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**SHARONSTEEL** • Mining Division

Bi-Metals Reg Mohave Co, AZ

AN NYE COMPANY

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## FOR INTER-OFFICE COMMUNICATION

April 9, 1982

To: Mr. E. Peter Matthies, Vice President and General Manager

From: Gaylon W. Hansen, Manager of Exploration

Exploration Proposal

Bi-Metals Project

# SHARONSTEEL • Mining Division

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# FOR INTER-OFFICE COMMUNICATION

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Bi-Metals Project Proposed Exploration Program, 1982

#### Abstract

The Bi-Metals Project is located 5 miles southwest of Kingman, Arizona and consists of 4 patented and 26 unpatented mining claims.

The annual direct holding cost is \$2,600.

Past production records indicate that 24,923 tons of ore were mined which contained an average of .326 oz. gold per ton. The mining was done from shaft, adits and open pit.

Estimated probable ore reserves in the area of the open pit are placed at 1 to 200,000 tons at a grade of .08 to .15 oz. gold per ton.

Estimated possible and inferred ore reserve potential, outside of the open pit area, is placed at 500,000 to 3,000,000 tons at a grade of .03 to .15 oz. gold per ton.

An exploration drilling program of a total of 12 holes is recommended for this project at a total cost of approximately \$170,000. This drilling program should <u>indicate</u> the <u>probability</u> of the existence of the various, <u>estimated</u>, ore reserve classes, and the open pit mining probability.

This project is considered to have a good prospect potential.

The adjacent Oro Fino claim property of 16 acres is recommended for purchase because of its location within the mineralized area and for the large building on the property which would be of valuable use for future work at the Bi-Metals and Gold Road Projects.

The purchase price for the Oro Fino property is estimated at \$70,000.

The total cost of this proposed Program is projected at \$240,000.

The implementation of this Proposed Exploration Program could begin upon approval and would require about 6-8 months to complete.

Pertinent maps relative to the project are included herewith.

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## <u>Location - Logistics</u>

The Bi-Metals property is located 5 miles southwesterly from Kingman, in Mohave County, Arizona, and is accessible via paved roads with a network of good dirt roads throughout much of the property area. All service facilities and supplies are readily available, with a moderate climate prevailing through most of the year. The topography is generally characterized as being of low hills and moderate relief, at an average elevation of 3,200 feet.

## Property Status

The property consists of 4 patented claims (82 acres) and 26 unpatented claims (537 acres) owned by Sharon. The patented claims were acquired by UV Industries in 1972 for \$4,300 at a tax sale; the unpatented claims were subsequently located at periods up to 1978. The annual direct holding cost is \$2,600.

# Property Workings

There are a number of mine workings on the property, dating from the early 1900's through the 1930's.

These, in the main, consist of a small open pit 200 feet in diameter by 30 feet deep; a 50 foot deep shaft within the bottom of the pit area; 2 lateral drifts, of 90 and 40 feet in length, driven into the north side of the pit wall; a 125 foot deep shaft just north of the pit area, which has about 180 feet of drifting extending out from its lower level; 2 mine adits in the eastern area of the property which are 75 and 135 feet in length, and numerous small prospect pits scattered throughout the general area. The shafts and several of the drifts are partially caved and unsafe to enter.

# <u>Historical Background - Past Production</u>

From 1907-1909, J. Hammond mined 8,000 tons from the 125 foot shaft and from the open pit area. This ore averaged .20 oz. gold per ton and was milled on site. This operation ceased in 1909.

In 1935-1936, Wilkerson and Jones selectively mined about 800 tons from the pit area which averaged .54 oz. gold per ton. This ore was shipped to the Tom Reed mill in Oatman, Arizona, near the Gold Road Mine. In the late 1930's, Wilkerson, Jones and Weeks erected a mill on the property which treated about 15,000 tons of ore mined from the pit area, which averaged .36 oz. gold per ton.

In 1937, Wilkerson selectively mined about 1,000 tons from the shaft in the bottom of the pit area; this ore averaged .65 oz. gold per ton.

<u>Years</u>	<u>Tons</u>	Average Grade-Gold
1907-1909 1935 1936 1937	8,000 791 15,154 <u>978</u>	.20 oz. per ton .544 oz. per ton .36 oz. per ton .651 oz. per ton
Total mined	24,923	.326 oz. per ton

The gold content of this ore production was, for the most part, free-milling and, therefore, amenable to simple metallurgical recovery techniques.

## Geology

The general area of the project is underlain by a basement complex of altered and mineralized pre-Cambrian granite and gneiss which has been invaded by numerous aplite and diabase dikes. Capping the pre-Cambrian is a thick series of layered volcanic extrusives, which consist of andesite, interspersed with ash, tuff and scoria ejecta with a final thick layer of basalt.

The granite has been shattered and sheared over broad zones by the action of the intruded dikes with gold-pyrite mineralization occurring as disseminations, with quartz, throughout these zones as a filling along fractures and veinlets. The source of the mineralization appears to have been from the aplite, diabase intrusives with accompanying hydrothermal activity. The more intensely mineralized areas tend to occur where aplite is more abundant. Oxidation is shallow but is extensive within the fracture zones where the pyrite has oxidized, giving the area a high degree of limonite staining. The gold apparently occurs in close association with the pyrite and in areas has been chemically-physically concentrated, through oxidation as free gold, in and along these fracture zones. The area of the old open pit is an exposed zone of intensive fracturing.

These mineralized zones, as observed, appear to be in excess of 800 feet in total width near the area of the open pit and extend, in an elongate configuration, in an easterly direction for at least 3,000 feet. Most of the conjecturally extended area of these zones is covered by the post-mineral volcanic formations and by erosional debris; however, scattered outcrop exposures tend to support the conjectural areas of extension. It is not inferred that the entire areas of these zones, in any dimension, contain potentially commercial gold values.

## Present Ore Reserves

Various potential reserve estimates have been made in prior years, as follows:

- 1. U. S. Smelting Company; Mike Romney, 1938, 140,000 tons of <u>probable</u> ore at .11 oz. gold per ton.
- 2. American Smelting Company; Howard Fields, 1938, 500,000 to 1,000,000 tons of inferred ore at .13 oz. gold per ton.
- 3. Arizona Department of Natural Resources; J. S. Coupal, 1945, 200,000 tons of probable ore at .15 oz. gold per ton 500,000 tons of possible ore at .15 oz. gold per ton 1-3,000,000 tons of inferred ore at .15 oz. gold per ton.
- 4. Sharon Exploration Department, 1981, 100,000 tons of <u>probable</u> ore at .08 oz. gold per ton, and 500,000 to 1,000,000 tons of <u>inferred</u> ore at .03 to .07 oz. gold per ton.

These various reserve estimates, being in the <u>probable</u>, <u>possible</u> and <u>inferred</u> classes, are not <u>proven</u> and are subject to continued exploration-development work for verification. The majority of these estimated reserves are <u>prospective</u> only, at this stage of investigation.

The gold mineralization, as presently identified, occurs disseminated throughout a number of the old mine workings and in intermittent-partial surface exposures of significant size, within the property area.

The gold content of samples from the old pit workings area range from .025 to .55 oz. per ton; samples from the nearby shaft contain gold in the range of .05 to .16 oz. per ton, and general samples of the other numerous, scattered workings, prospect pits and exposures range from .02 to .07 oz. gold per ton.

Given the apparent overall nature and distribution occurrence of the gold values, it is probable that the deposit could be amenable to open pit mining methods.

## Exploration to Date

Up to the late 1930's, various amounts of exploration-development work was conducted on the property in conjunction with several periods of ore production. This work has tended to identify the tonnage and grade as is previously listed as being probable, which is within the immediate area of the pit zone. The additional listed tonnages, possible and inferred, are projected into the areas outside and beyond the pit zone.

Since acquisition in 1972 to the present, our exploration work has, in the main, consisted of geologic-geochemical studies and mapping; some limited amounts of rotary and air-track drilling for geologic and prospect information, and, most recently, the construction of roads and a number of future exploration drilling sites within the project area.

The location of these drill sites having been based upon the identification of the most favorable mineral target areas, as determined to date.

## Proposed Exploration

As previously stated, a number of favorable exploration drilling target areas have been determined and 6 drill sites have been constructed, to date, in preparation for testing these target areas.

In accord with the recent discussion-approval conference with Mr. Matthies, regarding the Exploration Proposal on this Project, a total of 12 diamond core drill holes, HQ size, are planned for this phase of the proposed exploration drilling program. The location and the spacing of these drill holes is designed to maximize the exploration testing of the grade, tonnage and dimensions of these indicated zones of gold mineralization.

Three (3) holes are planned to be drilled in the general region of the open pit, on the Bi-Metal and Mineral Point claims, for the main purpose of further identifying the listed probable and the possible ore reserves, as are indicated to exist in this area of the mineralized zone. These holes are expected to be drilled to a projected depth of 400 feet each.

 $\underline{\text{One (1) hole}}$  is planned to be drilled to an approximate depth of 500 feet, on the Bey #15 claim, to intercept the downward extension of an exposed mineralized zone which is near the easternmost extension of the projected mineralized area.

Two (2) old mine adits have penetrated the zone in this area, at shallow depth, with an apparent gold content of .03 to .10 oz. per ton.

 $\underline{\text{One (1) hole}}$  is planned to be drilled on the Bey #4 claim to a depth of about 500 feet for the purpose of testing the southeasterly projection of a mineralized zone extending out from the area of the open pit. The mineralized zone in the area of this planned drill hole was exposed by our recent road construction work.

Under this phase of the proposed exploration drilling, it is planned that an additional seven (7) contingent, 500 foot drill holes will be required to supplement and extend the results obtained from the initial five (5) primary holes.

The location and the projected depth of these planned drill holes will vary, to some extent, as the drilling program proceeds, due to the obtaining of new geologic information which may dictate revisions of the planned program. In this connection, it is planned to conduct the drilling operations with one (1) drill rig, during the initial phase, in order that the results can be evaluated and incorporated into the prudent placement and design of the additional drill holes.

The total planned <u>footage</u> to be drilled for this <u>12 hole</u> drilling program approximates 5,700 feet, and is expected to <u>cost</u> a total of \$170,000 under a drilling contract agreement.

The program, as planned at this time, would require about 6-8 months to complete, with the drilling operations proceeding on the basis of 1 shift per day and 5 days per week, with one drilling rig.

The drilling on this project can begin upon approval. The drilling contractors and the environmental permits have been in order for this operation for some time.

# Property Factors

It has become apparent, through our exploration work to date, that the mineralization occurring on Sharon's property, in the general region of the open pit, does probably extend into an adjacent property of other ownership. This property should be acquired by Sharon as part of the currently proposed Exploration Program. This property is the Oro Fino patented mining claim and consists of 16 acres with surface and mineral rights. On the property is a good cinder-block building, which is 34 feet by 72 feet, with office, warehouse and dock facilities, and is serviced by all utilities and paved road access. This property would be of high mineral and service value to our exploration activities on the Bi-Metals and the nearby Gold Road Project. The 0ro Fino property is presently available for purchase at a total price of \$70,000, which is at current appraisal for the surface and building value only.

Negotiation for the acquisition of this property should begin as soon as possible.

## Cost

The total cost of this Program, as here presented, is \$240,000.

## 0ther

The Exploration Proposal, as here discussed, was previously presented in summary form in the Proposed 1982 Exploration Department Budget of December 22, 1982, but has since been revised and refined through discussion with Management.

# <u>Maps</u>

Accompanying this Report-Proposal are the following described maps:

Plat 1 - Bi-Metals Project; geographic location.

Plat 2 - Bi-Metals Project; geographic location.

Plat 3 - Bi-Metals Project; geology, topography, property ownership, proposed drill sites.

Plat 4 - Bi-Metals Project; open pit area, shaft, sample assays, geology.

Plat 5 - Bi-Metals Project; geologic cross section.

Note: The seven (7) additional-contingent drill site locations do not appear on Plat 3, as their locating will depend upon the drill results of the five (5) primary holes.

Jaylon W. Hansen