Phone (520) 772-6446 - Employees: 30 - Sand and gravel, rock, leach rock, and decomposed granite.

President William H. Hyslip

Superintendent William G. Hyslip

FT. MCDOWELL SAND & GRAVEL CO.

State Route 87, P.O. Box 17150, Fountain Hills, AZ 85269 - Phone (602) 837-2358 - Employees: 70 - Sand and gravel.

General Manager John Kirk

FRANCIS DAY & SONS

P.O. Box 157, St. Johns, AZ 85936 - Phone (520) 337-2121 - Employees: 7 - Sand, gravel, and ready mix concrete.

Owners Francis and Marlow Day

FRED CLARK TRUCKING CO. INC.

104 Main, Mammoth, P.O. Box 116, AZ 85618 - Phone (520) 487-2232 - Employees: 18 - Sand, gravel, and ready mix concrete.

Owner Charles Clark

G & S SAND & ROCK

P.O. Box 1259, Mayer, AZ 86333 - Phone (520) 632-9359 - Employees: 4 - Aggregate materials.

Owner Susan Bennett

GENERAL ROCK & SAND

Industrial Road, P.O. Box 3049, Page, AZ 86040 - Phone (520) 645-3289 - Employees: 35 - Sand, gravel, ready mix concrete, and asphaltic concrete.

President Merrill Jessop

Superintendent Donovan Stubbs

GLORY ENTERPRISE, LLC

P.O. Box 3627, Flagstaff, AZ 86003 - Phone (520) 526-5571 - Employees: 4 - Volcanic cinders, ABC, and fill dirt.

Owner Bonnie and Jim Crick

GRANITE CONSTRUCTION CO.

4115 E. Illinois, P.O. Box 27557, Tucson, AZ 85726 - Phone (520) 748-8000 - Employees: 298 - Sand, gravel, road materials, soil, ready mix concrete, and asphaltic concrete.

Branch Manager Ted Haworth

Office Manager Maura Noland

GRANITE MOUNTAIN MATERIALS

560 EZ Street, P.O. Box 3520, Prescott, AZ 86302 - Phone (520) 778-5553 - Employees: 6 - Crushed granite.

Owner Dorvin Jones

GUZMAN CONSTRUCTION

P.O. Box 3100, Globe, AZ 85502 - Phone (520) 425-5775

SAND AND GRAVEL OPERATIONS

A & A MATERIALS

10333 E. McDowell Road, Scottsdale, AZ 85257 - Phone (602) 990-0557 - Employees: 25 - Landscape materials, granite, river rock, sand, and gravel.

President/Owner/Manager Arthur H. Adams
Co Vice President Raymond A. Adams
Co Vice President DeWayne Adams

A-ROCK INC.

P.O. Box 781, Flagstaff, 86002 - Phone (520) 527-0031 - Employees: 12 - Sand and gravel.

Manager Don Merrick

ABC SAND & ROCK

5401 N. 119th Avenue, Glendale, AZ 85307 - Phone (602) 935-1677 - Employees: 6 - River rock and sand.

Owner David Waltemath

ACE SAND & GRAVEL

1011 W. Silverlake Rd., Tucson, AZ 85713 - Phone (520) 622-1869 - Employees: 3 - Sand and gravel.

Owner Delia Gastelum

ACME SAND & GRAVEL

7707 E. 22nd Street, Tucson, AZ 85710 - Phone (520) 296-6231 - Employees: 4 - Sand and gravel, fill, and top soil.

Owner Flo Kempton

AJAX SAND & GRAVEL

5026 S. 51st Avenue, Laveen, AZ 85339 - Phone (602) 237-3232 - Employees: 2 - Landscaping rock.

ALLISON ROCK & SAND CONSTRUCTION (dba L. Sheldon & Co.)

P.O. Box 5065, Huachuca City, AZ 85616 - Phone (520) 456-1521 - Employees: 6 - ABC, sand, leach rock, and topsoil.

President Loren Sheldon

ARIZONA SAND & GRAVEL

1401 Atlantic Ave., Yuma, AZ 85365 - Phone (520) 344-5577 - Employees: 3 - Ready mix concrete and sand and gravel.

President Ernie Kaznak

B & R MATERIALS

4200 S. Harrison Road, P.O. Box 18138, Tucson, AZ 85731 - Phone (520) 298-2371 - Employees: 23 - Sand and gravel.

President Roland C. Brown

Vice President Kim Schroeder

BRIMHALL SAND, ROCK, & BUILDING MATERIAL

P.O. Box 750, Snowflake, AZ 85937 - Phone (520) 536-4226 - Employees: 62 - Sand and gravel products.

President Darrell Brimhall

Vice President Larry Brimhall

General Manager M. Kirk Brimhall

CALMAT COMPANIES

CALMAT COMPANY OF ARIZONA

Corporate Office - 3200 San Fernando Road, Los Angeles, CA 90065 - Phone (213) 258-2777.

Concrete and Aggregate Division, Arizona and New Mexico - 1801 E. University Drive, Phoenix, AZ - Phone (602) 254-8464 - Employees: 325 - Sand, gravel, rock products, ready mix concrete, ABC, and asphaltic concrete.

Vice President/General Manager Charles Wallace

Regional Operations Manager Frank Herrick

Phoenix District Operations Manager Dave Moran

Properties Division - Phone (602) 254-8465

Manager, Planning and

Regulatory Affairs Lee Edmonson

Center Street Plant

2405 N. Center Street, Mesa, AZ 85201 - Sand, gravel, rock products, ABC, and ready mix concrete.

Deer Valley Plant

2205 W. Adobe, Phoenix AZ 85027 - Phone (602) 842-4403

- Ready mix concrete.

Litchfield Plant

11923 W. Indian School Road, Litchfield Park, AZ 85340

- Phone (602) 935-2323 - Sand, gravel, rock products, ABC,

and ready mix concrete.

Manager Joe Flores

Mesa Plant

1900 N. Longmore, Scottsdale, AZ 85201 (on the Salt River

Pima Maricopa Indian Community Reservation) - Ready

mix concrete and asphaltic concrete.

Manager Eddie Center

Phoenix Plant

1801 E. University Drive, Phoenix, AZ 85034 - Sand,

gravel, rock products, ABC, ready mix concrete, and asphaltic concrete.

Manager Richard McDonald

Sun City Plant

14521 N. 115th Avenue, El Mirage, AZ 85335 - Sand,

gravel, rock products, ABC, ready mix concrete, and asphaltic concrete.

Manager Jack Long

West Phoenix Plant

4830 S. 43rd Avenue, Phoenix, AZ 85041 - Sand, gravel,

rock products, and ABC.

Apex Plant and Tucson Administrative Office

11500 N. CalMat Drive, Marana, AZ 85653 - Phone (520)

629-0460 - Sand, gravel, rock products, ABC, and ready

mix concrete.

District Manager Bill Mackey

Airport Plant

8855 S. Hughes Access Road, Tucson, AZ 85706 - Phone

(520) 574-9002 - Ready mix concrete and asphaltic concrete.

Tangerine Plant

W. Naranja, Tucson, AZ 85704 - (520) 682-2158 - Ready

mix concrete and asphaltic concrete.

Rillito Quarry

ARIZONA OXIDES

1741 E. Morten, Phoenix, Arizona 85020 - Phone (602) 944-9494 - Fax (602) 944-8930 - Employees: 13.

President David C. Lincoln

Executive V. President & Gen. Mgr. Vincent Scott

Marketing Director John Von Thaden

Plant Manager Steve Licano

Laboratory Manager Barbara Penunuri

Processing Plant

Grinding and sizing plant reduces crude hematite to red iron

oxide pigment - Used in paints, plastics, concrete products

and as a mold release in castings - Marketed internationally

- New plant under construction in El Mirage with early 1997

start up date..

Iron Chancellor Mine T20N R6W Sec. 22

Open pit and underground hematite pigment mine - Mining

by contractors.

ARIZONA PORTLAND CEMENT COMPANY State Sales Office

2400 N. Central, Suite 308, Phoenix, AZ 85004 - Phone (602) 271-0069.

Executive Vice President and

General Manager Vaughn S. Corley

Vice President, Sales Craig Starkey

Rillito Plant & Quarry T12S R11E Sec. 26

P.O. Box 338, Rillito, AZ 85654 - Phone (520) 682-2221 -

Employees: 144 - Twin Peaks limestone quarry 5 miles west

of plant - Cement plant - Capacity 1,100,000 TPY.

Plant Manager Dave Bittel

Quality Control Superintendent Steve Regis

Quality Control Supervisor Bill Phillips

Plant Engineer Russell Hawks

Personnel Manager Mardi Nagy

Quarry Supervisor Chuck Hansen

Purchasing Agent Tom Follett

ARIZONA SILICA SAND COMPANY

P.O. Box 108, Houck, AZ 86506 - Phone (520) 688-2602, FAX (520) 688-2607 - Employees: 18 - Plant south of

Houck - Hydrafrac sand for oil well treatment - Abrasives

and mold sand - Markets in Arizona, California, and New

Mexico - Bagged and bulk products available.

President Robert D. Fisher

General Manager James Burkewitz

Foreman Ralph Nelson

Evening Foreman Robert Castillo

Houck Silica Sand T22N R29E Sec. 29

Open pit hydrafrac sand mine.

ASARCO INCORPORATED

Tucson Office

1150 N. 7th Avenue, Tucson, AZ 85705, P.O. Box 5747, Tucson, AZ 85703 - Phone (520) 798-7500 Fax (520) 798-7781.

Asarco Copper Operations

Executive Vice President F. R. McAllister

Assistant to the

Executive Vice President T. E. Scartaccini

Manager Development,

Projects & Services D. C. Dixon, Jr.

Financial Coordinator O. Ho

Environmental Divisional Manager D. M. Yantorno

Director, Material Services L. G. Widugiris

Chief Geologist S. A. Anzalone

Santa Cruz and

Special Projects Manager D. F. Skidmore

Mineral Discovery Center Manager R.W. Vugteveen

Acid Sales Department

National Sales Manager G. P. Gillen

Governmental Affairs

Director, State Legislative Affairs R. E. Quick

Tucson Information Services

Manager T. Fedoruk

Mission Mine T16S R12E Sec. 36

Box 111, Sahuarita, AZ 85629 - West Pima Mine Road -

Phone (520) 648-2500 Fax (520) 648-0802 - Employees:

960 - Open pit copper mine - Two concentrators: Mission

and South with a total rated capacity of 63,000 TPD.

General Manager John D. Low

Operations Manager J. B. Lichtenhan

Mine Manager S. L. Lakosky

Chief Engineer B. M. Williams

Senior Geologist R. B. Cummings

Chief Metallurgist T.D. Henderson

Maintenance Manager H. E. Hughes

Mill Manager, Mission C. A. Carroll

Mill Manager, South S. D. Lawrence

Financial Manager D. J. Hoffman

Industrial Relations Manager J. F. Coxon

General Electrical Supervisor J. B. Barton

Safety Administrator R. E. Jordan

Environmental Engineer A. T. Cooper

Ray Operations T3S R13E Sec. 10

Hayden Operations & Smelter T5S R15E Sec. 11

Ray Complex, P.O. Box 8, Hayden, AZ 85235 - Phone (520)

356-7811 Fax (520) 356-3802 - Employees: 1,621 - Open

pit copper mine - Dump leach - Heap leach - Solvent

extraction-electrowinning plant - Two concentrators: Ray

rated at 32,000 TPD and Hayden rated at 28,000 TPD -

Smelter capacity 720,000 TPY and 1,600 TPD acid plant.

General Manager T.E. Erskine

Manager, Ray Operations B. K. Malone

Manager, Hayden Operations J. Wilhelm

Mine Manager R. E. Thompson
SX-EW Manager G.R. Burns
Technical Services Manager N. A. Gambell
Ray Concentrator Manager S. A. McGhee
Hayden Concentrator Manager G. L. Lubers
Electrical Manager, Ray J. L. Weller
Electrical Manager, Hayden G. T. Coryell
Maintenance Manager, Ray R.D. Thompson
Maintenance Manager, Hayden Hugh Alexander
Support Manager J. W. Murphy
Financial Manager J. T. O'Neil, Jr.
Human Resources Director W. E. Burrell
Materials Manager K. C. Newnam
Engineering Manager R.S. Rhoades
Safety Director Warren Traweek
Senior Geologist Greg Nickel
Silver Bell T12S R8E Sec. 11
25000 W. Avra Valley Rd., Marana, AZ 85653 - Phone
(520) 682-2420 Fax (520) 682-2347 - Employees: 74 -
Open-pit copper mine and 11,000 TPD concentrator on
standby - Dump leach & precipitation plant operating -
Solvent extraction-electrowinning plant and Silver Bell
North pit under development.
Mill Manager D. J. Duncan
Mine Manager T.H. Phillips
SX-EW Manager R.V. Washnook
General Mine Supervisor D.J. Cooke
Chief Engineer H.T. Richins
General Electrical Supervisor R.E. Ruoho
General Maintenance Supervisor D.A. Rosette
Safety Engineer R.W. Edgell
Santa Cruz T6S R4E, Sec. 13

P.O. Box 11226, Casa Grande, Az 85230-1226 - Phone
(520) 421-3363 Fax (520) 836-0179 - An experimental
in-situ leach research project with joint venture partners
Freeport Moran and U.S. Bureau of Reclamation. Copper
recovery by SX-EW plant.
Santa Cruz Manager D.F. Skidmore*
Site Manager H.G. Kreis**
* At Tucson Office - Phone (520) 798-7766 Fax (520) 798-
7783
** At Tucson Office - Phone (520) 798-7717 Fax (520)
798-7783

BHP COPPER

Tucson Office
7400 N. Oracle Road, Tucson, AZ 85704 - Phone (520)
575-5600 Fax (520) 575-5663.
San Francisco Office
550 California Street, 5th Floor
San Francisco, CA 94104 -Phone (415) 774-2545 Fax (415)
774-2530.
President and CEO J. Burgess Winter
San Manuel Operations T8S R16E Sec. 34, 35
P.O. Box M, San Manuel, AZ 85631 - Phone (520) 385-
3100 - Employees: 1,920 - Underground copper-molybde-
num mine - 62,000 TPD concentrator - In-situ leach - Heap
Leach - Solvent extraction-electrowinning plant - Capacity
120 million lb. copper per year - Underground Kalamazoo
deposit under development.
Vice President & Gen. Manager . . . Terrell I. Ackerman
Manager Sulfide Mining . . . Steven O. Lautenschlaeger
Superintendent Concentrator Gerald R. Brunskill
Superintendent In-situ Chris W. Burt

WESTERN ARIZONA ROCK PRODUCTS
A Division of Hanson Natural Resources, Inc.
P.O. Box 178, Dateland, AZ 85333 - Phone (520) 454-
2253, Fax (520) 454-2290 - Employees: 9.
Plant Manager Larry Lunsford
Assistant Plant Manager Gilbert Rodriguez
Office Manager Patti Wipple
Aztec Quarry T7S R12W Sec. 28
Granite quarry for railroad ballast - Crushing and screening
plant - Located between Aztec and Dateland south of I-8
and the Southern Pacific Railroad - Sales outside of railroad
system are for landscape uses.

WESTERN GYPSUM INC.

225 N. Bluff Street, Suite 5, St. George, UT 84770 P.O. Box
850, St. George, UT 84771 Phone (801) 628-3916, Fax
(801) 628-4441 - Employees: 21.
President Don Cecala
Mine Superintendent Tracy Cannon
Office Manager Matina Harward
Snowflake Gypsum Mine T41N R13W Sec. 25
Open pit gypsum mines - Primary and secondary crushing,
and screening plant - 100 ton-per-day fine grinding plant
and loading terminal at Glendale, Nevada - Producing gyp-
sum for cement industry, agriculture, fertilizer industry,
functional fillers, and water treatment.

WESTERN ORGANICS INC.

420 East Southern, Tempe, AZ 85282, P.O.Box 25406,
Tempe, AZ 85285-5406 - Phone (602) 966-4442
Plant located at 27th Avenue and Lower Buckeye Road in
Phoenix - Phone (602) 269-5756, Fax (602) 269-7621 -
Employees: 100.
President James Porter
Vice President/Operations Manager D. C. Porter
Sales Manager Dennis Reynolds
Office Manager Adrian Cluff
Controller David Hancock
Salome Gypsum Mine T5N R11W Sec. 30
Open-pit gypsum mine operated by contractors - Gypsum
for agricultural and horticultural uses, bagged and bulk -
Used directly and in blends.

WESTERN STATES MINERALS CORP.

HCR 2, Box 3424, Hurtaldo Ranch Road, Dos Cabezas, AZ
85644 - Phone (303) 425-7042, - Employees: 0.
Project Manager Charlie Bauer
Gold Prince Mine T14S R27E Sec. 22
Underground gold silica flux mine - Located 16 miles east
of Willcox - ships directly to copper smelter- Capacity 100
TPD - on standby.

WESTERN STATES STONE COMPANY
2830 Grand Ave., Phoenix, AZ 85017 - Phone (602) 253-
2018.
President Eldena Webster
General Manager Russ Thornhill
Ashfork Plant T21N R2W Sec. 3
Quarries
P.O. Box 316 - Ash Fork, AZ 86320 -Phone (520) 637-2542
- Employees: 40 - Quarries located in Coconino, La Paz,
Maricopa, Mohave, and Yavapai counties - Stone process-
ing facility in Ashfork - Commercial and decorative build-
ing stone.
Superintendent-Sales Shirley Robertson
Superintendent- Mining Howard Gray

YARNELL MINING COMPANY, INC.

P.O. Box 1182, Yarnell, AZ 85362 - Phone (520) 427-3353
Yarnell Mine Mine T10N R5W Sec. 14
- Employees: 4 - Open pit, heap leach, gold mine - activated
carbon recovery. Permitting and predevelopment con-
struction. Plan fall 1997 startup.
Project Manager Mark Montoya
Operations Manager David LeFevre
Project Engineer Bob Taylor

YELLOW HAIR TRADING AND MINING

P.O. Box 111, Globe, AZ 85502 -Phone (520) 425-7625 or
425-0446, Fax (520) 425-0738 - Employees: 45.
President Monty Nichols
Sales Ed Wheeler
Sleeping Beauty Mine T1N R14E Sec. 12
Produces turquoise under contract with Magma Copper
Company - Sorts, grades, and processes turquoise for world-
wide distribution.

*Coconino Cinder
and Materials'
Wildcat Hill Pit, 2
miles east of Flag-
staff*



General Manager Ed Davidson
Maintenance Supervisor Randy Austin
Foreman Bruce McDonald
Winkelman Gypsum T6S R16E Sec. 27
P.O. Box 327, Winkelman, AZ 85292 - Phone (520) 357-7002 - Gypsum quarry - Gypsum for Arizona Portland Cement Plant at Rillito and agricultural uses.
Superintendent John Nevitt

SUPERLITE BLOCK COMPANY
4150 W. Turney, P.O. Box 23163, Phoenix, AZ 85063 - Phone (602) 269-3561.
President Norman Stout
Darling Cinder Pit T21N R9E Sec. 2
P.O. Box 30956, Flagstaff, AZ 86003-0956 - Phone (520) 526-5499 - Employees: 5 - Open pit cinder mine east of Flagstaff - Volcanic cinders used to make building block at the company's Phoenix and Mesa plants.
Mine Superintendent Terry Mitchell

SWANSEA MINERALS INC.
Office: 6360 E. Rose Circle Dr. Scottsdale, AZ 85251 - Phone (602) 994-9964 - Fax (602) 941-2473 - Plant located at 1210 E. Gilbert Rd., Building H2, Tempe, AZ - Employees: 2 - Beneficiation plant.
President/General Manager John Challinor
Co-owner Peter Challinor
Swansea Mine T10N R15W Sec. 32
Produces hematite, micaceous-iron-oxide variety - Used for pigment and anti-corrosion barriers.

3 WIN QUARRIES
P.O. Box 3794, Riverside, California 92519 - Phone (909) 877-1611 - Employees: 16.
Owner/General Manager Richard Gutierrez
M C Canyon Quarries T19N R1E Sec. 23
Sandstone quarries located 8 miles northeast of Drake - Stone processing plant located at Drake - Sandstone quarried for flagstone.

T & C ENTERPRIZES
Stone Fabrication Plant
State Road 277 West, Snowflake, 85937, P.O. Box 832, Taylor, 85939 - Phone (520) 536-4944 - Employees: 4 - Quarries picture sandstone - Fabricates sandstone art objects and tableware.
President Howard Thomas
Sierra Quarry T12N R20E Sec. 20

TREASURE GRANITE PIT, INC.
PO Box 4795, Apache Junction, AZ 85278 - Phone (602) 983-1606 - Employees: 8 - Produces "Desert Rose" and "Spanish Gold" screened decomposed granite.
General Manager P.J. Patton
Office Manager Robin Knourek

Treasure Chest Granite Quarry T1N R8E Sec. 3

TUFFLITE INC.
2432 W. Peoria, Suite 1081, Phoenix, AZ 85029 - Phone (602) 931-3681 - Glendale yard located at 6856 W. Orange-wood, Glendale - Employees: 20.
President C. T. Morgan
Vice President/Mine Manager (Flagstaff) . . . Ed Morgan
Secretary/Treasurer Clay Morgan
Orders and Transportation Cecilia Salazar
Office Manager Marleen Bustamante
Sales Manager Cord Angier
Crown Claims T23N R7E Sec. several
More Sand, Moon Sand T23N R7E Sec. 24
White Vulcan T23N R8E Sec. 19
Mines located 12 miles north of Flagstaff - Pozzolanitic pumice quarries - 6,000 yards/month - Used in making lightweight redimix and block - Large size material used in the preparation of stone washed denim and in horticultural preparations.

UOP
P.O. Box 2790, Grand Junction, CO 81502 - Phone (970) 245-7957.
Senior Mining Engineer Jim Kirchner
Bowie Chabazite T11S R28E & T11S R29E
Open pit zeolite mines operated by contract mining company - Chabazite used for specialty adsorbants - Shipped out of state for further processing.
Union Pass Mordenite T21N R20W Sec. 11
Open pit zeolite mines operated by independent contract mining company - Mordenite used for specialty adsorbants - Shipped out of state for further processing.

UNITED DESSICANTS
United Catalyst, Inc.
Corporate Headquarters - P.O. Box 32370, Louisville, KY 40232 - Phone (502) 634-7200 - Processing plant c/o United Dessicants, 101 Christine Drive, Belen, NM 87002 - Phone (505) 864-6691.
Cheto No. 1 T21N R29E Sec. 23
Employees: 6 - Located six miles southeast of Sanders in northeastern Arizona - Surface strip bentonite mine - Seasonal operation by mining contractors - Low swelling bentonite is shipped to Belen, New Mexico for the production of desiccants.
Vice President (Louisville) Bill Monin
Vice President (Belen) George Klett
Technical Director (Belen) Matthew Rix
Marketing Manager (Belen) Randall Taussig

Superintendent SX-EW Joel Witt
BHP Copper Metals
San Manuel Smelter T9S R17E Sec. 32
P.O. Box M, San Manuel, AZ 85631 - Phone (520) 385-3100 - Employees: 1,217 - 1,300,000 TPY flash smelter - 1,150,000 TPY acid plant - 345,000 TPY electrolytic refinery - 180,000 TPY continuous cast rod plant.
Senior Vice President & Group
General Manager Craig Steinke
Vice President Operations J. D. McCain
Vice President Finance R.P. Johnson
Pinto Valley Operations T1N R14E Sec. 20
Miami T1N R15E Sec. 19
P.O. Box 100, Miami, AZ 85539 - Phone (520) 473-6200 - Employees: 630 - Open pit copper-molybdenum mine - 63,000 TPD concentrator - Dump leach - Solvent extraction-electrowinning plant - Miami in-situ leach - Miami No. 2 tailings reclaim leach - Miami solvent extraction-electrowinning plant.
Vice President/General Manager . . . Doug McGregor
Manager Mining Operations Dale Pierce
Manager of Concentrator
Operations Jack D. Conklin
Manager Human Resources David L. Palmer

BLACK CANYON MILLING
P.O. Box 33638, Phoenix, AZ 85067 - Phone (602) 374-5547.
Owner/Manager Bill Schleisman
Black Canyon Mill T8N R2E Sec. 15
Mill located one half mile south of Rock Springs, west of Interstate 17 - 3 ton per hour gravity mill consisting of crushing, grinding, magnetic separation, and table and cone concentration.

BUILDING PRODUCTS COMPANY
Phoenix Plant
4850 W. Buckeye Road, Phoenix, AZ 85043 - Phone (602) 272-5576 - Employees: 2-3 (involved in clay mining) - Plant consumes clay to produce extruded vitreous clay permanent sewer pipe.
Plant Manager and Mining Supervisor . . Jon Humphreys
Rim Quarry T11N R19E Sec. 30
Clay mine located 10 miles southwest of Clay Springs.
New River Slate Quarry T7N R3E Sec. 5
Slate quarry located approximately 6 miles northeast of New River.
Dewey Ranch #2 T14N R1E Sec. 15
Clay mine located approximately 6 miles north of Dewey.

CARLOTA COPPER COMPANY
subsidiary of Cambior USA Inc.
P.O. Box 1009, Miami, AZ, 85539 - Phone (520) 473-3518 - Employees: 21.

Manager Bob Walish
Mine Superintendent George Bell
Human Resource Manager Kevin Webster
Carlota T1N R13E Sec. 36
Located 8 miles east of Miami - Anticipated employment: 300 - Open pit copper mine - Heap leach - Solvent extraction-electrowinning plant - Capacity 50 million lb. cathode copper per year - Permitting and engineering phase - Construction anticipated to begin early 1997.

CHEMICAL LIME
Scottsdale Office - Gainey Office (Sales)
8777 N. Gainey Center Drive, Suite 280, Scottsdale, AZ 85258 - Phone (602) 948-6543 - Fax (602) 948-5293.
Vice President, Industrial Sales Bob Plains
Account Representative Brett Tanner
Scottsdale Office - Forum Office
6263 N. Scottsdale Road, Suite 280, Scottsdale, AZ 85250 - Phone (602) 941-1291 - Fax (602) 941-2015.
President, Western Division Bob Derks
Special Projects Manager David Fleming
Manager, Technical Services Starr Curtis
Distribution Manager John McMullan
Transportation Coordinator Chris Bruskas
Nelson Quarries & Plant T25N R10W Sec. 25
P.O. Box 370, Peach Springs, AZ 86434 - Phone (520) 769-2271 Fax (520) 769-2305 - Employees: 72 - Limestone quarry - Lime plant with two rotary kilns rated at 1800 TPD lime - Markets include lime for flue gas desulfurization, water treatment, soil stabilization, and alkalinity control for copper ore beneficiation and gold leaching. By-product calcium hydrate used for filler in asphaltic products.
Plant Manager William Schoof
Maintenance Superintendent Mark Phillips
Quarry Superintendent Jim Blackwell
Plant Buyer Mike Donofrio
Shipping/Transportation Coordinator . . . Joe Fuentes
Senior Process Control Engineer Gerald Findley
Quality Control Technician Perry Curley
Douglas Quarry & Plant T24S R26E Sec. 7
Route 1, Box 110, Douglas, AZ 85607 - Phone (520) 364-2429 - Fax (520) 364-2706 - Employees: 60 - Limestone quarry and plant located at Paul Spur - 3 lime kilns - Plant capacity rated at 1,000 TPD lime - Markets include lime for alkalinity control for copper ore beneficiation, lime for soil stabilization, and crude crushed limestone for flue gas desulfurization.
Plant Manager Jerry Young
Maintenance Superintendent Richard Anderson
Quarry Superintendent Don Russell
Production Services Superintendent . . . Don Williams
Process Engineer Pat Morgen
Quality Control Technician Louis Roqueni

**CLINTON - CAMPBELL
CONTRACTING INC.**

Phoenix Brick Yard

1814 S. 7th Ave., Phoenix, AZ 85007 - Phone (602) 258-7158 - Employees: 96.

President Frederic Campbell
Plant Superintendent Don Campbell
Tolleson Mine T1N R1E Sec. 3

Clay pit located on 84th Avenue north of Van Buren - Used in manufacture of structural clay products.

Pantano Clay Pits T16S R17E Secs. 21, 26, 27, 28, 35
Clay pits located 25 miles southeast of Tucson (2 miles northwest of the Interstate 10 Pantano Exit) - Clay used in the manufacture of structural clay products.

COCHISE RESOURCES

196 East 5th Street, Benson, AZ 85602 - Phone (520) 826-3886 or (520) 586-3199 - Employees: 2.

Mill Superintendent Oscar Hernandez
Golden Rule Mill T16S R23E, Sec. 23

Located 4 miles east of Dagoon - Custom gravity and flotation mill - Capacity 20 TPD.

COCONINO CINDER AND MATERIALS

7000 E. Highway 66, Flagstaff, AZ 86004 - Phone (520) 526-9509 - Employees: 4.

Owner/General Manager Bob Payne
Wildcat Hill Pit T21N R8E Sec. 9

Located 2 miles east of Flagstaff - Cinder and basalt quarry - Used for landscaping, aggregate, horticulture, specialty uses, and construction materials.

COLBAUGH PROCESSING

3471 Chea Drive, Kingman, AZ 86413 - Phone (520) 565-4656 - FAX (520) 565-3606 - Employees: 15. Mines turquoise under contract from Cyprus at Mineral Park - Processes and stabilizes turquoise - sells rough and cut Kingman turquoise

Sec.-Treas. and Operations Manager . Martin Colbaugh
Mineral Park T23N R17W Sec. 19

CYPRUS CLIMAX METALS COMPANY

subsidiary of **Cyprus Amax Minerals Company**
1501 W. Fountainhead Parkway, Suite 290, Tempe, AZ 85282 - Phone (602) 929-4400.

President Jeffrey G. Clevenger
Vice President, Molybdenum Operations . Bill Doeppen
Sr. Vice President, Sales and Marketing . . Louis Morse
Vice President, Environmental Affairs . . Jerry W. Danni
Sr. Vice President,

Copper Operations William H. Champion
General Attorney Sarah Strunk
Vice President & Controller Lowell Shonk

Regional Director,

Organizational Services Mitchell Craig Patrick

Cyprus Sierrita Corp.

Sierrita T18S R12E Secs. 7, 8, 9, 10, 16, 17

P.O. Box 527, Green Valley, AZ 85622 - Phone (520) 648-8500 - Employees: 720 - Sierrita, Ocotillo open pit copper-molybdenum mines - 110,000 TPD concentrator - 17,500 TPD concentrator - Ferromolybdenum plant - Rhenium plant - Dump leach - Solvent extraction-electrowinning plant - Located 30 miles south of Tucson.

Vice President Alan Edwards
General Manager of Operations James Handley
Manager, Metallurgical Processing . . . Steve Mueller
Manager, Human Resources Open
Manager, Accounting/

Materials Manager Rickey Lamb
Supt., Mine Operations & Maintenance . . Terry Ritzel
Manager, Metallurgical Operations . . . Jesus Figueroa
Plant Department Superintendent Steve Koski
SX-EW Superintendent Ramon Hernandez
Superintendent Technical Services . William Sweetser
Superintendent of Moly Processing . . . Michael Shinn
Superintendent of Mine Engineering

Operations Support Jim Hesketh
Primary Crushing &

Conveying Superintendent William Davis
Cyprus Miami Mining Corp.

Miami T1N R14E Sec. 24, 25, 26, 35

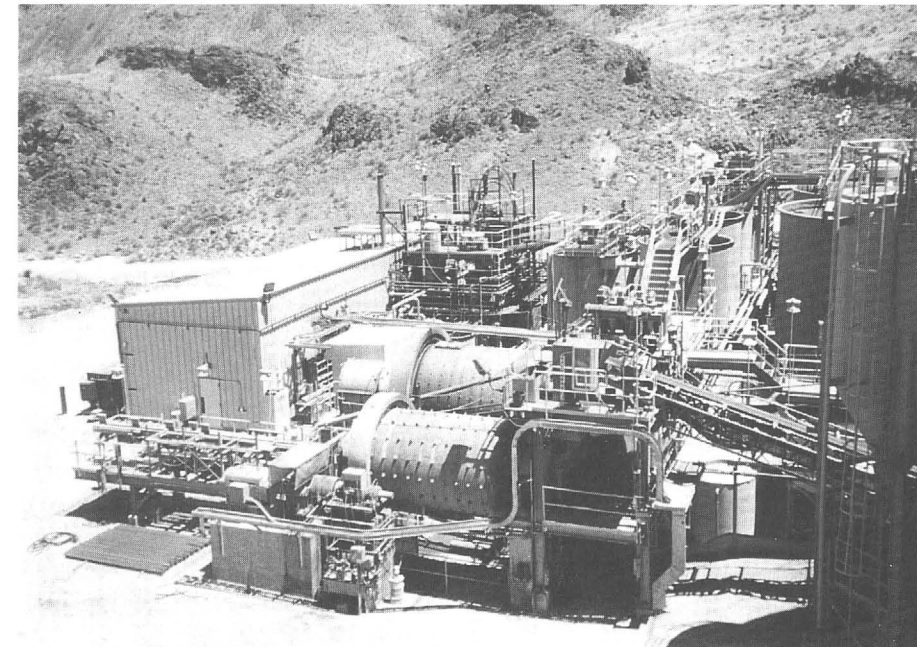
P.O. Box 4444, Claypool, AZ 85532 - Phone (520) 473-7150 - Employees: 873 + 32 temporaries - Open pit oxide copper mine - Dump leach - Solvent extraction-electrowinning plant - 120,000 TPY smelter - Acid plant - Electrolytic refinery - 100,000 TPY continuous cast rod plant - 24,000 TPD concentrator is inactive.

Vice President Ken Watkins
Controller/Materials Management Ron France
General Manager, Operations Robert Wishart
Manager, Mine Kent Watkins
Manager, Safety &

Industrial Hygiene Robert Altamirano
Manager, Human Resources/Safety . . . Gary Rawson
Supt. Eng./Strategic Planning Cal Iles
Superintendent, Mine Operations Turk Terrill
Superintendent, Mine Maintenance Russ Sours
Superintendent Leach/SX/EW Mark Nowicki
Superintendent, Smelter Maintenance . . Gary Hinch
Superintendent, Rod Plant Al Binegar
Coordinator Quality Assurance Richard Dana
Manager, Environmental/ Land Robert Ressler
Superintendent, Smelter Operations . . . Mike Milkic
Manager, Hydrometallurgy Samuel Yang

Cyprus Bagdad Copper Corp.

Bagdad T14N R9W Sec. 4



*Gold Road Mill,
Mohave County*

White Cross Mine T7S R17E Sec. 31

Quarry four miles north of Mammoth - Used for agricultural gypsum - Company delivers and applies gypsum to crop land and golf courses.

RED MOUNTAIN MINING INC.

4250 North Bush Highway, Mesa, AZ 85215 - Phone (602) 832-3390 - Employees: 28.

Owner D. Lavoy Adams
Red Mountain Quarry T2N R6E Sec. 24

Quarry located 10 miles north east of Mesa - Crushed granite for desert landscaping.

SOUTHWESTERN STONE, INC.

18 S. Main, P.O. Box 454, Taylor, AZ 85939 - Phone (520) 536-4912 - Employees: 12 - Quarries sandstone and fabricates building and patio stone - diamond saws tiles and decorative objects.

Owner/Operator Barbara Chartrand
Co-owner/Plant Operator Lee Chartrand
Foreman Pat Denetso
Sierra Quarry T12N R20E Sec. 20

Arizona Picture Rock Quarry T11N R14E Sec. 3

Brown Quarry T15N R19E Sec. 31

Buckskin Quarry T17N R21E Sec. 30

Arizona Gold T14N R21E Sec 25

SPECIALTY MINERALS INC.

P.O. Box 759, Sahuarita, AZ 85629 - Phone (520) 625-6040, Fax (520) 625-0388 - Employees: 11.

Production Manager Carlos Cardadeiro
Office Manager Jackie Young
Maintenance Supervisor Roger Young
Santa Rita Quarry T18S R15E Sec. 15

Located 15 miles southeast of Sahuarita at end of Santa Rita Road - White marble quarry - Raymond roller mills - Sizing and bagging plant - Crushed or ground for landscape, functional filler, and chemical uses - Markets in Arizona and the southwestern United States.

STAR VALLEY GRANITE & MATERIALS

Star Valley, HCR Box 43B, Payson, AZ 85541 - Phone (520) 474-9396 - Employees: 4 - Quarries and processes decomposed granite.

Owner/Operator Roy Haight
Star Valley Granite Quarry T11N R11E Sec. 31

SUPERIOR COMPANIES

100 W. Coolidge, Phoenix, AZ 85013 - Phone (602) 230-9300 - Fax (602) 230-0189 - Employees: 75 - Company operates gypsum, clay, sand and gravel, and limestone mines.

President Archer V. Shelton
Vice President Don Fischer
Camp Verde Gypsum T13N R5E Sec. 11

P.O. Box 786, Camp Verde, AZ 86322 - Phone (520) 567-3854 - Gypsum and clay quarry five miles east of Camp Verde on State Highway 260 - Supplies gypsum to Phoenix Cement Company Plant at Clarkdale - Agricultural and horticultural uses - Clay for pond, ditch, and liner uses.

Assistant Superintendent, 1st Shift . . . Randall L. Hendrix
 Assistant Superintendent, 2nd Shift . . . Tony G. Bryant
 Assistant Superintendent, 3rd Shift Jonas Grass
 Safety Supervisor Daniel Ashike
 Manager, Safety and Training William K. Bippus
 Manager, Training Marvin Yoyokie
 Controller, AZ B.U. Charles W. Tilly
 Manager, D & S Steve Blomberg
 Manager, Maintenance Warren White

PHELPS DODGE CORPORATION

Corporate Headquarters

2600 N. Central Ave., Phoenix, AZ 85004-3014 - Phone (602) 234-8100.

Chairman, President & CEO D.C. Yearley
 Senior Vice President J.S. Whisler
 Senior Vice President M.J. Iraola
 Senior Vice President T.M. St.Clair

Phelps Dodge Mining Company

2600 N. Central Ave., Phoenix, AZ 85004-3014 - Phone (602) 234-8100.

President J. S. Whisler
 Vice President & General Manager J.L. Madson
 Vice President, Exploration A.L. Lawrence
 Vice President, Engineering Services R.W. Rice
 Vice President, Arizona Operations T.R. Snider
 Vice president, New Mexico Operations H.W. Konerko
 Controller J.M. McCarty
 Director, Employee Relations S.L. Marcus
 Director, Strategic Supply M.F. Upton
 General Transportation Manager J.P. Sheridan

Phelps Dodge Exploration Corporation

2600 N. Central Ave., Phoenix, AZ 85004-3014 - Phone (602) 234-8100.

President A.L. Lawrence
 Vice President & Counsel S.D. Colton
U.S. Exploration

Union Plaza, Suite 300, 200 Union Blvd, Lakewood, CO 80228-1831 - Phone (303) 989-8873

Western Exploration

P.O. Box 50427, Tucson, AZ 85703-1427 Phone (520) 792-4981.

Manager, Western Exploration W.H. Wilkinson
Copper Queen T23S R24E Sec. 15

36 W. Highway 92, Bisbee, AZ 85603 - Phone (520) 432-3621 - Employees: 54 - Mine dump leaching - Copper precipitation plant.

Area Superintendent J.H. Zamar
Morenci. T4S R29E Secs. 3, 4, 5, 8, 9, 10, 15, 16, 17, 21, 22 & 23

4521 State Hwy. 191, Morenci, AZ 85540 - Phone (520) 865-4521 - Employees: 2,064 - Open pit copper mine - Two concentrators (one with molybdenum circuit), total capacity 125,000 TPD - 500 million lb. per year copper solvent

extraction-electrowinning plant. Operation also recovers turquoise.

President T.R. Snider
 General Manager, Operations R.I. Pennington
 General Manager, Technical Services D.M. Bartlett
 Manager, Mining Operations D.J. Quinn
 Manager, Concentrator Operations J.G. Davis
 Manager, Hydrometallurgical Operations R.H. White
 Manager, Engineering Services J.D. Brack
 Manager, Geological Services M.S. Enders
 Director of Analytical Services

/Raw Materials D.K. Farquhar
Safford District Office

625 Main Street, Safford, AZ 85546 - Phone (520) 428-0205 - Land exchange underway.

Project Manager A.J. Broaderick
New Cornelia T12S R6W Secs. 23, 26, 27

P.O. Drawer 9, Ajo, AZ 85321 - Phone (520) 387-7451 - Employees: 22 - Inactive open pit copper mine.

Area Superintendent J.H. Zamar
United Verde Mine T16N R2E Sec. 22

Inactive copper mine - Located at Jerome, AZ - Phone (520) 634-2622.

Area Superintendent J.H. Zamar

PHOENIX CEMENT COMPANY

Phoenix Office

2501 W. Behrend Drive, Suite 23, Phoenix, AZ 85027, P.O. Box 43740, Phoenix, AZ 85080 - Phone (602) 264-0511 - Employees: 11.

V.P. Sales & Marketing Pete Kuehner
Bulk Cement Terminal

1941 W. Lower Buckeye Road, Phoenix, AZ 85009 - Phone (602) 258-7798.

Clarkdale Quarry & Plant T16N R2E Sec. 11

P.O. Box 428, Clarkdale, AZ 86324 - Phone (520) 634-2261 - Employees: 147 - Quarry and plant two miles northwest of Clarkdale - 630,000 TPY - Cement used for building industry.

V.P. Operations/Plant Manager John B. Conway
 Assistant Plant Manager/Maintenance Joe D'Avignon
 Assistant Plant Manager/Engineering Currently Vacant
 Manager of Logistics Cliff Ayres
 Asst. V.P. Finance Micheal La Lond
 Purchasing/Stores Bill Ayres
 Environmental Engineer Floyd Fusselman

PINAL HARVEST

dba PINAL GYPSUM COMPANY

P.O. Box 99, Coolidge, AZ 85228 - Phone (520) 723-3131, Fax (520) 723-9711 - Employees: 10.

President and General Manager James Bechtel
 Orders and Transportation Kirke Anderson
 Office Manager Patricia Gerkin

P.O. Box 245, Bagdad, AZ 86321 - Phone (520) 633-2241 - Employees: 500 - Open pit copper-molybdenum mine - 85,000 TPD concentrator - Dump leach - Solvent extraction-electrowinning plant.

Vice President, General Manager Gene Consalus
 Manager, Mine Ed Fidlerv
 Plant Manager Bruce Clements
 Manager, Human Resource

& Community Services Janette Bush
 Manager, Environment/Land Mike Garfield
 Controller, Materials Manager Open

Plant Maintenance Superintendent Craig Ammar
 Mill Technical Services Superintendent Tom Bender

Cyprus Tohono Corporation

Tohono T10S R4E Sec. 25

P.O. Box 15009, Casa Grande, AZ 85230-5009 - Phone (520) 623-1539 - Employees: 116 & 37 contract - Open pit heap leach copper mine - Solvent extraction-electrowinning plant.

Vice President & General Manager Al Tittes
 Manager, Accounting and Materials W. Fulgham
 SX-EW Superintendent Troy Pool
 Mine Manager Mike Schroder
 Manager, Human Resources Richard Stilgenbauer
 Manager, Environmental/Land Kermit Behnke
Cyprus Mineral Park Corp.

Mineral Park T23N R17W Sec. 19

HC 37 Box 500, Kingman, AZ 86401 - Phone (520) 565-2226 - Employees: 15 - Located 16 miles north of Kingman - Dump and bench leach copper mine - Solvent extraction-electrowinning plant - In situ research project underway.

Superintendent Mike Kondelis
 Plant Supervisor Joey Matthews

DRAKE STONE PRODUCTS

P.O. Box 11676, Prescott, AZ 86304 - Phone (520) 445-3028, Fax (520) 717-1359 - Stone processing plant at Drake - Quarries and processes Arizona flagstone into flagging, dimension stone, tiles, and specialty landscape shapes.

Owner/Operator Harley Gray Jr.
 Co-owner Deborah Gray

Rock House Quarry T19N R1E Sec. 10

M C Quarry T19N R1E Sec. 35

DUNBAR STONE COMPANY

P.O. Box 246, Ash Fork, AZ 86320 - 901 Lewis - Phone (520) 637- 2591 or (520) 637-2592, Fax (520) 637-2355 - Employees: 85 - Quarries in Coconino, Maricopa, Mohave, and Yavapai Counties - Flagstone, marble, quartzite, and schist - Stone processing plant in Ashfork - Quarries and processes Arizona stone into flagging, dimension stone, and tiles.

President Gerry E. Dunbar
 Vice President W. B. Dunbar

Maintenance Superintendent Ron Dunbar
 Office Manager & Transportation Leslie Tooley
Dunbar Stone Plant T21N R2W Sec. 3
 Operates over 60 quarries for the production of dimension stone in northern and western Arizona. Many quarries are operated intermittently on an as needed basis.

ENGELHARD CORPORATION

Chemical Division

Box 155, Sanders, AZ 86512 - Phone (520) 688-2468, Fax (520) 521-3796 - Employees: 6 - Located 6 miles southeast of Sanders.

General Superintendent Perry Skersick
Cheto No. 2 T21N R29E Sec. 23

Surface strip bentonite mine - Primary use is in filters and catalysts, also used in agriculture and desiccants - Shipped to Mississippi for processing.

FLAGSTAFF CINDER SALES INC.

Old Highway 66 East, P.O. Box 2415, Flagstaff, AZ 86003 - Phone (520) 526-0801 - Employees: 7.

President Mary Lou Olivier
 General Manager Rob Olivier
Wildcat Hill Pit T21N R8E Sec. 9

Located 1.5 miles east of Flagstaff - Cinder quarry - Used for aggregate, landscaping, and construction materials.

GEORGIA MARBLE COMPANY OF ARIZONA

16101 S. Wentworth Road, Vail, AZ 85641 - Phone (520) 762-9119, 1-800-952-2769, Fax (520) 762-5592 - Employees: 13.

Division Manager J. Micheal Worley
 Office Manager Susan Jansen
 Sales Carl Cuthbertson

Andrada Marble Quarry T17S R16E Sec. 21

Davidson Quarry T17S R17E Sec. 19

Open pit marble mine - Crushing and grinding plant - Used for calcium feed additive, decorative stone, plaster and roofing material - Fine ground material used as mineral filler.

GOLDEN GREEN PLACER MINING PARTNERSHIP

HCR Box 840-A, Sells, AZ 85634 - Phone/fax (520) 361-2310 - Employees: 4.

Project Manager Jack Otani
Devils Wash T15S R2E Sec. 2

Located approximately 1.5 miles southwest of Quijotoa - Gold placer operation - Wet gravity concentration - Capacity 750 yards/day.