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PRINTED: 12/11/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: BLACK ROCK

ALTERNATE NAMES:
PACIFIC MINES

LA PAZ COUNTY MILS NUMBER: 287

LOCATION: TOWNSHIP 4 S RANGE 23 W SECTION 11 QUARTER SE
LATITUDE: N 33DEG 05MIN 19SEC LONGITUDE: W 114DEG 35MIN 33SEC
TOPO MAP NAME: PICACHO - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:
ZINC CARBONATE
LEAD CARBONATE
SILVER
FLUORINE FLUORSPAR

BIBLIOGRAPHY:
KEITH, S.B., 1978, AZBM BULL. 192, P. 175
ADMMR BLACK ROCK FILE
ADMMR RED CLOUD MINE FILE
ADMMR A.L. FLAGG VANADIUM RPTS, BK VI
ADMMR "U" FILE AG5
AZBM BULL 134, P 67-68
AZBM BULL 158, P 94
PARKER, FRANK Z. (ADMMR GEOLOGY FILE)
ADMMR BLACK ROCK-PACIFIC MINE COLVO FILE

BLACK ROCK & PACIFIC MINES

YUMA COUNTY
T4S, R23W Sec 11 & 12

Elgin B. Holt report - Red Cloud Mine (file)

A. L. Flagg vanadium reports - Book VI

USBM "U" file

See: ABM # 158 p. 94

See: ~~Eagle-Picher "B" Confidential files.~~ Now in this file

ABM Bul. 192, p. 175

ABM Bul. 134, p. 67-68

MILS Sheet sequence number 0040270115

MAP- Upstairs in flat file - Drawer 6 Assay map

See: PARKER, FRANK Z., "The Geology and Mineral Deposits of the Silver District, Trigo Mtns., Yuma County, AZ." (Geology File)

See: IC 8969 -- Gold and Silver Leaching Practices in the U.S.; p. 16

Fluorite benefits from ozone fears

by John Kilburn
The Northern Miner

VANCOUVER — The planned phasing out of chlorofluorocarbons (CFCs) by the year 2000 or earlier has prompted a number of companies to begin exploring and developing fluorite deposits.

Fluorite, also known as fluorspar, has a number of uses depending on its grade. Fluorite ore is generally concentrated using flotation, yielding 60% to over 97% calcium fluorite depending on metallurgy.

Acid grade fluorspar, containing a minimum of 97% calcium fluoride, is of principal interest because of its use in the manufacture of hydrofluoric acid.

Hydrofluoric acid is used in the manufacture of hydrofluorocarbons (HFCs) and hydrochlorofluorocarbons (HCFCs), both of which have similar properties to CFCs, but do not contribute to ozone depletion.

The manufacture of HFCs and HCFCs requires about twice the amount acid-grade fluorspar, and as a result, producers are predicting a big jump in fluorite demand.

The market for acid-grade fluorspar in the U.S. totalled about 600,000 tons in 1991, about half of which was supplied by Mexico.

Du Pont expects to be producing about 125 million lb. of HFC compounds by 1993, principally for use as refrigerants.

Silverspar Minerals (VSE) is developing a large acid-grade fluorite deposit in La Paz Cty., Ariz.

Reserves on the property were last estimated at about 1.8 million tons grading 14% fluorite contained in a larger reserve of 4 million tons grading 5 oz. silver per ton.

Recent stepout drilling on the property returned a number of wide, high-grade intersections and Silverspar expects

See FLUORITE, Page 2

Fluorite deposits

From Page 1

reserves to increase as a result.

The company is currently conducting metallurgical testing and is in the process of raising US\$10 million through the issuance of one million shares to fund additional feasibility work.

Peter Fox, a director, said the company hopes to be in production by 1994.

Both **Verdstone Resources (VSE)** and **American Bullion Minerals (VSE)** recently announced unrelated acquisitions of fluorite properties.

American Bullion can earn a 100% interest in the Clearwater property north of Kamloops, B.C., by making staged option payments totalling \$210,000 over 24 months. The vendor is also entitled to a 1.5% production royalty.

Previous drilling in 74 holes outlined a preliminary open pit reserve of about 2.3 million tons grading 21.3% fluorite.

American Bullion sees additional reserve potential in a number of other mineralized zones on the property as well as in a lower fluorite horizon intersected by a single hole which encountered 54 ft. grading 20% fluorite.

The company reports that the fluorite appears to be capable of producing acid-grade fluorspar.

John Brock, president, said the company plans to do further drilling to the north and downdip, to fully delineate reserves. In addition, he said a bulk sample from drill core and trenching will be compiled for

metallurgical testing.

The company also hopes to extract celestite as well as rare earth oxides from the fluorite zone. The two products are used by the high technology, electronics and ceramics industries.

Brock said baseline environmental studies, as well as marketing and prefeasibility studies, should be completed by year-end at an estimated cost of under \$1 million.

American Bullion currently has about \$300,000 in working capital which Brock said is enough to get started while additional financing is arranged.

Verdstone purchased two fluorite properties in British Columbia and is negotiating to acquire a past producer in Nevada.

The company purchased a 100% interest in the "Fluorite" claims south of Chase, B.C., for 25,000 treasury shares and a 100% interest in the Gloria Rose property near Vernon, B.C., for 45,000 treasury shares.

The known fluorite occurrence at the Fluorite claims is in late-stage hydrothermal veins over a strike length of about 1,600 ft. The veins are reported to grade up to 80% fluorite.

Fluorite mineralization on the Gloria Rose property is described as widespread, with two recently discovered zones grading up 60% fluorite.

The former producing fluorite mine in Nevada produced more than 180,000 tons grading 46% fluorite and Verdstone is now seeking joint venture partners to explore the properties.

Formation play
Black Pine massive sulphide
drawing interest in Idaho

Page 14

Champion project
Drilling by Western Mining
under way at Jones Hill

Page 16

Northern Miner

Founded 1915

CANADA'S MINING NEWSPAPER

BLAKE ROCK (FLAPAZ)
July 6, 1992

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\$25 per ton. that base scenario would leave a margin of at least \$25 for ton processed. Using a area of at least 50 acres, ated the pipe's reserves 0-200 million tons. tors, however, sent Dia share price down more to \$14 in the days fol- the announcement. resources (TSE) fell 41¢ 3, while SouthernEra dropped 64¢ to \$1.45. led in the release was a grade figure for the 160- ple (101 carats instead previous estimate of 90 and confirmation that a ne stones are in the 1- ange.

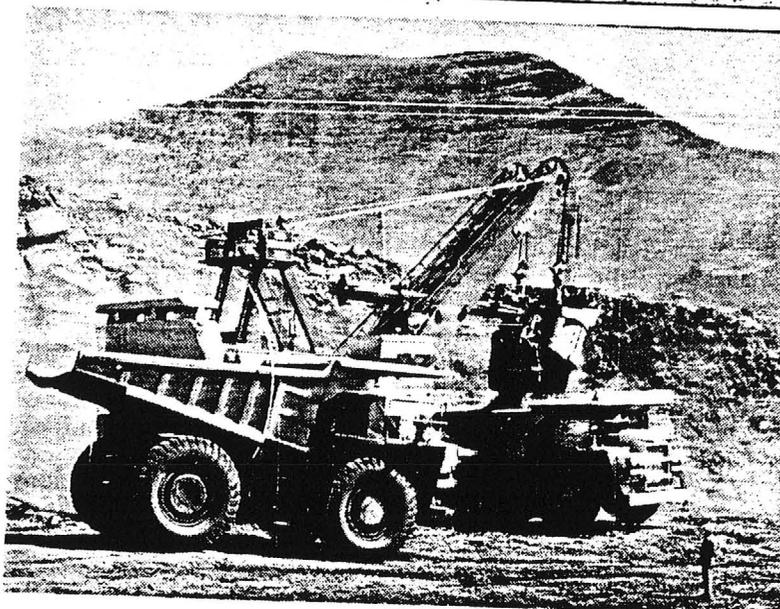
grade were to hold up r samples, the Point See DIAMOND, Page 2

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l-breaking producers two of the Northwest es finest: **Echo Bay** (TSE) Lupin mine at z. and **Nerco Miner-** mine at 123,000 oz. **agle Mines'** (TSE) mine in northwestern See WILLIAMS, Page 2

1990 Rank

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- 2
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Truck and shovel operation at Forging Coal at Elkford, B.C. Photo by Canadian Mining Journal

B.C. coal producers' losses foreshadow mine closures

by John Kilburn
The Northern Miner

VANCOUVER — The financial fortunes of British Columbia's coal producers moved from bad to worse in 1991, with losses before extraordinary items topping \$62 million. This compares with a loss of \$4.1 million before extraordinary items in 1990.

The British Columbia Coal Association highlighted its annual review in red ink, exemplifying the industry's woes.

Peter Dolezal, chairman of the association, warned that the provincial, municipal and federal governments must act quickly to move the industry away from the brink of collapse.

Dolezal said mine closures and lost jobs are imminent, and he noted a number of key issues hampering industry com-

it outstrips the combined value of oil and natural gas production in the province.

Dolezal said the government has failed to recognize the potential for coal as part of the province's energy supply. And he said a coal-generated power plant in southeastern British Columbia would be a significant boon to the local economy which is in grave danger of losing high-paying mining jobs.

Dolezal said Alberta coal producers supplying local power facilities are excellent examples of stable and profitable operations.

The government is not necessarily opposed to a coal-powered generating plant but has set sulphur emission standards at 0.2 lb. per BTU, representing "best possible technology."

Jim Gardiner, an association board member and the presi-

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Dickinson, Hunter seek Casino property through

VANCOUVER — After over a year-long search for a major project, **Pacific Sentinel Gold (VSE)** announced it plans to merge with **Big Creek Resources (VSE)**.

The companies expect to merge on a one-for-one basis subject to the completion of a due diligence review as well as shareholder and regulatory approval.

Big Creek's primary asset is its option to earn a 50% interest in the Casino copper-gold property in southern Yukon from

Casino Silver Mines (VSE).

Based on drilling in the late 1960s and early 1970s, the property contains an estimated preliminary open-pit reserve of about 170 million tons grading 0.37% copper and 0.039% molybdenum at a strip ratio of about 1.7-to-1.

At the time of the original drilling, gold was not generally assayed although the projects' mineral inventory is estimated at 417 million tons grading 0.30% copper, 0.01 oz. gold per ton and 0.038% molybdenum.

Big Creek hopes to boost reserve grade on both the copper and gold based on the theory that poor core recoveries in the previous narrower gage drilling understated grades.

Drilling to date in 11 holes returned values of up to 0.039 oz. gold and 1.55% copper over a

185-ft. section in the best hole.

Work is continuing with one rig on the property drilling on a 400-ft. grid, primarily infilling between old drill holes with some holes twined.

A reserve estimate based on the new drilling has not yet been completed.

In order to earn the 50% interest in the project from Casino Silver, Big Creek is required to spend \$3.5 million on exploration and development by Nov. 1, 1994 plus an additional \$4 million by May 1, 1998.

Big Creek has the right to sell the entire property at any time prior to June 1, 1995 for a minimum of \$15 million.

Proceeds will be split 80/20 in favor of Casino on the first \$15 million, 50/50 on the portion between \$15 million and \$100 million, and 60/40 in favor of Big Creek on the sale amount exceeding \$100 million.

Consultant Archer Cathro & Associates, vendors of the earn-

in to Big Creek, is entitled to 5% of Big Creek's share of the proceeds on the first \$100 million, and 10% on the balance.

Big Creek has the option to reduce Casino's interest to a 10% net profits interest by paying the company \$1 million at the end of 1992; a further \$2 million by the end of 1993; and \$12 million by the end of 1994.

Robert Dickinson, president of Pacific Sentinel, said he is "very pleased" with the deal, noting that the company has reviewed literally hundreds and hundreds of projects since dropping its option on the Golden West property in Arizona back in April of 1991.

Dickinson said the company will continue drilling with one rig on the property for the time being, although the program will likely be accelerated at some point in the future. He said the most likely route for the company is to acquire 100% of the property from Casino by making

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Announcing the Manitoba Prospectors Assistance Program

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R3C 4E3
Telephone: (204) 945-6505 or 1-800-282-8069
(Manitoba only)
Fax: (204) 945-0586

Manitoba Energy and Mines James E. Downey, Minister



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MINING IN CANADA

FACTS & FIGURES

PUBLISHED

Fluorite study

From Page 1

bility study is warranted, with estimated costs likely to be \$200,000.

Silverspar retained Orcan Mineral Associates to review the results of its 1992 drill program. The work on the Black Rock, Padre Kino, Silver King and Princess zones — together with the Pacific deposit reported by New Jersey Zinc — indicated a total preliminary reserve of 2.26 million tons grading 14.5% fluorite.

Silverspar President Peter Fox said this represents a preliminary reserve of some 325,000 tons of contained fluorite calculated on a 100% basis, or a 30% increase from that previously reported by the company.

Fox noted that further exploration on the Princess and Padre Kino zones, together with existing reserves on the State deposit,

"could add some 230,000 tons grading 16% fluorite."

The company plans to continue expanding its fluorite inventory with a view to developing the property for production in early 1994.

Cominco

From Page 1

end of 1996 at the latest, depending on the smelter technology chosen.

Cominco's new QSL lead smelter has been shut down since March, 1990, due to process and mechanical problems that surfaced at the initial start-up. A decision on whether to proceed with QSL modifications or switch to the Kivcet process was to have been made in June, but necessary plant-scale tests delayed that decision until year-end or early 1993.

Cominco expects that construction of the new system will begin in mid-1993, and that it will be in operation by mid-1995. This advances the switch to a land-based system by 18 months.

The recent bioassay tests, while not intended to simulate conditions actually occurring in the river environment, showed the slag material to be detrimental to five species of aquatic organisms under laboratory conditions. Levels of copper and zinc exceeding the tolerance limits of these species

Diamonds

From Page 1

Peace River area of northern Alberta. No significant results have been released from the property.

In the Northwest Territories, **Kalahari Resources (VSE)** reports that joint venture partner **Kennecott** has established a 10-man base camp on MacKay Lake near the northern boundary of the 550,000-acre property.

The Kennecott personnel are

AMELIA (E), GERONIMO NTS, (A), STATE (A), DIVES (E), BLACK ROCK (E) MENDOCIL (E)
 PAPAGO (E), BUJINE (CLIP) (E)



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INTRODUCTION

Orbex Industries Inc. ("OXI") is a professionally managed British Columbia based natural resource exploration and development company with interests in several highly regarded North American mineral properties—including the vast (2900 acre) Silver District property located in La Paz County, Arizona. A recently completed drill program (8 reverse circulation holes) produced excellent results including a 90 foot section (S242P-L150-L240) averaging 5.7 ounces per ton silver with the last 10 feet averaging 14.6 ounces per ton silver. This hole is especially significant due to the high grade and shallow depth in a newly discovered mining zone. In addition, the mineralization continued to carry when the hole was pulled.

Other properties of interest in the OXI stable include 2½% carried royalty interest in QPX's (a Placer-Dome spinoff) promising gold project, The Salt Chuck and Rush and Brown prospects in Alaska and the Gold Dyke property on Vancouver Island.

THE SILVER DISTRICT DEPOSITS

Location, Geology and Mineralization

The Silver District is located within the Basin and Range Structural Province of the southwestern United States and is just east of the complex San Andreas tectonic rift system. Precious metal deposits, particularly low grade disseminated gold deposits, have been located in much of the region. Significant occurrences are known in the Cargo Muchocho Mountain, the Mesquite Diggins district (Gold Fields), the Imperial district and Picacho district (Glamis).

The Picacho rocks exposed in the Silver District are highly metamorphosed Mesozoic sediments which now include gneiss, schist, phyllite, quartzite and marble. During late Cretaceous to Early Tertiary time, Laramide magmatism occurred in southwest Arizona resulting in intrusions of granitic composition which, in part, have formed granitoid gneiss and migmatite core complexes through regional metamorphism.

The main economic mineral is native silver but potentially

economic minerals include barite, fluorite, and minor quantities of lead and zinc. The principal gangue mineral in all the vein systems are calcite and quartz. Silver mineralogy consists of native silver, with minor acanthite and chlorargente. Economic mineralization occurs in nine closely spaced deposits occurring in three major vein systems striking north to northwest following major normal fault structures. The veins are exposed over a strike length of 5½ miles, and vary in thickness from 9 to 164 feet. For mining purposes, deposit boundaries are defined by assay cutoff grades. The majority of the deposits are amenable to open pit mining methods.

MINING RESERVES

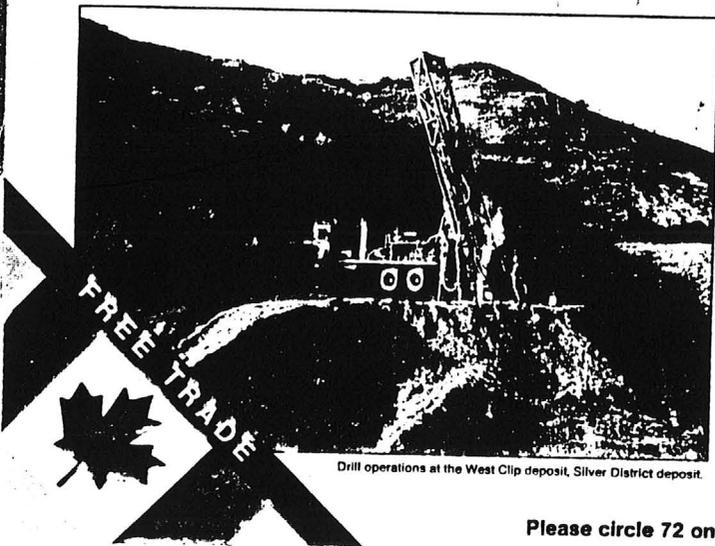
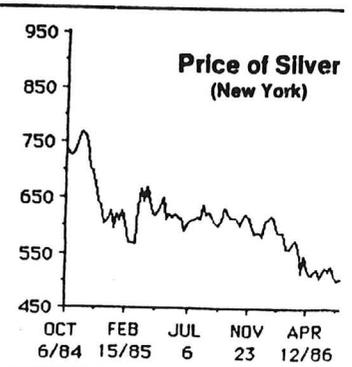
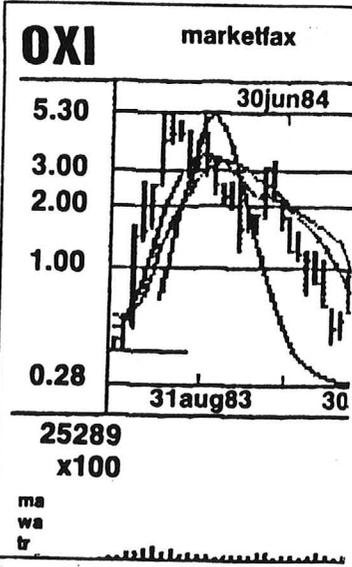
Reserves diluted for mining are 5.7 million tons averaging 3.89 Ag oz/ton. Approximately 4.5 million tons are proven and 1.2 million tons probable. Reserve calculations are based on exploration expenditures of US\$2.8 million comprising 296 drill holes (38,000 feet), 31 bulk samples (10-30 tons each), a pilot mill operation, and extensive bench scale metallurgical tests. A further minimum expansion of 30%-40% in reserves is geologically attainable by in-fill drilling and further undetermined potential lies along strike and at depth. It is notable that the deepest vertical hole is 300 feet.

Previous assays results from drilling on the north end of the Silver District's Papago deposit returned 20 feet grading 5.89 ounces per ton Ag. Further drilling in 1986 on the same section intersected the structure 130 feet down dip and returned 20 feet grading 11.28 ounces per ton Ag with one five foot section grading 33.35 ounces per ton Ag. The Papago deposit remains open along strike and at depth with a further 2000 feet of potential strike length.

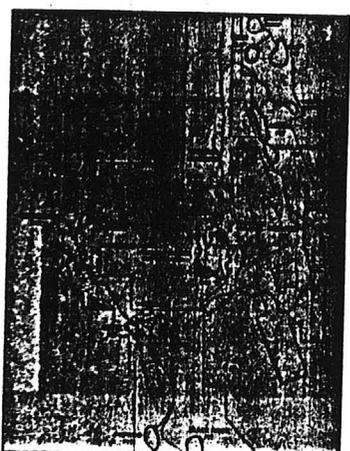
OXI current drilling program is designed to fully evaluate this property's potential prior to a production decision being made.

There are some significant concentrations of metallurgical grade fluorite associated with the Blackrock, Padre-Klino, Silver King, State and Papago zones. In some instances the fluorite grade runs as high as 20% CaF2. The inground market valuation is currently about US\$50.0 million. Additional work has begun to fully evaluate these very interesting occurrences.

OUR PRINCIPAL CRITERIA FOR THE SELECTION OF UNDERVALUED NATURAL RESOURCE GROWTH STOCKS ARE COMPANIES THAT ARE: WELL MANAGED AND FINANCED, WHOSE PRIMARY PROJECTS ARE WELL ADVANCED AND FEATURE ACCESSIBLE LOCATIONS, AND ENJOY REASONABLE MARKET CAPITALIZATION RATIOS. IN ADDITION, A COMPANY'S COMMON EQUITY STRUCTURE SHOULD NOT BE SO LARGE AS TO IMPEDE FUTURE GROWTH AT THE EXPENSE OF EXCESS SHAREHOLDER DILUTION. WE ALSO LOOK FOR THAT INTRINSIC FACTOR OF HAVING MARKET SEX APPEAL—NAMELY



Drill operations at the West Clip deposit, Silver District deposit.



Orbex Industries Silver District Properties location map, Yuma, Arizona.

Please circle 72 on the reader service coupon, page 16.

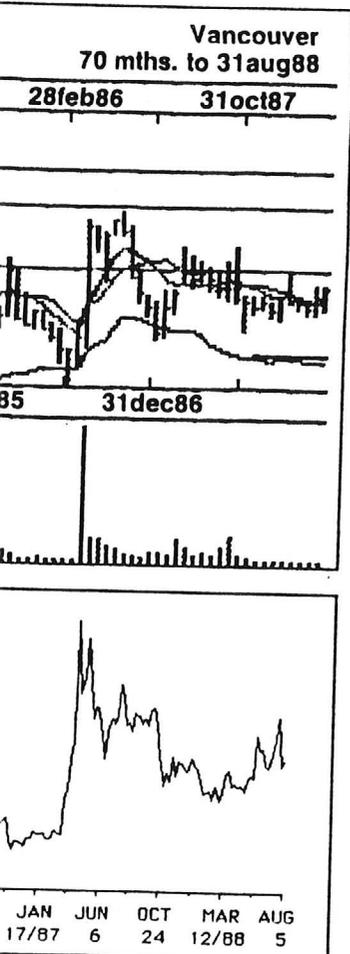
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SILVER PRODUCER

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A NEW AGREEMENT

The company recently negotiated its Silver District property's agreement with its partner, Gulf + Western Inc. and will earn a 100% (previously 75% N.P.O.) interest by spending US\$500,000 within a three year period. G&W retains a 1 1/2% NSR and begins to earn (assuming eventual production) a 25% royalty on silver production once silver trades above US\$11. Any revenues to be derived on silver below US\$11 is 100% accruable to OXI. This new agreement is one of the few "everyone wins scenarios" we have seen for a long time.

OTHER PRECIOUS METALS PROPERTIES

QR Gold Deposit - Quesnel, British Columbia

OXI owns a 2 1/4% carried royalty interest in the promising QR gold deposits (controlled by QPX Minerals—a Placer Dome spinoff) where reserves have been established at 1.5 million tons grading 0.21 Au oz/ton. An additional 7000 foot diamond drilling program has been proposed for this year and is designed to firm up and possibly double the property's reserve inventory. Pre-feasibility studies have projected a seven year mine life, based on present reserves, and production at a rate of 400 tons per day, for a total of 30,000 Au/oz per annum. Once in production, OXI's interest would be in the order of \$300,000-\$400,000 in net revenues per annum.

THE SALT CHUCK PROPERTY - ALASKA

The Salt Chuck gold-platinum-palladium-copper prospect is located on Price of Wales Island, Alaska and comprises a large geochemical anomaly 250 feet by 1000 feet that is immediately to the east of the former producing Salt Chuck mine. Previous above and below ground samplings have produced some encouraging assays including several as high as 10% copper, 1.91 ounces per ton gold, 1.34 ounces per ton palladium and 0.01 ounces per ton platinum. Field work for this season has recently begun without American Platinum Inc., the former joint venture partner, who recently elected not to participate further in the project. OXI now owns 100% of the property.

THE RUSH AND BROWN PROSPECT

The Prospect is located a few miles southwest of the Salt Chuck mine. Compilation of previous work indicates two types of mineralization. The first is similar to the Salt Chuck (as yet untested for PGM) while the second is a gold bearing shear zone ranging from 4 feet to 14 feet with grades reported at up to 0.56 Au oz/ton. Field work began recently in conjunction with the Salt Chuck.

THE GOLD DYKE PROPERTY

The Gold Dyke property (100% owned) is located on Vancouver Island and comprises a 150 foot by 2000 foot silica-carbonate-clay altered zone in which gold values are highly anomalous throughout and locally up to 0.134 ounces per ton and combined lead-zinc values up to 5%. Additional exploration work is planned for this property.

OPINION

Every investor should own some form of portfolio insurance such as gold and silver related investment instruments as they have performed remarkably well during times of uncertainty. If one believes in higher silver prices, there are only a few truly leveraged silver equity plays available in the North American marketplace.

The common shares of OXI provide the investor with superb exposure to silver (near term production potential), copper, palladium, platinum and metallurgical grade fluoride. In addition, the company is operated by a management team with a proven record and an excellent reputation. The small common share structure (4.3 million—fully diluted) together with a minute market capitalization (\$3.2 million) are additional positive factors to consider when compared to the lofty numbers associated with many other precious metals securities. At current levels, OXI is significantly undervalued and represents a risk-reward ratio scenario that is clearly in the investor's favor.

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1990 Rank

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from 0.005 to 3,000 carats



ne pit-wall of South emier mine in 1905. t state, it was about f a child's fist and

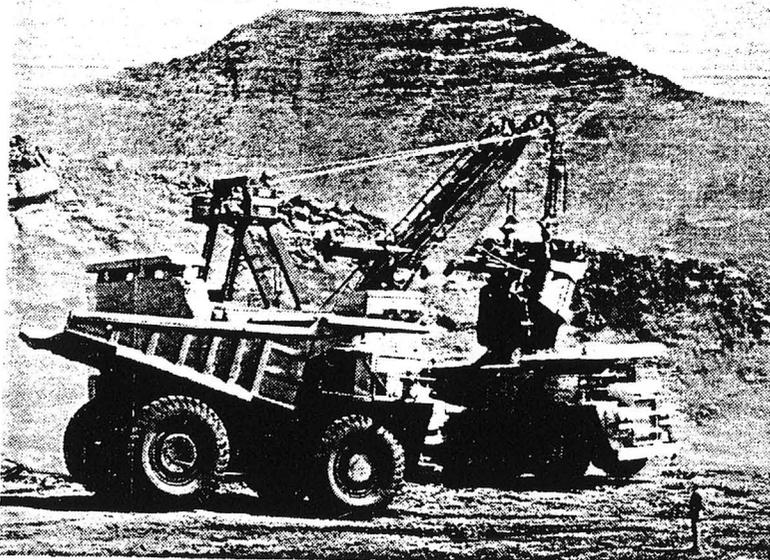
derground diamond mines. There are only six operations in this category. The other five are also in South Africa.

By far, the largest proportion of the world's diamonds comes from open pits and alluvials.

All of Russia's diamonds are recovered from a series of open pits scattered on either side of

dipper sticks of the first power shovels snapped like toothpicks because of the cold.

Separating diamonds from the massive volumes of kimberlite waste rock generally requires equally large volumes of water. Too much water would have been intolerable under Siberian climatic conditions



Truck and shovel operation at Fording Coal at Elkford, B.C. Photo by Canadian Mining Journal

B.C. coal producers' losses foreshadow mine closures

by John Kilburn
The Northern Miner

VANCOUVER — The financial fortunes of British Columbia's coal producers moved from bad to worse in 1991, with losses before extraordinary items topping \$62 million. This compares with a loss of \$4.1 million before extraordinary items in 1990.

The British Columbia Coal Association highlighted its annual review in red ink, exemplifying the industry's woes.

Peter Dolezal, chairman of the association, warned that the provincial, municipal and federal governments must act quickly to move the industry away from the brink of collapse.

Dolezal said mine closures and lost jobs are imminent, and he noted a number of key issues hampering industry competitiveness.

The first issue is one of coal use. Despite its top ranking in terms of value at \$1.6 billion, coal has virtually no domestic consumption base even though

it outstrips the combined value of oil and natural gas production in the province.

Dolezal said the government has failed to recognize the potential for coal as part of the province's energy supply. And he said a coal-generated power plant in southeastern British Columbia would be a significant boon to the local economy which is in grave danger of losing high-paying mining jobs.

Dolezal said Alberta coal producers supplying local power facilities are excellent examples of stable and profitable operations.

The government is not necessarily opposed to a coal-powered generating plant but has set sulphur emission standards at 0.2 lb. per BTU, representing "best possible technology."

Jim Gardiner, an association board member and the president of Fording Coal, said the 0.2 standard boosts capital costs for a generating facility substantially, leaving current proposals uneconomic.

See COAL, Page 2

Fluorite benefits from ozone fears

by John Kilburn
The Northern Miner

VANCOUVER — The planned phasing out of chlorofluorocarbons (CFCs) by the year 2000 or earlier has prompted a number of companies to begin exploring and developing fluorite deposits.

Fluorite, also known as fluorspar, has a number of uses depending on its grade. Fluorite ore is generally concentrated using flotation, yielding 60% to over 97% calcium fluorite depending on metallurgy.

Acid grade fluorspar, containing a minimum of 97% calcium fluoride, is of principal interest because of its use in the manufacture of hydrofluoric acid.

Hydrofluoric acid is used in the manufacture of hydrofluorocarbons (HFCs) and hydrochlorofluorocarbons (HCFCs), both of which have similar properties to CFCs, but do not contribute to ozone depletion.

The manufacture of HFCs and HCFCs requires about twice the amount acid-grade fluorspar, and as a result, producers are predicting a big jump in fluorite demand.

The market for acid-grade fluorspar in the U.S. totalled about 600,000 tons in 1991, about half of which was supplied by Mexico.

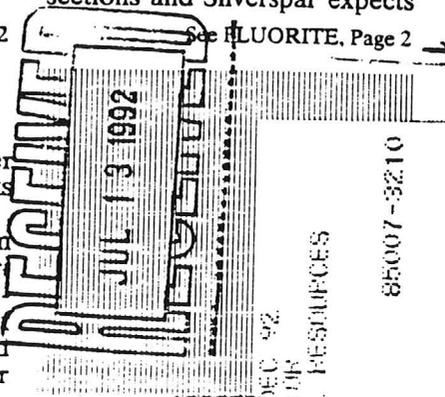
Du Pont expects to be producing about 125 million lb. of HFC compounds by 1993, principally for use as refrigerants.

Silverspar Minerals (VSE) is developing a large acid-grade fluorite deposit in La Paz Cty., Ariz.

Reserves on the property were last estimated at about 1.8 million tons grading 14% fluorite contained in a larger reserve of 4 million tons grading 5 oz. silver per ton.

Recent stepout drilling on the property returned a number of wide, high-grade intersections and Silverspar expects

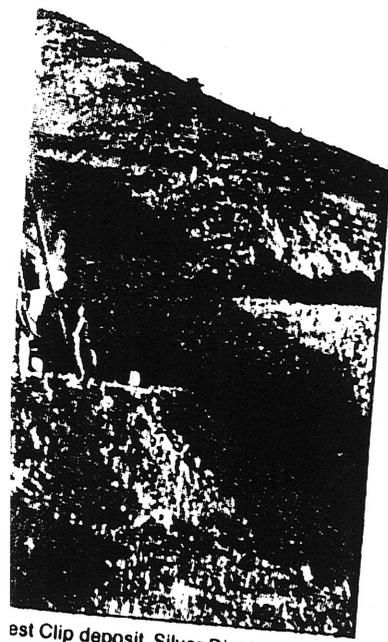
See FLUORITE, Page 2



are highly
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OXI current drilling program is designed to fully evaluate this property's potential prior to a production decision being made.

There are some significant concentrations of metallurgical grade fluorite associated with the Blackrock, Padre-Kino, Silver King, State and Papago zones. In some instances the fluorite grade runs as high as 20% CaF₂. The inground market valuation is currently about US\$50.0 million. Additional work has begun to fully evaluate these very interesting occurrences.



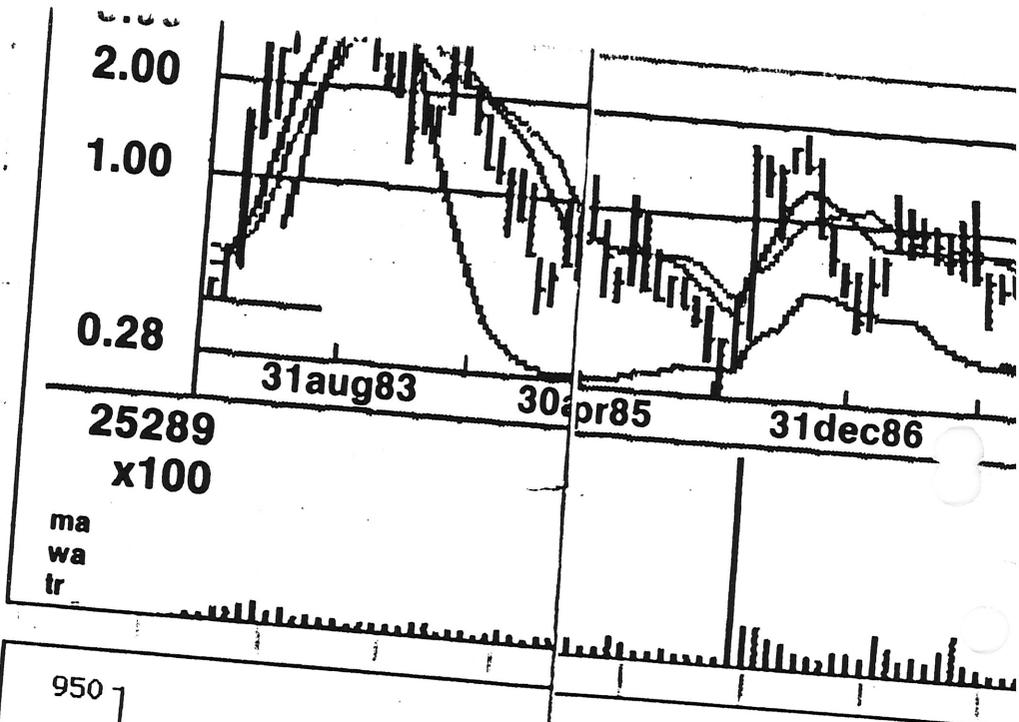
est Clip deposit, Silver District deposit.



Orbex Industries Silver District Properties location map, Yuma, Arizona.

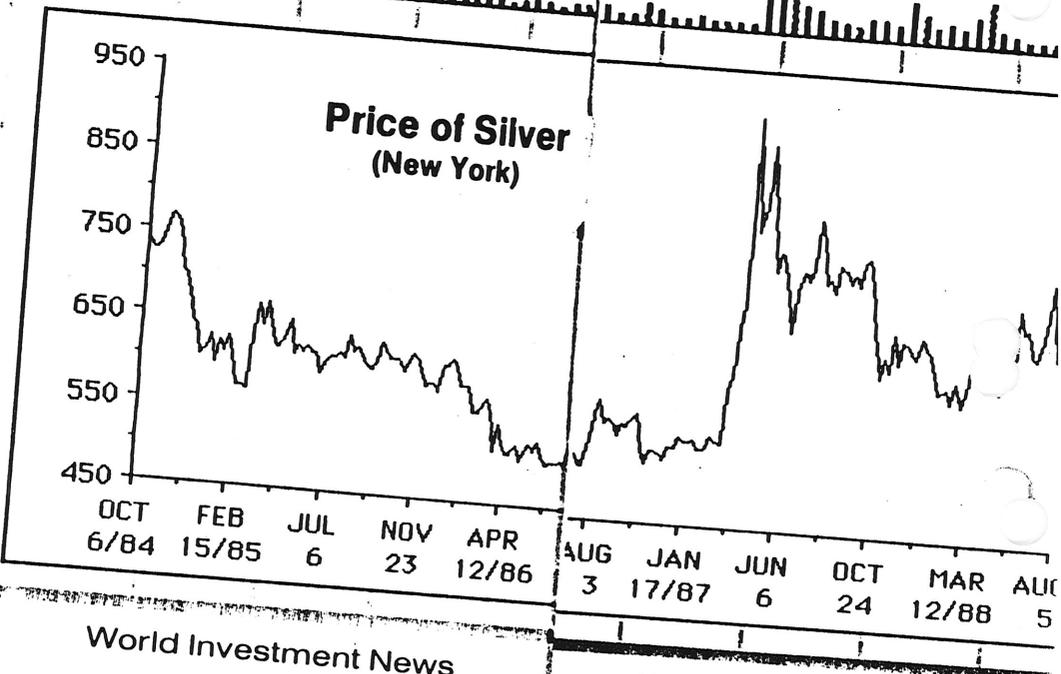
Please circle 72 on the reader service coupon, page 16.

September 1988



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OCT 6/84 FEB 15/85 JUL 6 NOV 23 APR 12/86

AUG 3 JAN 17/87 JUN 6 OCT 24 MAR 12/88 AUG 5

World Investment News

World Investment News

	57,500	160	160
	15,000	11	10
& Sm	557,700	68	40
	10,000	5	5
es	24,000	100	47
	164,677	110	80
	1,600	40	40
	7,000	2	2
	3,000	100	100
	4,000	60	60
	52,000	49	35
	22,000	40	40
hite	5,000	40	40
	5,500	20	17
	1,538	1250	1250
	10,000	20	20
	21,650	300	250
	4,000	10	10
son	34,000	60	60

SEAS QUOTES

rose Tuesday, April 24

AT BRITAIN (U.S. Funds)

	Bid	Ask
.....	3425	3525

TH AFRICA (U.S. Funds)

S.A.	2938	2975
fontein	50	70
s.	2075	2088
ons.	1175	1200
.....	1075	1100
ining	950	975
o Levels	3712	3750

TRALIA (Cdn. Funds)

es	130	145
.....	5	10
Mines	245	260
als	60	70
ng	410	430

ed by Midland Doherty Ltd.

BOND QUOTES

se Tuesday, Apr. 24

%	Mat.	Class	Bid	Asked
8½	1991		95½	96
10%	1995		91½	92
7¾	1991		95	95½
9¼	1990		99	99½
8%	1991		95	95½
9¼	1990		98%	98%

ed by Wood Gundy Inc.

TTO STOCK EXCHANGE INDICES

	Apr. 24	Apr. 23	Apr. 20	Apr. 19	Apr. 18	HIGH	LOW
erals	3340.96	3344.07	3355.62	3410.61	3476.42	4009.47	3340.96
mines	2851.87	2850.84	2898.23	2946.64	2971.48	3453.05	2850.84
s	2971.08	2969.24	3021.10	3071.20	3090.97	3457.62	2969.24
Coal	2621.40	2627.91	2654.87	2709.41	2776.43	2879.33	2621.40
	1276.22	1276.22	1288.82	1304.15	1333.03	1709.45	1276.22
	6262.68	6329.58	6312.34	6555.46	6624.90	8095.66	6262.68

APRIL 30, 1990

NORTHERN MINER

.....	9	15	Rose Gold	100	300
.....			Royal C.	25	50
.....			Shadowfax	40	80
.....	50	100	Sheldon-L	25	28
.....	70	80	Strike Min	20	35
.....	20	25	Swansea G	5	15
.....	18	23	Tanager	15	25
.....	2	6	Thistle	20	
.....	30	50	Toburn-Alta	130	160
.....	10		Tracker Res	2	5
.....	10	20	Transgold	1	15
.....	22	27	Tranway	12	20
.....	10	30	Typhon	10	
.....	5	15	Union	50	55
.....	20	30	Vega	10	
.....	10	15	Victoria Cty	5	15
.....	3	8	White-Guy	10	20
.....	5	8	Whitney B	5	25
.....	15	16	Willingdon	20	40
.....	40	60	Winteroad	25	75
.....	15		Wood-Croe	7	12

Provided by Canadian Over-the-Counter Automated Trading System

Major General pays \$12 million for Umex package

In return for 32 Canadian properties and associated assets, Major General Resources (VSE) will pay over \$11.7 million to Umex, a unit of Union Miniere of Belgium, but only \$250,000 will be in cash.

Of the total sum, \$11.25 million will come from production proceeds equal to a 2.5% net smelter return on each of the properties. The balance will be paid in cash plus a 2-year promissory note for \$250,000 bearing interest at 10%. A finder's fee of \$25,000 is also payable.

Major General has agreed to spend \$5 million on exploration on the properties over the next five years, and intends to fund the exploration through joint ventures, current working capital and future financings.

The Umex portfolio covers 85,000 acres of land across Canada, including several precious metal prospects in the Pickle Lake mining district of northwestern Ontario.

the company's Novo Ast gold mine in Brazil. The company is instituting major changes at Novo Astro in order to return that mining operation to its former level of profitability, however.

During the year, the company's total gold production rose 21% to 79,000 oz. from 65,000 oz. and resulted in TVX's share of revenues increasing to \$54 million from \$45 million in 1988.

Construction of the 15,000-ton-per-day mining and milling operation at La Coipa in Chile is on budget with startup scheduled in early 1991, at which time 70% of TVX's earnings will come from production at La Coipa.

Since TVX has adopted the U.S. dollar as its reporting currency, 1989 earnings are restated as US\$4.2 million or 10¢ per share compared with US\$11.2 million or 37¢ per share in 1988. The company has interests in four gold mines located in Brazil and Chile where the U.S. dollar is the primary currency of business.

Asarco withdraws Freeport lawsuit

A lawsuit against Freeport-McMoRan Gold (NYSE) and Minorco related to Freeport's sale of its 50% interest in the Santa Cruz joint venture in Arizona has been withdrawn, Asarco (NYSE) reports.

Parent firm Freeport-McMoRan Inc. has acquired its affiliate's interest in the venture, Asarco says.

Asarco owns the other 50% of the Santa Cruz venture which was formed in 1977. The venture is engaged in a research project supported by the U.S. Bureau of Mines and 75% funded by the U.S. government to test the feasibility of novel *in-situ* mining technology for the extraction of copper from a deep underground deposit.

Orbex Industries has changed its name to Silver Gance Resources Inc. (SXG:VSE) on a 1-new-for-5-old-share basis. Transfer agent is Montreal Trust Co.

director William B. 10,000 shares for 200,000. He also holds shares indirectly for 34,500.

Goldnev Resources director Murray P. 7,900 shares for \$1 to directly. He also holds shares indirectly.

LAC Minerals (TSE) Vice-President L. bought 1,000 shares for 1.500.

Noranda (TSE) President Goldman (metallurgy) bought 52,000 shares for \$19.45 to hold 70%.

ASE Rights &

- Canadian Pioneer - Wt and 100 oz gold to May 31/90.
- Emerging Alberta - Wt and 100 Nov. 30/90.
- Goldbrook - Wt and 70¢ buy
- Goldplex - Wt and 60¢ buy
- Gold Venture - Wt and 50¢ 2/90.

Quoted from ASE by

Lencourt offers

Toronto-based Lencourt is planning to raise \$4 million to acquire African mining assets Sominki and its Belgian assets through a private offering of common shares.

Lencourt says a limit of subscribers will be set and the offering is subject to regulatory approval. A \$1 million being raised.

Also, two previous placements by Noranda for \$1.16 million, and by VSE and McQuat worth \$2 million did not proceed, Lencourt says.

The placements were designed to finance the operations of Sominki which owns tin and gold mines. Lencourt holds several large mineral concessions hosting underdeveloped tantalum and gold deposits.

Lencourt is controlled by Griffis and McQuat, a mining engineering firm with interests in several other mining companies.

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The Northern Miner

Founded 1915

Vol. 78 No. 26

CANADA'S MINING NEWSPAPER

August 31, 1992

High Lake drilling returns 7% copper across 71 metres

by Virginia Heffernan
The Northern Miner

Joint venture partners **Aber Resources (TSE)** and **Kenecott Canada** have pulled a 71-metre intersection grading

Study supports plan to develop fluorite property

by John Kilburn
The Northern Miner

VANCOUVER — Based on the findings of an interim report by Kilborn Engineering, **Silverspar Minerals (VSE)** reports that its Silver District fluorite-silver property in La Paz Cty., Ariz., has the potential to be an economically successful operation.

The company's project attracted considerable investor interest because of a projected increase in demand for fluorite (acid spar), and its immediate byproduct, hydrofluoric acid. Acid spar is the principal feedstock in the manufacture of hydrofluorocarbons (or HFCs) which are recognized as an "ozone-benign" replacement for chlorofluorocarbons (or CFCs) used in refrigerants and other products.

The initial capacity of the proposed operation is estimated at 50,000-60,000 tons of fluorite to be produced annually along with about 1.5 million oz. silver from a heap-leach operation. The interim study found that no major environmental concerns were evident, and adequate supplies of water and power appear to be available.

Kilburn also said a full feasibility

See FLUORITE, Page 2

6.9% copper from the western extension of the AB zone on the High Lake project in the Northwest Territories.

Hole 92-73, drilled between two previous holes that returned mostly pyrite, hit a stratiform massive sulphide lens overlying the mineralized alteration pipe. The high-grade interval included 37.5 metres grading 9.2% copper toward the bottom of the hole.

Mineralization at High Lake occurs in several small deposits containing a total of about five million tons grading 3.5% copper, 2.5% zinc and 0.023 oz. gold per ton. The bulk of the tonnage occurs as stringer copper-gold mineralization within the AB zone.

At High Lake this season, 19 holes were drilled, including a program on the zinc-rich D zone. Aber says next year's drilling program will continue to probe the AB and D zones, trying to expand reserves and will also test new targets.

Aber President Grenville Thomas said sampling to follow up and prioritize airborne targets for drilling is still under way on the company's Lac de Gras diamond properties.

Lac de Gras crash kills pilot

The rush for diamonds in the Northwest Territories has claimed its first fatality.

Howard Damron, a 48-year-old pilot flying under contract for **Dia Met Minerals (VSE)** and **BHP Minerals Canada**, was killed when his Hughes 500B crashed east of Exeter

See CRASH, Page 2



Testing the conductivity of electrolyte in the lead cells at Cominco's lead refinery at Trail, B.C.

Cominco advances tailings plan despite delays at lead smelter

by Vivian Danielson
The Northern Miner

VANCOUVER — Uncertainty surrounding the startup date of a new lead smelter at Trail, B.C., has prompted **Cominco (TSE)** to advance by 18 months its planned move to a land-based system for treated tail slag from the long-standing practice of discharging it to the Columbia River.

The company said the decision was also motivated by uncertainty about the implications of new information arising from bioassay tests conducted on the tail slag by the Department of Fisheries and Oceans, and Environment.

"Uncertainty leads to anxiety, and Cominco is very sensi-

tive to the concerns of people living downriver from Trail," said Granam Kenyon, Cominco's manager of environment and health at Trail. "That is why we are taking these measures."

Tail slag is specially treated by an intense fuming process to reduce and limit residual metals before being discharged to the river at a rate of 360 tonnes per day.

Early this year, Cominco announced it was committed to diverting this slag to a land storage site in conjunction with the completion of the final phase of smelter modernization. The switch was scheduled to have been completed by the

See COMINCO, Page 2

3 deaths while dewatering shafts prompt warning

by David Scott
The Northern Miner

Improper equipment and failure to test for poisonous gases were causes of the deaths of three prospectors in the Ontario bush this year. The circumstances of deaths are identical.

On July 9, two men died from carbon monoxide poisoning while dewatering a shaft. The shaft is about eight kilometres from Schreiber in the province's northwest. A month later, on Aug. 10, a weekend prospector/geologist died under the same circumstances while dewatering a shaft in Boston Twp. south of Kirkland Lake.

In both cases, the shafts were being pumped out with gasoline-driven pumps.

The two men at Schreiber were Russell Otto and Walter Acker. The water in the shaft was 35 ft. below surface. Both men were overcome by gas. Both bodies were found under water in the shaft.

The water in the Boston Twp. shaft in which David Langdon died was 23 ft. below surface.

The Ontario Ministry of Labour has issued a "hazard notice" on mine dewatering. Those contemplating entry into old workings should become familiar with the ministry's Information Sheet R.S. 243, which describes the hazards and the precautions that must be taken.

Besides pointing out the hazard of operating gasoline equipment in confined, airless spaces, the ministry also warns of oxygen deficiency and poisonous gases that may be present in disused workings. Stagnant air may have much of its oxygen removed by oxidation of minerals and organic matter.

In addition, carbon dioxide, methane and hydrogen sulphide, also deriving from decomposing organic matter, are often found in disused workings.

Diamond exploration spills on to James Bay lowlands

by Virginia Heffernan
The Northern Miner

in the area. Also, soil line ground around

KWG says it's considering establishing a diamond extraction

kimberlite erratic (boulder). In the Fort à la Corne region.

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DEPT. MINERAL RESOURCES
PHOENIX, ARIZONA

3 Great Old Yuma County Mines Slated for Production in 1980

A number of southwestern Arizona's great old early silver and gold mines will be reactivated within the next 12 months following a 50 to 90-year period of idleness.

The famed Eureka and Silver Districts in the Trigo Mountains (also known as "Chocolate") and the Kofa District in the S.H. Mountains (also known as Kofa) are scenes of considerable activity now that the price commanded by precious metals makes it economically feasible to mine in the hot and remote areas of southern Yuma County, Blaine.

New Jersey Zinc, owner of a large number of patented properties in the Silver and Eureka Districts -- including the famed early-day producers, Silver Clip (Blaine) and Black Rock mines, is implementing a program designed to bring in or more properties into production in the immediate future. Black Rock Pacific Mine.

Five miles to the south of the Silver Clip is the Red Cloud mine. On this property which was a great early silver producer but is now known mainly for its high quality crystals of vanadinite and wulfenite that are much sought after by collectors, the Red Cloud Mining Company (Jack McDaniels) has erected a headframe and installed leach tanks, flotation cells and several leaching pads, in preparation to commencing production.

Thirty miles northeast of the Eureka District, in the Kofa District, the famed North Star Mine, owned by Dr. Eugene Burdick of Yuma, is the scene of considerable activity. First work at the great old old producer will be the cyaniding of the old dumps, followed by production from the underground of new res. Dr. Burdick owns four patented and a large number of unpatented claims that are situated in the middle of a wildlife withdrawal area. His right to access to his properties was challenged several years ago but he successfully defended the roads that have been in since the turn of the century.

Because the Trigo Mountains are close to the Colorado River, they were prospected at an early date, with discoveries being made in the 1860's in the Eureka District which is just north of the river and about 20 airline miles from Yuma. The Silver District is three to ten miles further north.

The Silver Clip deposit was discovered in the early 80's and, according to the Arizona Bureau of Mineral Publication, "Geology and Mineral Deposits of Southern Yuma County" (Eldred Wilson, 1933), was immediately recognized as a small bonanza.

Wilson wrote: "A ten-stamp mill, erected at the Colorado River, some five miles in air line farther northwest, was connected by wagon road with the mine and put into production by 1883. The mine was operated by Messrs. Hubbard and Bowers until 1887, after which the mill was run on tailings counted to more than \$100,000. From 1884 to 1887, the mine was operated by Messrs. Hubbard and Bowers, who produced more than \$1,000,000 in silver."

The Silver Clip claim was surveyed for patent in 1877. The James R. Blaine claim, but it remained practically idle until 1923. During part of that year, Messrs. Thompson, Shiner, Fields and Bates milled some of its ore at Norton's Landing. In 1925 the Silver Mines Consolidated Company built a 100-ton cyanide mill at the mine and laid a pipe-line to a mill near Norton's Landing. All supplies were hauled from Yuma by way of Picacho, California, and ferried across the river. None of the operations were very successful and once even the mill capsized with more than 200 pounds of cased anode. This mill was rebuilt during 1928, but its operation was still unsuccessful. Only about 700 tons of ore, which yielded some 7,000 ounces of silver worth \$600, were treated during 1928 and 1929.

The Clip vein is traceable more than 750 feet. It lies in the underground workings from less than a foot to about eight feet in width, with perhaps more than half its length being more than three feet wide. One slope is about 125 feet long and 18 feet wide. The ore mined ran from 20 to 140 ounces in weight. The vein is made up in main of calcite, quartz, fluorite, barite, hematite, limonite and wulfenite. Some of the vugs, fissures and cavities associated locally with small, irregular masses of chlorite, cerussite, lead oxide, cerargyrite, vanadinite and malachite.

The Black Rock Mine, also a New Jersey Zinc property, is located in the southern portion of the Eureka District. Wilson says of it: "This claim is one of the early locations in this district, but very little of

its history or production is known. By 1881, the mine had been sold for \$135,000 and some rich ore was produced from a 100-foot shaft. Prior to 1884 the owners sank this shaft to a depth of 420 feet and erected a small furnace at the Colorado River. How long this furnace operated is not recorded, but it is reported as turning out a ton of base bullion per day in June, 1883. So far as known, the mine has not produced since 1887. The Black Rock claim was patented during the 1890's."

The Black Rock vein consists mainly of manganese-stained calcite together with lesser amounts of silicified breccia. It is traceable for 600 feet on the surface and has a maximum width of about 18 feet. It consists of quartz and fluorite with limonite, calcite, pyroclite, smithsonite, cerussite and some galena. Principal workings on the Black Rock are a 420-foot inclined shaft and more than 900 feet of drifts and tunnels.

The Red Cloud Mine, according to the Arizona Bureau of Mines publication was: "one of the earliest locations in the district. The early operators took more than \$30,000 worth of silver ore from the croppings. Prior to 1881 the mine was purchased by the Red Cloud Mining Company, of New York, which sank an incline following the dip of the vein for 274 feet and erected a 20-ton furnace at the Colorado River. This smelter was operated intermittently for about three years, but without great success. In 1866 the claim was surveyed for patent. It was acquired by Messrs. Hubbard and Bowers who, in 1869, shipped \$32,850 worth of dry concentrates."

"After 1889, the mine was practically idle until 1917 when the Red Cloud Consolidated Mining Company acquired it and installed a small dry-concentrator. This mill burned down before making more than a few tests. Several years later the E. R. Boerliche Company obtained a short option on the claim, ran some drifts, sank several drill holes, and installed the present surface equipment, but attempted no production. In 1923, the Neal Mining Company acquired control of the Red Cloud and 45 other claims in the district."

The Red Cloud vein is made up chiefly of limonite, hematite, quartz, fluorite and calcite, together with considerable amounts of gouge and brecciated wall rocks, all more or less stained by pyroclite. Some vug linings contain cerussite, smithsonite, pyroclite, vanadinite, wulfenite and a bit of malachite. Cerargyrite, present as small, disseminated masses and streaks within the oxidized minerals, constitutes the principal silver mineral.

The North Star vein was discovered in 1906 by Felix Mayhew, who sold it in 1907 to the Golden Star Mining Company for \$350,000. In 1908 the company erected a 20-ton cyanide plant at the mine, later doubling its capacity. Water for this plant was obtained from the King of Arroyo water, a stream that continued until August of 1911 when the stream was an unprofitable grade. Production in the first year period was \$1,100,000. It is reported that a large amount of rich ore was taken by "highgraders" in the course of the operations.

"The ore body of the North Star Mine," according to Wilson's report, "is on a lode or vein of silicified andesite breccia and quartz. It is about ten feet in width. At the mine the hanging wall is a pink flow-banded biotite andesite, and the footwall a dark calcareous shale or slate."

"The ore is valuable chiefly for its gold content, but it also contains small amounts of silver. The gold is said to occur free and very divided, associated with the fine sulphides in the chalcedonic quartz. The surface ore of the North Star was exceptionally high grade. One streak of ore on the footwall was said to have been worth from \$8 to \$20 a pound and ore to the value of thousands of dollars was stolen."

The settlement of Polaris, which served as the camp for the North Star, had a population of 339 in 1910. The post office there was discontinued July 31, 1913.

The Silver and Eureka districts, for all practical purposes, ceased activity after the 1893 drop in silver prices at which time the white metal went from a high of 1.15 in 1880 to 94¢ in 1889 and 26¢ in 1893 for the troy ounce. Published figures show only a total of \$1,696,170 production in silver from that district between 1879 and 1929, with the high period being that of 1884-1887 when the Clip produced 913,461 ounces that at that time brought \$950,000 but would today be valued at \$31,971,134.

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Wilson wrote: "A ten-stamp mill, erected at the Colorado River, some five miles in air line farther northwest, was connected by wagon road with the mine and put into production by 1883. The mine was operated by Messrs. Hubbard and Bowers until April, 1887, after which the mill was run on tailings till the end of that year. Production during 1883 amounted to more than \$160,000. From 1884 to 1887, it was approximately \$250,000, giving the mine a total yield of more than \$1,000,000 in silver. In 1877, the Silver Clip claim was surveyed for patent by the James G. Blaine claim, but it remained practically idle until 1925. During part of that year, Messrs. Thompson, Shiner, Fields and Bates milled some of its ore at Norton's Landing. In 1925 the Silver Mines Consolidated Company built a 100-ton cyanide mill at the mine and laid a pipe-line to a shallow well near Norton's Landing. All supplies were hauled from Yuma by way of Picacho, California, and ferried across the river. None of the operations were very successful and once even the mill was capped with more than 200 pounds of cased cyanide. This mill was rebuilt during 1928 but the

its history or production is known. By 1881, the mine had been sold for \$135,000 and some rich ore was produced from a 100-foot shaft. Prior to 1884 the owners sank this shaft to a depth of 420 feet and erected a small furnace at the Colorado River. How long this furnace operated is not recorded, but it is reported as turning out a ton of base bullion per day in June, 1883. So far as known, the mine has not produced since 1887. The Black Rock claim was patented during the 1890's."

The Black Rock vein consists mainly of manganese-stained calcite together with lesser amounts of silicified breccia. It is traceable for 600 feet on the surface and has a maximum width of about 13 feet. It consists of quartz and fluorite with limonite, calcite, pyrolucite, smithsonite, cerussite and some galena. Principal workings on the Black Rock are a 420-foot inclined shaft and more than 900 feet of drifts and tunnels.

The Red Cloud Mine, according to the Arizona Bureau of Mines publication--was: "one of the earliest locations in the district. The early operators took more than \$30,000 worth of silver ore from the croppings. Prior to 1881 the mine was purchased by the Red Cloud Mining Company, of New York, which sank an incline following the dip of the vein for 274 feet and erected a 20-ton furnace at the Colorado River. This smelter was operated intermittently for about three years, but without great success. In 1885 the claim was surveyed for patent. It was acquired by Messrs. Hubbard and Bowers who, in 1889, shipped \$32,850 worth of dry concentrates."

"After 1889, the mine was practically idle until 1917 when the Red Cloud Consolidated Mines Company acquired it and installed a small dry concentrator. This mill burned down before making more than a few tests. Several years later the E.R. Boericke Company obtained a short option on the claim, ran some drifts, sank several drill holes, and installed the present surface equipment, but attempted no production. In 1928, the Neal Mining Company acquired control of the Red Cloud and 45 other claims in the district."

The Red Cloud vein is made up chiefly of limonite, hematite, quartz, fluorite and calcite, together with considerable amounts of gouge and brecciated wall rocks, all more or less stained by pyrolucite. Some vug linings contain cerussite, smithsonite, pyrolucite, vanadinite, wulfenite and a bit of malachite. Cerargyrite, present as small, disseminated masses and streaks within the oxidized minerals, constitutes the principal silver mineral.

The North Star vein was discovered in 1906 by Felix Mayhew, who sold it in 1907 to the Golden Star Mining Company for \$350,000. In 1908 the company erected a 20-ton cyanide plant at the mine, later doubling its capacity. Water for this plant was obtained from the King of Arizona Wells. Operations continued until August of 1911 when the ore was found to be an unprofitable grade. Production in the five-year period was \$1,100,000. It is reported that a large amount of rich ore was taken by "highgraders" in the course of the operations.

"The ore body of the North Star Mine," according to Wilson's report, "is on a lode or vein of silicified andesite breccia and quartz. It is about ten feet in width. At the mine the hanging wall is a pink flow-banded biotite andesite, and the footwall a dark calcareous shale or slate."

"The ore is valuable chiefly for its gold content, but it also contains small amounts of silver. The gold

Platinum can be profitable

FROM PAGE 12

MEX, while "Metals in the News" is crammed full of worldwide data relative to platinum. Copies may be obtained by contacting the New York Mercantile Exchange, Four World Trade Center, New York, New York 10048. Attention: Mary Ann Matlock.

Platinum In North America?

As early as 1861 gold seekers from California had penetrated the mountains of the Canadian west. Platinum was first discovered in the gold placers of the Similkameen and Tulameen Rivers near the town of Princeton, British Columbia. From 1885 until 1919 this area was the most productive source of platinum in North America. During the period of 1883-87 many of the large nickel/copper lode mines of the Sudbury district in Ontario were discovered.

By 1900 the presence of platinum metals had been recognized in some of

these ores. The first recorded production of these metals was in 1919 when 25 ounces of platinum and 620 ounces of palladium were recovered as a by-product. By 1936 Canada had achieved the distinction of being the world's leading platinum producer, a position it maintained until surpassed by South Africa in 1956.

In the United States platinum had also been discovered by the early 1900's. The Goodnews Bay Mine, located along the Salmon River near the Bering Sea in western Alaska, has been the largest producer of primary platinum in the U.S.

The most important U.S. platinum deposit, both geologic and economic, is the Stillwater Complex located along the northern front of the Beartooth Mountains in south-central Montana. Being developed by Chevron Resources Corp., Manville Products Corp., and LAC Minerals Ltd., it will be the first North

American lode deposit ever mined primarily for its platinum group metal content. From an economic viewpoint, at current metal prices, this mine could produce gross revenues in excess of US\$30 million annually over a mine life of 25 to 30 years. Geologically it is very similar to the world's richest platinum formations in South Africa.

In addition to these major deposits, occurrences of platinum have been noted in 10 provinces in Canada and 22 states in the U.S. There is no doubt that undiscovered commercially viable platinum

What's happeni

FROM PAGE 31

erates. Citizens in some countries are forbidden to buy gold bullion which intensifies the upward pressure on the price of silver.

The short-term outlook for silver is for continued price weakness for the remainder of 1986.

The rate at which stockpiles of silver, which overhang the market, are reduced influence the price of silver in the medium to long term. This includes the 4,700 tons on Comex and the 4,000 tons held by the US. In addition to an already overhanging silver stockpile there is the certain increase in silver production expected if and when base metal mining activities resume to full capacity. The capacity for increased production continues to exert downward pressure on the price. Currently the base metals industry is suppressed due to weak economic conditions and a decrease in industrial requirements for base metal products. The outlook for most silver producers depends on the base metals market, as silver is produced as a by-product. Some analysts think silver should be reclassified as a base metal due to the fact that industrial demand is such a strong determinant in the price of silver.

Oversupply characterizes the silver market as well as the base metal industry and non-metallic minerals. To survive low prices and oversupply conditions, companies must cut costs at existing operations and/or find new mines or orebodies that are low cost. In other words, companies must become cost effective and cost efficient. Shake-outs in the different mining sectors are occurring as high-cost producers drop out or shut down. The squeezing out of

Is silver ready to move up?

FROM PAGE 30

ORBEX INDUSTRIES INC.

Listed: Vancouver Stock Exchange

Symbol: OXIV

Shares Outstanding: 3.1 million

Float: Approximately 750,000 shares

Price: US\$0.75

Orbex's Silver District property is located in Yuma, Arizona. Current reserves, fully diluted for mining, are 5.7 million tons of ore averaging 3.89 ounces of silver per ton; or 22.17 million ounces of silver. Additional ore is indicated within the known structures and may add 30 to 50% of similar grade material to the reserves along strike and at depth of known ore bodies. Present reserves are sufficient to support a mine life of 8 to 10 years. Several high-grade zones (+5.0 ounces of silver per ton) are known for quick capital recovery. The direct cost per ounce of silver produced is \$4.82.

TALLY-HO EXPLORATION LTD.

Listed: Vancouver Stock Exchange

Symbol: THLV

Shares Outstanding: 3.5 million

Float: Approximately 400,000 shares

Price: US\$0.45

Tally-Ho has two silver prospects. One is located in the Wheaton River District near Whitehorse, Yukon Territory with assays as high as 150 ounces of silver per ton. There has been previous production from this property. The other prospect is located in the Rancheria District (Silver Hart area) with assays as high as 175 ounces per ton.

In conclusion, I repeat: 1. Get into silver and/or the silver stocks now — not later. 2. Should my analysis prove correct and you end up with substantial profits, don't forget to sell at some point or it will be an exercise in futility.

James E. Ryan is the dean of the precious metal analysts in the United States and is an authority on gold, silver and platinum stocks. He has been a partner and analyst in the investment business for the last 35 years and is presently vice president of National Securities Corporation in Seattle. National Securities is now the dominant firm in the country specializing in silver, gold, platinum and other natural resource stocks. He can be reached at his toll-free number, 1-800-426-0640.

World Investment News
Vol. 7 Issue 2
January 1987

3 Yuma County Mines Slated For

By
Wayne Winters

Western Prospector & Miner
ARIZONA — A number of southwestern Arizona's great old early silver and gold mines will be reactivated within the next 12 months following a 50 to 90-year period of idleness.

The famed Eureka and Silver Districts in the Trigo Mountains (also known as "Chocolate") and the Kofa District in the S.H. Mountains (also known as Kofa) are scenes of considerable activity now that the price commanded by precious metals makes it economically feasible to mine in the hot and remote areas of southern Yuma County.

New Jersey Zinc, owner of a large number of patented properties in the Silver and Eureka Districts—including the famed early-day producers, Silver Clip (Blaine) and Black Rock mines, is implementing a program designed to bring one or more properties into production in the immediate future.

Five miles to the south of the Silver Clip is the Red Cloud mine. On this property which was a great early silver producer but is now known mainly for its high quality crystals of vanadinite and wulfenite that are muchly sought after by collectors, the Red Cloud Mining Company (Jack McCaniels) has erected a headframe and installed leach tanks, flotation

cells and several leaching pads, in preparation to commencing production.

Thirty miles northeast of the Eureka District, in the Kofa District, the famed North Star Mine, owned by Dr. Eugene Burdick of Yuma, is the scene of considerable activity. First work at the great old gold producer will be the cyaniding of the old dumps, followed by production from the underground of new ores. Dr. Burdick owns four patented and a large number of unpatented claims that are situated in the middle of a wildlife withdrawal area. His right to access to his properties was challenged several years ago but he successfully defended the roads that have been in since the turn of the century.

Because the Trigo Mountains are close to the Colorado River, they were prospected at an early date, with discoveries being made in the 1860's in the Eureka District which is just north of the river and about 22 airline miles from Yuma. The Silver District is three to ten miles further north.

The Silver Clip deposit was discovered in the early 1880's and, according to the Arizona Bureau of Mines publication, "Geology and Mineral Deposits of Southern Yuma County" (Eldred Wilson, 1933), was immediately recognized as a small bonanza.

Wilson wrote: "A ten-stamp mill, erected at the Colorado River, some five miles in air line farther northwest, was connected by wagon road with the mine and put into production by 1883. The mine was operated by Messrs. Hubbard and Bowers until April, 1887, after which the mill was run on tailings until the end of that year. Production during 1883 amounted to more than \$160,000. From 1884 to 1887, inclusive, it was approximately \$950,000, giving the mine a total yield of more than \$1,000,000 in silver. In 1897, the Silver Clip claim was surveyed for patent as the James G. Blaine claim, but it remained practically idle until 1925. During part of that year, Messrs., Thompson, Shiner, Fields and Bates milled some of its ore at Norton's landing. In 1925 the Silver Mines Consolidated Company build a 100-ton cyanide mill at the mine and laid a pipe-line to a shallow well near

Norton's Landing. All supplies were hauled from Yuma by way of Picacho, California, and ferried across the river. None of the operations were very successful and once even the ferry capsized with more than 200 pounds of cased cyanide. This mill was rebuilt during 1928, but its design was still unsuccessful. Only about 700 tons of ore, which yielded some 7,000 ounces of silver worth \$3,600, were treated during 1928 and 1929."

The Clip vein is traceable more than 750 feet. It ranges in the underground workings from less than one foot to about eight feet in width, with perhaps more than half its length being more than three feet in width. One stope is about 125 feet long and 18 feet wide. The ore mined ran from 20 to 140 ounces in silver. The vein is made up in main of calcite, quartz, fluorite, barite, hematite, limonite and pyrolusite. Some of the vugs, fissures and cavities are

associated locally with small, irregular masses of chlorite, cerussite, lead oxide, cerargyrite, vanadinite and malachite.

The Black Rock Mine, also a New Jersey Zinc property, is located in the southern portion of the Eureka District. Wilson says of it: "This claim is one of the early locations in this district, but very little of its history or production is known. By 1881, the mine had been sold for \$135,000 and some rich ore was produced from a 100-foot shaft. Prior to 1884 the owners sank this shaft to a depth of 420 feet and erected a small furnace at the Colorado River. How long this furnace operated is not recorded, but it is reported as turning out a ton of base bullion per day in June, 1883. So far as known, the mine has not produced since 1887. The Black Rock claim was patented during the 1880's."

The Black Rock vein consists mainly of manganese-stained calcite together with lesser amounts of silicified breccia. It is traceable for 600 feet on the surface and has a maximum width of about 18 feet. It consists of quartz and fluorite with limonite; calcite, pyrolucite, smithsonite, cerussite and some galena. Principal workings on the Black Rock are a 420-foot inclined shaft and more than 900 feet of drifts and tunnels.

The Red Cloud Mine, according to the Arizona Bureau of Mines publication was: "one of the earliest locations in the district. The early operators took more than \$30,000 worth of silver ore from the croppings. Prior to 1881 the mine was purchased by the Red Cloud Mining Company, of New York, which sank an incline following the dip of the vein for 274 feet and erected a 20-ton furnace at the Colorado River. This smelter was operated intermittently for about three years, but without great success. In 1885 the claim

Jacobs Acquires Position In Florida Research Firm

PASADENA, CA — Jacobs Engineering Group Inc. and Zellers-Williams Inc. have jointly announced that Jacobs has acquired an equity position in the Lakeland, Florida research specialty firm, company spokesmen said.

Zellers-Williams is a specialized company that serves the phosphate as well as other mineral industries throughout the U.S. and in the foreign marketplace. Composed of engineers, metallurgists, and

plant at its Lakeland, Florida location.

Jacobs and Zellers-Williams Inc. executives said that they expected their new relationship will supplement the two firms' individual capabilities, thereby providing complete service to their clients.

With corporate offices located in Pasadena, California, Jacobs Engineering Group Inc. provides single source responsibility/turnkey consulting, engineering, design, architectural, construction,

CUSTOM ORE MILLING

BASE METAL ORES
500 TONS — UPWARD. RAIL HEAD AT MILL

THE BOULDER MILL

300 North 63rd • Boulder, Colorado 80301
303-443-1502

Send inquiries to: Thomas S. Hendricks - Pres.

Production In Arizona In 1980

shipped \$32,850 worth of dry concentrates.

"After 1889, the mine was practically idle until 1917 when the Red Cloud Consolidated Mines Company acquired it and installed a small dry-concentrator. This mill burned down before making more than a few tests. Several years later the E. R. Boericke Company obtained a short option on the claim, ran some drifts, sank several drill holes, and installed the present surface equipment, but attempted no production. In 1928, the Neal Mining Company acquired control of the Red Cloud and 45 other claims in the district."

The Red Cloud vein is made up chiefly of limonite, hematite, quartz, fluorite and calcite,

together with considerable amounts of gouge and brecciated wall rocks, all more or less stained by pyrolucite. Some vug linings contain cerussite, smithsonite, pyrolucite, vanadinite, wulfenite and a bit of malachite. Cerargyrite, present as small, disseminated masses and streaks within the oxidized minerals, constitutes the principal silver mineral.

The North Star vein was discovered in 1906 by Felix Mayhew, who sold it in 1907 to the Golden Star Mining Company for \$350,000. In 1908 the company erected a 50-ton cyanide plant at the mine, later doubling its capacity. Water for this plant was obtained from the King of Arizona wells. Operations continued until

August of 1911 when the ore reached an unprofitable grade. Production in the five-year period was \$1,100,000. It is reported that a large amount of rich ore was taken by "highgraders" in the course of the operations.

"The ore body of the North Star Mine," according to Wilson's report, "is on a lode or vein of silicified andesite breccia and quartz. It is about ten feet in width. At the mine the hanging wall is a pink flow-banded biotite andesite, and the footwall a dark calcareous shale or slate.

"The ore is valuable chiefly for its gold content, but it also contains small amounts of silver. The gold is said to occur free and very divided, associated with the fine sulphides in the chalcidonic quartz. The surface ore of the North Star was exceptionally high grade. One streak of ore on the footwall was said to have been worth from \$6 to \$20 a pound and ore to the value of thousands of dollars was stolen."

The settlement of Polaris, which served as the camp for the North Star, had a population

of 339 in 1910. The post office there was discontinued July 31, 1913.

The Silver and Eureka districts, for all practical purposes, ceased activity after the 1893 drop in silver prices at which time the white metal went from a high of 1.15 in 1880 to \$.94 in 1889 and \$.26 in 1893

for the troy ounce. Public figures show only a total of \$1,696,170 production in from that district between 1884 and 1929, with the high price being that of 1884-1887. The Clip produced 912 ounces that at that time brought \$950,000 but would today be valued at \$31,971,135.

Amax Acquires Adobe Stock

GREENWICH, CN — AMAX Petroleum Corporation, a wholly owned subsidiary of AMAX Inc., acquired 600,000 shares of common stock of Adobe Oil & Gas Corporation for an aggregate price of \$16.8 million. The shares were purchased from The Flintkote Company in accordance with an earlier agreement. AMAX Petroleum now owns 30.3 percent of the outstanding shares of Adobe.

AMAX announced on May 25, 1979 that it had entered into an agreement with Flintkote whereby AMAX Petroleum would purchase, at a price of \$28 per share, all of the 1,400,000 shares of common

stock of Adobe Oil & Gas owned by Flintkote. The transaction was completed July 1979. AMAX Petroleum was also given the right to acquire from Flintkote at the same price of \$28 per share an additional 600,000 shares of Adobe common stock for which Flintkote had a purchase option from Adobe.

The principal business of Adobe Oil & Gas, headquartered in Midland, Texas, is oil and natural gas development, production and exploration in the United States. The company is also engaged in exploration of natural gas in the Dutch Sea of the North Sea.

American Nuclear. . . (Continued from Page 1)

of FAP's mill; however, the possibility of delays in addition to those originally built in our schedule are increasingly becoming a concern due to the rapidly changing regulatory requirements for the licensing of uranium mills.

Net income for the second fiscal quarter increased 81% to \$271,000 or \$0.09 per share from \$150,000 or \$0.05 per share for the comparable prior period. As of November 30, 1979, the Company has capitalized interest incurred in fiscal 1980 on borrowings used to explore and develop its active mineral properties. This change in accounting policy is in accordance with Statement of Financial Accounting Standards No. 34 and increased net income for the second quarter and the six months by \$240,000 (\$0.08 per share) and \$435,000 (\$0.14 per share), respectively. This change, which is required for fiscal years beginning after December 15, 1979, is being made at this time since it results in a better matching of revenues

American Nuclear has received Sabine Corporation's most recent filing with the SEC, indicating that Sabine presently owns 515,500 shares of American Nuclear common stock. This amounts to 16.4% of American Nuclear's issued and outstanding shares which Sabine acquired in a series of transactions beginning in late 1977. Sabine's publically stated intention is "to acquire a significant equity position in American Nuclear." Sabine has further stated that it "does not have any present intention of seeking majority ownership of American Nuclear through a tender offer or otherwise."

American Nuclear has on several occasions emphasized to representatives of Sabine and others that the Company is not seeking any merger or acquisition proposals since it believes the ultimate development of its mineral properties and a change in the climate for nuclear power will significantly enhance the shareholder's assets. American

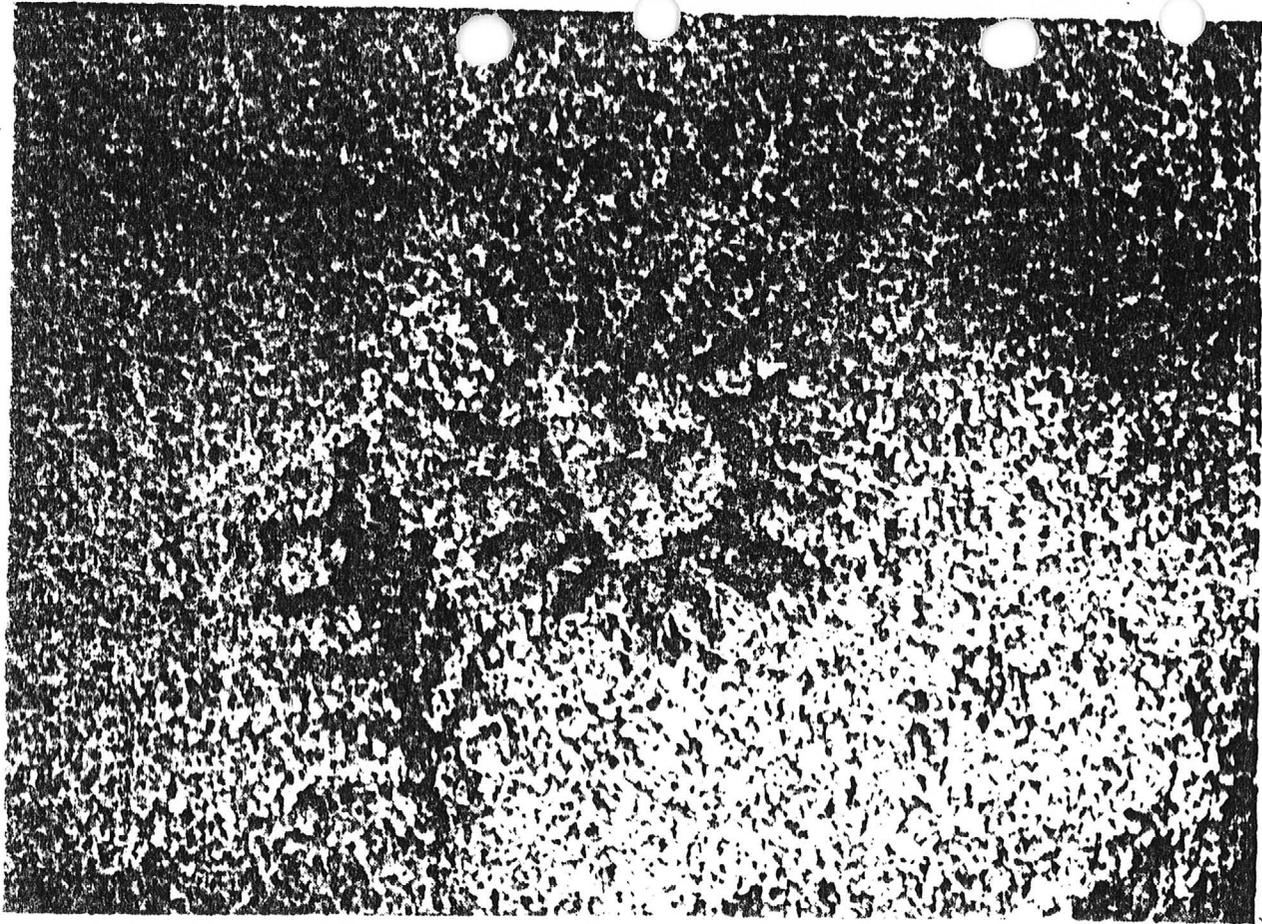
At the heart of every mining operation you'll find

DEUTZ

World's largest manufacturers of air-cooled diesel engines

YOUR AUTHORIZED DISTRIBUTOR

MAIN OFFICE



TREASURE SIGNS? — These age-old signs are on a granite boulder in the vicinity of Tinajas Altas (High Tanks), a famous watering spot on Camino del Diablo (The Devil's Highway), close to the Mexican border south of Wellton, Ariz. "Inked" with a mixture derived from Creosote Bush and other native plants in the area, they have withstood as much as three centuries of wind and weather. Anyone with an interpretation of these markings is invited to send it in a letter (which will be published) for the benefit of WP&M readers.

Yuma, Arizona
Feb. 18th, 1958

Mr. Frank P. Knight, Director.
Department of Mineral Resources
Mineral Bldg. Fairgrounds
Phoenix, Arizona.

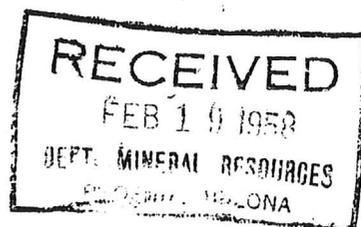
Dear Mr. Knight:

✓ The owners of the Black & Pacific Mines
are Paul W. Fornacirini and Susan S. Johnson their Address
is 5350 East Washington Blvd. Los Angeles 22, Cal.

There has not been any thing done on these
mines since I made a report some years ago.

Yours very truly.

W.D. Riley
W.D. Riley
Box 1486 Yuma, Arizona.



6 May 1940

✓
John
Mr. W. D. Riley,
Yuma,
Arizona.

Dear Mr. Riley:

With further reference to your letter of March 25, I am returning herewith copies of the reports on the Black-Rock Pacific Mine.

I have had copies made of these for our files, and I wish to thank you for your kindness in sending them to me.

With best wishes, I am

Yours very truly,

J. S. Coupal
Director

JSC-jrf

encls.

REG. MAIL
RETURN RECEIPT REQUESTED

26 March 1940

Mr. W. D. Riley,
Yuma,
Arizona.

BN 1-86

Dear Mr. Riley:

In the absence of Mr. J. S. Coupal, I am taking the liberty of acknowledging receipt of your letter of March 25 in which you enclosed two copies of reports on the Black-Rock Pacific Mine.

I shall call this matter to Mr. Coupal's attention at the first opportunity.

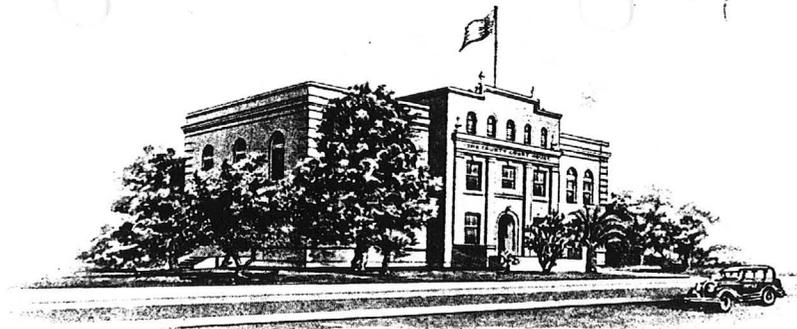
Yours very truly,

Jess R. Fickas
Secretary to Mr. Coupal

jrf

M. N. FORMAN, CHAIRMAN
GEORGE HAGELY, MEMBER
W. D. RILEY, MEMBER

WM. B. LINDER, CLERK
SUSAN ODLE, DÉPUTY



OFFICE OF THE
BOARD OF SUPERVISORS
YUMA COUNTY
YUMA, ARIZONA

Mar, 25th, 1940

Mr, J.S.Coupal, Director.
The Department of Mineral Resources.
Capital Bldg,
Phoenix, Arizona.

Dear Mr. Coupal;-

I am enclosing you the reports of
the Black Rock and Pacific Mine, I believe there is
a drawing of these mines in the University Bulletin
No.134,

When you get through with the reports please return
them to me at Yuma, Ariz, Box 1486.

Yours very truly.

W.D. Riley
W.D. Riley

Date Printed: 10/01/96

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

INFORMATION SUMMARY

Information from: **P. E. Fox, President and CEO**
Company: **Silverspar Minerals, Inc.**
Address: **409 Granville Street, Suite 1409**
Vancouver, BC CANADA V6C 1T8
Phone: **604-669-5737**

MINE FILE: **Black Rock**
County: **La Paz**
AzMILS Number: **287**

SUMMARY

I called the number for Silverspar Minerals in the Canadian Mines Handbook to obtain current information from the company on their interest in the Eureka (Silver) District of La Paz County. The phone was answered by Mr. P.E. Fox, listed as President and CEO of Silverspar Minerals. He did not identify the company over the phone until I asked if I had reached Silverspar Minerals, to which he answered yes. He explained the current status of the properties as having received recent "exciting inquiries regarding silver and continued interest in fluorspar". Further he is "expecting some venture funding soon"... on the project. No work was done on the Arizona properties last year except review and analysis. This comment has been abstracted to the following ADMMR mine files: Blaine, Black Rock, Dives, Geronimo North & South, Hamburg, Mendevil, New Jersey Zinc company file, Papago, and State

Ken A. Phillips, Chief Engineer Date: September 13, 1996

✓

Silverspar Minerals Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 689-5737
Fax (604) 681-3920
VSE Trading Symbol: SLS

NEWS RELEASE

July 7, 1992

**SILVERSPAR ANNOUNCES PRIVATE PLACEMENT FINANCING
AND UPDATED ASSAY RESULTS**

Private Placement

Vancouver (July 7, 1992) - Silverspar Minerals Inc. today announced a private placement of up to U.S. \$10,000,000 principal amount of exchangeable subordinated promissory notes ("Notes"). The Notes are exchangeable into an aggregate total of 1,000,000 units (an exchange rate of 1 unit for each U.S. \$10.00 principal amount of the Notes). Each unit consists of one common share in the capital of Silverspar and one common share purchase warrant. The common share purchase warrants shall be exercisable at a price of U.S. \$11.00 each and may be exercised until the later to occur of six months from their date of issue and July 31, 1993. In the event that all of the Notes offered by private placement are subscribed for and all warrants are exercised, Silverspar will realize gross proceeds from the offering of U.S. \$21,000,000.

Following the closing of the private placement, Silverspar intends to file a prospectus to qualify the distribution of the securities included in the units to be issuable upon the exchange of the Notes. Upon the issuance of final receipts for this prospectus, Silverspar will have the right to cause holders of the Notes to exchange the same into units.

Silverspar is also pleased to announce that it has entered into an agreement with Research Capital Corporation ("RCC") of Toronto, pursuant to which RCC has agreed to sign the prospectus referred to above as Silverspar's agent, to act as Silverspar's sponsor in connection with an application for the listing of Silverspar's common shares on a major Canadian stock exchange and, if appropriate, to act as an agent in connection with a limited further distribution of units under the prospectus.

Proceeds from the private placement will be applied to the presentation of a feasibility study on, and the development of, the silver-fluorite-lead reserves on Silverspar's Silver District property located near Yuma, Arizona, and for general working capital. At the

Silverspar Minerals Inc.

July 7, 1992

Page 2

present time, management anticipates that the cost of bringing the mine into production will be approximately U.S. \$21,000,000 being the amount of the gross proceeds which Silverspar might raise under the offering if it is fully subscribed for and all warrants issued are exercised on or before their expiry.

Assay Results

Assay results from the current reverse circulation drill program have been received for the Padre Keno zone and are summarized below. These drill holes were generally drilled on 50- to 100-foot centres filling in areas untested by the previous program. Most were drilled to a depth of 200 feet. Assay work was done by Skyline Labs Inc. in Tucson, Arizona. Fluorite assays were determined by the specific ion electrode method.

<u>Hole</u>	<u>Total Depth</u>	<u>From</u>	<u>To</u>	<u>Length</u>	<u>Silver (oz/t)</u>	<u>Fluorite (%)</u>
379PK	205	120	145	25	0.28	16.78
380PK	185	95	100	5	0.50	27.70
		130	150	20	0.03	9.35
381PK	215	145	190	45	0.13	16.90
382PK	325	230	255	25	0.09	12.48
383PK	165	35	70	35	0.14	13.67
		115	130	15	0.33	16.43
384PK	125	30	100	70	0.15	13.64
385PK	380	155	165	10	0.04	12.85
		185	210	25	0.11	19.16
		275	290	15	0.01	38.37

General Property and Reserve Information

The Silver District property, in which Silverspar now has a 100% interest subject to a 1 1/2% net smelter return, consists of a series of silver-fluorite deposits occupying an area of approximately 12 square miles in La Paz County, Arizona, about five miles east of the Colorado River and 50 miles north of the city of Yuma, Arizona. Based on work done by Silverspar to 1988 together with work completed by New Jersey Zinc Exploration Company prior to 1980, the Company has previously reported proven reserves of 3,000,000 tons grading approximately 4.95 ounces of silver per ton and 1.8 million tons of fluorite-bearing rock at a fluorite tenor of 14%. Considerable work has been completed since then. Silverspar anticipates receiving a prefeasibility study on the property in

Silverspar Minerals Inc.

July 7, 1992

Page 3

approximately five weeks and will announce updated reserves as soon as they are available. The fluorite deposits at the Silver District property are believed by Silverspar's management to be of acidspar quality, containing a minimum of 97% fluorite. Acidspar is the principal feedstock in the manufacture of hydrofluorocarbons (or HFCs), which have an ozone depletion factor of zero. HFCs are a widely recognized replacement for chlorofluorocarbons (or CFCs) used in refrigerants and other products.

On Behalf of the Board of Directors

A handwritten signature in black ink, appearing to read 'P. E. Fox', is positioned above the printed name.

**P. E. Fox, Ph.D., P. Eng.
President and Director**

For further information contact:

Dr. Peter E. Fox

President

(604) 669-5737

The Vancouver Stock Exchange has neither approved nor disapproved the contents of this release.

Silverspar Minerals Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-5737
Fax (604) 681-3920
Symbol: SLS

NEWS RELEASE

The Company is pleased to announce that it has made certain changes in its senior management. Peter E. Fox, Ph.D., P. Eng., a long time director and senior officer of the Company, has been appointed as the President and Chief Executive Officer of the Company, effective June 22, 1992. Also effective on that date, Philip J. Rogers, C.A., the former President of the Company, became the Company's Chief Financial Officer.

The Company is also pleased to announce that it has fulfilled its expenditure requirements under an option agreement between the Company and the New Jersey Zinc Exploration Company in respect of its Silver District silver-fluorite property located near Yuma, Arizona. With these expenditures, the Company has earned a 100% interest in and to the property, subject to certain annual royalties payable under the option agreement.

Effective on July 2, 1992, the Company will be granted the status of "Resource Company" on the Vancouver Stock Exchange. As a result of this senior listing classification by the VSE, the Company will no longer be regarded as a junior issuer, nor will it have to comply with the junior issuer regulations. In announcing this senior issuer recognition by the VSE, Dr. Fox states that "Management of the Company is very pleased to be accorded the status of a senior issuer by the VSE. We expect that this move will provide the Company with greater recognition and market following, which should be to the benefit of all shareholders."

For further information relating to these matters, or about Silverspar Minerals Inc., in general, please contact the Company at (604) 669-5737.



P. E. Fox, Ph.D., P. Eng.
President
July 2, 1992

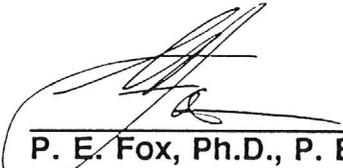
The Vancouver Stock Exchange has neither approved nor disapproved the contents of this release.

Silverspar Minerals Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-5737
Fax (604) 681-3920

NEWS RELEASE

Pursuant to the Extraordinary General Meeting held on June 2, 1992 and effective June 17, 1992, the Company has changed it's name to Silverspar Minerals Inc. The new trading symbol is SLS.



P. E. Fox, Ph.D., P. Eng.

Director

June 17, 1992

The Vancouver Stock Exchange has neither approved nor disapproved the contents of this release.

Silver Glance Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-8999
Fax (604) 681-3920

NEWS RELEASE

ASSAYS

Assay results from the balance of the 1992 reverse circulation drill program have been received and are summarized below. These drill holes tested the Padre Kino, Princess, Silver King and part of the Silver Glance deposits. Holes were generally drilled on 50- to 100-foot centres and most are drilled to a depth of 200 feet. Assay work was done by Skyline Labs Inc. in Tucson, Arizona. Fluorite assays were determined by the specific ion electrode method.

Zone	Hole #	Intersection (ft.)	Fluorite %	Silver oz/ton
Padre Kino	322	30	15.4	.41
	323	35	9.1	.13
	324	60	12.4	.06
	325	20	22.9	.11
	326	45	19.2	.03
	327	40	11.6	.01
	328	55	15.5	.13
	329	90	8.5	.03
	330	80	17.6	.09
	331	55	11.6	.03
	332	20	3.4	1.07
	333	45	5.0	.01
	334	35	8.4	.01
	Princess	335	5	1.4
336		10	5.8	.09
337		nil	nil	nil
338		nil	nil	nil
339		15	6.2	1.27

Zone	Hole #	Intersection (ft.)	Fluorite %	Silver oz/ton
Princess	340	15	20.4	.02
	341	30	14.5	.05
	342	nil	nil	nil
	343	20	6.7	.01
	344	15	13.7	.02
	345	10	11.2	.01
	346	15	19.4	.01
	347	15	23.2	.37
	348	5	28.8	.03
Silver King	349	20	5.2	.01
	350	nil	nil	nil
	351	15	22.5	.37
	352	5	41.1	.03
	353	35	21.5	.01
	354	45	21.1	.01
	355	15	42.6	.01
	356	5	7.8	.01
	357	nil	nil	nil
	358	nil	nil	nil
	359	5	37.0	.68
	360	40	5.2	.02
	361	115	24.5	.06
Silver Glance	370	45	16.4	1.24
	371	30	4.77	1.77
	372	15	6.6	15.74
	373	5	9.0	.51
	374	50	8.5	1.02
	375	5	9.0	.10
	376	15	7.1	1.36
	377	20	11.8	3.33
	378	25	.3	3.12

Silver Glance Resources Inc.
News Release
May 15, 1992
Page 3

The Padre Kino holes were designed to test down-dip extensions of the zone together with extensions along strike to the south. The Princess holes are a first test of this zone discovered during our 1991 drill campaign. Drilling on the Silver King is largely fill-in and confirmation holes of work done in the mid 70's.

LISTING ON THE TORONTO STOCK EXCHANGE

The Company is negotiating with a sponsor pursuant to a listing on the Toronto Stock Exchange. Negotiations to raise approximately \$20 million are at an early stage, no firm commitments have been made.

EXTRAORDINARY MEETING

The Company is holding an Extraordinary Meeting on June 2, 1992 at 10:00 a.m. at 10th Floor - 595 Howe Street, Vancouver, B.C. to consider a name change to Silverspar Minerals Inc. In addition, the Company's phone number effective May 15, 1992 is 669-8999.

ON-GOING WORK

A 100-pound bulk sample has been submitted to Metcon Labs in Tucson for preliminary metallurgical tests. This work will be progressing over the next few weeks and probably well into June. In addition, a small, fill-in drill program comprising 3,000 feet of reverse circulation drilling will commence on May 21st.



P. E. Fox, Ph.D., P. Eng.
Director
May 15, 1992

The Vancouver Stock Exchange has neither approved nor disapproved the contents of this release.

Silver Glance Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2428

NEWS RELEASE**ASSAY RESULTS FROM THE BLACK ROCK-SILVER GLANCE ZONE**

Assay results for 28 of 37 reverse circulation holes drilled on the Black Rock-Silver Glance Zone have been returned. These holes, summarized below, cover an area some 1,800 feet by 300 feet drilled approximately on 100-foot centres to an average depth of 200 feet. Most holes are vertical. Assays were done by Skyline Labs in Tucson, Arizona by the specific ion electrode method. Intersections noted are approximate true thickness in feet.

Hole #	Intersection (feet)	Fluorite %	Silver oz/ton
294	50	7.1	1.49
295	30	8.7	8.83
296	assays pending	-	-
297	5	8.0	.58
298	10	17.5	.56
299	barren	-	-
300	35	11.2	.61
301	30 35	7.8 15.2	1.69 1.36
302	45	10.5	3.06
303	20	11.0	1.22
304	30	2.35	3.59
305	20	4.2	4.94
306	5	.8	5.07
307	10	16.2	.77
308	10	6.3	1.84
309	65	12.1	3.65

Hole #	Intersection (feet)	Fluorite %	Silver oz/ton
310	55	15.8	.58
	50	16.1	3.62
311	85	9.9	4.80
312	25	8.6	3.17
313	barren	-	-
314	30	7.1	1.30
315	15	18.6	.68
316	5	10.9	.59
317	5	12.1	.47
318	35	10.8	.63
319	20	15.4	1.33
320	20	8.6	1.42
321	10	5.6	1.73

Eight holes on the Silver Glance Zone and one on the Black Rock (370 to 378) remain to be assayed. All are fluorite-bearing and should return results consistent with the above assays. Results to date are most encouraging, particularly holes 295, 301, 307, 309 to 311 and 319. These holes point to an over-all increase in geological reserves relative to the original estimates.

Further drilling work is already indicated to firm-up encouraging results achieved to date. Assays from the Padre Kino, Silver King and Princess Zones are expected early in May.



P. E. Fox, Ph.D., P. Eng.

Director

April 28, 1992

The Vancouver Stock Exchange has neither approved nor disapproved the contents of this release.

Silver Glance Resources Inc.

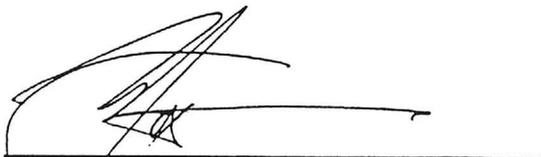
1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2428

NEWS RELEASE

Drilling work on the Company's fluorite deposit in La Paz County, Arizona was completed on April 15, 1992. Eighty-four reverse circulation holes were drilled comprising 13,645 feet. Thirty-seven holes were completed on the Black Rock-Silver Glance, 18 on the Padre Kino, 14 on the Princess, 13 on the Silver King, and one each on the Maxie II and State deposits. Most of the assay work should be completed by month-end and results will be compiled and reported at that time.

Sampling work was also completed on surface exposures at the north end of the Silver Glance zone. These results, tabulated below, confirm the extension and continuity of the Black Rock-Silver Glance zone north and west of the area tested by New Jersey Zinc Exploration Company in 1975.

Sample #	Length (feet)	Silver (oz/ton)	Fluorite (%)
29514	12	3.31	11.7
29515	15	3.50	22.6
29516	Grab	5.94	24.7
29517	Grab	5.15	30.8



P. E. Fox, Ph.D., P. Eng.

Director

April 16, 1992

The Vancouver Stock Exchange has neither approved nor disapproved the contents of this release.

Silver Glance Resources Inc.

1409 - 409 Granville Street
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Telephone (604) 669-2428

NEWS RELEASE

Approximately 7,000 feet of reverse circulation drilling has been completed to date on the Company's fluorite-silver property in La Paz Country, Arizona. This work comprises 28 holes on the Black Rock deposit and eight holes on the Padre Kino zone. On the Black Rock deposit, holes were completed on 80-foot centres and tested an area some 400 feet by 1,800 feet. Most holes were drilled to a depth of 200 feet. Visual estimates of fluorite content range from 5% to 15% over much of the area tested. Local high grade zones were noted at the south end of the Black Rock near the old workings and farther north on the nearby Silver Glance zone.

Eight holes have been completed on the Padre Kino fluorite deposit one mile north of the Black Rock. All holes returned significant intersections of fluorite-bearing rock over 20- to 40-foot widths. The holes are designed to test extensions of the original deposit to depth and along strike to the south.

Over-all, the program is returning satisfactory results based on visual estimates. The Black Rock zone appears to be much larger than originally reported by New Jersey Zinc Exploration Company, the original owner. Their work concentrated on the silver-zinc potential near the old workings and ignored fluorite-rich stockwork zones abundant through the upper part of the Black Rock deposit and within the adjoining Silver Glance zone.

Approximately 6,000 feet of drilling comprising some 30 holes remains to be done. This work is underway and will be focused on extensions to the Silver King, Princess and State zones, as well as a new test on the Maxie II together with recovering metallurgical samples from the Amelia and Revelation deposits.



P. E. Fox, Ph.D., P. Eng.
Director
March 26, 1992

The Vancouver Stock Exchange has neither approved nor disapproved the contents of this release.

Silver Glance Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2428

NEWS RELEASE

The Company's 1992 drill program is currently underway on its Silver District property near Yuma, Arizona. The program consisting of approximately 8,000 feet over 30 holes has three objectives - (a) define the new Princess Zone; (b) Firm up reserves on the Black Rock deposit; and (c) test possible extensions of the Silver King, Maxie #2 and Pedro Keno zones which remain open. Assay results will be announced when received by the Company.

With the completion of this program, the Company will have fulfilled the \$500,000 U.S. expenditure requirement to earn a 100% interest in the property, subject to a 1.5% net smelter return.

Earlier this month the U.S. National Aeronautics and Space Administration announced startling findings from atmospheric studies which showed record-high concentrations of chlorine monoxide over the skies of the Northern Hemisphere. Chlorine monoxide is a chemical by-product of the chlorofluorocarbons (CFC's) known to be the chief agents of Ozone destruction. This announcement has motivated governments in developed countries to review the timetable for the total phase-out of the production of CFC's. Total phase-out which was scheduled for the year 2000 is now being considered for the mid 1990's. Germany announced this week total phase-out by the end of 1993.

Recent interest in Silver Glance is probably due to accelerated phase-out deadlines for chlorofluorocarbons (CFC's) and the potential impact on demand for acid grade fluorite (acidspars). Fluorite is the chief feedstock for the new Ozone benign products, hydrofluorocarbons (HFC's) and hydrochlorofluorocarbons (HCFC's). An increased demand for fluorite and its immediate product hydrofluoric acid is anticipated with the shift from CFC-based products to HFC's. The Company's Silver District property is the only open-pit acidspars deposit in the United States and is potentially the only domestic producer to supply fluorite to consumers in the U.S. market. Low mining and processing costs are projected because the property is accessible by road and near potential end-users of the product.



Philip J. Rogers

President

February 27, 1992

The Vancouver Stock Exchange has neither approved nor disapproved the contents of this release.

Silver Glance Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2428

NEWS RELEASE

The Company's 1992 drill program is underway on its Silver District property near Yuma, Arizona. The program will detail the new Princess Zone, complete drilling on the Silver King, complete a preliminary test of the new Maxie #2 Zone, explore the Padre Keno south of the 1991 drilling work and firm-up reserves on the Black Rock deposit. Approximately 8,000 feet comprising 30 holes are planned.

Recent interest in Silver Glance is probably due to accelerated phase-out deadlines for chlorofluorocarbons (CFC's) and the potential impact on demand for acid grade fluorite (acid spar). CFC's are thought to be the chief culprits in depletion of the Ozone Layer.

Fluorite is the chief feedstock for the new Ozone benign products, hydrofluorocarbons (HFC'S) and hydrochlorofluorocarbons (HCFC's). An increased demand for fluorite and its immediate product hydrofluoric acid is anticipated with the shift from CFC-based products to HFC's. The Company's Silver District property near Yuma, Arizona is the only open-pittable acid spar deposit in the United States and is potentially the only domestic producer to supply fluorite to consumers on the U.S. market. Deposits in the Silver District Mining District have the potential to be low cost producers because of their low mining and processing costs, nearby transportation and proximity to end-users.



P. E. Fox, Ph.D., P. Eng.
Director
February 17, 1992

The Vancouver Stock Exchange has neither approved nor disapproved the contents of this release.

Silver Glance Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2428

LETTER TO SHAREHOLDERS

Erosion of the Ozone layer by chlorine-bearing fluorocarbons has sparked new restrictions on the use of chlorofluorocarbons (CFC's) and has accelerated phase-out deadlines. This is good news for shareholders of Silver Glance Resources Inc. Two years ago the Company decided to exploit its reserves of fluorite-bearing rock in its Silver District property near Yuma, Arizona to take advantage of increasing environmental concerns regarding CFC's. The cry over CFC's and the depletion of the Ozone layer has now reached the crisis stage. The Company's decision to switch to fluorite is proving to be a good one. The stock has moved to the \$3.50 to \$4.00 range and interest in the Company continues to grow.

The Significance of Fluorite

Fluorite is the chief feedstock for the new Ozone benign products, hydrofluorocarbons (HFC'S) and hydrochlorofluorocarbons (HCFC's). A three-fold demand for fluorite and its immediate product hydrofluoric acid is anticipated with the shift from CFC-based products to HFC's. In addition, some two tons of acidspar is required to produce one ton of hydrofluoric acid. There is thus a five-fold multiplier in effect on acidspar production. The Company's Silver District property near Yuma, Arizona is the only open-pittable acidspar deposit in the United States and is potentially the only domestic producer to supply fluorite to consumers on the U.S. market. Deposits in the Silver District Mining District have the potential to be low cost producers because of their low mining and processing costs, nearby transportation and proximity to end-users.

Reserves

Current reserves are four million tons grading five ounces per ton silver which include 1.8 million tons of acidspar quality rock grading 14% fluorite. Recent work has resulted in an increase in over-all grade and quality along with the discovery of a new zone in which early drill results returned 14% fluorite over a true width of thirty feet. This zone, accessible by open pit mining, is open along strike and to depth and could add a significant component to the reserve base. On-going work will exploit this reserve and develop final processing requirements to produce 50,000 tons of acidspar and one million ounces silver per year.

Recent Developments

The United States recently passed a measure to accelerate the elimination of CFC's in refrigerants, solvents, insulating processes and other applications. Production of CFC's had been slated for extinction by the year 2000. The U.S. is now considering moving that date five years closer. DuPont Co. and Allied-Signal Inc., two of the largest CFC producers, have spent about \$600 million to develop and produce CFC alternatives. DuPont has authorized construction of the world's largest facility to produce non-ozone-depleting HFC's. The Company said that the \$100 million worldscale plant at Corpus Christi, Texas, will have an annual capacity of about 70 million pounds to produce HFC-134A and HCFC-124. Coupled with an existing facility at the same site and a plant under construction in Chiba, Japan, DuPont said that by 1993 it will have capacity to produce up to 75 million pounds annually of HFC-134a and 50 million pounds of HCFC-124. Design is under way for a fourth facility in Dordrecht, the Netherlands, which is projected for completion by 1994.

HFC-134a is now targeted to replace all CFC products in new automobile air conditioning systems, commercial and industrial refrigeration equipment and home refrigerators. HCFC-124 will be a component of DuPont's products for servicing existing and new systems in home refrigerators, automobiles, refrigerated transport and some supermarket applications.

Outlook

All in all, the Company is well-positioned to capitalize on the accelerating demand for new, environment-friendly fluorocarbon products. Our growing resource base coupled with low production costs, by-product credits, access to the U.S. market and proximity to transportation all enhance the future potential of the Silver District project.



Philip J. Rogers

President

February 11, 1992

Silver Gance Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2428

NEWS RELEASE

DRILL PROGRAM TO COMMENCE

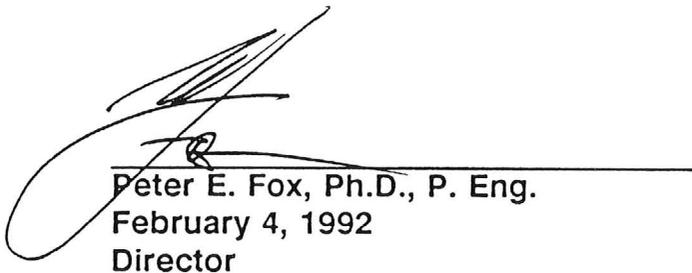
A surface sampling program together with drill collar layouts were completed in January preparatory to continued drilling of various fluorite zones on the Silver District property, La Paz County, Arizona. Assays of 30-pound bulk samples and chip samples from several of the zones are reported below.

Sample No.	Zone	Type	% Fluorite
29501	Princess North	Bulk	3.7
29502	Princess North	Bulk	4.3
29503	Princess North	Bulk	35.0
29504	Princess South	Bulk	2.9
29505	Princess South	Bulk	3.1
29506	Silver King	25' chip	51.4
29507	Hamburg Shaft	20' chip	5.5
29508	Princess Shaft	Bulk	3.9
29509	Hamburg Vein	Bulk	4.7
29510	Maxie Shaft	Bulk	4.7

The Silver King sample containing an impressive 51.4% fluorite was taken from a new trench excavated 50 feet west of previous drilling work and represents an extension of the zone in that direction. The Hamburg Shaft sample of 5.5% fluorite together with a sample of the mine dump that returned 12% fluorite indicate that the fluorite-rich zone intersected in holes 288 and 290 last year probably extends northwards for at least 800 feet beyond the drill hole collar and should add a substantial tonnage to the over-all fluorite inventory.

Silver Glance Resources Inc.
News Release
February 4, 1992
Page 2

Plans have been made to commence the 1992 drill program on or about February 10th. The program will detail the new Princess Zone, complete drilling on the Silver King, complete a preliminary test of the new Maxie #2 Zone, explore the Padre Keno south of the 1991 drilling work and firm-up reserves on the Black Rock deposit. Approximately 8,000 feet comprising some 30 holes are planned.



Peter E. Fox, Ph.D., P. Eng.
February 4, 1992
Director

The Vancouver Stock Exchange has neither approved nor disapproved the content of this release.

Silver Glance Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2428

NEWS RELEASE

NEW DISCOVERY

The Company is pleased to announce a new fluorite discovery at the Silver District property, La Paz County, Arizona. The 1991 drill program just completed returned significant fluorite assays from the Princess area, a vein system mined for silver in the 1870's. Here, eight reverse circulation holes were laid out on the central and southerly portions of the vein spaced 300 to 1,000 feet apart. Holes 287, 288 and 290 at the extreme north end of the area tested returned significant concentrations of fluorite. Hole 287 returned 10 feet averaging 5.6% fluorite and holes 288 and 290, 400 feet north, assayed 14.9% fluorite and 14% fluorite respectively over 30-foot widths. The zone remains untested for a further 1,000 feet north as far as the old Hamburg Mine workings that were developed by the early silver miners. This portion of the Princess zone has never been tested for fluorite. A considerable tonnage could thus be added to the overall fluorite inventory between the old Hamburg Mine and holes 288 and 290 just completed.

Drilling on the Padre Keno fluorite deposit continues to improve the indicated tonnage and grade of this deposit. Step-out holes this year returned fluorite concentrations ranging from 2.6% (hole 279) to 30% (hole 278) over 30-foot widths.

All assay data for the complete 1991 program are tabulated below.

Zone	Hole #	From (ft)	To (ft)	Silver (opt)	Fluorite (%)
Papago	269	-	-	-	-
Papago	270	caved at 215'	-	-	-
Geronimo	271	50	80	1.1	4.9
Geronimo	272	50	90	0.63	5.7
Maxie	273	140	185	2.27	7.9
Maxie	274	140	160	0.75	0.4
Padre Keno	275	35	55	<0.01	2.6
Padre Keno	276	60	110	0.21	20.8
Padre Keno	277	85	120	.3	13
Padre Keno	278	110	140	.28	30
Padre Keno	279	75	110	.11	18.1
Silver King	280	20	35	.19	9.8
Silver King	281	nil	-	-	-
Silver King	282	10	80	.13	32.6
Silver King	283 to 285	nil	-	-	-
Princess	286	nil	-	-	-
Princess	287	40	50	.41	5.6
Princess	288	30	60	0.1	14.9
Princess	289	nil	-	-	-
Princess	290	10	40	.21	14
Princess	292 to 293	nil	-	-	-
State	291	nil	-	-	-



Philip J. Rogers, CA
President
November 12, 1991

The Vancouver Stock Exchange has neither approved nor disapproved the content of this release.

Silver Glance Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2428

NEWS RELEASE

Fluorite and silver assays have been received for the 1989 and 1990 drill programs conducted on the Maxie, Silver King, State and Geronimo zones. Assay work was done by Skyline Labs Inc. in Tucson, Arizona. Assay results composited over the vein widths are summarized below.

Zone	Hole #	Length (ft.)	Fluorite %	Silver (opt)
State	259	35	nil	2.09
Geronimo	260	25	5.64	nil
Maxie	261	35	4.65	2.02
Silver King	262	10	11.50	nil
Silver King	263	40	6.07	nil
Silver King	264	30	47.33	nil
Silver King	265	75	25.06	nil
Silver King	266	0	nil	nil

Holes 264 and 265 were stopped in ore grade material, the former grading 44% fluorite at the end of the hole. The last ten feet of hole 265 assayed 20.90% fluorite. Hole 266 on the east extremity of the Silver King deposit penetrated barren volcanic rocks just east of the fluorite zone.

The current program is well underway. Holes have been completed on the Papago, Geronimo and Maxie deposits. Drill testing of the Padre Keno fluorite zone should commence on September 26th followed by the Silver King and Princess zones.



Peter E. Fox
September 23, 1991
Director

The Vancouver Stock Exchange has neither approved nor disapproved the content of this release.

Silver Glance Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2428

NEWS RELEASE

The Company plans to commence its 1991 work program on the Silver District property on July 20th. It is planned to firm up the indicated fluorite reserves on the Silver King, Padre Keno and Black Rock deposits and to test extensions on all three zones. It is expected that substantial reserves will be added to three zones already identified plus new reserves from the nearby Princess zone. The latter, which lies just west of the Silver King deposit, is some 300 metres long and comprises several fluorite-rich prospects along its length. Approximately 2,500 metres of drilling is planned over a series of some twenty-five reverse circulation holes.



Peter E. Fox
July 15, 1991
Director

The Vancouver Stock Exchange has neither approved nor disapproved the content of this release.

SILVERSPAR MINERALS INC.

Symbol: SLS - Vancouver Stock Exchange

June, 1992

SUMMARY

Silverspar Minerals Inc. specializes in the exploration and development of both precious and strategic metals properties. The Company's main asset is its Silver District property located in La Paz County, Arizona, approximately 50 miles north of Yuma. Silverspar will earn a 100% interest in the project subject to a 1.5% net smelter return upon completion of exploration expenditures.

The main economic minerals of the Silver District deposits are native silver and fluorite. Fluorite is attracting increasing attention, as demand for the mineral is expected to multiply significantly in light of current environmental concerns. Used in the manufacture of refrigerants, fluorite is the basis of alternative compounds to environmentally hazardous substances currently manufactured.

STOCK DATA

Shares Authorized	20,000,000
Shares Outstanding.....	1,829,848
Number of Shareholders.....	450
Recent Price (Cdn.).....	\$ 12.78

MINERAL PROPERTIES

The Silver District Deposits

The Company's principle asset is its silver, acidspars deposit located near Yuma, Arizona. Silverspar holds an option agreement with New Jersey Zinc Exploration Company, whereby the Company can earn a 100% interest subject to a 1.5% net smelter return in the Silver District property, through exploration expenditures of U.S. \$500,000 by March 1, 1993. The Company has expended approximately \$735,000 on the property to date.

The Silver District property consists of 14 deposits covering an area of approximately 12 square miles. The deposits are considered to be at an advanced stage of development, containing sizeable open-pittable reserves of silver and acidspars, as well as smaller combinations of lead and barite.

Background

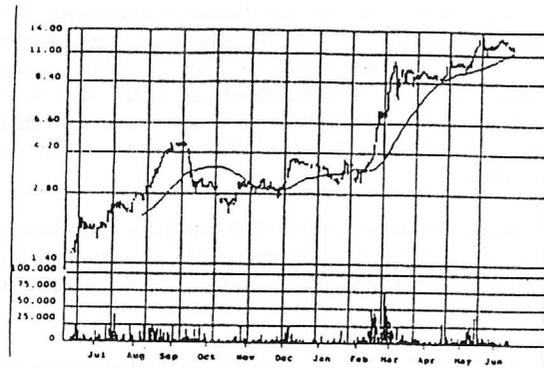
Discovered in 1862, the Silver District property is the site of an historical silver mining camp with significant production from approximately 1879.

Total recorded production from the district is 1.56 million ounces of silver, 2.33 million pounds of lead and 14,200 pounds of zinc. Production attempts after 1890 were sporadic.

In 1973, New Jersey Zinc Exploration Co. began work on the property. The company defined 14 silver-lead-barite-fluorite ore zones in three vein systems, expending a total of \$2 million. Silverspar Minerals acquired the property in 1983 and completed further drilling and metallurgical work.

Reserves

Current reserves are reported at 4.2 million tons grading five ounces silver per ton (three million tons are proven and 1.2 million are probable). This reserve calculation includes 1,777,900 tons of acidspars grading 14.2% fluorite. Reserve calculations are based on 300 drill holes, 31 bulk samples, a



pilot mill operation and extensive bench scale metallurgical tests.

The program now underway on the Silver District project is aimed at upgrading and increasing fluorite silver reserves on four zones known as the Padre Kino, Black Rock, Silver King and Princess leading to a prefeasibility study by mid-1992.

The Significance of Fluorite

The mineral fluorite is an industrial commodity. Its commercial name is fluorspar and it is chemically known as CaF_2 . Fluorspar is marketed in three major grades - acid, referred to as acidspars, ceramic and metallurgical. Silverspar's Arizona deposits contain primarily acidspars.

The Silver District property represents one of the few open-pittable deposits of acid grade fluorspar or "acidspars" in the United States today. Fluorspar is currently attracting a great deal of interest due to its strategic material significance.

Acidspars is used in a broad variety of industrial applications such as refrigerants, aerosol propellants and solvents. It is a major component in the manufacture of hydrofluorocarbons, known as HFCs. Foreign imports currently account for 85% of U.S. requirements for fluorspar.

Ever since the role of chlorofluorocarbons, or CFCs, in the destruction of the ozone layer became clear, two approaches have emerged to cope with the problem. One solution has been to simply restrict the amount of CFCs manufactured worldwide. A second approach is the use of alternative materials, such as HFCs.

SILVERSPAR MINERALS INC.

Symbol: SLS - Vancouver Stock Exchange

June, 1992

The most promising ozone-benign replacements are identified as hydrofluorocarbons and hydrochlorofluorocarbons, known as HFCs and HCFCs. While these substances have properties similar to CFCs they pose little or no threat to the environment.

As previously mentioned the principal component in the manufacture of HFCs is acidspar. Further, the amount of this substance required to produce HFCs is double that which is needed for the manufacture of CFCs. With current restrictions upon the manufacture of CFCs and their impending phase-out, the demand for acidspar is expected to increase significantly as HFCs are produced as replacements.

Fluorocarbon producers on the Gulf Coast are expected to use considerable more fluorite in new refrigerants requiring greater amounts of hydrofluoric acid and fluorite feedstock than CFC compounds previously produced.

The U.S. based DuPont Co. recently announced plans to construct a facility which will manufacture 70 million pounds annually of HFC compounds. DuPont already produces an HFC compound at a Texas facility, and a 34,000 ton capacity HFC plant is under construction in Japan. By 1993, the Company plans to produce up to 125 million pounds of HFC compounds annually. A fourth facility, to be located in the Netherlands, is projected for completion by 1994.

The HFC products are members of DuPont's family of "Suva" alternative refrigerants. The HFC substitutes for CFC compounds will be a component of DuPont's "Suva" blends. The compounds are targeted for use in servicing existing and new systems in industrial and commercial refrigeration equipment such as in supermarket applications and refrigerated transport, refrigerators for home use and automobiles.

Automobile air conditioning refrigerants are believed to contribute a significant amount of the chlorofluorocarbons released in the United States each year, having been identified as the single largest contributor to ozone depletion. It is estimated that 107 million pounds of CFCs were used in 1989 model cars alone. Eventually, all of this material is expected to leak into the stratospheric ozone.

As the first state to target car air conditioners, Vermont has passed a law prohibiting the sale of 1992 model-year cars equipped with CFC-based air conditioners.

An example of the automobile industry's response to the situation is Nissan Motor Company Ltd.'s recent announcement that all air conditioning systems in 1993 models will contain a DuPont "Suva" HFC compound instead of the CFC compounds currently in use.

OUTLOOK

In addition to silver reserves of approximately three million tons grading 4.6 ounces per ton, the Company's Silver District property has reserves of nearly two million tons of acidspar grading 14% fluorite. Further testing is expected to double these reserves.

With the depletion of the ozone layer, or global warming, becoming an increasing environmental concern, adoption of a substitute for chlorofluorocarbons, or CFCs, which are known to be harmful to the ozone layer, is imminent.

Added to the Company's established mineral reserves and the potentially significant demand for fluorite in the near future, is Silverspar's highly qualified management, headed by Peter Fox, Ph.D., P. Eng. Joining him is one other mining professional, John W. Fisher, P. Eng., Director and Vice President Milling with Rea Gold Corporation.

CAPITALIZATION

Long Term Debt.....	Nil
Common Stock (common shares authorized)....	20,000,000
Common Shares (outstanding).....	1,829,848

INCORPORATED

The Company was incorporated on July 18, 1979 under the Company Act of British Columbia, under the name Orbex Minerals Limited. The name of the Company was changed to Silver Glance Resources Inc. on March 7, 1990 and on June 17, 1992 the name was changed to Silverspar Minerals Inc.

MANAGEMENT

Philip Rogers, CA, President and Director; Peter E. Fox, Ph.D., P. Eng., Ph.D., Director; John W. Fisher, P. Eng., Director; Jan Van Der Weij, Director.

COMPANY OFFICE ADDRESS

1409 - 409 Granville Street
Vancouver, B.C. V6C 1T8 Canada
Telephone: (604) 669-5737
Facsimile: (604) 681-3920

Mr. Pete Dohms, geologist for New Jersey Zinc Co., was found at the Sprague-Henwood core rig on the Black Rock property. He said they were drilling their 12th and last hole, for the present. The holes have varied in depth from 100 ft. to 225 ft. and have covered a distance of about 2½ miles along the strike of the vein structure. Although nothing specific was mentioned as to the results Mr. Dohms seemed favorably impressed and stated that they were trying to buy or lease the Clip millsite for the water rights. GW WR 12/12/73

MG/WR 4/1/79 - Made a field trip to the Silver mining district in Yuma Co., north of Yuma, Az. Much of the district is controlled by the New Jersey Zinc Co. Visited the Black Rock mine where New Jersey has done extensive mapping and drilling. Within the district, New Jersey has defined three major vein systems, trending northerly, that have strike lengths of about three thousand feet. No grades or tonnages were given but New Jersey envisions a small mining operation consisting of several open pits no more than three or four hundred feet deep. There doesn't appear to be any immediate plan to go into operation, although Wallaby Enterprises is doing a base-line environmental study of the area.

KAP WR 5/7/82: Black Rock Mine, Silver District, Yuma County. This property is rumored to be part of New Jersey Zinc's exploration program in the Silver District. A number of new (last 3 years) drill roads were noted.

MG WR 2/4/83: I have heard that New Jersey Zinc will soon make an announcement that it has a joint venture partner in its Black Rock Mine Project, Yuma County.

MG WR 4/8/83: The New Jersey Zinc Co. is now an individual entity, separate from Gulf and Western Industries, Inc. The zinc mines of Tennessee, still owned by Gulf and Western, are for sale. The Black Rock Mine (silver District) of Yuma County is managed by the New Jersey Zinc Exploration Company, a wholly owned subsidiary of Gulf and Western.

of 1 mile in length has returned assays from surface at one location of up to .31 oz. gold/t. At another location 1,000 feet away, assays of up to .26 oz. gold/t have been returned. At least three other gold-bearing zones have been identified on the property.

Westley, as project operator, intends to move the exploration program ahead rapidly, with drilling planned to start before year end.

HIGHLAND VALLEY RESOURCES LTD. (HVR-V)

PRELIMINARY PROGRAM TO START - Highland Valley Resources Ltd., vice president Jarl

A. Whist, Jr. has announced, work has started on the Stewwinder and Susie properties, located 6 km northwest of Oliver B.C. The program is a 50-50 joint venture with Thor Gold Corp. of Calgary.

The work at the Stewwinder will consist of a grid being laid out over the property, geological mapping, geochemical sampling and rock sampling of all surface showings. In addition, underground 5 metre interval samples of the Brown Bear adit and the Stewwinder decline will be taken. Once the results have been analyzed a drilling and underground work program on the property will commence.

At the Susie property, the top underground level will be sampled where accessible. Upon analysis of these samples, further underground work will be considered.

INOCAN TECHNOLOGIES LTD. (ANW-V)

FIELD TEST PUMPS EXPECTED IN DEC. 1987 - Inocan

Technologies, Ltd. has improved the valve system of its "Tandem-Flow(R)" pump to operate without lubricant in water and for a minimum operational life of three million cycles. This development phase exceeded the plan schedule and it is now expected that field test units will be completed in December, 1987 if no major changes are required.

The "Tandem-Flow(R)" water treatment system is still planned to produce more water (24 gal/day), at a faster rate (1 gal/hr), dispensing at up to 4 oz/second and producing quality product water at line pressures as low as 20 p.s.i.

GENERAL ALLIED OIL AND GAS CO. (GAZ-V)

PRIVATE PLACEMENT COMPLETED - General Allied Oil and Gas Co. has completed a private placement of US\$575,000 by issuing 57,500 units. Each unit consisting of one non-voting 12%

EXPLORATION UNDERWAY - Drilling is underway on U.S. ON MONTANA Grant's 47-claim gold-silver property in Madison county, Montana. R.W. Stevenson, P.Eng., of Vancouver, has recommended an initial 2,000 foot underground diamond drilling program directly below 121,176 proven ton averaging 0.48 oz. gold/t and more than 15 oz. silver/t.

the Alder Gulch of Madison county is historically one of the richest gold-silver producing areas in North America.

Also to be examined is a low grade deposit with forecasts of 12,000,000 tons averaging .05 oz. gold/t.

The company is negotiating to acquire another property in the Alder Gulch area.

President, William Craigie Hood, said the exploration is to operate in concert with the present mining and milling of the 121,175 tons of proven ore to stockpile tonnages for the company's 100-ton-a-day mill.

Negotiations are underway to custom mill ores from nearby properties.

U.S. Grant has completed an initial public financing of 600,000 shares at \$2. each. Warrants are outstanding on a further 300,000 shares at \$2.30 for 180 days.

COMINCO RESOURCES INTERNATIONAL LIMITED (COR-T,V)

SIX MONTHS RESULTS - Cominco Resources International,

formed April 1 to operate the Buckhorn gold mine in Nevada and to carry out international exploration for gold and other metals, has announced that, after allowing for expenditure of \$4,500,000 for expicatin in the United States, Europe and Latin America, it had incurred a loss of \$1,900,000 for the six month period ending September 30. However, after adjustment for non-cash items, the company's cash position increased from \$35,600,000 to \$38,700,000 in the quarter.

FOR THE RECORD

ORBEX INDUSTRIES INC. (OXI-V) is negotiating with a major European bank for private placement funding to complete the feasibility study on the Silver district property located in La Paz county, Arizona.

RISE RESOURCES INC. (RIS-V) has acquired from Don McKinnon an option to purchase 100% interest in a mineral property consisting of 416 claims situated in Abbie Lake, Pukaskwa and Keating townships in the Sault Ste. Marie Mining Division, Ontario. Cash and share payments are required to exercise the option.

Black Rock

Silver Glimce Resources Inc.

1409 - 409 Granville Street
Vancouver, B.C. Canada V6C 1T8
Telephone (604) 669-2423

LETTER TO SHAREHOLDERS

Erosion of the Ozone layer by chlorine-bearing fluorocarbons has sparked new restrictions on the use of chlorofluorocarbons (CFC's) and has accelerated phase-out deadlines. This is good news for shareholders of Silver Glimce Resources Inc. Two years ago the Company decided to exploit it's reserves of fluorite-bearing rock in its Silver District property near Yuma, Arizona to take advantage of increasing environmental concerns regarding CFC's. The cry over CFC's and the depletion of the Ozone layer has now reached the crisis stage. The Company's decision to switch to fluorite is proving to be a good one. The stock has moved to the \$3.50 to \$4.00 range and interest in the Company continues to grow.

The Significance of Fluorite

Fluorite is the chief feedstock for the new Ozone benign products, hydrofluorocarbons (HFC'S) and hydrochlorofluorocarbons (HCFC's). A three-fold demand for fluorite and its immediate product hydrofluoric acid is anticipated with the shift from CFC-based products to HFC's. In addition, some two tons of acidspar is required to produce one ton of hydrofluoric acid. There is thus a five-fold multiplier in effect on acidspar production. The Company's Silver District property near Yuma, Arizona is the only open-pit acidspar deposit in the United States and is potentially the only domestic producer to supply fluorite to consumers on the U.S. market. Deposits in the Silver District Mining District have the potential to be low cost producers because of their low mining and processing costs, nearby transportation and proximity to end-users.

Reserves

Current reserves are four million tons grading five ounces per ton silver which include 1.8 million tons of acidspar quality rock grading 14% fluorite. Recent work has resulted in an increase in over-all grade and quality along with the discovery of a new zone in which early drill results returned 14% fluorite over a true width of thirty feet. This zone, accessible by open pit mining, is open along strike and to depth and could add a significant component to the reserve base. On-going work will exploit this reserve and develop final processing requirements to produce 50,000 tons of acidspar and one million ounces silver per year.

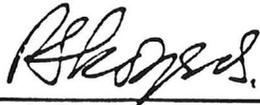
Recent Developments

The United States recently passed a measure to accelerate the elimination of CFC's in refrigerants, solvents, insulating processes and other applications. Production of CFC's had been slated for extinction by the year 2000. The U.S. is now considering moving that date five years closer. DuPont Co. and Allied-Signal Inc., two of the largest CFC producers, have spent about \$600 million to develop and produce CFC alternatives. DuPont has authorized construction of the world's largest facility to produce non-ozone-depleting HFC's. The Company said that the \$100 million worldscale plant at Corpus Christi, Texas, will have an annual capacity of about 70 million pounds to produce HFC-134A and HCFC-124. Coupled with an existing facility at the same site and a plant under construction in Chiba, Japan, DuPont said that by 1993 it will have capacity to produce up to 75 million pounds annually of HFC-134a and 50 million pounds of HCFC-124. Design is under way for a fourth facility in Dordrecht, the Netherlands, which is projected for completion by 1994.

HFC-134a is now targeted to replace all CFC products in new automobile air conditioning systems, commercial and industrial refrigeration equipment and home refrigerators. HCFC-124 will be a component of DuPont's products for servicing existing and new systems in home refrigerators, automobiles, refrigerated transport and some supermarket applications.

Outlook

All in all, the Company is well-positioned to capitalize on the accelerating demand for new, environment-friendly fluorocarbon products. Our growing resource base coupled with low production costs, by-product credits, access to the U.S. market and proximity to transportation all enhance the future potential of the Silver District project.



Philip J. Rogers

President

February 11, 1992

Schedule B: Supplementary Information - Silver Glance Resources Inc.

Securities Issued during the Second Quarter Ended January 31, 1992

Date	Type of Security	Type of Issue	Number	Price	Total Proceeds	Type of Consideration	Commission
Nov. 22, 1991	Common	Shares for Debt	9,200	2.50	\$ 23,000	Royalties	0
Dec. 12, 1991	Common	Options	50,000	1.10	\$ 55,000	Cash	0
Dec. 12, 1991	Common	Options	45,000	1.60	\$ 72,000	Cash	0
Jan. 31, 1992	Common	Options	10,000	1.60	\$ 16,000	Cash	0

Options Granted During the Second Quarter Ended January 31, 1992

Security	Number or Amount	Exercise or Convertible Price	Expiry Date
Option	160,000	\$ 3.60	December 12, 1993

Authorized and Issued Share Capital at as January 31, 1992

Class	Par Value	Authorized Number	Issued Number	Issued Amount
Common	N.P.V.	20,000,000	1,621,848	11,176,615

Options, Warrants and Convertible Securities Outstanding as at January 31, 1992

Security	Number or Amount	Exercise or Convertible Price	Expiry Date
Options	160,000	\$ 3.60	December 12, 1993
Warrants	125,000	\$ 1.50	July 17, 1992

There are no flow-through shares or shares in escrow or subject to pooling as at January 31, 1992.

Schedule C: Management Discussion

PROPERTIES

The second quarter was highlighted by the announcement of a new fluorite discovery on the Silver District Property near Yuma, Arizona. The 1991 drill program produced significant fluorite assays from the Princess area, a vein system mined for silver in the 1870's. Three of the eight reverse circulation holes (#287, 288 and 290 at the extreme north end) returned assays averaging 5.6% fluorite over 10 feet, 14.9% fluorite over 30 feet and 14% fluorite over 30 feet respectively. The zone remains untested for a further 1,000 feet north as far as the Old Hamburg Mine. The Company believes considerable tonnage could be added to the over-all fluorite inventory between the Old Hamburg Mine and holes 288 and 290.

Subsequent to the quarter-end, the 1992 drill program was commenced on the Silver District. The program will consist of approximately 8,000 feet of reverse circulation drilling in over 30 holes and has three objectives - (1) define the Princess zone; (2) firm-up reserves on the Black Rock deposit; and (3) test possible extensions of the Silver King, Maxie #2 and Padre Keno zones all of which are currently open.

With the completion of the 1992 program, the Company will have fulfilled the \$500,000 expenditure requirement to earn a 100% interest in the Silver District Property, subject to a 1.5% net smelter return.

FINANCING

The Company received \$143,000 from the exercise options for 105,000 common shares by two directors and two employees. Regulatory authorities approved the issue of 9,200 common shares to settle 1990 property payments totalling \$20,000 U.S. on certain claims within the Silver District.

Subsequent to the quarter end, the Company has received \$426,800 from the exercise of options for an additional 118,000 common shares by three directors and three employees.

OUTLOOK

The Company received invaluable assistance in January when the earth's Ozone Layer attracted worldwide headlines. The U.S. National Aeronautics and Space Administration announced startling findings from atmospheric studies which showed record-high concentrations of chlorine monoxide over the skies of the Northern Hemisphere. Chlorine monoxide is a chemical by-product of the chlorofluorocarbons (CFC's) known to be the chief agents of Ozone destruction. This announcement has motivated governments in developed countries to review the timetable for the total phase-out of the production of CFC's. Total phase-out which was scheduled for the year 2000 is now being considered for the mid 1990's. Germany has announced total phase-out by the end of 1993.

The shift from CFC's to Ozone-benign products, hydrofluorocarbons (HFC's) and hydrochlorofluorocarbons (HCFC's), is expected to at least double the worldwide demand for acid grade fluorite (acidspar) the chief feedstock of HFC's and HCFC's.

The Company's Silver District Property is the only open-pittable acidspar deposit in the United States and is potentially the only domestic producer to supply fluorite to consumers in the U.S. market.

Upon the completion of the 1992 drill program, the Company is planning to proceed with a development process that will result in a feasibility report by January, 1993. The financing for this development process will be indirectly assisted by the worldwide concerns about Ozone depletion.



Philip J. Rogers, CA
President
March 31, 1992

Directors of the Company

Philip J. Rogers
North Vancouver, B.C.
President/Director

President of the Company; Self-employed
Chartered Accountant (1983 to present).

Peter E. Fox
Vancouver, B.C.
Director

Consulting geologist, Fox Geological
Consultants Ltd. (a non-reporting British
Columbia company) 1971 to date.

John W. Fisher
Delta, B.C.
Director

Chemical Engineer, Metallurgist; Rea
Gold Corporation.

Jan Van Der Weij
North Vancouver, B.C.
Director

Businessman.



INSTRUCTIONS

This report is to be filed by Exchange Issuers within 60 days of the end of their first, second and third fiscal quarters and within 140 days of the end of their fourth fiscal quarter. Three schedules (typed) are to be attached to this report as follows:

SCHEDULE A: FINANCIAL INFORMATION

Financial information prepared in accordance with generally accepted accounting principles for the fiscal year-to-date, with comparative information for the corresponding period of the preceding fiscal year. This financial information should consist of the following:

For the first, second and third fiscal quarters:

An interim financial report presented in accordance with Section 1750 of the C.I.C.A. Handbook. This should include a summary income statement (or a statement of deferred costs) and a statement of changes in financial position. A summary balance sheet is also to be provided.

For the fourth fiscal quarter (year end):

Annual audited financial statements.

SCHEDULE B: SUPPLEMENTARY INFORMATION

The supplementary information set out below is to be provided when not included in Schedule A.

1. *For the current fiscal year-to-date:*

Breakdown, by major category, of those expenditures and costs which are included in the deferred costs, exploration and development expenses, cost of sales or general and administrative expenses set out in Schedule A. State the aggregate amount of expenditures made to parties not at arm's length from the issuer.

2. *For the quarter under review:*

(a) Summary of securities issued during the period, including date of issue, type of security (common shares, convertible debentures, etc.), type of issue (private placement, public offering, exercise of warrants, etc.) number, price, total proceeds, type of consideration (cash, property, etc.) and commission paid.

(b) Summary of options granted, including date, number, name of optionee, exercise price and expiry date.

3. *As at the end of the quarter:*

(a) Particulars of authorized capital and summary of shares issued and outstanding.

(b) Summary of options, warrants and convertible securities outstanding, including number or amount, exercise or conversion price and expiry dates.

(c) Total number of shares in escrow or subject to a pooling agreement.

(d) List of directors.

SCHEDULE C: MANAGEMENT DISCUSSION

Review of operations in the quarter under review and up to the date of this report, including brief details of any significant event or transaction which occurred during the period. The following list can be used as a guide but is not exhaustive:

Acquisition or abandonment of resource properties, acquisition of fixed assets, financings and use of proceeds, management changes, material contracts, transactions with related parties, legal proceedings, contingent liabilities, default under debt or other contractual obligations, special resolutions passed by shareholders.

ISSUER DETAILS

NAME OF ISSUER		ISSUER TELEPHONE NO.	FOR QUARTER ENDED	DATE OF REPORT		
SILVER GLANCE RESOURCES INC.		669-2428	January 31, 1992	Y	M	D
				92	03	31
ISSUER'S ADDRESS		PROVINCE	POSTAL CODE			
1409 - 409 Granville Street, Vancouver, B.C.			V 6 C 1 T 8			
CONTACT PERSON		CONTACT'S POSITION		CONTACT TELEPHONE NO.		
Philip Rogers		President		980-8604		

CERTIFICATE

The three schedules required to complete this Quarterly Report are attached and the disclosure contained therein has been approved by the Board of Directors. A copy of this Quarterly Report will be provided to any shareholder who requests it.

DIRECTOR'S SIGNATURE	PRINT FULL NAME	DATE SIGNED
	Philip J. Rogers	Y M D 92 03 31
DIRECTOR'S SIGNATURE	PRINT FULL NAME	DATE SIGNED
	Peter E. Fox	Y M D 92 03 31

VEIN MINERALOGY, PARAGENESIS AND FLUID INCLUSION SURVEY OF
THE SILVER DISTRICT, LA PAZ CO., ARIZONA

Mark A. Bradley

The Silver District, located in the Trigo Mountains of southwestern La Paz County, Arizona, has produced over 1,500,000 oz. of silver and 2,300,000 lbs. of lead, principally as argentiferous galena. The mineralization occurs as narrow open-space-fill veins localized along high-angle NE- to NNW-trending normal faults genetically related to the upper plate of a large, east-dipping detachment surface below the Trigos. The host lithologies are Mesozoic and Precambrian schists, intruded by small Laramide stocks and overlain by 26-m.y.-old andesite-rhyolite volcanics. Primary gangue minerals are manganiferous "black" calcite, fluorite, barite, and colloform and open-space quartz, overprinted by an extensive secondary oxidation suite of minerals. The paragenetic sequence can be summarized as follows: an early stage consisting of massive calcite-fluorite-quartz-galena-sphalerite(?), with minor barite; an intermediate banded-quartz-calcite stage, with accessory fluorite; and a final period of massive barite deposition, with intergrown quartz and calcite. The stages show a distinct district-wide zonation, with calcite-fluorite mineralization in the south and west giving way to barite-calcite to the north and east. Fluid inclusion filling temperatures for all gangue phases show a gradual decrease from 165°-170°C in the south to 135°C in the north, with a corresponding trend of decreasing salinity values from south to north. This evidence suggests that the heat source for the mineralizing system was centered in the south and west of the district, and that solutions migrated to the north via major fault zones, in the process losing temperature and increasing in PH and fO_2 .

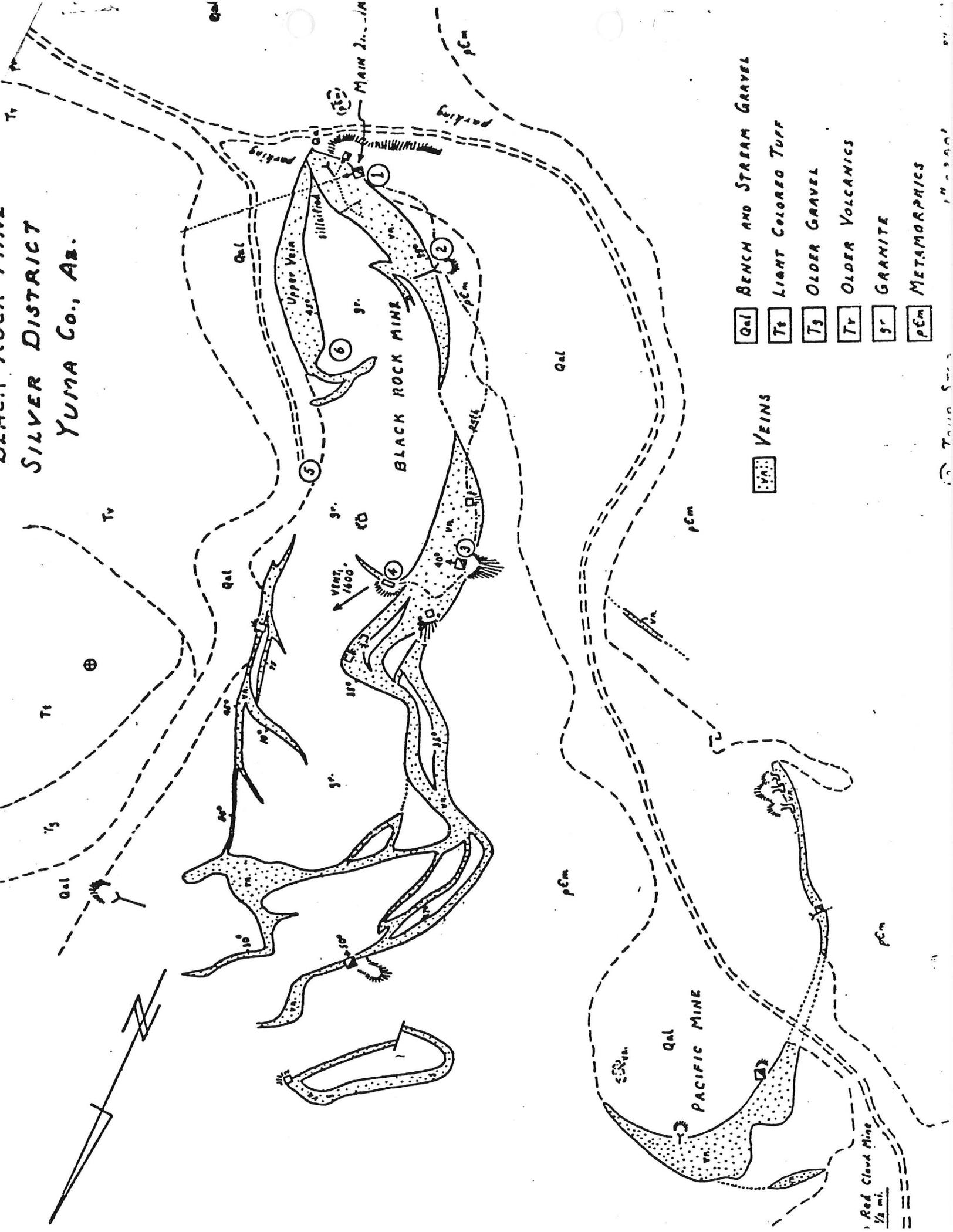
abstracted from: Department of Geosciences,
University of Arizona - Geoscience
Page - March 11-13-1986

BLACK ROCK SURFACE TOUR

- Stop 1 - Main Incline - note pseudo FW* and HW*, true FW* -
outcropping mineralization.
- Stop 2 - Adit - excellent exposure of FW* of lower massive
vein sitting on metamorphics.
- Stop 3 - North Incline - note different ages of veins,
cross-cutting veins, breccia textures.
- Stop 4 - Pit N. of North Incline - viewpoint,
a. N 60° W - 1000', "fishhook" shaped Pacific
vein,
b. North - 150', anastomosing veins in canyon,
c. N 30° E - 1600', volcanic vent with flat,
air laid tuffs.
- Stop 5 - Collar of discovery drill hole, DDH #1, thickest
vein intersection in District.
- Stop 6 - Footwall area of Upper massive vein, strong breccia-
tion, multiple ages of veining.

*FW - Footwall
HW - Hanging Wall

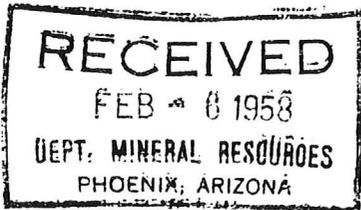
SILVER DISTRICT
YUMA CO., AZ.



- Qal BENCH AND STREAM GRAVEL
- Tt LIGHT COLORED TUFF
- T3 OLDER GRAVEL
- Tv OLDER VOLCANICS
- gr GRANITE
- pCm METAMORPHICS

vn VEINS

Red Cloud Mine
1/2 mi.



DEPARTMENT OF MINERAL RESOURCES
State of Arizona
MINE OWNER'S REPORT

Date 2/4/58

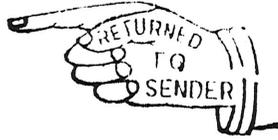
- 1. Mine: Black Rock & Pacific
- 2. Location: Sec..... Twp..... Range..... Nearest Town Yuma Distance 50 miles
Direction NE Nearest R.R. Dome City Distance 30 mi
Road Conditions.....
- 3. Mining District and County:.....
- 4. Former Name of Mine:.....
- 5. Owner:.....
Address:.....
- 6. Operator:.....
Address:.....
- 7. Principal Minerals:.....
- 8. Number of Claims: Lode 2 Patented yes Unpatented.....
Placer..... Patented..... Unpatented.....
- 9. Type of Surrounding Terrain: Hilly

10. Geology and Mineralization:.....
*Has not been worked
 for about 30 years
 just the same owners
 as the report you
 have.*

11. Dimension and Value of Ore Body:.....
*W.D. King
 P.O. Box 1486
 Yuma*

Please give as complete information as possible and attach copies of engineer's reports, shipment returns, maps, etc. if you wish to have them available in this Department's files for inspection by prospective lessors or buyers.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
Mineral Building, Fairgrounds
PHOENIX, ARIZONA



sent to
Walter H. Riley
1480
sent 2/3/58

Reason for Non-Delivery
Moved - No Address - Refused
Unknown - Deceased
No Such Number - Deceased
Firm Discontinued - No Order
Initials W.H.R.

Returned for Carrier Endorsement

Mr. C. E. Batton

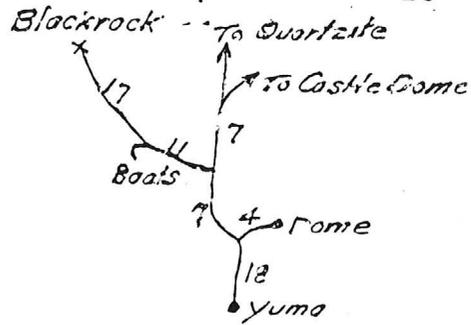
2673 N. Holliston Avenue

Altadena, California

Blank Pack

Reference: Eagle-Picher "P" cont. file

3/26/47



PACIFIC-BLACKROCK GROUP
Silver Mining District
Yuma County, Arizona.

File P 33-114-1-3

The Pacific-Blockrock property was submitted by Mr. J. M. Hill early in January and the area was visited on March 26, 1947.

Several reports are on file which give much detailed data on the property. Reference is made to these reports, particularly to the one by F. W. Giroux and the one by Val DeCamp/

Geology:

The prevailing rock in the Blackrock area is schist. The Blackrock vein occurs along a fault zone which strikes N 65 W and dips 35 NE. The shaft is started at the surface in the footwall of a well defined vein 6 to 8 feet wide which is composed chiefly of massive calcite. Alteration extends 50 feet or more into the hanging wall. The rocks are shattered and a great deal of calcite has been introduced together with small amounts of quartz and fluorite. The footwall rocks are also altered but were poorly exposed. Lead and zinc has been introduced at various points in the shattered zone but appears to be higher grade near the footwall. The ore minerals are oxidized. Underground, reopenings in the calcite zone from 1/2 to 6 inches in width were highly mineralized with lead carbonate, quartz and a little galena.

Ore values:

Practically all the underground development follows the more prominent parallel reopenings relatively close to the footwall or cross structures where crosscuts are driven. Therefore samples may represent in the main part, the more highly mineralized section of the zone.

A composite of De Camp's samples show 3.5oz silver and 3.07% lead.

1. Pacific-Blackrock Group
2. Yuma County, Arizona
3. Mr. J. M. Hill
4. Messrs. Hannon and Stone
5. Visited on March 26, 1947
6. Silver-lead-zinc
7. "Occurrence of commercial sulphide ore at water level does not appear promising on the meager information available on the lower levels. This poorer grade, however, could be a local condition rather than gradual impoverishment, but in either event it seems that the oxidized ore will have to be profitably utilized in order to justify exploration of the sulphide zone."

2. _____

Summary of all available zinc assays

PACIFIC-BLACKROCK GROUP
Silver Mining District
Yuma County, Arizona.

File P 33-114-1-3

1947

The Pacific-Blackrock property was submitted by Mr. J. M. Hill early in January and the area was visited on March 28, 1947.

Several reports are on file which give much detailed data on the property. Reference is made to these reports, particularly to the one by F. W. Giroux and the one by Val DeCamp/

Geology:

The prevailing rock in the Blackrock area is schist. The Blackrock vein occurs along a fault zone which strikes N 65 W and dips 35 NE. The shaft is started at the surface in the footwall of a well defined vein 6 to 8 feet wide which is composed chiefly of massive calcite. Alteration extends 50 feet or more into the hanging wall. The rocks are shattered and a great deal of calcite has been introduced together with small amounts of quartz and fluorite. The footwall rocks are also altered but were poorly exposed. Lead and zinc has been introduced at various points in the shattered zone but appears to be higher grade near the footwall. The ore minerals are oxidized. Underground, reopenings in the calcite zone from 1/2 to 6 inches in width were highly mineralized with lead carbonate, quartz and a little galena.

Ore values:

Practically all the underground development follows the more prominent parallel reopenings relatively close to the footwall or cross structures where crosscuts are driven. Therefore samples may represent in the main part, the more highly mineralized section of the zone.

A composite of De Camp's samples show 3.5oz silver and 3.07% lead.

Giroux gives an average for the mine of 6.7 oz silver, 4.8% lead, 9.8% zinc. He figures a width of 15 feet and apparently has omitted the crosscut samples. If these are weighted against his average the 3 long crosscuts on the 2nd, 3rd, and 4th levels giving a total horizontal width of 60 feet then Giroux's average is brought to:
4.1 oz silver, 3.0 lead.

Gregory took two samples in 1935, one in a cross-cut for which no location is given and a grab of the dump.
X-cut 1.3 oz silver, 2.7% lead, 6.9% zinc.
Dump 2.8 " " , 0.9% " , 2.2% " .

Average of all available zinc assays

indicate an average value for samples of about 6.3%.

From available assays the average value of the zone is indicated to be about 3.8 silver and 3.0% lead, No value is given for the zinc carbonate and silicates which may not be recovered.

An average 60 ft. horizontal width sampled in cross-cuts corrected for 35 degree dip gives width of 34 feet. If this width prevails to the full extent of development 170 to 200 feet the order of the deposit is about 50,000 tons per 100 feet in depth on the dip.

Sampling to date is insufficient to prove the value of the zone over the indicated width of 34 feet. A number of well spaced sample sections should be cut across the full width of the mineralized zone to obtain any accurate value. A long hole sectional drill will be of aid in sampling and will probably be more suitable than a diamond drill in the preliminary work due to the necessity of trucking water.

Water level and Oxidation:

The Red Cloud Mine, about one mile northwesterly of the Blackrock, is said to penetrate permanent water level at a depth of 535 feet inclined distance or 400 feet measured vertically. The Red Cloud collar is about 1,070 feet above sea level or about 870 feet above the Colorado River. The Blackrock is approximately 100 feet lower than the Red Cloud. It is shown on the old maps as reaching a depth of 420 feet inclined distance or about 250 feet vertical depth. Comparison with the Red Cloud indicates that water level should be reached in the Blackrock Mine at a maximum additional vertical depth of 150 feet or 250 feet on the incline.

At and below water level the zinc as well as the lead may be in sulphide form although level of oxidation and present water level are in many places not identical in the desert and range province. Supposed silver enrichment at water level may exist but evidence is poor for such enrichment.

The problem of zinc content in the sulphide zone in respect to zinc content in the oxidized zone arises. The highly reactive calcite gangue of the vein would appear to hold zinc in insoluble form with relatively little migration excepting along insulated channelways. It seems that zinc content in the developed part of the mine may have changed some but not greatly from original content before oxidation.

Remarks:

Sample sections across the entire mineralized zone are insufficient to be certain that the indicated value ~~of~~ (3.8 oz silver, 3.0% lead, 6.3% zinc) is an accurate average. While workings to a large extent follow the reopenings in the calcite and may account for some enrichment in the samples, the size, grade and frequency of these mineralized reopenings does not appear sufficient to account for all the values. Some of the mineral must be disseminated in the calcite. This is indicated in the 60 ft sample cut in the North cross-cut 104 level which ran 4. oz silver, 3.0% lead.

Tonnage and values must be restricted to the developed area 170-200 feet on strike and 34 feet wide as represented by one cross-cut on each of 3 levels. The width includes the footwall vein and the mineralized hanging wall as far as sampled altho some mineralization is indicated in the hanging wall rock on the 117 level beyond the massive calcite.

The vein was traced on the surface 600 feet but a lessor width is indicated in general than is shown by present development.

The mine was inaccessible below the 171 level due to bad air. To this point values appear to hold uniform. Below this level the only working shown on the maps are two cross-cuts into the hanging wall, one 75 feet on the 270 level, and one 25 feet on the 420 level. Average value in the 270 crosscut based on 15 samples out in 5 ft sections is 2.6 oz silver, 1.8% lead. The average value in the 420 cross-cut on 5 samples is 0.5 oz silver with no lead given. The values in these two crosscuts give the appearance that values are falling in depth, however development on these two levels is insufficient to be certain that this is the case.

Samples appear to have been carefully taken. Duplication of samples in the present workings will add nothing to the information already available. In order to arrive at an accurate value and tonnage for the Blackrock vein it will be necessary to sample the complete mineralized section at regular intervals. This will require considerable preparation as there is no camp or equipment at the mine and water will have to be hauled about 8 miles over a road which will probably require 4 wheel drive truck. The work could be minimized with a sectional drill which will serve for the preliminary sampling.

Occurance of commercial sulphide ore at water level does not appear promising on the meager information available on the lower levels. This, however, could be a local condition rather than gradually impoverishment, but in either event it seems that the oxidized ore will have to be profitably utilized in order to justify exploration of the sulphide zone.

April 1947.

Edwin Stone
Hernon
 Hernon and Stone

DEPARTMENT OF MINERAL RESOURCES

State of Arizona

MINE OWNER'S REPORT

DEPT. OF MINERAL RESOURCES
PHOENIX
JUN 24 1946
Date June 22 1946

1. Mine: Black Rock Pacific

2. Location: Sec. Twp. Range. Nearest Town.

Distance 50 miles from Yuma Conf. Direction N.E. Road Condition not good.

3. Mining District & County: Silver District Yuma Co, Ariz

4. Former Name of Mine:

5. Owner: C. E. Batton

Address: 2673 N. Holliston Ave. Altadena, Cal.

6. Operator: none

Address:

7. Principal Minerals: Lead, Silver & Zinc

8. Number of Claims: 2 Lode yes Placer

Patented yes Unpatented

9. Type of Surrounding Terrain: mountainous

BLACK ROCK PACIFIC

10. Geology & Mineralizati Pb, Ag

Yuma 14 - 5 T 4 S, R 22 W

1486
W. D. Riley, Box 952, Yuma (agent) 112x '46
Owner: C. E. Batton, 2673 N. Holliston Ave., Altadena, Calif.

11. Dimension & Value or Ore Body:

JOHNSON, NELS
734 2nd Ave.,
Yuma, Arizona

Riley, Walter D.
734 2nd Ave.
Yuma, Arizona.

Possibility of shipping high copper-silver ore carrying uranium.
5/3/56 (Eng. Report)

12. Ore "Blocked Out" or "In Sight":
.....
.....
.....
.....

Ore Probable:

13. Mine Workings—Amount and Condition:.....

No.	Feet	Condition
Shafts <i>7</i>	<i>450 ft</i>	
Raises.....		
Tunnels.....		
Crosscuts.....		
Stopes.....		

14. Water Supply: *about 4 miles from Colorado River*

15. Brief History:

16. Signature: *W. P. Kelly*
Box 1486, Yuma

17. If Property for Sale, List Approximate Price and Terms:

Mine BLACK ROCK ✓

Date September 25, 1942

District Silver Mining D., Yuma Co.

Engineer Elgin B. Holt

Subject:

PRODUCTION POSSIBILITY

OWNER: C. E. Batton. ✓ Walter D. Riley, ✓ Agent, Yuma, Arizona.

METALS: Lead, zinc ✓ and silver.

LOCATION

The Black Rock mine, is located in the Silver Mining District, Yuma County, Arizona, about 40 miles north of Yuma and 4 miles east of the Colorado River, or more particularly at a point about one mile S. E. of the Red Cloud mine, described by me in the report herewith attached.

HISTORICAL

This claim was one of the early locations in the district, but very little of its history or production is known, per Eldred D. Wilson. By 1881, according to Hamilton, the mine had been sold for \$135,000 and some rich ore was produced from a 100-foot shaft on vein. Prior to 1884, the owners sank this shaft to a depth of 420 feet and erected a small smelter on the Colorado River. How long this smelter operated is not recorded; but it is reported as turning out a ton of base bullion per day in June, 1883. So far as known, the mine has not produced extensively since 1887, although a small amount of dump material was treated in the Red Cloud mill, by Penn Metals, Inc., during 1941. The Black Rock claim was patented during the early 80's, and is now owned by C. E. Batton. ✓ During December, 1940, Penn Metals, Inc., took a lease and option on the Black Rock mine, as well as on Red Cloud and other properties, and during the Spring months, ¹⁹⁴¹ this syndicate erected at the Red Cloud property a 200-ton flotation plant.

After this plant was completed, an attempt was made to work a limited tonnage of low grade dump ore from Red Cloud and Black Rock, instead of opening up these properties. If this had been done, these mines would have furnished ample ore of much better grade, especially below water level, where higher grade sulphide ores in quantity may be expected. (See my report on Red Cloud).

The said mill was operated from about May 1, 1941, to the first week in September, 1941, at which latter date the mill closed down and has not been started since. During the time the mill operated, mainly on Red Cloud dump material, a small amount of dump ore was also treated from Black Rock, and thereby 63.82 tons of concentrates were produced and marketed, the same running: silver, 47.45 ounces; gold, 0.017 ounce; lead, 27.8%; zinc, 4.2%; net smelter returns being \$2,630.76.

BLACK ROCK VEIN

The Black Rock vein occurs within a fault zone that strikes N. 65 degrees ~~west~~ W. and dips 40 degrees N. E. The vein which consists of manganese stained calcite with less amounts of silicified breccia, is traceable on the surface for a length in excess of 600 feet and has a maximum width of 18 feet. Occupying vugs and fissures are irregular masses of limonite, calcite, pyrolusite, smithsonite, cerussite, galena and anglesite.

WORKINGS - ~~CONSERVED~~

The principal workings of the Black Rock claim include a 420-foot inclined shaft on vein and more than 900 feet of drifts and tunnels connected with it. The vein, as exposed above the 270-foot level in these workings, has been sampled by Mr. F. W. Giroux. According to Batton, these samples contained an average of 4.87% lead, 9.8% zinc, and 6.7 ounces silver per ton.

ORE RESERVES

Unfortunately, there is no data available as to the amount and grade of ore now exposed in the old workings of the Black Rock mine. Engineers, however, have estimated the said tonnage at around 100,000 tons. I would say, as a rank guess, that the oxidized ores now indicated in the Black Rock workings would be about the same as at Red Cloud, or that is to say 40,000 tons, possibly assaying, according to Giroux's sampling: 4.87% lead, 9.8% zinc, and 6.7 ounces silver, as above set forth.

PROBLEMS

The problems confronting Black Rock, are identical with the ones I have discussed for Red Cloud. These two properties, and other nearby lead-silver mines, should be worked as one unit, using the Red Cloud mill, after the same has been revamped, or more particularly changed to a selective flotation plant in order to recover the zinc which will be encountered as sphalerite in the sulphide ore zone below water level. The oxidized zinc ^{in the oxidized} ores in these mines cannot now be recovered by ordinary ore-dressing methods.

REMARKS

Black Rock, Red Cloud and a number of other lead-silver mines in the Silver Mining District, are large potential properties; but these mines will remain a long time yet in this category, unless ample money can be found to pay the heavy costs of necessary exploratory work, in order to open up these properties in a large way. The bonanza outcropping ore shoots, of these mines, were removed over 60 years ago. New work is now required to open up the better grade ores again, and such ores will be found in great abundance in the sulphide ore zone below water level.

CAPITAL NEEDS FOR BLACK ROCK

As above stated, Black Rock, Red Cloud and other nearby lead-silver mines should be grouped and worked as one unit, using the Red Cloud mill to treat ores from all of these properties, when and if the said mill can be remodeled and changed to a selective flotation plant, etc. However, I have estimated in the Red Cloud report that it will require \$75,000 to defray the cost of developing new ore reserves in the Black Rock mine; the main idea being to recondition the 420-foot shaft of this property and sink the same around 300 feet deeper in order to open up the sulphide ores below water level. Once such sulphide ores are encountered, levels, of course, would be opened at 100-foot intervals, in order to block out new and important ore reserves.

CONCLUSION

At the present time, the said 200-ton Red Cloud mill is intact. If ample money can be found to carry out the projects outlined in the Red Cloud and Black Rock reports, the Silver Mining District, with its score or more of unproductive lead-silver mines, will have a new lease of life, and, as a result, these mines will produce important quantities of lead, zinc and silver for a long period of time to come. But, in the event no new money can be provided for these properties, Penn Metals, Inc., will sell the Red Cloud mill and it will be dismantled and moved out of this district. Should this happen - should the Red Cloud mill be sold and moved out of this area, then and in such event, no lead, zinc and silver production will come out of this district for a great many years to come. Hence, I urge that due consideration be given to these properties, which by all means should be put into production again.

Elgin B. Holt

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

MINE OWNER'S REPORT

Date

- 1. Mine Black Rock Pacific
- 2. Location 36 miles North of Yuma
- 3. Mining District & County Silver Mining Dist. Yuma Co.
- 4. Former name
- 5. Owner Leon Jacobs
- 6. Address (Owner) Camp Kearney Linda Vista, California
- 7. Operator Agt. W. D. Riley--Yuma
- 8. Address (Operator)
- 9. President, Owning Co.
- 9A. President, Operating Co.
- 10. Gen. Mgr.
- 11. Mine Supt.
- 12. Mill Supt.
- 13. Principal Minerals Lead, Silver
- 14. Production Rate
- 15. Mill: Type & Cap.
- 16. Power: Amt. & Type

Men Employed

Operations: Present No mining has been done since 1887, nevertheless the workings are in good repair and accessible with the exception of the lowest level.

Operations: Planned

Number Claims, Title, etc. 2 claims---Country typical desert climate.

Description: Topography & Geography Elevation between 800 ft. and 1000 ft. No vegetation. Precipitation scant.

Mine Workings: Amt. & Condition 2 inclined shafts, levels at 60-80 and 110 ft. total length of workings estimated 700 ft. of which 90 (ninty) ft. in lenght and about 120 ft. in depth have been of value in exploring the main vein, the remainder of the work has been on thin rich cross fractures. Report by Tovote. Several thousand ft. of workings, the greatest depth attained is 450ft. of inclined shaft.

Geology & Mineralization The basic rock in the district is a mica schist into which granite has been intruded. Blocks of limestone are included in the granite. Andesite and porphyry are found in the mine and with granite make up the walls of the ore bearing vein. A great deal of faulting has taken place.

Ore: Positive & Probable, Ore Dumps, Tailings

15,000 tons on dump, 20,000 tons developed in mine and possible 25,000 tons could be developed with greater depth and further exploration. Average 15 mine samples--7.3 oz silver 3.8% lead, Dump 6.8 oz. silver.

Dimensions and Value of Ore body

600 ft. of ledge material on surface, 300 of which is found to contain valuable mineral. Vein filling average 10 ft. the vein pinching and swelling.

Mine, Mill Equipment & Flow-Sheet

Road Conditions, Route

By wagon road north from Yuma along east bank of the Colorado river for 26 miles to Nortons landing then 4 miles further up the river to road which takes up to the mine, which is six miles inland.

Water Supply

Brief History

Special Problems, Reports Filed

Tovote impressed with the indications of large zinc ore bodies.
Carl Trischka, E.M.
W. Tovote, Mining Geologist.

Remarks

This property is low-grade silver-lead proposition. It is evident 60,000 tons of ore general average of which is 7.0 oz silver and 4% lead with further exploration doubling the above tonnage.

If property for sale: Price, terms and address to negotiate.

For sale, apply for ~~FAVEX~~ terms.--To W. D. Riley, Yuma, Arizona

32. Signature.....

Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

MINE OWNER'S REPORT

Date

- 1. Mine **Black Rock Pacific**
- 2. Location **36 miles North of Yuma**
- 3. Mining District & County **Silver Mining Dist. Yuma Co.**
- 4. Former name
- 5. Owner **Leon Jacobs**
- 6. Address (Owner) **Camp Kearney Linda Vista, California**
- 7. Operator **Agt. W. D. Riley--Yuma**
- 8. Address (Operator)
- 9. President, Owning Co.
- 9A. President, Operating Co.
- 10. Gen. Mgr.
- 14. Principal Minerals **Lead, Silver**
- 1. Mine Supt.
- 15. Production Rate
- 2. Mill Supt.
- 16. Mill: Type & Cap.

3. Men Employed

3. Operations: Present **No mining has been done since 1887, nevertheless the workings are in good repair and accessible with the exception of the lowest level.**

Operations: Planned

Number Claims, Title, etc. **2 claims---Country typical desert climate.**

Description: Topography & Geography **Elevation between 800 ft. and 1000 ft. No vegetation. Precipitation scant.**

Mine Workings: Amt. & Condition **2 inclined shafts, levels at 60-80 and 110 ft. total length of workings estimated 700 ft. of which 90 (ninty) ft. in lenght and about 120 ft. in depth have been of value in exploring the main vein, the remainder of the work has been on thin rich cross fractures. Report by Tovote. Several thousand ft. of workings, the greatest depth attained is 450ft. of inclined shaft.**

Geology & Mineralization

The basic rock in the district is a mica schist into which granite has been intruded. Blocks of limestone are included in the granite. Andesite and porphyry are found in the mine and with granite make up the walls of the ore bearing vein. A great deal of faulting has taken place.

Ore: Positive & Probable, Ore Dumps, Tailings

15,000 tons on dump, 20,000 tons developed in mine and possible 25,000 tons could be developed with greater depth and further exploration. Average 15 mine samples--7.3 oz silver 3.8% lead, Dump 6.8 oz. silver.

A. Dimensions and Value of Ore body

600 ft. of ledge material on surface, 300 of which is found to contain valuable mineral. Vein filling average 10 ft. the vein pinching and swelling.

Mine, Mill Equipment & Flow-Sheet

Road Conditions, Route

By wagon road north from Yuma along east bank of the Colorado river for 26 miles to Nortons landing then 4 miles further up the river to road which takes up to the mine, which is six miles inland.

Water Supply

Brief History

Special Problems, Reports Filed

Tovote impressed with the indications of large zinc ore bodies.
Carl Trischka, E.M.
W. Tovote, Mining Geologist.

Remarks

This property is low-grade silver-lead proposition. It is evident 60,000 tons of ore general average of which is 7.0 oz silver and 4% lead with further exploration doubling the above tonnage.

If property for sale: Price, terms and address to negotiate.

For sale, apply for ~~KEMEX~~ terms.--To W. D. Riley, Yuma, Arizona

32. Signature.....

Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date

- MB-54
1. Mine Black Rock Pacific
 2. Mining District & County Silver Mining Dist,
Yuma Co.
 3. Former name
 4. Location 36 miles North of Yuma
 5. Owner Leon Jacobs
 6. Address (Owner) Camp Kearney
Linda Vista, California
 7. Operator *W. D. Riley*
 8. Address (Operator)
 9. President
 10. Gen. Mgr.
 11. Mine Supt.
 12. Mill Supt.
 13. Principal Metals Lead, Silver
 14. Men Employed
 15. Production Rate
 16. Mill: Type & Cap.
 17. Power: Amt. & Type
 18. Operations: Present No mining has been done since 1887, nevertheless the workings are in good repair and accessible with the exception of the lowest level.
 19. Operations Planned
 20. Number Claims, Title, etc. 2 claims
Country typical desert climate
 21. Description: Topography & Geography Elevation between 800 ft. and 1000 ft.
No vegetation. precipitation scant.
 22. Mine Workings: Amt. & Condition 2 inclined shafts, levels at 60 -80 and 110 ft.
total length of workings estimated 700 ft. of which 90 ft. in length and about 120 ft. in depth have been of value in exploring the main vein, the remainder of the work has been on thin rich cross fractures. Report by Tovote. Several thousand ft. of workings, the greatest depth attained is 450 ft. of inclined shaft.

23. Geology & Mineralization The basic rock in the district is a mica schist into which granite has been intruded. Blocks of limestone are included in the granite. Andesite and porphyry are found in the mine and with granite make up the walls of the ore-bearing vein. A great deal of faulting has taken place.

24. Ore: Positive & Probable, Ore Dumps, Tailings 15,000 tons on dump, 20,000 tons developed in mine and possible 25,000 tons could be developed with greater depth and further exploration. Average 15 mine samples—7.5 oz silver 3.2% lead, Dump 6.8 oz. silver.

24-A Vein Width, Length, Value, etc. 600 ft. of ledge material on surface, 300 of which is found to contain valuable mineral. Vein filling average 10 ft., the vein pinching and swelling.

25. Mine, Mill Equipment & Flow Sheet

26. Road Conditions, Route By wagon road north from Yuma along east bank of the Colorado river for 26 miles to Nortons landing then 4 miles further up the river to road which takes you to the mine which is 6 miles inland.

27. Water Supply

28. Brief History

29. Special Problems, Reports Filed Coyote impressed with the indications of large mine ore bodies.
Carl Trisebka, B.M.
W. Coyote, Mining Geologist.

30. Remarks This property is low-grade silver-lead proposition. It is evident 40,000 tons of ore general average of which is 7.0 oz silver and 4% lead with further exploration doubling the above tonnage.

31. If property for sale: Price, terms and address to negotiate. For sale, apply for terms. — To W.H. Riley, Yuma ag.

32. Signed.....

33. Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date

1. Mine *Black Rock Pacific*
2. Mining District & County *Silver Mining
Yuma County*
3. Former name
4. Location *36 miles North of Yuma*
5. Owner *Leona Jacobs*
6. Address (Owner) *Camp Kearney
Linda Vista, Calif.*
7. Operator
8. Address (Operator)
9. President
10. Gen. Mgr.
11. Mine Supt.
12. Mill Supt.
13. Principal Metals *Lead - Silver*
14. Men Employed
15. Production Rate
16. Mill: Type & Cap.
17. Power: Amt. & Type
18. Operations: Present *No mining has been done since 1887 nevertheless
the workings are in good repair and accessible with the
exception of the lowest level*
19. Operations Planned
20. Number Claims, Title, etc. *2 claims
country typical desert climate*
21. Description: Topography & Geography *Elevation between 800' + 1000' no
vegetation - precipitation scanty -*
22. Mine Workings: Amt. & Condition *2 inclined shafts levels @ 60'-80' & 110'
Total length of workings estimated 700' of which 90' in length
and about 120' in depth have been of value in exploring
the main vein. The remainder of the work has been on
thin rich cross fractures - Report by Touche" several
thousand feet of workings the ^(over) greatest depth attained is 450' of
inclined shaft*

23. Geology & Mineralization The basic rock in the district is a mica-schist into which granite has been intruded - Blocks of limestone are included in the granite - Andesite & Porphyry are found in the mine and with granite make up the walls of the ore bearing vein - A great deal of faulting has taken place

24. Ore: Positive & Probable, Ore Dumps, Tailings 15,000 Tons on dump, 120,000 Tons developed in mine and possible 25,000 Tons could be developed with greater depth and further exploration. Average mine samples 7.302 silver + 3.8% Lead - Dump 6.852 silver of which is found to contain valuable mineral - Vein filling average 10' the vein pinching & swelling -

24-A Vein Width, Length, Value, etc. 600' of ledge material on surface, 300' of which is found to contain valuable mineral - Vein filling average 10' the vein pinching & swelling -

25. Mine, Mill Equipment & Flow Sheet

26. Road Conditions, Route By wagon road North from Yuma along east bank of the Colorado River for 26 miles to Newtons Landing, then 4 miles further up the river to road which takes you to the mine which is 6 miles inland -

27. Water Supply

28. Brief History

29. Special Problems, Reports Filed Tuvoite impressed with the indications of large zinc ore bodies - Carl Trischka E.M. W. Tuvoite (Mining Geologist)

30. Remarks This property is a low grade silver-lead proposition. It is evident 60,000 Tons of ore general average of which is 7.0 oz silver + 4% Lead with further exploration doubling the above tonnage.

31. If property for sale: Price, terms and address to negotiate. For sale apply for terms -

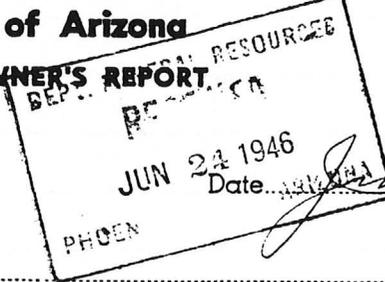
32. Signed.....

33. Use additional sheets if necessary. From Report by Carl Trischka E.M.

DEPARTMENT OF MINERAL RESOURCES

State of Arizona

MINE OWNER'S REPORT



1. Mine: Black Rock-Pacific

2. Location: Sec. Twp. Range Nearest Town

Distance 5.0 Miles from Yuma, Ariz. Direction N.E. Road Condition not good.

3. Mining District & County Silver District Yuma Co., Ariz

4. Former Name of Mine:

5. Owner: C. E. Batton

Address: 2673 N. Holliston Ave., Altadena, Cal.

6. Operator: none

Address:

7. Principal Minerals: Lead, Silver & Zinc

8. Number of Claims: 2 Lode: yes Placer:

Patented: yes Unpatented:

9. Type of Surrounding Terrain: mountainous

BLACK ROCK PACIFIC

10. Geology & Mineralizati Pb, Ag

Yuma 14 - 5 T 4 S, R 22 W

W. D. Riley, Box 952, Yuma (agent) 1486 112x '46
Owner: C. E. Batton, 2673 N. Holliston Ave., Altadena, Calif.

11. Dimension & Value or Ore Body:

JOHNSON, NELS
734 2nd Ave.,
Yuma, Arizona

Riley, Walter D.
734 2nd Ave.
Yuma, Arizona.

Possibility of shipping high copper-silver ore carrying uranium.
5/13/56 (Eng. Report)

12. Ore "Blocked Out" or "In Sight":
.....
.....
.....
.....

Ore Probable:

13. Mine Workings—Amount and Condition:.....

No.	Feet	Condition
Shafts <i>1</i>	<i>450 ft.</i>	
Raises		
Tunnels		
Crosscuts		
Stopes		

14. Water Supply: *about 4 miles from Colorado River*

15. Brief History:

16. Signature: *W.P. Peery*
Box 1486, Yuma

17. If Property for Sale, List Approximate Price and Terms: