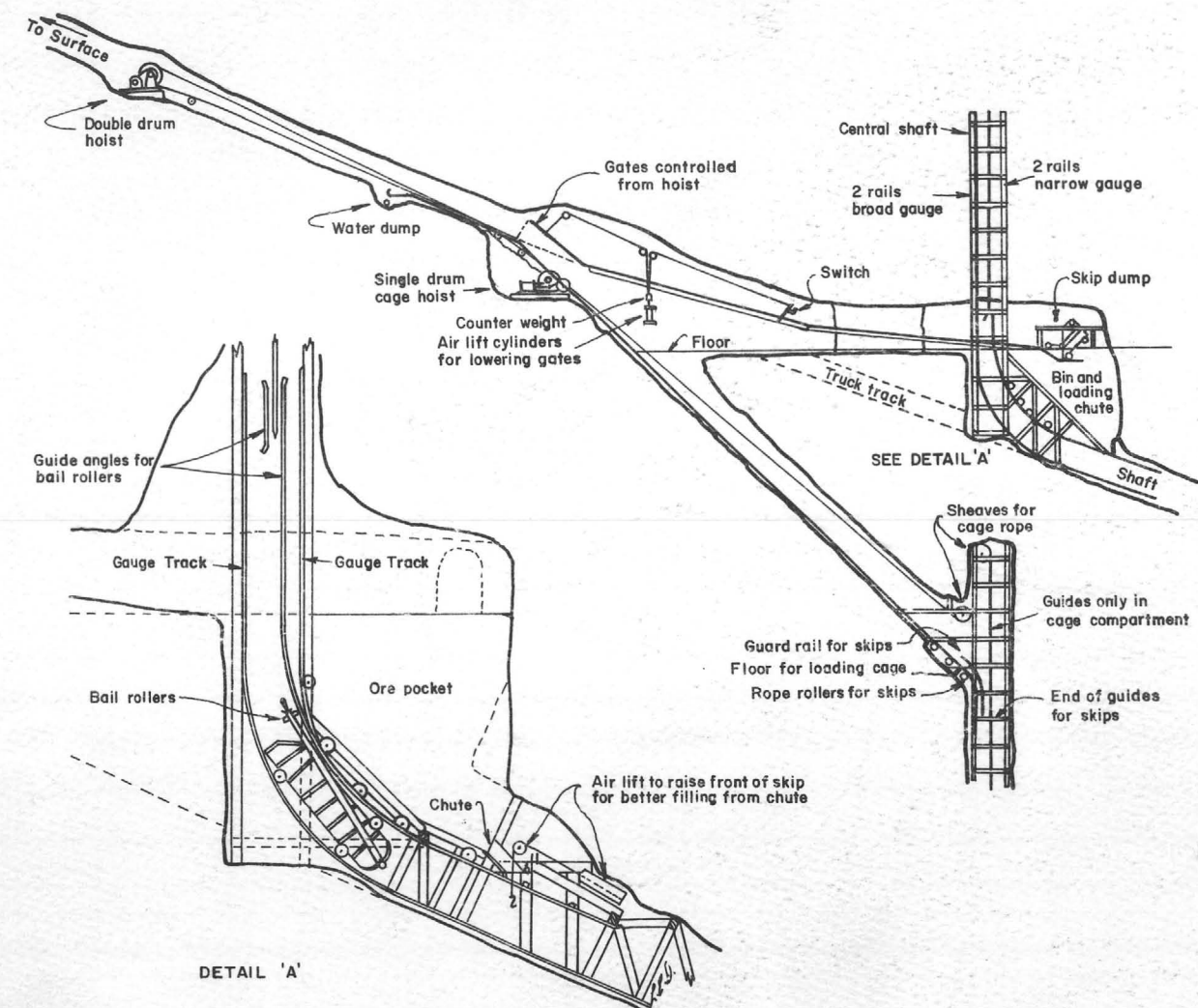


ARIZONA MINERAL DEVELOPMENT

1984 - 1986



BY
NYAL J. NIEMUTH
ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

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THE ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

The Department's task 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 many different services tailored to meet the differing needs of the public. The following list of services are those which the explorationist may find of benefit.

- Maintain a site specific data base of unpublished reports and maps which includes 5,000 mine files and indexes of 10,000 computerized Arizona mineral locations.
- 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mining information including, a mine map library (hard copy and microfilm), government publications, periodicals, and unpublished master and doctorate theses.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 possible exploration activity.
- Suggest prospects and individual properties for study and acquisition.
- Assist individuals and companies in their dealings with State regulatory agencies to facilitate their mining and exploration activity.
- Provide publications in the form of mineral reports, annual directories, technical reports, annual mineral industry surveys and information circulars. These include *Laws and Regulations Governing Mineral Rights in Arizona*, *Directory of Exploration Offices in Arizona*, *Manual for Determination of Status and Ownership of Arizona Mineral and Water Rights*, and others. A current listing of the Department publications is available upon request.

May 1987

PRECIOUS METAL RESOURCES IN ARIZONA (CONT)

MINE	COMMODITY	TONS IN MILLIONS	GRADE (OZ/TON)	COMMENTS
<u>YAVAPAI (CONT)</u>				
TREASURE KING	AU	0.15	.05	UNDER EXPLORATION BY ROYAL RESOURCES, HEAP LEACH CYANIDE PERMITTED
UNITED VERDE	AU	0.10	.25	GEOLOGICAL ESTIMATE WITH GOLD POSSIBLE AS AT UVX, PLUS COPPER AND ZINC
UVX	AU	0.05	.25	UNDER EXPLORATION BY A. F. BUDGE (MINING) LTD. ADDITIONAL RESERVES POSSIBLE
<u>YUMA</u>				
KING OF ARIZONA	AU	1.00	.1	GEOLOGICAL ESTIMATE
NORTHSTAR	AU	0.02	.5	UNDER EXPLORATION BY CAPROCK ENERGY LTD.
NORTHSTAR TL	AU	0.05	.15	
OAKLAND (BVO)	AU/AG	0.27	.15/1.95	UG VEIN DEPOSIT, DRILLED IN MID 80'S BY REA GOLD

TABLE OF CONTENTS

	Page
Introduction	1
Overview	2
Annual Summaries	4
Property Listing	9
Cochise	10
Coconino	11
Gila	12
Graham	13
Greenlee	14
La Paz	15
Maricopa	17
Mohave	21
Navajo	27
Pima	28
Pinal	29
Santa Cruz	30
Yavapai	31
Yuma	39
Map	41
Precious Metal Resource Table	42

PRECIOUS METAL RESOURCES IN ARIZONA (CONT)

<u>MINE</u>	<u>COMMODITY</u>	<u>TONS IN MILLIONS</u>	<u>GRADE (OZ/TON)</u>	<u>COMMENTS</u>
<u>PIMA</u> MISSION	AG	286.00	.13	PLUS .62% CU, ASARCO 1985 ANNUAL REPORT
SILVER BELL	AG	21.00	.07	PLUS .68% CU, ASARCO 1986 ANNUAL REPORT
<u>PINAL</u> DESERT QUEEN	AU/AG	0.10	.2/2.0	POSSIBLE UNDERGROUND
MAMMOTH TIGER	AU	10.00	.04	OPEN PIT PORTION PRODUCED AS FLUX FOR SAN MANUEL SMELTER, LARGE UG RESOURCE
REYMERT	AG	0.94	4.5	70% SILICA, PRODUCING FLUX FOR INSPIRATION SMELTER BY OPEN PIT
SILVERBELL- MARTINEZ	AG	0.40	6.5	SILVERBELL MARTINEZ PROPERTY, PLUS BASE METALS
TRANSVAAL	AU	0.01	.63	UG VEIN, FOR SALE BY DAVE TAYLOR
<u>SANTA CRUZ</u> BRICK	AG	0.02	5.0	AVAILABLE UNDERGROUND
HARDSHELL	AG	6.00	5.0	OWNED BY ASARCO, REFRACTORY METALLURGICAL PROBLEMS DUE TO MANGANESE
MARGARITA	AU	0.45	.07	REPORTED BY NEWFIELDS MINERALS
MONTANA TL	AG	0.70	1.0	UNDER DEVELOPMENT BY K & K CO.
<u>YAVAPAI</u> CONGRESS	AU	0.35	.3	DRILL IDENTIFIED NIAGRA VEIN - ECHO BAY DRIVING RAMP DECLINE 11/86
GLADIATOR	AU AG	0.12	.4/3.5	UG, IN PRODUCTION NORQUEST RESOURCES 100 TON/DAY FLOTATION MILL
GLADSTONE TL	AU	0.10	.036	
GLADSTONE UG	AU/AG	0.75	.35/2.0	PLUS BASEMETALS, UNDER DEVELOPMENT BY STAN WEST
GOLD BAR	AU	0.02	.6	UNDER EXPLORATION BY SUNSHINE MINING CO.
IRON KING TL	AU/AG	5.50	.05/.7	UNRECOVERABLE DUE TO PYRITE ENCAPSULATION/METALLURGICAL PROBLEM, PLUS ZN/AS

PRECIOUS METAL RESOURCES IN ARIZONA (CONT)

MINE	COMMODITY	TONS IN MILLIONS	GRADE (OZ/TON)	COMMENTS
MARICOPA (CONT)				
VULTURE OP	AU	0.25	.05	UNDER EXPLORATION BY A. F. BUDGE (MINING) INC.
VULTURE TL	AU	0.25	.04	REQUIRES AGGLOMERATION, UNDER DEVELOPMENT BY A. F. BUDGE (MINING) INC.
VULTURE UG	AU	0.50	.25	POSSIBLE DEEP EXTENSION ?
MOHAVE				
ARABIAN	AU	0.50	.06	IDENTIFIED BY MERIDIAN AND SUTTON
BIMETALS	AU	0.06	.1	4,000 TONS OPEN PIT MINED & THEN TRUCKED & LEACHED AT FRISCO MINE IN 86
CYCLOPIC	AU	0.07	.28	UNDER EXPLORATION BY SARATOGA MINES
CYCLOPIC TL	AU	0.05	.06	MAY REQUIRE AGGLOMERATION
DE LA FOUNTAIN	AG	0.02	1.3	PLUS LEAD AND ZINC
FRISCO	AU	0.15	.03	WESTERN STATES MINERALS REVIEWING PROPERTY DURING WINTER 1986/1987
GB CLAIMS	AU	0.10	.02	ZONE OF ELONGATE MINERALIZATION IN DETACHMENT BRECCIA, GRADE MAY BE HIGHER
GOLCONDA	AU/AG	0.20	.12/5.4	INDICATED RESERVES BY GAMIN RESOURCE, PLUS 4% ZN
MCCRACKEN	AG	0.40	8.0	INCLUDES OPEN PIT AND UG
MOSS MINE	AU	0.25	.25	
OATMAN TL	AU	3.50	.015	COMBINED TAILINGS FOR DISTRICT
PORTLAND	AU	0.00		42,000 OZ GOLD IDENTIFIED AS OF 5/85, IN PRODUCTION
ROADSIDE	AU	0.30	.03	FISCHER WATT IDENTIFIED THIS RESOURCE, DRILLED MORE WITHOUT SUCCESS
SECRET PASS	AU	0.10	.1	
TYRO	AU	0.17	.13	UG CIP MILL ON PROPERTY
UNITED WESTERN	AU	0.20	.2	IDENTIFIED BY FISCHER WATT CAN BE OPEN PIT MINED NEEDS MILLING

INTRODUCTION

The purpose of this publication is to review mineral exploration and development activity in Arizona during 1984 through 1986. The information is grouped into three areas. These include: an annual summary and overview of activity, a listing of properties known to have had activity, and a precious metal resource table. It is hoped this information will attract additional interest and investment in the state's mineral resources.

Scope

This report was compiled in early 1987 from field visits and other information gathered by the department's engineers. The information reported here is for metallic, industrial mineral, and gem commodities only.

Recognizing that exploration, especially its early stages, is a rather secretive undertaking and that resource information is often proprietary, our data is limited. Thus it is acknowledged that there are additional areas and properties which were in an evaluation, exploration, or development phase that are not listed. It is also recognized that development is a continuing part of most producing operations in Arizona. For information on the producing mines, refer to the Department's annual *Directory of Active Mines in Arizona*.

OVERVIEW

Development activity in Arizona during 1984 through 1986 has been dominated by the search for gold and uranium. Identifying the reason for the activity is easy, attempting to quantify the amount of activity is not. Fortunately, most mine development, whether by large company or the individual prospector is preceded by the acquiring of mineral rights. Thus one measure that can be used to gauge activity is property acquisition. The following tables provide data about such activity on State and Federal lands in Arizona for the past 6 years.

FEDERAL MINING CLAIMS RECORDED IN ARIZONA ^{1/}

YEAR ^{2/}	NEW CLAIMS	ACCUMULATIVE TOTAL	TOTAL ACTIVE CLAIMS
1981	26,802	140,095	--
1982	45,867	185,962	--
1983	21,050	207,011	168,657
1984	20,591	227,602	183,047
1985	17,181	244,637	185,600
1986	15,420	259,946	151,440 ^{3/}

^{1/} Information from U.S. Bureau of Land Management's Arizona State office.

^{2/} Based on U.S. Government's fiscal year October 1 through September 30.

^{3/} Reflects adjudication of older claims by the BLM State office more than an actual decline in active claims during 1986.

ACTIVITY ON STATE LANDS

YEAR ^{1/}	PROSPECTING PERMITS	ACRES
81-82 ^{2/}	1128	549,119
82-83	784	371,284
83-84	824	375,936
84-85	617	310,806
85-86	774	278,241
86-87 ^{3/}	300	120,000

^{1/} Based on July 1 through June 30 period.

^{2/} Figures for 81-82, are skewed higher by approximately 500 permits and 200,000 acres due to brief activities of one company.

^{3/} Figures as of 4/1/87.

PRECIOUS METAL RESOURCES IN ARIZONA

MINE	COMMODITY	TONS IN MILLIONS	GRADE (OZ/TON)	COMMENTS
COCHISE				
COMMONWEALTH OP	AU/AG	5.00	.02/3.0	PARTIALLY DRILLED OPEN PIT RESERVE
COMMONWEALTH TL	AU/AG	0.25	.005/2.3	PERIODICALLY SHIPPED AS SILICA FLUX TO HIDALGO COPPER SMELTER
COMMONWEALTH UG	AU/AG	0.01	.02/3.0	UNDERGROUND DRILLED RESERVE
CONTENTION	AG	0.10	2.0	DUMP & OPEN PIT, PROBABLY HAS LARGER TONNAGE, LEACHING TO RESUME IN MID 87
GOLD PRINCE	AU	0.20	.5	RECENT UG FLUX PRODUCER UNDER EXPLORATION BY QUEENSTAKE RESOURCES
GREENLEE				
ASH PEAK	AU/AG	0.10	.02/4.0	AZ FLUX MINES INC. PRODUCING FLUX FOR SMELTERS FROM UG AND OPEN PIT
ASH PEAK TL	AG	0.03	3.0	
LA PAZ				
COPPERSTONE	AU	4.00	.09	RESERVES PROVEN BY CYPRUS MINERALS, PRODUCTION SLATED FOR FALL 87
GOLDEN CONDOR	AU/AG	0.02	.04/.2	30 X 400' OPEN PIT ZONE , ADDITIONAL RESERVES POSSIBLE
HARQUAHALA TL	AU	0.30	.06	TAILINGS PROBABLY REQUIRE AGGLOMERATION, MAY BE ADDITIONAL TONNAGE
SILVER DISTRICT	AG	5.40	3.5	PLUS PB MINOR AU, NOT CONTIGUOUS, DRILLED OPEN PIT RESERVES, ORBEX MINERALS
MARICOPA				
CLEMENTINE	AU/AG	0.10	.05/.2	HEAP LEACHED +50,000 TON IN 1981, ADDITIONAL RESOURCES IDENTIFIED
MYSTIC	AU	0.02	.9	UG, UNDER EXPLORATION BY TERRA TECHNOLOGIES
NEWSBOY	AU/AG	0.03	.03/4.5	LARGER RESOURCE OF LOWER GRADE AVAILABLE MANGANESE AFFECTS SILVER RECOVERY
US MINE	AU	0.60	.09	OPEN PIT MINE IN PRODUCTION 12/86 BY J. DEVINS RESOURCE GROUP

PRECIOUS METAL RESOURCES

Much of the work done during the past several years has been directed towards identifying precious metal deposits. Where this activity has been successful, it is likely additional work and perhaps production will occur. Information on these sites is of interest for planning and investment purposes to industry and government groups. Thus the following table of precious metal resource estimates is included in this report.

Estimates of precious metal resources are included for many of the properties previously discussed in this report and for some mines currently in production. The data provided has been gathered from many sources which include company annual reports, mining industry periodicals, unpublished geologic reports and personal communication. Some of the figures listed have been reported as reserves while two are based on a geologic estimate. Most of those reported fall somewhere in between where drilling or sampling has indicated a potential size and grade in place, but insufficient work has been done to confirm a reserve. Data on dumps and tailings is also included. Where known, additional comments about the sites such as operational status, whether available by underground or open pit, if metallurgical problems exist and associated base metals or silica, have been noted.

Additional resources are known to exist at other properties but insufficient data was available to quantify them for this report. Further information on these properties and known resources of other commodities in Arizona is available at the Department's offices.

Abbreviations used commonly in the table are:

OP - Open Pit UG - Underground TL - Tailings

Although no absolute level of activity can be determined from the above tables, it would seem that mineral acquisition though still at a high level has been declining during the 1984-86 period. This trend probably reflects two factors. First, the prices for base and precious metals were weak or declining during this period. Second, the passing of the initial acquisition rush for breccia pipe targets combined with concerns about conversion of state prospecting permits to leases has resulted in less uranium related activity. This trend, especially for precious metals, reflects industry's increased interest in known properties and areas of historical production. A trade off, however, is that this allows less "grass roots" type targets to be acquired.

A review of the table below provides a geographic breakdown of activity in Arizona. The counties with the largest number of new claims staked mirrors the distribution of areas thought to be geographically favorable for bulk tonnage precious metals or high grade uranium deposits. These same areas have a large number of properties reviewed in this report. The precious metal related activity is highest in central and western Arizona, while the Arizona Strip, which includes northern Mohave and Coconino Counties, is receiving most of the uranium exploration and development.

ACTIVITY BY AREA

COUNTY	TOTAL MINING CLAIMS 1/	NEW CLAIMS 1/2/	PROPERTIES 3/
APACHE	1,394	897	0
COCHISE	10,474	2445	11
COCONINO	17,473	1055	3
GILA	23,459	428	6
GRAHAM	8,822	253	8
GREENLEE	5,267	1876	2
LA PAZ	18,213	5100	15
MARICOPA	32,115	12784	24
MOHAVE	65,525	6131	38
NAVAJO	221	136	1
PIMA	11,294	135	6
PINAL	24,418	3187	8
SANTA CRUZ	7,363	379	6
YAVAPAI	41,310	11004	49
YUMA	4,282	775	5
TOTAL	271,630	46585	182

1/ Information from U.S. Bureau of Land Management, Arizona Mining claim microfiche of 4/18/87. Reported county and total number are higher than the actual figures due to computer counting of some claims more than once based on the claim's located in sections divided by county boundary.

2/ New claims filed as reported between 1/17/84 and 4/18/87, BLM Microfiche.

3/ Breakdown of properties listed in Property Listing, this publication.

ANNUAL SUMMARIES

1984 Summary

Exploration activity continued at a high level during the first half of 1984. This was due mainly to interest in gold and uranium. However, the weakening performance of most metal markets, including gold, paralleled the slowing of activity toward years-end. This was due to some oil and mining companies cutting back their exploration programs. The number of state prospecting permits held and mining claims staked declined.

Precious Metals

The Black Mountains of Mohave County were the scene of much gold related activity. Most of it centered on the Union Pass Mining District. Frisco Land and Mining Co. began mining mineralized veins and volcanics for a heap leaching operation in the district. They continued drilling to define additional reserves.

Western States Mineral Corp. acquired the operating Portland mine. The company began an exploration program to test other alteration structures on its claims. Fischer Watt Mining was joined by Anaconda to continue work on the Roadside Property.

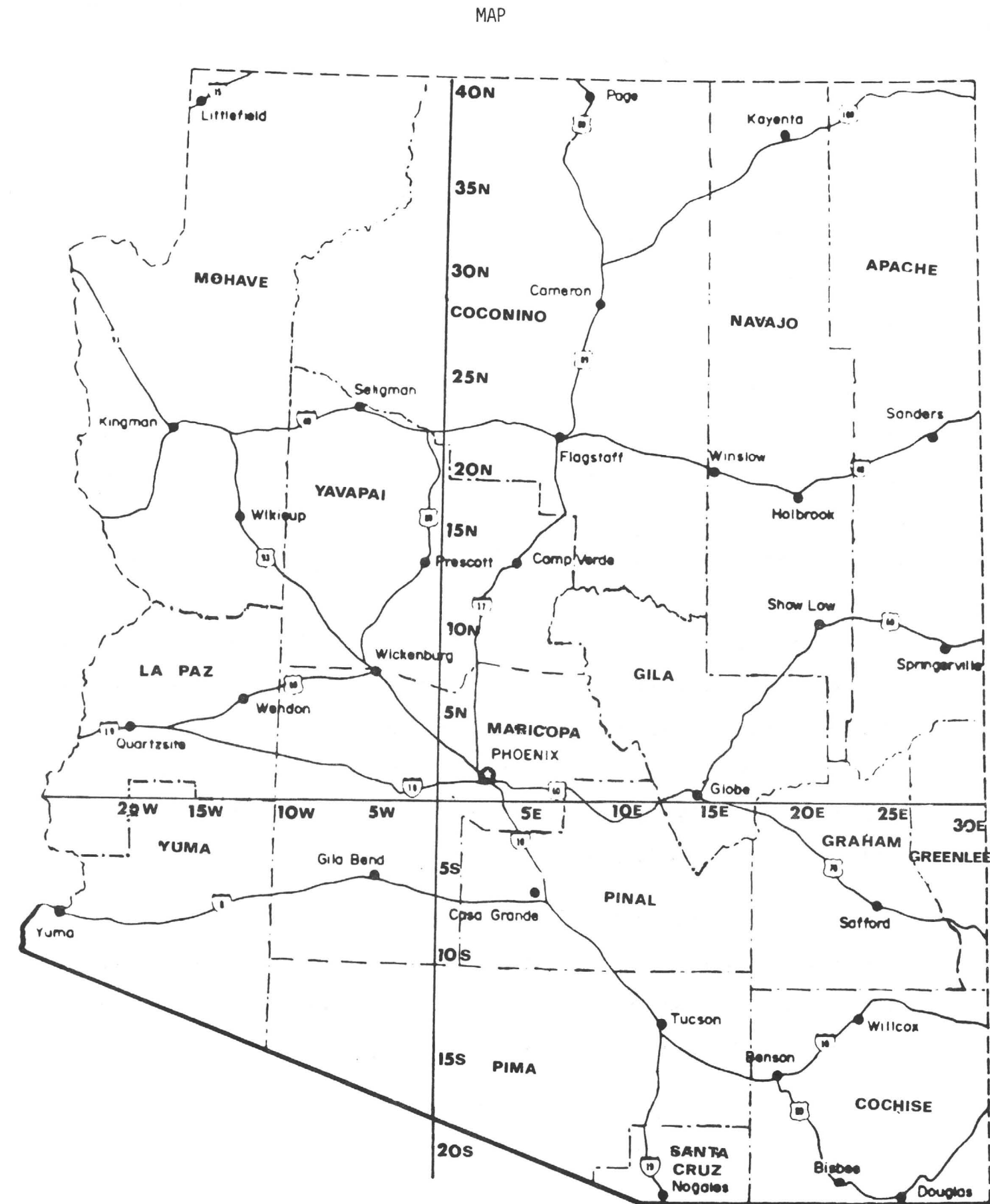
Meridian Minerals, Crown Minerals, and Sutton Minerals continued work at the Arabian Property. About 500,000 tons grading 0.06 ounce per ton gold reserves have been identified.

Amoco Minerals entered the Union Pass district. In September, they leased from Saratoga Mines the Buzzworm Claims adjacent to the Frisco mine. Drill roads were being prepared last fall and drilling began late in the year.

Gold Standard Mines closed its carbon-in-pulp mill at the Tyro mine following depletion of open-pit reserves. Underground development awaits improvement in gold prices.

In the northern Black Mountains, Amselco drilled at the Van Deeman mine. To the south, Sante Fe Mining worked in the Secret Pass Area. A few Canadian companies evaluated properties in the western part of the San Francisco (Oatman) District.

In La Paz County, tertiary detachment fault mineralized structures continued as attractive targets to host bulk tonnage gold deposits. Ten such structures have been tentatively identified in the county. One is in the Moon Mountain Mineral District where Amoco Minerals completed a third year of drilling on its Copperstone Claims. Reserves for the district, according to the Arizona Geological Society (AGS) in 1984, were 10 million tons containing 400,000 ounces of gold.



Arizona reference map showing Gila and Salt River Base and Meridian lines.

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
YUMA (CONT) NORTH STAR	T 1 S R 17 W SEC 36	CAPROCK ENERGY LTD. 9TH FLR, 850 W. HASTINGS ST. VANCOUVER, B.C. V6C 1E1 604-684-4246	GOLD, SILVER	DEWATER UNDERGROUND WORKINGS, UNDERGROUND DRILLING AND SAMPLING PROJECT
OAKLAND	T 1 S R 14 W SEC 10	REA GOLD CORP. P.O. BOX 12137 VANCOUVER, B.C. V6Z 2H2 604-684-7527	GOLD, SILVER	GEOLOGIC EVALUATION, SURFACE DRILLING PROGRAM, RESERVES IDENTIFIED, PROPERTY RETURNED TO OWNERS

In the Harquahala District, Peter Kiewit acquired an interest in the Harquahala mine. They began exploration and also evaluated the dumps and tailings. Nearby, Texas Gulf Minerals conducted a rotary drilling program on two claim groups.

In Yavapai County, the Precambrian schist belt near Mayer was the most active area. Here, exhalitive gold and base metal horizons have similarities to the Canadian shield province. Many companies acquired land and began exploration and drilling projects. Some of the major companies active there included Billiton Exploration, Freeport, Long Lac Minerals, and Sante Fe Mining. Two properties are undergoing development and exploration.

At the Gladiator mine, NorQuest Mining Inc. did additional underground drilling and sampling. Reserves identified were 80,000 tons grading 0.6 ounce per ton gold and 3.7 ounce per ton silver with the structure open on strike and at depth. NorQuest planned to assemble a flotation/carbon-in-pulp mill with production scheduled for this year.

Also closer to production is the Gladstone McCabe. Stan West Mining Corp. has reserves of more than 500,000 tons grading 0.38 ounce per ton gold and 2 ounce per ton silver. A 1050 foot shaft has been sunk.

Some famous past producers were receiving new interest in southern Yavapai and Maricopa Counties. Magic Circle Energy signed a joint venture agreement with Echo Bay Mines in August. Echo Bay completed a 25-hole drilling program that identified a 350,000 ton reserves containing 0.28 ounce per ton gold on the Niagara vein.

To the south, in Maricopa County at the Vulture mine, a drilling program was completed by DMEA Ltd. They identified some near-surface gold reserves. Further work was planned.

East of the Vulture mine, Freeport Minerals was drilling at the Queen of Sheba mine area. Checkmate Resources acquired the Newsboy Group and began drilling to expand the known reserves.

In the spring, Ansco Resources and Brace Resources completed a 40-hole drilling project at the Mammoth Property in the Goldfield Mining District. At the Big Horn District, Roddy Resources completed drilling last spring at the U.S. mine. During the fall, two shafts were rehabilitated and the underground workings were sampled.

In southern Arizona, exploration activity was generally light. Geoexplorers conducted an extensive geologic evaluation of the Vekol Group Silver Property in Pinal County for a lessee. Silver was also the target of Santa Fe Mining and others in the Tombstone and Pearce Districts of Cochise County. Two gold properties in the Oro Blanco District of Santa Cruz County received interest by Canadian firms. To the west, Fischer Watt acquired and began evaluating the Border mine in Pima County.

The continuing weak copper price had some of the state's copper producers exploring for ways to make a profit. At Magma Copper Co., this meant a surface drilling project on the subsidence area formed by block caving of the San Manuel mine. The drilling penetrated a known, but long neglected oxide

portion of the San Manuel copper deposit. The project proved holes could be drilled in the subsiding area. Monitoring revealed the holes will stay open for at least six months. Feasibility studies were underway to determine the possibility of a low-cost in situ leach/solvent extraction operation.

Inspiration and Phelps Dodge explored for precious metal-bearing silica flux deposits for use in their smelters. Drilling by Inspiration at the Reymert mine found more than 900,000 tons grading 4.5 ounce per ton silver. It will be available by open-pit mining. Phelps Dodge conducted a statewide review of potential properties. They also continued exploring and developing the Gold Prince mine in Cochise County.

Uranium and Industrial Minerals

The search for high-grade, uranium-bearing breccia pipes was brisk on portions of the Colorado Plateau. Six companies have been acquiring, evaluating, and drilling targets. They include Energy Fuels, Mono Power, Pathfinder Mines, Rocky Mountain Energy, Uranerz USA, and Western Nuclear.

Energy Fuels announced the discovery of and plans to develop the Canyon deposit in Coconino County about 45 miles north of Williams. This brings Energy Fuels' number of deposits to six. And it marks the first recent discovery of an economic breccia pipe south of the Grand Canyon.

Making news north of the Grand Canyon was the passage of the Arizona Strip Wilderness Bill. This bill allowed the quick release of nonwilderness lands for exploration.

Industrial minerals may be the next highly sought commodity in Arizona. Interest in diversification, combined with increased economic and construction activity in the southwest, has led some companies to begin literature and market studies in Arizona for gypsum, cement, lightweight aggregates, and other industrial minerals.

1985 Summary

Exploration in Arizona continued to be adversely affected by low metal prices in 1985. This resulted in the departure of some oil companies from mining and less income for the mining companies to invest in exploration. A number of company exploration offices in Tucson and Phoenix either closed or experienced staff reductions.

A surprising agreement was reached between Billiton Exploration and the San Carlos Apache Indian Tribe in early 1985. The five-year agreement provides \$2 million to the tribe and allows Billiton to explore the reservation for metallic minerals. The 1.8 million acre reservation occupies portions of southeastern Gila and northern Graham Counties. The terms allow that if any discoveries are made, Billiton can then enter into an agreement to mine them.

Cyprus Metals conducted the final phase of drilling during the winter of 1985 on its Copperstone gold deposit near Parker. Estimated reserves for the property are 4 million tons grading 0.09 ounce per ton of gold. Feasibility studies on this detachment fault related deposit are currently underway.

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
YAVAPAI (CONT) WIZARD	T 12.5N R 1 W SEC 25	PINTO MALARTIC GOLD MINES 1601, 8 KING ST. E TORONTO, ONT. M5C 1B5	GOLD, SILVER, COPPER	GEOPHYSICAL SURVEY TO IDENTIFY DRILL TARGETS
ZONIA (1)	T 11 N R 4 W SEC 12	ANTIOCH RESOURCES 708, 850 WEST HASTINGS VANCOUVER, B.C. V6C 1E1 604-684-6242	COPPER, SILVER, GOLD	JOINT VENTURE WITH QUEENSTAKE RES. REHABILITATED UG WORKINGS, DETAILED GEOLOGIC MAPPING TO REVIEW PROPERTY'S PRECIOUS METAL ZONES
ZONIA (2)	T 11 N R 4 W SEC 12	PHELPS DODGE CORP. 2600 N. CENTRAL PHOENIX, AZ 85004-3015 602-234-8100	COPPER OXIDE	REVIEWED PROPERTY FOR OPERATION WITH SOLVENT EXTRACTION ELECTROWINNING PLANT
YUMA BETTY LEE	T 11 S R 17 W SEC 2	GORDON COPPLE 1232 W. 16TH ST. TEMPE, AZ 85281 602-968-4947	GOLD, SILVER, COPPER	SAMPLING OF 2 UNDERGROUND LEVELS, ECONOMIC EVALUATION
KING OF ARIZONA	T 1 S R 17 W SEC 12	BARONS GOLD, INC. 104, 1410 MAYOR MAGRATH DR. LETHBRIDGE, ALBERTA 403-328-4033	GOLD, SILVER	CONSTRUCTED AGITATION LEACH FACILITY, PRODUCTION BEGAN LATE 1986 FORM TAILINGS
MCKAY PROSPECT	T 8 S R 21 W SEC 13	AMOCO MINERALS CO. P.O. BOX 3986 ENGLEWOOD, CO 80155 303-740-5623	GOLD, COPPER	GEOLOGIC EVALUATION, SURFACE DRILLING PROJECT

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
YAVAPAI (CONT) TREASURE KING	T 11.5N R 1 E SEC 24	RESOURCE EXPLORATION & DEV. P.O. BOX 3160 PRESCOTT, AZ 86303	GOLD	SURFACE DRILLING PROJECT, RESOURCE DEFINED, HEAP LEACH OPERATION PERMITTED
UNITED VERDE	T 16 N R 2 E SEC 15	PHELPS DODGE CORP. 2600 N. CENTRAL AVE. PHOENIX, AZ 85004-3015 602-234-8100	COPPER, ZINC, GOLD	EVALUATION OF UNMINED ZINC PORTION OF MASSIVE SULFIDE DEPOSIT, GEOPHYSICAL SURVEY, GEOLOGIC REVIEW
UNITED VERDE EXTENSION	T 16 N R 2 E SEC 22	A.F. BUDGE MINING LIMITED 7340 E. SHOEMAN LANE #111B SCOTTSDALE, AZ 85251	GOLD	GEOLOGIC MODELING OF DEPOSIT, ESTABLISH UNDERGROUND DRILL STATIONS, UNDERGROUND DRILLING
UPTON PLACERS	T 9 N R 5 W SEC 1	ALASKA APOLLO GOLD MINES LTD. 508, 630 8TH AVE SW CALGARY, ALBERTA T2P 1G6 403-269-5485	GOLD	PLACER SAMPLING PROJECT
WATERS	T 12 N R 9 W SEC 29	TERRAMAR RESOURCE CORP. 1030, 1176 W. GEORGIA ST. VANCOUVER, B.C. V6E 4A2	GOLD	GEOLOGIC EVALUATION PROGRAM BEGUN IN 1983 CONTINUED INCLUDES GEOCHEM SURVEYS, OPENING OF UNDERGROUND WORKINGS
WILDHORSE PLACER	T 10 N R 4 W SEC 31	CAL SCROEDER P.O. BOX 2435 WICKENBURG, AZ 85358 602-684-3297	GOLD	INTERMITTANT PLACER OPERATION

Magma Copper Co. announced plans to spend \$70 million to develop an open-pit copper mine/leaching solvent extraction electrowinning plant at its San Manuel property. Exploration drilling in the block caved portion of San Manuel identified 60 million tons of 0.47% acid soluble copper available by open-pit mining. Start-up is planned for mid-1986 with an annual capacity of 20,000 tons of cathode copper. Drilling also identified 200 million tons of material below the planned open-pit. Additional drilling and in situ leaching tests are planned for that portion of the oxide deposit.

Exploration for uranium-bearing breccia pipes continued strong in northern Arizona with Energy Fuels, Pathfinder, and Rocky Mountain Energy being the most active. The Pine Nut deposit, located 45 miles southwest of Fredonia in the Hack mining district, becomes the most recent addition to Energy Fuels' growing list of discoveries on the Colorado plateau. Discovery of the deposit is impressive because it has no surface expression. It is believed the district will yield additional discoveries in the years to come.

1986 Summary

Arizona exploration activity in 1986 displayed a positive trend. Many projects achieved encouraging results, with several reaching advanced stages requiring production decisions.

PRECIOUS METALS

Exemplifying this trend was the announcement of a major gold discovery in western Arizona near Quartzsite, by Cyprus Minerals. Called Copperstone, a misnomer, the planned open pit/agitation leach mine will produce 60,000 ounces of gold annually. This detachment hosted deposit is creating additional interest in Arizona's disseminated gold potential.

Several past producing properties in the Maricopa and Yavapai Counties saw drilling and pre-production activity. West of Wickenburg, Roddy Resources and J. Devins Resource Group have identified a 600,000 ton open pit reserve grading .08 ounce per ton Au at the U. S. Mine (aka Big Horn). At years end they were placing the property into production. To the south DMEA Ltd. conducted a surface core drilling project at the Vulture Mine. This drilling served to delineate pit boundaries as well as provide metallurgical samples. North of Wickenburg, Echo Bay Mines continued their surface drilling program at the Congress mine, and in the fall, contracted with Centennial Exploration to drive a spiral ramp decline to continue evaluation of the Niagara vein system. DMEA Ltd. also continued exploration at the United Verde Extension deposit at Jerome, where they conducted underground drilling which tested gold-bearing chert horizons on the stratigraphic top of the massive sulfide pile with favorable results. In the Prescott area Iac Minerals continued a surface drilling project on their Montezuma/Huron property. The reported target was numerous siliceous gold bearing vents in a Precambrian metavolcanic sequence. Also in the area, Sante Fe mining left the Gladstone McCabe project, having deepened the Sooner shaft and done extensive surface and underground drilling and sampling.

Numerous areas in Mohave county received exploration activity with attention focused on past producing areas. Ivy Minerals identified an underground reserve at the Gold Bug mine and began underground rehabilitation. Arizona Star Resources and joint venture partner Fischer Watt conducted a surface drilling program on the Van Deeman mine with positive results and have planned further drilling. Many other areas of the state received various levels of exploration activity from numerous companies.

COPPER

Pinto Valley Copper conducted test drilling on old Miami copper tailings deposited during 1911 and 1934. Drilling has encountered higher values than at some operating open pit mines! Although mining and leaching studies continue, previous work indicates the potential to recover 115 million pounds of copper over an 8 year period. The U.S. Bureau of Mines in situ leaching project on undisturbed copper deposits made progress in two areas during the year. Geologic review of deposits lead to the selection of Asarco/Freeport McMoran's Santa Cruz deposit and Noranda's Lakeshore deposit, both located near Casa Grande, for future drilling and data collection. To make that work possible, Science Applications International Corp. was selected to develop computer algorithms to optimize in situ leaching of any specific copper oxide deposit. Late in the year Phelps Dodge and the Prescott National Forest reached an agreement for Phelps Dodge to fund an environmental impact study for its Copper Basin Project near Prescott. Although mine development is not imminent, the study will allow a proposed land exchange for the copper deposit to be completed.

Other Minerals

Marble, feldspar and gypsum deposits were the major targets of industrial mineral companies seeking to take advantage of the continued growth of construction markets in the Southwest. Uranium exploration on the Colorado Plateau continued with several of the major companies involved discovering new mineralized breccia pipes.

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
YAVAPAI (CONT) RICH HILL PLACER	T 10 N R 4 W SEC 32	LA PAZ MINING CO. 1301 E. FT. LOWELL TUCSON, AZ 85709 602-325-1514	GOLD	30 PIT SAMPLE PROGRAM, ESTABLISHMENT OF WEST CONCENTRATING FACILITY
SILVER BUTTON	T 14 N R 3 W SEC 33	JAY MCKINNEY P.O. BOX 26399 PRESCOTT VALLEY, AZ 86312 602-772-8676	SILVER	EVALUATION OF DUMP MATERIAL, DRILLING AND SAMPLING OF UNDERGROUND, MILL ASSEMBLED
SILVER CORD	T 11 N R 1 E SEC 36	WALLABY ENTERPRISES INC. 1555 IRON SPRINGS RD. PRESCOTT, AZ 86301 602-445-9354	SILVER, GOLD	GEOLOGIC MAPPING, UNDERGROUND SAMPLING PROJECT
SILVER KING	T 9 N R 8 E SEC 10	JOHN REYNOLDS 12643 N. 30TH DR. PHOENIX, AZ 85029 602-863-2785	SILVER, ARSENIC	MINE PILOT SAMPLE FOR METALLURGICAL EVALUATION
TERRY ANDERSON PROPERTY	T 10 N R 2 E SEC 3	AWAC MINING AND EXPLORATION BOX 2915, NEW RIVER STAGE 1 NEW RIVER, AZ 85029	GOLD	CONSTRUCTION OF PILOT MILL, CONTINUED EXPLORATION OF PROPERTY
TRAILS END	T 11 N R 2 W SEC 1	NEAL MISCHKE P.O. BOX 59 KIRKLAND, AZ 85332 602-778-8456	GOLD, SILVER	PRODUCTION OF SMALL LOTS OF HIGH GRADE FROM CLARENDA SHAFT, PROCESSED AT NEARBY GRAVITY MILL

ARIZONA EXPLORATION 1984-1986 (CONT)

<u>PROPERTY</u>	<u>LOCATION</u>	<u>OPERATOR</u>	<u>COMMODITY</u>	<u>ACTIVITY</u>
<u>YAVAPAI (CONT)</u> ORO FLAME	T 12.5N R 2 W SEC 20	JOHN FORNES RT. 1 BOX 199 BUCKEYE, AZ 85526 602-386-3441	GOLD, SILVER, LEAD	REPAIR ADIT PORTALS TO ALLOW UNDERGROUND SAMPLING
OUTPOST	T 7 N R 3 W SEC 3	FANSTEEL METALLURGICAL CORP. ONE TANTALUM PLAZA NORTH CHICAGO, IL 60064	COLUMBIUM, TANTALUM	SURFACE DRILLING PROGRAM, MINED BULK SAMPLE FOR METALLURGICAL EVALUATION OF GRAVITY CONCENTRATE
PELICAN	T 10 N R 1 W SEC 2	TEXAS-GULF/U.S. BORAX 1802 W. GRANT RD. #108 TUCSON, AZ 85745 602-884-8983	GOLD, SILVER, LEAD, COPPER	GEOCHEMICAL SURVEY, GEOLOGICAL MAPPING AND SURFACE DRILLING PROJECT
QUEST LEACH	T 13 N R 9 W SEC 13	ARK ENERGY LTD. 810, 675 W. HASTINGS ST. VANCOUVER, B.C. V6B 1N2 602-687-3388	GOLD	TRENCHING 2 ZONES TO OBTAIN BULK SAMPLES, METALLURGICAL EVALUATION
REBEL AND LITTLE KICKER	T 13 N R 1 E SEC 31	STAN WEST CORP. 6045 N. SCOTTSDALE RD. #101 SCOTTSDALE, AZ 85253 602-483-8000	SILVER, GOLD, ZINC, COPPER	GEOLOGIC MAPPING AND SURFACE DRILLING PROJECT COMPLETED
RED BLUFF	T 9 N R 3 W SEC 35	BATTLE MOUNTAIN GOLD CORP. 4715 E. FT. LOWELL RD. TUCSON, AZ 85712 602-323-5600	GOLD, SILVER	SURFACE DRILLING PROGRAM

PROPERTY LISTING

The properties in this listing are grouped by county. For each property listed the following information is provided: legal description, primary commodity(ies) being sought or historically produced, name, address and phone number of the operator and a brief description of the activity at the property. For those unfamiliar with Arizona, a reference map (page 41) showing the counties, major highways, the Gila and Salt River Base and Meridian accompanies the listing to aid in property location. For additional information on the properties listed here or other properties in the state please contact the Department's engineers at either the Phoenix or Tucson office.

A brief review of this listing by commodity reveals that gold or silver is listed as a commodity for 158 properties or 85% of the 182 properties listed. Uranium exploration activities are grossly under reported with only the 7 properties that were announced as discoveries listed here. Many more received various surface surveys and drilling. At least 9 properties were being evaluated or developed for their base metal potential. Fourteen properties belonged to the nonmetal or industrial mineral group including 4 zeolite properties which had intermittent production. Specialty metals, gemstones, mineral specimens and mills are among the other commodities listed.

-10-

ARIZONA EXPLORATION 1984-1986

<u>PROPERTY</u>	<u>LOCATION</u>	<u>OPERATOR</u>	<u>COMMODITY</u>	<u>ACTIVITY</u>
COCHISE BRUNO GROUP	T 20 S R 39 E SEC 16	MACK TAYLOR BOX 396 SAUSALITO, CA 94965 415-332-3736	SILVER, LEAD	GEOCHEMICAL AND GEOPHYSIC SURVEY SURFACE DRILLING PROGRAM
COMMONWEALTH	T 18 S R 25 E SEC 5	PHELPS DODGE CORP. 2600 N. CENTRAL AVE. PHOENIX, AZ 85004-3015 602-234-8100	SILVER, SILICA FLUX	INTERMITTANT SHIPPING OF TAILINGS TO PHELPS DODGE HIDALGO SMELTER
CONTENTION	T 20 S R 22 E SEC 11	COCHISE SILVER MINES INC. 4831 N. 42ND AVE. PHOENIX, AZ 602-242-7315	SILVER	UNDER DEVELOPMENT TO LEACH DUMP AND TAILING MATERIAL
COPPER QUEEN	T 23 S R 24 E SEC 9	PHELPS DODGE CORP. 2600 N. CENTRAL AVE. PHOENIX, AZ 85004-3015 602-234-8100	GOLD, SILVER, COPPER	UNDERGROUND SAMPLING AND DRILLING PROJECT FOR PRECIOUS METAL BEARING PYRITIC AND SILICEOUS SMELTER FEED
GOLD PRINCE	T 14 S R 27 E SEC 27	PHELPS DODGE CORP. 2600 N. CENTRAL AVE. PHEONIX, AZ 85004-3015 602-234-8100	GOLD, SILICA FLUX	UNDERGROUND EXPLORATION AND DEVELOPMENT OF PRECIOUS METAL BEARING SILICA FLUX, RESERVE DEVELOPED, SHIPMENTS MADE
GROUND HOG	T 20 S R 22 E SEC 22	ALANCO LTD. 7345 E. ACOMA DR. SCOTTSDALE, AZ 85260 602-991-8540	SILVER	UNDERGROUND REHABILITATION AND SAMPLING, SURFACE DRILLING PROJECT

ARIZONA EXPLORATION 1984-1986 (CONT)

<u>PROPERTY</u>	<u>LOCATION</u>	<u>OPERATOR</u>	<u>COMMODITY</u>	<u>ACTIVITY</u>
YAVAPAI (CONT) LINCOLN	T 10 N R 1 W SEC 1	IMCO RESOURCES LTD. 2231-G MCGARRIGLE RD. NANAIMO, B.C. V9S 4M5 - -	GOLD, SILVER, COPPER	DEWATERED AND SAMPLED UNDERGROUND WORKINGS
MAGGIE MINE	T 9 N R 2 E SEC 22	JOHN TREADWAY RT. 4, BOX 781A PHOENIX, AZ 85031 - -	GOLD, SILVER	CORE DRILLING PROJECT
MAMMOTH	T 13 N R 6 W SEC 6	NICOR MINERAL VENTURES 2341 S. FRIEBUS AVE. #12 TUCSON, AZ 85713 602-881-8871	GOLD	DEWATER WORKINGS, RETIMBER SHAFT TO 400' LEVEL, SAMPLE UNDERGROUND WORKINGS
MICA MULE	T 8 N R 2 E SEC 7	TROPICANA RES/UNITED LIBERTY 730,789 W. PENDER ST. VANCOUVER, B.C. V6C 1H2 - -	MICA, GOLD	PREPARED FEASIBILITY STUDY OF MICA MINE AND MILL, EVALUATED PORTION OF PROPERTY FOR PRECIOUS METALS
MIDNIGHT OWL	T 8 N R 2 W SEC 31	FANSTEEL CORP. ONE TANTALUM PLAZA NORTH CHICAGO, IL 60064 - -	TANTALUM, COLUMBIUM, BERYL	SAMPLING OF PEGMATITES, SURFACE DRILLING PROGRAM, PILOT GRAVITY TEST OF BULK SAMPLE FOR TANTALUM RECOVERY
MONARCH PLACER	T 8 N R 4 W SEC 7	METALS RECOVERY SYSTEMS 426 S. ROBSON MESA, AZ 85202 602-835-7592	GOLD	PLACER OPERATION

-35-

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>YAVAPAI (CONT)</u> HOMESTAKE NO. 2	T 8 N R 3 W SEC 2	BATTLE MOUNTAIN GOLD CORP. 4715 E. FT. LOWELL RD. TUCSON, AZ 85712 602-323-5600	GOLD	CONDUCTED SURFACE DRILLING PROJECT
HOMESTEAD CLAIM	T 7 N R 3 W SEC 10	FANSTEEL CORP. ONE TANTALUM PLAZA NORTH CHICAGO, IL 60064	TANTALUM, COLUMBIUM, BERYL	SAMPLING OF PEGMATITES, PILOT GRAVITY TEST OF BULK SAMPLE FOR TANTALUM RECOVERY
HULL PROPERTY	T 13 N R 1 E SEC 33	LONG LAC MINERAL EXPLORATION P.O. BOX 26545 PRESCOTT VALLEY, AZ 86312 602-775-5021	GOLD, COPPER, SILVER	GEOLOGIC EVALUATION OF PRECAMBRIAN EXHALITIVE CENTER, SURFACE DRILLING PROGRAM
IRON KING	T 13 N R 1 E SEC 16	SANTA FE MINING/STAN WEST JV 6045 N. SCOTTSDALE RD. SCOTTSDALE, AZ 85253 602-483-8000	ZINC, GOLD, SILVER	GEOLOGIC MAPPING, GEOPHYSICS AND EOCHEMISTRY SURVEYS, REVERSE CIRCULATION DRILLING OF NEAR SURFACE GOLD AND DEEP MASSIVE SULFIDE TARGET
KING SOLOMAN	T 8 N R 3 W SEC 17	RUSS FRENCH P.O. BOX 1237 WICKENBURG, AZ 85358 602-245-6763	GOLD	REHABILITATION AND SAMPLING OF UNDERGROUND WORKINGS
LEVIATHON	T 10 N R 5 W SEC 35	LOS SUERTES MINING CORP. 5401 E. PERSHING AVE. SCOTTSDALE, AZ 85254 602-953-1875	GOLD	GEOPHYSICAL SURVEY, SURFACE DRILLING PROGRAM

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>COCHISE (CONT)</u> HOLLYHAWK	T 13 S R 26 E SEC 33	GRIZZLY GOLD INC. P.O. BOX 203 ARIZONA CITY, AZ 85223 602-466-5712	GOLD, LEAD, SILVER	INTERMITTANT PRODUCTION FROM NEAR SURFACE HIGH GRADE POCKETS
LITTLE CHRISTMAS	T 14 S R 19 E SEC 2	JOHN HILL/KEITH MILLER 11241 E. SHADY LN. TUCSON, AZ 85740 602-623-0785	GOLD, SILVER	NEW ADIT DRIVEN AND SAMPLED, CRUSHING PLANT ASSEMBLED
LITTLE MARY	T 17 S R 25 E SEC 35	SANTA FE MINING INC. P.O. BOX 3588 ALBUQUERQUE, NM 87190 505-262-2211	GOLD, SILVER, COPPER	GEOLOGICAL EVALUATION AND ROTARY SURFACE DRILLING
MARCH MINE	T 20 S R 27 E SEC 11	MPM MINING & EXPLORATION CORP BOX 185 WILLCOX, AZ 85643 602-824-3349	SILVER, LEAD	GEOLOGIC MAPPING AND SURFACE DRILLING
SILVER TIP	T 22 S R 32 E SEC 26	NICOR MINERALS/SUPERIOR OIL 2341 S. FRIEBUS #12 TUCSON, AZ 85713 602-881-8871	GOLD	GEOCHEM SURVEY, SURFACE DRILLING PROJECT
<u>COCONINO</u> CANYON URANIUM	T 29 N R 3 E SEC 20	ENERGY FUELS NUCLEAR INC. 500 THOMPSON FLAGSTAFF, AZ 86001 602-774-0609	URANIUM	GEOLOGIC EVALUATION AND SURFACE DRILLING PROGRAM, RESERVES IDENTIFIED, PERMITTING STAGE OF DEVELOPMENT

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>COCONINO (CONT)</u> PLATINUM BRECCIA PIPE	T 30 N R 3 W SEC 4	ENERGY FUELS NUCLEAR INC. 500 THOMPSON FLAGSTAFF, AZ 86001 602-774-0609	URANIUM	GEOLOGIC EVALUATION, SURFACE DRILLING PROGRAM, RESERVES IDENTIFIED
SCORPION BRECCIA PIPE	T 29 N R 2 W SEC 24	ENERGY FUELS NUCLEAR INC. 500 THOMPSON FLAGSTAFF, AZ 86001 602-774-0609	URANIUM	GEOLOGIC EVALUATION, SURFACE DRILLING PROGRAM, RESERVES IDENTIFIED
<u>GILA</u> 79 MINE	T 4 S R 15 E SEC 21	JOHN MEDIZ COPPER CITY ROCK SHOP 566 ASH ST. GLOBE, AZ 85501 602-425-7885	MINERAL SPECIMENS	INTERMITTANT PRODUCTION OF HEMIMORPHITE, AURICHALCITE, CHRYSOCOLLA AND MALACHITE SPECIMENS
BONANZA	T 1 N R 14 E SEC 13	NICHOLS CONTRACTING P.O. BOX 752 GLOBE, AZ 85502 602-425-7006	GOLD, SILVER, COPPER	PILOT HEAP LEACH OF AGGLOMERATED ORE
QUINTONITE	T 8 N R 10 E SEC 20	QUINT HILL 319 N. 100 PL. MESA, AZ 85207 - -	TUFA	MARKET RESEARCH AS ABSORBENT CRUSHING, SCREENING AND BAGGING PLANT ESTABLISHED. INTERMITTANT PRODUCTION
SAN CARLOS INDIAN RESERVATION	T R SEC	BILLITON EXPLORATION USA, INC 4500 E SPEEDWAY #26 TUCSON, AZ 85712 602-795-7218	GOLD, SILVER, BASE METALS	RESERVATION WIDE RECONNAISSANCE AND EXPLORATION PROJECT

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>YAVAPAI (CONT)</u> DE SOTO	T 11 N R 1 E SEC 20	PRONTO EXPLORATION LTD. 1104, 55 YONGE ST. TORONTO, ONTARIO M5E 1J4 416-364-6027	COPPER, GOLD, SILVER	SURFACE DRILLING PROJECT, NEAR SURFACE GOLD DEPOSIT INDICATED
DESTORIES PLACER	T 10 N R 3 E SEC 17	FLOTECH RESOURCES 12333 ROCKY MT. ST. RENO, NV 89506 - -	GOLD	INTERMITTANT PRODUCTION OF STREAM BANK DEPOSITS
FAT JACK	T 10 N R 1 W SEC 36	FRED LORETTE P.O. BOX 421 MAYER, AZ 86333 602-632-9691	QUARTZ CRYSTALS	DISCOVERY AND PRODUCTION OF SCEPTERED AMETHYST AND SMOKEY QUARTZ CRYSTAL SPECIMENS
GLADSTONE-MCCABE	T 13 N R 1 E SEC 30	SANTA FE MINING/STAN WEST JV 6045 N. SCOTTSDALE RD. SCOTTSDALE, AZ 85253 602-483-8000	GOLD, SILVER, COPPER, LEAD	DEEPENED SOONER SHAFT 400' TO 145, EXTENSIVE UNDERGROUND DIAMOND DRILLING, ADDITIONAL RESERVES DEFINED
GLORYANNA	T 9 N R 2 E SEC 4	COPPER PENNY MINING 6042 W. MEDLOCK GLENDALE, AZ 85301 602-937-5728	GOLD	SURFACE DRILLING PROJECT, MINED BULK SAMPLE FOR METALLURGICAL EVALUATION
HENRIETTA	T 13 N R 1 E SEC 32	POLAND JUNCTION MINING CORP. P.O. BOX 305 MAYER, AZ 86333 602-632-7798	GOLD, COPPER, SILVER	CONSTRUCTION OF GRAVITY MILL, INTERMITTANT PRODUCTION OF PYRITIC CONCENTRATE

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>YAVAPAI (CONT)</u> BIG BUG PLACER AREA (2)	T 12 N R 1 E SEC 16	OVERLOOK MINING CO. P.O. BOX 552 MAYER, AZ 86333	GOLD	GOLD PLACER OPERATION
BIG BUG PLACER AREA (3)	T 11 N R 2 E SEC 5	NEAL S. WHITE P.O. BOX 1411 COTTONWOOD, AZ 85326 602-646-6146	GOLD	GOLD PLACER OPERATION
BLUE BELL	T 11.5N R 1 E SEC 34	PRONTO EXPLORATION LTD. 1104, 55 YONGE ST. TORONTO, ONTARIO M5E 1J4 416-364-6027	COPPER, GOLD, SILVER	SURFACE GEOCHEM PROGRAM, RESULTS INDICATE BULK TONNAGE GOLD POTENTIAL
BURNBRITE SILVER	T 7 N R 1 W SEC 21	MIKE SIMONSON %SPENDRUP FAN CO. GRAND JUNCTION, CO	SILVER, COPPER	SHIPMENT OF SELECT VEIN MATERIAL FROM SURFACE WORKING
CONGRESS	T 10 N R 6 W SEC 23	ECHO BAY EXPLORATION INC. 14618 W. 6TH AVE. #221 GOLDEN, CO 80401 303-278-3662	GOLD	SURFACE DRILLING PROJECT, RESERVES DEFINED, DRIVING RAMP DECLINE TO 2200 LEVEL
CROWN KING MINE	T 10 N R 1 W SEC 10	DENNIS MARKETIC 8510 N. 75TH AVE. PEORIA, AZ 85345 602-979-4900	GOLD	REHABILITATE AND EXTEND UNDERGROUND WORKINGS

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>GILA (CONT)</u> SHUMWAY MILL	T 10 N R 10 E SEC 28	RAY SHUMWAY P.O. BOX 2306 PAYSON, AZ 85541 602-474-9191	MILL	GRAVITY AND FLOTATION CIRCUITS INTERMITTANT PROCESSING OF CUSTOM ORES
VAN DYKE	T 1 N R 15 E SEC 30	KOCIDE CHEMICAL VAN DYKE MINING PROJECT P.O. BOX 1693 GLOBE, AZ 85502 602-473-2421	COPPER	DEVELOPMENT ON IN-SITU LEACH OPERATION ON EXISTING UNDERGROUND WORKINGS, CONSTRUCTION OF CEMENTATION PLANT
<u>GRAHAM</u> BMS CLAIMS	T 11 S R 29 E SEC 18	NORTON CO. P.O. BOX 350 AKRON, OH 44309	ZEOLITE	SURFACE MINING, PERIODIC STRIPPING AND SHIPPING OF CHABAZITE ORE
BMS MINE	T 11 S R 29 E SEC 21	AL LETCHER P.O. BOX 107 LANCASTER, CA 93534	ZEOLITE	SURFACE MINING, PERIODIC STRIPPING AND SHIPPING OF CHABAZITE ORE
CHOLLA CLAIMS	T 11 S R 29 E SEC 35	N.R.G. MINING CO. 3443 N. CENTRAL AVE. PHOENIX, AZ 85012 602-248-8585	ZEOLITE	SURFACE MINING, PERIODIC STRIPPING AND SHIPPING OF CHABAZITE ORE
EZ MINE	T 11 S R 29 E SEC 19	UNION CARBIDE-METALS DIVISION P.O. BOX 1029 GRAND JUNCTION, CO 81501 303-245-3700	ZEOLITE	SURFACE MINING, PERIODIC STRIPPING AND SHIPPING OF CHABAZITE ORE

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>GRAHAM (CONT)</u> JUMPING JACK	T 6 S R 24 E SEC 15	PIMA MINING CO. P.O. BOX 741 PIMA, AZ 85543 602-485-9327	IRON	INTERMITTANT PRODUCTION OF MAGNETITE SANDS
PENNY FIRE AGATE	T 9 S R 20 E SEC 12	DAVE PENNY P.O. BOX 320 PIMA, AZ 85543 602-485-2863	GEM	INTERMITTANT PRODUCTION OF FIRE AGATE FROM SURFACE CUTS
SAN CARLOS INDIAN RESERVATION	T R SEC	BILLITON EXPLORATION USA, INC 4500 E. SPEEDWAY #26 TUCSON, AZ 85712 602-795-7218	GOLD, SILVER, BASE METALS	RESERVATION WIDE RECONNAISSANCE AND EXPLORATION PROJECT
SANCHEZ COPPER	T 6 S R 27 E SEC 25	KOCIDE CHEMICAL P.O. BOX 1693 GLOBE, AZ 85502 602-473-2421	COPPER	PLANNING STAGE OF CONSTRUCTION OF HEAP LEACH, CONSTRUCTION OF SOLVENT EXTRACTION - COPPER SULFATE CRYSTALLIZER PLANT
<u>GREENLEE</u> ASH PEAK	T 8 S R 30 E SEC 3	ARIZONA FLUX MINES, INC. P.O. BOX 16 DUNCAN, AZ 85534 602-622-4323	SILVER, GOLD, SILICA FLUX	UNDERGROUND PRODUCTION OF PRECIOUS METAL BEARING SILICA FLUX, SHIPPING TO PHELPS DODGE'S HIDALGO SMELTER
OBW FRY	T 3 S R 29 E SEC 16	MERIDIAN MINERALS 1870 W. PRINCE, SUITE 48 TUCSON, AZ 85745 602-293-1030	GOLD	MAPPING AND SAMPLING PROJECT

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>SANTA CRUZ (CONT)</u> ORO BLANCO (3)	T 23 S R 11 E SEC 17	BILL EWING P.O. BOX 7001 TUCSON, AZ 85725 602-624-6646	GOLD, SILVER	CONSTRUCTION OF HEAP LEACH FACILITY, LEACHED DUMP MATERIAL
WILLIE GROUP	T 23 S R 11 E SEC 18	ECHO BAY EXPLORATION, INC. 14618 WEST 6TH AVE #221 GOLDEN, CO 80401 303-278-3662	GOLD, SILVER	SURFACE DRILLING PROJECT
<u>YAVAPAI</u> BEEHIVE GOLD	T 10 N R 4 W SEC 33	CRUISER MINERALS LTD. 600, 890 W. PENDER ST. VANCOUVER, B.C. V6C 1J9 604-682-9581	GOLD	UNDERGROUND WORKINGS REHABILITATED AND CHANNEL SAMPLED, DRILLING PROGRAM TO TEST DOWN DIP MINERALIZATION COMPLETED
BELCHER	T 12.5N R 1 W SEC 26	STAN WEST MINES INC. 6045 N. SCOTTSDALE RD. SCOTTSDALE, AZ 85253 602-483-8000	GOLD, SILVER, ZINC	SURFACE EXPLORATION DRILLING PROJECT
BIG BEN	T 13 N R 10 W SEC 36	HIMAC RESOURCES/NEW TYEE JV. 508, 475 HOWE ST. VANCOUVER, B.C. V6C 2B3 604-688-6681	GOLD, SILVER	SOIL SAMPLING IDENTIFIED NEW AREA, TRENCHED AND SAMPLED WITH FAVORABLE RESULTS, COMPANYS FAILED, DATA AVAILABLE FROM OWNER
BIG BUG PLACER AREA (1)	T 12 N R 1 E SEC 16	MAYER MINING & MATERIALS BOX 421 MAYER, AZ 86333 602-632-9361	GOLD	GOLD PLACER OPERATION

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>PINAL (CONT)</u> TRANVAAL GROUP	T 2 S R 11 E SEC 28	DAVE TAYLOR MINERALS EXPLORATION CO. P.O. BOX 1523 MESA, AZ 85201 602-835-0383	GOLD	SURFACE DRILLING PROJECT, UNDERGROUND MINE, FEEDING GRAVITY AND AMALGAMATION MILL
VEKOL	T 9 S R 2 E SEC 34	ARGOSY MINING CO. P.O. BOX 295 STANFIELD, AZ 85272	SILVER	MAPPING, SAMPLING, AND GEOPHYSICS PROGRAM, DRILL TARGETS IDENTIFIED, HEAP LEACH FACILITY ASSEMBLED
<u>SANTA CRUZ</u> ALAMO MINE	T 23 S R 10 E SEC 10	MARVIN JAMESON 4717 W. CALLE DON ANTONIO TUCSON, AZ 85746 602-883-9670	GOLD, SILVER	GEOLOGIC RECOGNITION OF PLACER POTENTIAL, PRELIMINARY SAMPLING PROJECT
MARGARITA	T 23 S R 11 E SEC 7	CROSSLAND INDUSTRIES CORP. 3RD FLOOR, 249 E. 49TH ST. NEW YORK, NY 10017 212-371-4415	GOLD, SILVER	BULK SAMPLE MINED FOR METALLURGICAL EVALUATION, PRELIMINARY FEASIBILITY STUDY
ORO-BLANCO (1)	T 23 S R 11 E SEC 17	RAYROCK MINES INC. SUITE 201, BLOHM BUILDING ELKO, NV 89801	GOLD, SILVER	UNDERGROUND REHABILITATION AND SAMPLING, SURFACE DRILLING
ORO BLANCO (2)	T 23 S R 11 E SEC 17	HIGHLAND CROW RESOURCES LTD. 1580, 999 W. HASTINGS ST. VANCOUVER, B.C. V6C 2X2 604-689-1428	GOLD, SILVER	SURFACE DRILLING PROGRAM

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>LA PAZ</u> BK CLAIMS	T 10 N R 17 W SEC 1	AMAX EXPLORATION INC. 10 EAST BROADWAY TUCSON, AZ 85701 602-622-3854	GOLD, SILVER	GEOLOGIC EVALUATION, 2,500 FEET OF SURFACE DRILLING
BLACK CAT	T 5 N R 14 W SEC 26	C. J. INTERNATIONAL VENTURES 9149 OHIO AVENUE SUN LAKES, AZ 85224 602-895-0121	GOLD, SILVER, LEAD	ESTABLISHED WATER SOURCE, CONSTRUCTED CRUSHING PLANT AND VAT LEACH FACILITY
BUSTED TRACK	T 4 N R 20 W SEC 13	STERLING MINERALS CORP. P.O. BOX 597 QUARTZSITE, AZ 85346 602-927-5924	GOLD	ASSEMBLED GRAVITY PROCESSING PLANT, PROCESSING OF BULK SAMPLES
COPPER BOTTOM	T 3 N R 20 W SEC 28	KENNECOTT 2502 N. HUACHUCA DRIVE TUCSON, AZ 85745 602-624-5547	GOLD, SILVER, COPPER	GEOLOGIC EVALUATION, SURFACE DRILLING PROJECT
COPPERSTONE	T 6 N R 20 W SEC 12	CYPRUS METALS CO. 7200 S. ALTON WAY, POB 3299 ENGLEWOOD, CO 80155 303-740-5000	GOLD	SURFACE DRILLING PROGRAM, DEFINED RESERVES, COMPLETED FEASIBILITY STUDY, OPEN PIT MINE AND CIP MILL UNDER DEVELOPMENT
CRITIC MINE	T 7 N R 13 W SEC 11	ROCACCO RESOURCES INC. 200, 1055 W. HASTINGS ST. VANCOUVER, B.C. V6E 2E9 604-683-6358	GOLD, COPPER, SILVER	GRID ESTABLISHED AND DUMPS SAMPLED, FURTHER EXPLORATION PLANNED

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>LA PAZ (CONT)</u> DOLAND MINE	T 6 N R 13 W SEC 5	% JAMES YUELL PACIFIC MINING CORP. P.O. BOX 338 WENDEN, AZ 85357 602-839-3491	GOLD, SILVER, COPPER	CONSTRUCTION OF CRUSHING PLANT AND HEAP LEACH FACILITY, PILOT TEST PLANNED
GOLD BELT	T 4 N R 21 W SEC 24	HABER INC. 470 MAIN ROAD TOWACO, NJ 07082 201-263-0990	GOLD, SILVER	DRILLED WATER WELL, LIMITED UNDERGROUND SAMPLING PROGRAM
HARQUAHALA	T 4 N R 13 W SEC 22	PETER KIEWIT INC. 233 KIEWIT PLAZA OMAHA, NE 68131 402-342-2052	GOLD, SILVER	GEOLOGIC EVALUATION, SURFACE DRILLING PROJECT
HARQUAHALA GYPSUM	T 5 N R 11 W SEC 30	ALTON POWELL P.O. BOX 202 AGUILA, AZ 85320 602-685-2476	GYPSUM	STRIPPING AND PRODUCTION OF AGRICULTURAL GYPSUM
LA PAZ PLACERS	T 4 N R 21 W SEC 26	LA PAZ MINING CO. 1301 E. FT. LOWELL TUCSON, AZ 85709 602-325-1514	GOLD	SURFACE DRILLING PROGRAM, 25 TONS BULK SAMPLE FOR METALLURGICAL EVALUATION
LITTLE BUTTE	T 7 N R 17 W SEC 8	FISCHER WATT MINING CO. 114 TUCKER, SUITE 7 KINGMAN, AZ 86401 602-753-1622	GOLD, SILVER	GEOLOGIC MAPPING, GEOCHEM SURVEY, DRILL TARGETS IDENTIFIED

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>PINAL</u> ARIZONA RHYOLITE	T 1 S R 10 E SEC 21	JOHNSON, STEWART & JOHNSON 1635 N. ALMA SCHOOL RD. MESA, AZ 85201 602-834-1044	PUMICE GROUP	PERIODIC MINING OF PUMICEOUS RHYOLITE, MARKETING AS LIGHT WEIGHT AGGREGATE
ARKOTA	T 9 S R 11 E SEC	JOE BLAKENSHIP 333 E. RIVER RD. TUCSON, AZ 85703 602-887-9465	IRON	PERIODIC SHIPMENT OF MAGNETITE SANDS
DESERT QUEEN	T 9 S R 5 E SEC 31	APEX ENERGY CORP. 407, 750 W. PENDER ST. VANCOUVER, B.C. V6C 2T7 604-688-0607	SILVER, GOLD	GEOLOGIC EVALUATION AND SAMPLING PROGRAM, REEVALUATE PREVIOUS OPERATORS DRILL DATA
GOLD FIELD	T 1 N R 8 E SEC 1	ANSCO RESOURCE/BRACE RESOURCE 805, 475 HOWE ST. VANCOUVER, B.C. V6C 2B3	GOLD	GEOLOGIC MAPPING, SURFACE DRILLING PROGRAM
RANDOLPH GYPSUM	T 6 S R 8 E SEC 11	SANTA FE RESOURCES P.O. BOX 5334 SANTA FE, NM 87502 505-983-8887	GYPSUM	SURFACE DRILLING PROGRAM TO CONFIRM RESERVES
SAN FRANCISCO	T 10 S R 12 E SEC 33	DARELL GOODE CATALINA MARBLE INC. 16024 ORACLE RD. CATALINA, AZ 85704 602-825-9398	MARBLE	QUARRY WITH CRUSHING AND SIZING PLANT, PERIODIC PRODUCTION

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>PIMA</u> BORDER MINE	T 23 S R 9 E SEC 9	FISCHER WATT MINING CO. 114 TUCKER, SUITE 7 KINGMAN, AZ 86401 602-753-1622	GOLD, SILVER, TUNGSTEN	INITIAL GEOLOGIC EVALUATION AND GEOCHEM SAMPLING COMPLETED
FLORIDA	T 19 S R 15 E SEC 32	JIM OLMSTEAD DOUBLE TOUGH MINES P.O. BOX 863 SPRINGERVILLE, AZ 85938 602-333-3827	COPPER, SILVER, LEAD	EXTENSION OF UNDERGROUND WORKINGS, PERIODIC SHIPMENT TO CUSTOM MILL
L C GROUP	T 20 S R 10 E SEC 25	BATTLE AX MINING CO. 3001 WEST VERONA PL. TUCSON, AZ 85741 602-742-0015	SILVER, GOLD	CRUSHING PLANT ESTABLISHED, LEACHING FACILITY UNDER DEVELOPMENT
MARY G GROUP	T 20 S R 10 E SEC 21	BATTLE AX MINING CO. 3001 WEST VERONA PL. TUCSON, AZ 85741 602-742-0015	SILVER, LEAD, COPPER	SURFACE DRILLING PROJECT, SURFACE MINE MATERIAL FOR PILOT MILL TEST
OLD YUMA	T 13 S R 12 E SEC 9	CONSOLIDATED MINING & MILLING 5959 N. YUMA MINE RD. TUCSON, AZ 85637 602-744-2208	GOLD, MINERAL SPECIMENS	DEVELOPMENT OF UNDERGROUND WORKINGS, HEAP LEACH FACILITY DEVELOPED
SANTA RITA LIMESTONE	T 18 S R 15 E SEC 11	CALCIUM PRODUCTS OF ARIZONA P.O. BOX 70 SAHUARITA, AZ 85629 602-791-3041	MARBLE, LIMESTONE	CONSTRUCTION OF CRUSHING, GRINDING, AND BAGGING FACILITY

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>LA PAZ (CONT)</u> MIDDLE CAMP PLACERS	T 4 N R 20 W SEC 21	DESERT GOLD PROPERTIES 7722 S. YUCON WAY LITTLETON, CO 80123 303-973-1300	GOLD	PILOT TEST OF DRY CONCENTRATOR
PLOMOSA PLACER	T 3 N R 18 W SEC 4	FRANK MAGINI 4831 N. 42ND AVE. PHOENIX, AZ 85019 602-242-7315	GOLD	PILOT PLACER OPERATION, INSTALLATION OF WELL FOR WET GRAVITY PROCESSING
SOCORRO	T 5 N R 12 W SEC 25	GEORGE CAMPBELL JR. P.O. BOX 162 SALOME, AZ 85348 602-859-3307	GOLD	SURFACE MINING, OPERATION OF NEARBY GRAVITY AND AMALGAMATION MILL
<u>MARICOPA</u> BLACK BUTTE GROUP	T 2 S R 7 W SEC 14	RHYOLITE RESOURCES INC. 300, 535 THURLOW ST. VANCOUVER, B.C. V6E 3L2 604-685-6361	GOLD	GEOLOGIC MAPPING, SURFACE DRILLING PROJECT, JOINT VENTURE WITH TEXAS-GULF MINERALS AND METALS
CAVE CREEK GOLD	T 6 N R 4 E SEC 9	ADD WEST INC P.O. BOX 1598 CAVE CREEK, AZ 85331 602-252-9120	GOLD, SILVER	OPERATED AN OPEN PIT GOLD MINE AND CYANIDE HEAP LEACH/CARBON RECOVERY PLANT
CHRISTOFFERSON MARBLE	T 5 N R 10 W SEC 3	FIREBIRD STONE & ROCK 4920 N. ECHO CIRCLE PHOENIX, AZ 85039 602-961-1255	MARBLE	EVALUATION OF PROPERTY FOR PRODUCTION

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MARICOPA (CONT)</u> COPPER PENNY (ALASKA)	T 5 N R 10 W SEC 33	SANTE FE MINING INC. 4775 INDIAN SCHOOL RD NE ALBUQUERQUE, NM 87190 505-262-2211	GOLD, COPPER, SILVER	GEOLOGIC EVALUATION, SURFACE DRILLING PROJECT
KEYSTONE #1 - 4	T 7 N R 1 W SEC 31	JOE LEACH 2510 N. 60TH PL. SCOTTSDALE, AZ 85257 - -	GOLD	INTERMITTANT PRODUCTION OF SMALL LOTS, GRAVITY TREATMENT
LITTLE LADONNA	T 2 N R 7 E SEC 9	DON MOORE 8038 E JUANITA MESA, AZ 85208 602-986-9511	COPPER, GOLD	SURFACE SAMPLING PROJECT
MYSTIC GOLD	T 5 N R 1 W SEC 12	TERRA TECHNOLOGIES 2240 W. KENDRA PL. TUCSON, AZ 85741 602-297-6358	GOLD	REVIEW GEOLOGY AND EXISTING RESERVE DATA, DRILLING PROJECT PLANNED
NEWSBOY GROUP	T 6 N R 4 W SEC 22	CHECKMATE RESOURCES LTD. 1015, 470 GRANVILLE ST. VANCOUVER, B.C. V6C 1V5 - -	SILVER, GOLD	25 HOLE SURFACE DRILLING PROJECT, REPORT CONTAINING LOGS, ASSAYS, AND MAPS COMPILED FOR PROPERTY OWNERS - MILLS MINING AND DEVELOPMENT
OLD WASP	T 1 N R 8 E SEC 1	OLD WASP MINING CO. 5289-A EAST APACHE TRAIL APACHE JUNCTION, AZ 85220 - -	GOLD	OPERATE OPEN PIT MINE, GRAVITY/AMALGAMATION RECOVERY PLANT

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MOHAVE (CONT)</u> UNITED WESTERN	T 19 N R 20 W SEC 15	FISCHER WATT MINING CO. 114 TUCKER, SUITE 7 KINGMAN, AZ 86401 602-753-1622	GOLD	OPEN PIT RESERVE IDENTIFIED, ORE REQUIRES MILLING
VAN DEEMEN MINE (1)	T 27 N R 21 W SEC 29	AMSELCO EXPLORATION INC. 17602 N. BLACK CANYON #105 PHOENIX, AZ 85023 - -	GOLD	EXPLORATION DRILLING NEAR OLD WORKINGS, CONSISTS OF 13 RESERVE CIRCULATION HOLES TOTALING 5000'
VAN DEEMEN MINE (2)	T 27 N R 21 W SEC 29	FISCHER WATT MINING CO. 114 TUCKER, SUITE 7 KINGMAN, AZ 86401 602-753-1622	GOLD	GEOLOGIC MAPPING, INTERPRETATION AS MINERALIZED LOW ANGLE BRECCIA ZONE, SUBLEASE TO FRISCO MINING FOR AIRTRACK DRILLING PROGRAM
VAN DEEMEN MINE (3)	T 27 N R 21 W SEC 29	ARIZONA STAR RESOURCE CORP. 101, 736 GRANVILLE ST. VANCOUVER, B.C. V6Z 1G3 - -	GOLD	CONDUCTED SURFACE DRILLING OVER 4 DETACHMENT BRECCIA TARGETS IN FALL OF 86, RESOURCE IDENTIFIED FURTHER DRILLING PLANNED FOR 87
WHITE CHIEF MINE	T 19 N R 20 W SEC 27	CANYON CITY MILLING INC. P.O. BOX 408 OATMAN, AZ 86433 602-768-3133	GOLD	COMPLETION OF PACHUCA TANK AGITATION CYANIDE MILL, DRIVING DECLINE TO DEVELOP UNDERGROUND
<u>NAVAJO</u> RAINBOW FOREST	T 23 N R 16 N SEC 3	PATTON & SONS INC. RAINBOW FOREST STONE CO. P.O. BOX 908 HOLBROOK, AZ 86025 - -	PETRIFIED WOOD	INTERMITTANT MINING, FEE MINING FOR THE PUBLIC

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MOHAVE (CONT)</u> PILGRIM	T 23 N R 20 W SEC 12	GALLI EXPLORATION ASSOC. INC. P.O. BOX 12307 RENO, NV 89510	GOLD	IN JOINT VENTURE WITH MOHAVE GOLD INC., CONDUCTED DRILL PROGRAM
PINE NUT	T 36 N R 4 W SEC 21	ENERGY FUELS NUCLEAR INC. P.O. BOX 36 FREDONIA, AZ 86022 602-643-5823	URANIUM	SURFACE DRILLING DISCOVERY OF MINERALIZED COLLAPSE BRECCIA, DEVELOPMENT AND PERMITTING UNDERWAY
PORTLAND GOLD MINE	T 23 N R 21 W SEC 15	WESTERN STATES MINERALS P.O. BOX 399 BULLHEAD, AZ 86430 602-753-1224	GOLD	DRILLED ALTERATION ZONES TO DISCOVER ADDITIONAL RESERVES FOR CURRENT OPERATION, RESERVES 42,000 OZ GOLD
ROADSIDE	T 21 N R 21 W SEC 12	FISCHER WATT MINING CO. 114 TUCKER, SUITE 7 KINGMAN, AZ 86401 602-753-1622	GOLD	GEOLOGIC MAPPING AND GEOCHEM SAMPLING PROGRAM, SURFACE DRILLING PROJECT
SECRET PASS	T 20 N R 20 W SEC 1	SANTE FE MINING P.O. BOX 3588 ALBUQUERQUE, NM 87190 505-262-2211	GOLD	GEOLOGIC EVALUATION AND EXPLORATION DRILLING
SHEEPTRAIL-BOULEVARD	T 21 N R 20 W SEC 7	THOMAS DESHAZO P.O. BOX 2343 BULLHEAD CITY, AZ 86430 602-754-2198	GOLD	HEAP LEACH TEST OPERATION OF DUMP AND TAILING MATERIAL

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MARICOPA (CONT)</u> PIKES PEAK GOLD	T 7 N R 1 W SEC 31	P AND G MINING P.O. BOX 848 SILVERTON, CO 81433	GOLD, SILVER	GEOLOGIC MAPPING, SURFACE DIAMOND DRILLING PROJECT
PUMPKIN GLOW	T 2 S R 9 W SEC 30	JAMES BOND P.O. BOX 948 WELCH, WV 24801 304-255-0414	SILVER, GOLD	TRENCHING, SURFACE SAMLING PROJECT, GEOLOGIC REPORT PREPARED
QUEEN OF SHEBA	T 6 N R 4 W SEC 8	FREEMPORT MINERALS 50 W. LIBERTY #1000 RENO, NV 89505 702-323-2251	GOLD, SILVER	GEOLOGIC EVALUATION, SURFACE DRILLING PROJECT
RED ROVER	T 8 N R 5 E SEC 28	TERNION LTD. 6125 E. INDIAN SCHOOL #139 SCOTTSDALE, AZ 85251 602-990-8956	GOLD, SILVER, COPPER	EVALUATION OF SEVERAL VEINS FOR SILVER USING "MAP" SILVER PROBE
SILVER CROSS	T 7 N R 4 E SEC 28	AMCA RESOURCES LTD. 807, 402 W. PENDER ST. VANCOUVER, B.C. V6B 1T5 604-688-6521	GOLD, SILVER	EXPLORATION DRILLING, RENOVATE OPEN PIT, CONSTRUCTION OF NEW LEACHING FACILITY
STORY	T 7 N R 8 E SEC 11	TEXAS-GULF / FREEMPORT JV 255 GLENDALE AVE., SUITE 15 SPARKS, NV 89431	GOLD	GEOLOGIC EVALUATION, SURFACE DRILLING PROGRAM

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MARICOPA (CONT)</u> SUNRISE	T 7 N R 7 W SEC 33	TED HOUSLEY P.O. BOX 2296 WICKENBURG, AZ 85358 - -	GOLD, SILVER	HEAP LEACH OPERATION ON DUMP MATERIAL
SUNSHINE	T 6 N R 10 W SEC 14	HAWKE GOLD MINING INC. 854 WHIPPLE ST. #12, POB 1012 WICKENBURG, AZ 85358 602-684-3312	GOLD	UNDERGROUND REHABILITATION AND SAMPLING PROJECT, ESTABLISH PILOT GRAVITY MILL
SURPRISE VENTURE	T 2 N R 7 E SEC 9	BIG RED MINING 709 S. TOLTEC MESA, AZ 85204 602-833-4807	TUNGSTEN, GOLD	PILOT OPERATION OF TUNGSTEN MINE AND GRAVITY MILL
TONOPAH-BELMONT	T 4 N R 7 W SEC 36	TAMAN RESOURCES LTD. 208, 4125 LAWRENCE AVE. E SCARBOROUGH, ONT M1E 2S2 - -	GOLD, COPPER, LEAD, SILVER	GEOLOGIC MAPPING, GEOCHEMICAL SURVEY, TRENCHING AND SAMPLING PROGRAM
U.S. MINE	T 4 N R 8 W SEC 1	RODDY RESOURCES INC. 200, 1055 W. HASTINGS ST. VANCOUVER, B.C. V6E 2E9 604-683-6358	GOLD	SURFACE DRILLING PROGRAM, UNDERGROUND BULK SAMPLING, RESERVES IDENTIFIED, PRODUCTION DECISION MADE, MINE AND HEAP LEACH DEVELOPED
VERMICULITE	T 1 N R 3 W SEC 4	THERM-O-ROCK INDUSTRIES INC. 6732 W. WILLIS RD., POB 5014 CHANDLER, AZ 85224 602-961-1000	VERMICULITE	EXPAND AND EVALUATE BULK VERMICULITE SAMPLE

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MOHAVE (CONT)</u> KANAB NORTH	T 38 N R 3 W SEC 17	ENERGY FUELS P.O. BOX 36 FREDONIA, AZ 86022 602-643-7321	URANIUM	COMPLETED PERMITTING PROCESS, BEGAN DEVELOPMENT OF UNDERGROUND
KINGMAN FELDSPAR MILL (1)	T 21 N R 16 W SEC 1	INDUSTRIAL MINERAL PRODUCTS P.O. BOX 95 RAVENSDALE, WA 98051 206-432-1286	CUSTOM GRINDING PLANT	INDUSTRIAL MINERAL DRY GRINDING PLANT, MOTHBALLED PLANT IN PREPARATION FOR SALE
KINGMAN FELDSPAR MILL (2)	T 21 N R 16 W SEC 1	STEALHEAD RESOURCES LTD. N 9516 DIVISION ST. #B SPOKANE, WA 99218 509-467-5700	CUSTOM GRINDING PLANT	REPAIRS TO MILL BUILDINGS, PLAN REWIRE OF GRINDING MILLS
KLONDYKE	T 25 N R 21 W SEC 28	WESTERN MINE SERVICES ROUTE 264 FISH LAKE VALLEY TONOPAH, NV 89049 702-572-3282	GOLD	GEOLOGIC MAPPING, GEOCHEM SURVEY, DRILLING PROGRAM
MINERAL PARK	T 23 N R 17 W SEC 19	CYPRUS MINERALS CO. P.O. BOX 6249 KINGMAN, AZ 86401 602-565-2226	COPPER, GOLD, SILVER	GEOLOGIC REVIEW AND SURFACE DRILLING PROJECT TO EVALUATE PRECIOUS METAL AND EXPANDED COPPER LEACH POTENTIAL
MOSSBACK	T 20 N R 20 W SEC 28	SUTTON RESOURCE LTD. 166, 10551 SHELLBRIDGE WAY RICHMOND, B.C. V6X 2W9 - -	GOLD	CONDUCTED 20 HOLE DRILLING PROJECT, WHICH EVALUATED A POTENTIAL BULK TONNAGE AREA AND TESTED 2 VEINS

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MOHAVE (CONT)</u> GOLCONDA	T 22 N R 17 W SEC 6	GAMIN RESOURCES, INC. 500, 890 W. PENDER ST. VANCOUVER, B.C. V6C 1J9 604-662-7122	ZINC, LEAD, SILVER, GOLD	COMPLETED 2 DEEP CORE HOLES PLUS 5000' OF REVERSE ROTARY DRILLING, IDENTIFIED RESERVE NEAR OLD STOPEs, ACQUIRED ADJACENT PROPERTIES
GOLD CROWN (KEMPLE CAMP)	T 26 N R 20 W SEC 31	K.D.& O MINING INC. P.O. BOX 4149 KINGMAN, AZ 86402 417-881-8810	GOLD	CONSTRUCTION AND PILOT OPERATION OF GRAVITY MILL
GOLD DUKE	T 24 N R 15 W SEC 13	HECTOR RESOURCES 1140, 625 HOWE ST. VANCOUVER, B.C. V6C 2T6 604-689-5588	GOLD	GEOLOGIC MAPPING, GEOCHEM SURVEY, LOW ANGLE VEIN TARGET IDENTIFIED FOR SURFACE DRILLING PROGRAM
GOLDEN STAR GROUP	T 20 N R 21 W SEC 13	CANADA ALBERTA MINING 155 OAKSIDE PLACE SW CALGARY, ALBERTA T2V 4R1	GOLD	GEOLOGIC MAPPING, GEOCHEM SURVEY, TRENCHING AND SAMPLING PROGRAM
HERMIT	T 38 N R 4 W SEC 17	ENERGY FUELS NUCLEAR INC. P.O. BOX 36 FREDONIA, AZ 86022 602-643-5823	URANIUM	SURFACE DRILLING DISCOVERY OF MINERALIZED COLLAPSE BRECCIA, DEVELOPMENT AND PERMITTING UNDERWAY
I.X.L. GROUP	T 23 N R 17 W SEC 33	GAMIN RESOURCES 500, 890 WEST PENDER ST. VANCOUVER BC V6C 1J9 604-662-1286	LEAD, SILVER, ZINC	SURFACE GEOLOGIC MAPPING, CHIP SAMPLING AND DRILLING PROGRAM COMPLETED, SILVER RESOURCE IDENTIFIED

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MARICOPA (CONT)</u> VULTURE	T 6 N R 6 W SEC 36	A.F. BUDGE (MINING) LTD. 7340 E. SHOEMAN LN. #111B SCOTTSDALE, AZ 85251	GOLD	SURFACE ROTARY AND DIAMOND DRILLING PROJECT, METALLURGICAL EVALUATION FOR CYANIDE HEAP LEACHING
VULTURE TAILINGS	T 6 N R 6 W SEC 36	A.F. BUDGE MINING LTD. 7340 E. SHOEMAN LN. #111B SCOTTSDALE, AZ 85251	GOLD	CYANIDE LEACH EVALUATION OF AGGLOMERATED TAILINGS
W.W. ENTERPRIZE	T 3 N R 6 W SEC 3	W. "DUB" WHITE P.O. BOX 585 BUCKEYE, AZ 85326 602-386-3754	COPPER	SURFACE MINING, PILOT COPPER OXIDE LEACH/PRECIPITATION OPERATION
<u>MOHAVE</u> ARABIAN	T 21 N R 20 W SEC 20	SUTTON RESOURCES LTD. 166, 10551 SHELLBRIDGE WAY RICHMOND, B.C. V6X 2W9	GOLD, SILVER	CONDUCTED DRILLING PROGRAM WITH MERIDIAN LAND AND MINERAL, IDENTIFIED RESERVES OF 500,000 TONS GRADING .06 OZ/TON SILVER
BI METAL MINE (1)	T 20 N R 17 W SEC 4	SHARON STEEL 6917 COLLINGS AVE. MIAMI BEACH, FL 33141 305-866-7771	GOLD, SILVER	ESTIMATED OPEN PIT RESERVES 100,000 TONS OF .07 OZ/TON SILVER
BI METAL MINE (2)	T 20 N R 17 W SEC 4	FRISCO LAND & MINING CO. 4081 KINGS CANYON CARSON CITY, NV 89701	GOLD, SILVER	OPEN PIT MINED BULK SAMPLE, LEACHED BULK SAMPLE AT FRISCO MINE FACILITY

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MOHAVE (CONT)</u> BUZZWORM	T 21 N R 20 W SEC 8	AMOCO MINERALS INC. P.O. BOX 3299 ENGLEWOOD, CO 80155 303-740-5000	GOLD	LEASED PROPERTY AND CONDUCTED ROTARY DRILL PROGRAM DURING 1985
COMET	T 19 N R 20 W SEC 16	SUN RIVER GOLD CORP. 406, 837 W. HASTINGS VANCOUVER, B.C. V6C 1B6 604-662-7122	GOLD	SURFACE DRILLING PROJECT
COON-TAIL	T 17 N R 11 W SEC 30	B & F MINING CO. INC. 1140 FRANKLIN DRIVE KINGMAN, AZ 86401	GOLD	BULK SAMPLE MINED FOR PILOT LEACH AT PLANT LOCATED AT T23N, R13W SEC. 30
DE LA FONTAINE	T 22 N R 17 W SEC 5	GAMIN RESOURCES 500, 890 W. PENDER ST. VANCOUVER, B.C. V6C 1J9 604-662-7122	LEAD, ZINC, SILVER, GOLD	MAPPING AND SAMPLING OF UNDERGROUND WORKINGS
ELDORADO (1)	T 28 N R 18 W SEC 21	FLECK MINING 1673 RUDDOCK COVINA, CA 91724	GOLD, SILVER	ESTABLISHED AND OPERATED AGGLOMERATION HEAP LEACH FACILITY
ELDORADO (2)	T 28 N R 18 W SEC 21	CANDORADO MINES LTD. P.O. BOX 4691 WILLIAMS LAKE, B.C. V2G 2V7	GOLD, SILVER	PLANS TO LEACH EXISTING STOCKPILE AS BULK TEST, DIAMOND DRILLING PROGRAM

ARIZONA EXPLORATION 1984-1986 (CONT)

PROPERTY	LOCATION	OPERATOR	COMMODITY	ACTIVITY
<u>MOHAVE (CONT)</u> EUREKA	T 22 N R 17 W SEC 10	ARIZONA SILVER CORP. 1140, 625 HOWE ST. VANCOUVER, B.C. V6C 2T6 604-689-5588	SILVER, LEAD, GOLD	SUNK INCLINED SHAFT 300', DROVE 600' OF DEVELOPMENT AND EXPLORATORY DRIFTING, FURTHER EXPLORATION PLANNED
EZ BRECCIA PIPES	T 37 N R 6 W SEC 2	PATHFINDER MINES CORP. 935 N 1300 W SUITE 5 ST. GEORGE, UT 84770 801-628-2837	URANIUM	SURFACE DRILLING ON CLUSTER OF MINERALIZED BRECCIA PIPES
FLAG MINE	T 20 N R 15 W SEC 32	HECTOR RESOURCES 1140, 625 HOWE STREET VANCOUVER, B.C. V6C 2T6 604-689-5588	SILVER, GOLD	DEWATER UNDERGROUND WORKINGS, UNDERGROUND SAMPLING, SURFACE DIAMOND DRILLING PROGRAM TO TEST EXTENSION OF VEIN TO NORTH AND AT DEPTH
FOUNTAIN HEAD	T 22 N R 17 W SEC 4	HARRISON MINING P.O. BOX 3091 KINGMAN, AZ 86402	SILVER, GOLD, LEAD, ZINC	REFURBISH CERBAT (GEM) FLOTATION MILL, MINE BULK SAMPLE FROM REHABILITATED UNDERGROUND WORKINGS
FRISCO	T 23 N R 21 W SEC 15	FRISCO LAND AND MINING CO. 4081 KINGS CANYON RD. CARSON CITY, NV 89701	GOLD, SILVER	SURFACE DRILLING TO DISCOVER/DEVELOP ADDITIONAL RESERVES FOR INTERMITTANT HEAP LEACH OPERATION
FRY MINE (GB CLAIMS)	T 28 N R 19 W SEC 25	PACIFIC COAST MINES 3075 WILSHIRE BLVD. LOS ANGELES, CA 90010	GOLD	IDENTIFIED GOLD RESOURCE, RETURNED PROPERTY TO CLAIMANTS