

### CONTACT INFORMATION

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### PRINTED: 06/25/2001

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

### PRIMARY NAME: FOUR METALS MINE

ALTERNATE NAMES: APEX FRISCO FAIR HUMMER MARGARET

SANTA CRUZ COUNTY MILS NUMBER: 137C

LOCATION: TOWNSHIP 22 S RANGE 17 E SECTION 16 QUARTER NW LATITUDE: N 31DEG 31MIN 25SEC LONGITUDE: W 110DEG 37MIN 32SEC TOPO MAP NAME: MT HUGHES - 7.5 MIN

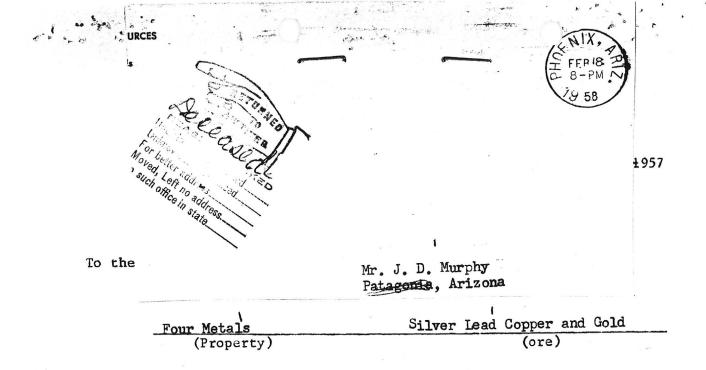
CURRENT STATUS: EXP PROSPECT

COMMODITY:

LEAD SILVER COPPER GOLD ZINC

**BIBLIOGRAPHY**:

USBM FIELD NOTES PB 4 ADMMR FOUR METALS MINE & FRISCO GROUP FILE KEITH, S.B., AZBM 1975, INDEX OF MINING PROP. IN SANTA CRUZ CO. LENON, R., 1962, LENON'S MAP OF SANTA CRUZ CO



We have an old listing of the above property which we would like to have brought up to date.

Please fill out the enclosed Mine Owner's Report form with as complete detail as possible and attach copies of reports, maps, assay returns, shipment returns or other data which you have not sent us before and which might interest a prospective buyer in looking at the property.

> FRANK P. KNIGHT, Director.

Enc: Mine Owner's Report

REFERENCES:

SEE: USBM RI 5650 1960 pp-120,122 (Martha Washington Claim)

SEE: USBM RI 5650 1960 pp-122 (Red Mountain Claims)

See Geology map of Southern part of the Patagonia Mts. in geology drawer

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Ariz. Mng. Journal, June, 1918, p. 43

AKA: Frisco Friar, Frisco Fair, Margaret, Apex, Hummer

MILS Santa Cruz Index #137C

TZZS, RIYE, Sec 17 S

W.H.M. August, 1943

### WAR MINERALS MEMORANDUM

### UNITED STATES DEPARTMENT OF THE INTERIOR - BUREAU OF MINES

Report of the Bureau of Mines to Hon. Harold L. Ickes, Secretary of the Interior.

> 4 METALS MINE Santa Cruz County, Arizona

> > - Silver, Lead -

#### Summary

The 4 Metals property is situated in the Red Rock Canyon area east of the Patagonia Mountains, Santa Cruz County, Arizona. The area is quite remote and difficult of access.

Prospecting has been carried on since early days. The deposits are small but usually have good grade silver-lead values.

The development work has been done by lessees and gambusinos, usually securing some good grade ore, but no commercial deposit has been developed.

The history of past development makes the district a questionable source of any quantity of ore.

No development by the Bureau of Mines is warranted at the present time.

1/ These memoranda present the facts reported by Bureau of Mines engineers regarding properties for which no further consideration is recommended. Therefore, they should be treated as confidential, for the sole use of Bureau employees. They should not be given out to the public or to the owners of the properties concerned.

### Introduction

The property was examined in connection with an access road application. There are a number of prospects in the district although no active development at the present time. Examination was made by a Bureau of Mines engineer\* April 15, 1943.

#### Location

The property is located in the upper part of Red Rock Canyon. It is reached over the San Raphael Valley road which branches east from the main Patagonia-Duquesne highway, 4 miles south of Patagonia. From a point 4 miles east on the San Raphael Valley road a branch road leads 6 miles north to the mine. The last 2 miles of this road goes down Red Rock Wash.

### Ownership

The property, consisting of 6 unpatented lode claims, is owned by J. D. Murphy of Patagonia, Arizona.

#### History

Most of the work on the several claims was done in an early mining period during the eighties or mineties. The property was acquired by the present owner 4 years ago and operations have been continuous since that time.

The greater part of the late development has been done on the 4 Metals claim. The Denn location has considerable development which was done by earlier operators. Production

There is no record of production. The present operator has made many small shipments of sorted high-grade lead-silver ore.

\*John M. Price, mining engineer

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### Physical Features

The property is located east of the Patagonia Mountains in the upper or basin part of the Red Rock drainage area. The area is mostly a broad plain extending to the Huachuca Mountains on the east and across the border into Mexico on the south. The shallow washes of the upper drainage of Red Rock Canyon have carved the terrain into low, rolling hills. These hills are partly covered with juniper and pinon trees while the washes have some small groves of ash and cottonwood trees. The altitude varies from 4,000 to 4,500 feet.

### Geology

The area east of the Patagonia Mountains and south of the Canelo Hills is covered with Tertiary and Cretaceous volcanic rocks, and appears as a broad plain. The upper part of the Red Rock Wash traverses a zone of faulting. Erosion by the wash with its many south branches has cut the stream bed from 100 to 200 feet lower than the plain. This erosion has exposed the faults and veins of the area. The zone of faulting is approximately east-west and the fissures are nearly vertical. Frospecting and exploration work has been done along this fault zone for a distance of nearly 4 miles.

The 4 Metals property is located on a fault that is exposed by a bend in the wash. The hilltop is 100 feet above the wash. The fault strikes nearly east-west and is vertical. Three adit levels were driven along the fault to the west. The ore occurs in the gouge near intersections by cross fractures. The vein varies from 2 to 4 feet. Small stringers of quarts occur in the gouge. The ore shoots are usually short along the strike and vary from a few inches to 18 inches in width. The ore is mostly galena with high silver values. The development in drifts and raises amounts to 250 feet.

-3-

### Ore Reserves

The ore has been stoped and shipped. There are no ore reserves and little minable ore remains in the present workings.

The outcrop indicates several more similar ore shoots in the same vein that could be developed by advancing the lowest level, which is nearly 100 feet below the outcrop.

### Conclusion

Small amounts of high-grade lead-silver ore can be mined at a profit by pocket miners but no considerable tonnage of ore can be developed and the mine is not a possible source of any important tonnage of lead. Further attention by the Bureau of Mines is not recommended.

August 24, 1943.

### March 16, 1943

#### MEMORANDUM

TO: George A. Ballam

FROM: Earl F. Hastings

John D. Murphy, Box 24, Patagonia, Arizona has made an application for a loan on the Four Metals Mine. This property is not very well developed. Little is known of what is to be expected after being made accessible and the evidence submitted in relation to the workings now accessible is none too good.

I am making a negative recommendation but suggest that the next time you are in the area that you look the property over and determine if it warrants reopening of the case.

Attached is a copy of the mine owners report form which was filed on the property.

### DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA FIELD ENGINEERS REPORT

Mine FOUR METALS - Pb., Ag.

Date March 14, 1943

District Red Rock

Engineer Earl F. Hastings

Subject: Reconstruction Finance Corporation V Mining Loan

Docket No. Date Application Received Date of Report ND-8139 Phoenix C-157 March 10, 1943 March 14, 1943

- 1. Name and address of applicant (correspondent): John D. Murphy, Box 24, Patagonia, Arizona.
- Character of project and estimated cost thereof: Pb., Ag. Unwater 60 foot winze from tunnel on Four Metals #3 claim and crosscut therefrom; unwater 100 ft. shaft on Four Metals #7 claim and crosscut therefrom. \$5,000.00.
- 3. Location of property: Red Rock Mining District, S 17, T 22 S., R 17 E. Santa Cruz County, Arizona.
- 4. Applicant's interest in or ownership of property: Applicant is a partnership owning claims by location.
- 5. Loan requested: \$5,000.00.
- 6. Loan recommended: None.

### 7. Comments:

(A) Added to the docket are copies of the Mine Owner's Report Form which was filed by the applicant with the Department of Mineral Resources, November 22, 1939.

(B) The property is not well developed and the samples presented represent ere which has been removed for shipmont. There is no information as to the amount of ore obtained, nor whether the mining of it exhausted mineable ore. The applicants estimate of a production of 25 tons per day is extremely optimistic.

All present development was accomplished before applicants became owners. There are no records or indications of ore occurrence in the areas to be made accessible except a general statement relative to the dollar value of the dump at the 100 ft. shaft. This reference is of no value as quantitative analysis is not given nor is the method of obtaining the sample described.

(C) It therefore appears that the applicant has no specific objective, but proposes to explore from the bottoms of the winze and shaft. Such expenditures are not allowable from Reconstruction Finance Corporation funds, and would be of doubtful wisdom to do so even if regulations did not prohibit.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

Earl F. Hastings Projects Engineer

### DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA **OWNERS MINE REPORT**

Date November 22, 1939.

Four Metals. Mine District Red Rock Mining District, Santa Cruz Co. Location Patagonia, Arizona. We IT, TZZS RIJE Former name Frisco Group. Owner J. D. Murphy and Chas. Chapman. Address Patagonia, Arizona. Operator ۶Ť Address President Gen. Mgr. Mine Supt. Mill Supt. With a second to a loss to Principal Metals Silver, Lead, Copper and Gold. Men Employed None Production Rate NO Production Mill: Type & Cap. None Power: Amt. & Type None  $\alpha \sim \alpha_{\rm eff} + \alpha_{\rm eff} +$ Operations: Present Driving X cut tunnel to intersect two other veins showing on surface.

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the processing the states Operations Planned To sink a shaft to a depth of at least 500 ft. and X cut to other veins which are opened on surface with shallow tunnels.

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Number Claims, Title, etc. Six claims in one group and Four in another, Title held by Location.

Description: Topog. & Geog. The district has rolling hills which are about 300 feet above the creek bed. Mix Served of a rate of

Two shafts 100 and 85 feet respectively. Both have some Mine Workings: Amt. & Condition water in them which I believe is surface water. No. 1 is in good condition , the other has some muck in it. This shaft or winze is sunk below the tunnel level. This is a drift tunnel on one of the veins which produced some very rich Silver ore. In all there is About 800 feet of development work done.

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# DEPARTMENT OF MINERAL REL JRCES

STATE OF ARIZONA COULD & OTO THE I RODESILGORIN & VERICE OWNERS MINE REPORT

		Date Novembe	er 22, 1939	
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District as allow,	Red Rock Mining District, Santa Cruz Co.	east 10 Location Patag	onia, Arizona	23.257.) .
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Owner	J. D. Murphy and Chas. Chapman	Address Patago	nia, Arizona Mill Equipment & How Shee	Manith
Operator	# 37 (FOI	R MRTALS		
President	Ag.,	Pb, Cu, Au		
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Principal Metals	Silver, Lead, Copper and G	35 D. Murphy, Box 27, F		
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Brief History . The Old Plata mine one and a half miles to the East has produced \$60,000 . selfrag bersstefnielb met deviser mitserstni og galbrosse **Operations** Planned

To sink a shaft to a depth of at least 300 ft. and X cut to other veins which are opened on surface with shallow tunnels.

Special Problems, Reports Filed

Number Claims, Title, etc. Six claims in one group and four in another, Title held by Location

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Geology & Mineralization I am not a Mineralogist, or a Geologist.

ation and a second

Ore: Positive & Probable, Ore Dumps, Tailings It is not an easy matter to give the probable ore. But I can give an estimate of the positive ore which is about 10,000 tons.

Mine, Mill Equipment & Flow Sheet None

S. Mest.

Road Conditions, Route On the Patagonia, Fort Huachuca Highway to the Poor Man's dude ranch, then North about six miles on a fairly good road to St. Louis Canyon and Red Rock. This road runs through this group of claims.

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Respective and that growth is a

Water Supply No running water, Water is found along this canyon at shallow depths of from 20 feet in some places to 35 ft. in other places.

Brief History The Old Plata mine one and a half miles to the East has produced \$60,000 according to information received from disinterested parties.

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Special Problems, Reports Filed

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Remarks

If property for sale: Price, terms and address to negotiate. One group of six claims is for sale. Price \$30,000 and one tenth of purchase is to be paid down, the balance can be arranged to suit all parties concerned.

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Use additional sheets if necessary.

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COM. INFO. COMMENTS	CONTRIZED ARGENTIFEROUS	S LEAD MINERAL IZATION WITH MINOR COPPER
* SIGNIFICANCE	PRODUCER	
MAJOR PRODUCTS	MAJOR ( R. B. , JAC .	NON-PRODUCER
MINOR PRODUCTS	MINOR (2.0. 1/2) (2.0. 1/2)	
POTENTIAL PRODUCTS		MINOR COMMODITES PRESENT CI2 CL LILLI
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	PRODUCER	*PRODUCTION
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	FXP	ORATION OR DEVELOPMENT
*STATUS	PRODUCER	NON-PRODUCER
•	STATUS AND ACTIVITY A20	STATUS AND ACTIVITY A28
DISCOVERER		
YEAR OF DISCOVERY	L20<	
PRESENT/LAST OWNER	A12	$\langle g_{\lambda} \rangle$ Tyear of first production Lag $\langle \underline{1916} \rangle$ Tyear of last production Lag
	AIS COFA AND DANIEL (1948)	
		WCLUDE: CHAPMAN (1939), BERGMAN (1938) SHEEH Y
19242.		
	r	DESCRIPTION OF DEPOSIT
•		
DEPOSIT TYPE(S)	CACK VEIN SHEAR ZONE	
DEPOSIT FORM/SHAPE	MIO	
DEPTH TO TOP	M20< UNITS M21< M30< 100175 M31<	MAXIMUM LENGTH M46 ( VINITS M41 () VINITS WA1 () VINITS WA1 () VINITS VINI
DEPOSIT SIZE	M15 SMALL M15 MEDIUM M15 LARGE (cin	
STRIKE	MTS MILL MTS MELOW MTS LARGE (cm	Cle one) MAXIMUMeTHICKNESS M66X UNITS M614
DIRECTION OF PLUNGE	M100<	
DEP. DESC. COMMENTS .	M110<	
Workings are: SURFAC	E M120: UNDERGROUND M130: BOTH M140 (circle one)	ESCRIPTION OF WORKINGS
DEPTH BELOW SURFACE	E M120: UNDERGROUND M130: BOTH (M140) (circlerone) M160<	ÖVERALE LENGTH-M1996     UNITS M1986       ÖVERALE WIDTH-M2086     UNITS M2086       ÖVERALE ADEAL ADEAL     UNITS M2086
DEPTH BELOW SURFACE	E M120: UNDERGROUND M130: BOTH (M140) (circlerone) M160<	OVERALE LENGTH MISSING UNITS MISSING
DEPTH BELOW SURFACE	E M120: UNDERGROUND M130: BOTH (M140) (circlerone) M160<	ÖVERALE LENGTH-M1996     UNITS M1986       ÖVERALE WIDTH-M2086     UNITS M2086       ÖVERALE ADEAL ADEAL     UNITS M2086
DEPTH BELOW SURFACE	E M120: UNDERGROUND M130: BOTH (M140) (circlerone) M160<	ÖVERALE LENGTH-M1996         UNITS M1986           ÖVERALE WIDTH- M2086         UNITS M2081           ÖVERALE ADEA         UNITS M2081
DEPTH BELOW SURFACE	E M120: UNDERGROUND M130: BOTH (M140) (circlerone) M160<	OVERALE LENGTH MIDDL VINITS MIDTLE MIDDLE VINITS MIDTLE MIDDLE VINITS MIDTLE VINITS MIDTLE
DEPTH BELOW SURFACE	EM120: UNDERGROUND M130: BOTH M140: (circle one). M160. UNITS M168. M170. UNITS M177. M220. SHAFT AND OPEN CLAT	OVERALE LENGTH MIDDL VURIALE WIDTLE MODEL VURIALE WIDTLE MODEL VURIALE AREAN MODEL VURIALE AREAN MODEL VURIALE AREAN MODEL VURIALE AREAN MODEL VUNITS
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DEPTH BELOW SURFACE- LENGTH OF WORKINGS DESC. OF WORK. COM.	EM120: UNDERGROUND M130: BOTH M140: (circle one). M160. VINITS M168. M170. UNITS M177. M220. SHAFT AND OPEN CLAT KILLCR.E.T. KIT. TZ. 1 KILLCR.E.T.	GEOLOGY = 3 m.y. (SIMONS FS. 1974)
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# HENKLE & ASSOCIATES Consulting Geologists / Environmental Managers

Four Metals Mine Cochise Co.

### **RESOURCE ESTIMATE**

### FOUR METALS COPPER PROJECT

## SANTA CRUZ COUNTY, ARIZONA, USA

### **PREPARED FOR**

### NEWMEX MINERALS, INC., CALGARY, ALBERTA

March 14, 2001

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# **HENKLE & ASSOCIATES**

Consulting Geologists / Environmental Managers

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### Introduction

In January of 2001, Henkle and Assoc., of Reno, Nevada was retained by Newmex Minerals, Inc. (NMM), of Calgary, Alberta, to review resource calculation work previously performed by others, at the Four Metals Copper Project. The claim package at the project consists of 20 unpatented mining claims, located in sections 29 and 30, T 23S, R 16E, in Santa Cruz, Co., Arizona. NMM recently acquired the project from J. Prochnau & Co. via a contract of sale. NMM owns a 100% working interest/98% net financial interest in the project. Purchase price was \$250,000 US with an initial \$10,000 payment and payments of \$10,000 annually.

Numerous mining companies have conducted exploration drilling programs at the property in the past 35 years. Past operators at the property include Noranda and subsidiaries, Duval Corp., Manzanita Hills Inc., and others. A total of 72 underground and surface drill holes were completed by these operators in the past; this resulted in an extensive but somewhat confusing data base for the project.

Henkle and Assoc. utilized the polygon – area method to calculate resources for this study. The resource was hand calculated, relying on geologic parameters revealed in drill logs to assign polygon boundaries.

#### Geology

The Four Metals mineralized body is located in the Southern Patagonia Mountains of Arizona and Mexico in the Wrightson Mining District. This district is known for numerous small to medium sized but rather high-grade mineral deposits and occurrences. The mineralized body lies within a tectonic breccia formed by the intersection of two fault planes. Principal mineralization is concentrated in a pipe shaped breccia body which on surface measures about 900 ft. by 1200 ft. (Fig 1). The steeply dipping breccia pipe is hosted by granodiorite, relatively high-grade primary sulfide mineralization is localized along the southern contact zone (Fig 2).

A well developed potassic alteration assemblage is present within the breccia pipe. This assemblage contains biotite, orthoclase and quartz with minor apatite. Metallic minerals occur both in vugs and disseminations throughout the breccia. Sulfides occur as rims coating strongly altered biotite and as crystals in the vugs.

#### **Mineralization Types**

We delineated four major types of mineralization to define a resource base for the deposit. These were delineated based on mineral composition and copper grade as well as spatial position within the breccia body. A short description of each type follows:

<u>Type A Mineralization</u> – This type of mineralization is defined by underground drilling and consists of a high grade zone which is associated with the southeastern boundary of the Four Metals breccia pipe(Fig 3 and 4). This mineralization type is chalcopyrite rich and is found on the 5090 and 5260 levels of the mine. Except for grade, this type of mineralization is mineralogically similar to other types of mineralization found at these levels in the underground workings. A cutoff grade of 1% Cu was used to distinguish this high-grade zone from the adjacent but lower grade similar mineralized material found at these levels in the old mine workings.

<u>Type B Mineralization</u> – This type of mineralization was defined by surface drilling. It is a classic supergene enriched chalcocite blanket deposit found at a depth of about 100 ft. below surface and is about 100 ft. thick (fig 2 and 5). This mineralization type was defined by only 4 drill hole intercepts. The grade of the samples collected from these intercepts ranged from 0.87% to 1.08% Cu. Consequently, no cut off grade was assigned to this mineralization type.

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<u>Type C Mineralization</u> – This type of mineralization was also defined by surface drilling and is found directly underlying the supergene chalcocite blanket (Fig 2 and 5). This mineralization is characterized by a mixture of supergene chalcocite and primary chalcopyrite and is also about 100 ft. thick. Assays from samples from drill intercepts which penetrated this zone ranged from 0.26% to 0.43% Cu. Consequently, no cut off grade was assigned to this mineralization type.

**Type D Mineralization** – This type of mineralization was defined both by surface and underground drilling. It is mineralogically similar to and is physically adjacent to Type A Mineralization, but is of considerably lower grade. This mineralization type was subdivided into 3 subtypes, based on it's spatial distribution within the breccia pipe (Fig 2,3.4 and 6). Grades were assigned to the various polygons which make up this mineralization type by averaging all assays from drill intercepts within the polygon. Polygons with average grades of less than 0.15% Cu were not included in the resource calculation.

#### **Resource Estimate**

Prior to this study, the most recent resource estimates conducted at the project were prepared by Mine Reserves Associates in 1995 and by Michael Bentley in 1996. These studies relied heavily on computergenerated geostatistical modeling techniques (in particular, linear kriging) to define the resource base. This study utilized the polygon-area method to determine the resource base, and is a hand-calculated estimate. Polygon boundaries used in this study were dictated by geologic parameters shown in the various drill hole logs as opposed to computer generated polygon boundaries which were used in the two previous estimates.

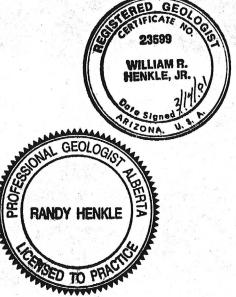
The major difference between Henkle and Associates estimate and the two previous resource estimates is in the projected grade of the resource. Our estimate lowered the projected grade from 0.837% to 0.58% (a reduction of 30%), the tonnage estimate remained nearly the same. Henkle and Associates resource estimate for the Four Metals property is 8,280,084 tons at a grade of 0.58%, containing 48,236 tons in-the-ground, of copper metal, (measured and indicated categories). These resources are contained in four major categories of mineralization which were subdivided by us on the basis of geology and mineralogy.

The Global Resource Summary (following page) shows the various mineralization types, grades, tonnages, etc.. Tables 1 through 3 give a more detailed breakdown of the resource estimate. Ore resource calculation notes are presented in the Appendix.

It is emphasized here, that this is a resource estimate only for this deposit, as the economic viability of the Four Metals deposit has not yet been established. The reader is reminded, that only reserves have demonstrated economic viability for exploitation. Consequently, there are no ore reserves at this time at the Four Metals deposit.

The above is our best professional estimate based on the data at hand available to us at the time of the study (February, 2001).

William R. Henkle, Jr. / President and Chief Geologist Registered Geologist – Arizona – # 23599 Prof. Geol. Alberta – License # M62627



# **GLOBAL RESOURCE SUMMARY - 4 METALS PROJECT**

	Tons	Grade (%CU)	Tons Cu
MEASURED RESOURCES			
	1,055,160	1.50	15,837
TYPE - A: HIGH GRADE TYPE - B: SUPERGENE CHALCOCITE ZONE	361,344	0.89	3,390
TYPE - C: MIXED CHALCOCITE - CALCOPYRITE ZONE	399,888	0.39	1,563
TYPE - D1: CHALCOPYRITE BELOW SUPERGENE ZONE	499,920	0.25	1,240
TYPE - D2: CHALCOPYRITE ADJACENT TO HIGH GRADE ZONE	989,280	0.53	5,226
TYPE - D3: CHALCOPYRITE DEEP EXTERNA TO HIGH GRADE	96,000	0.52	499
TOTAL MEASURED RESOURCES	3,401,592	0.82	27,755
INDICATED RESOURCES			
TYPE - B: SUPERGENE CHALCOCITE ZONE	573,844	0.91	5,503
TYPE - C: MIXED CHALCOCITE - CALCOPYRITE ZONE	674,328	0.38	2,564
TYPE - D1: CHALCOPYRITE BELOW SUPERGENE ZONE	587,120	0.24	1,438
TYPE - D2: CHALCOPYRITE ADJACENT TO HIGH GRADE ZONE	2,851,200	0.35	9,978
TYPE - D3: CHALCOPYRITE DEEP EXTERNA TO HIGH GRADE	192,000	0.52	998
TOTAL INDICATED RESOURCES	4,878,492	0.42	20,481
INFERRED RESOURCES			
TYPE - B: SUPERGENE CHALCOCITE ZONE	378,280	0.91	3,540
TYPE - C: MIXED CHALCOCITE - CALCOPYRITE ZONE	431,640	0.39	1,690
TYPE - D1: CHALCOPYRITE BELOW SUPERGENE ZONE	317,368	0.22	690
		en e	
TOTAL INFERRED RESOURCES	1,127,288	0.53	5,920
MEASURED & INDICATED RESOURCES	8,280,084	0.58	48,236
TOTAL ALL RESOURCES	9,407,372	0.58	54,156
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### WRITER'S CERTIFICATE

I, William R. Henkle, Jr., P. Geol., President and Chief Geologist of Henkle and Assoc., 230 Finch Way, Carson City, Nevada, USA,

Do hereby certify that:

- I am a graduate geologist from the Ohio State University (B.Sc., 1969) and also a graduate geologist from Northern Arizona University (M.Sc., 1974).
- I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta, as well as similar organizations in several other Canadian Provinces and States in the USA.
- I have practiced my profession as a Economic/Engineering Geologist continuously since graduation and have practiced as an independent consultant since 1978.
- This report is based on a field examination of the property in Sept., 2000 and a review of company provided data since that time.
- I have no interest in, nor do I expect to receive any interest, directly or indirectly in either the Four Metals Project described herein nor in the securities of Newmex Minerals, Inc., or it's parent company Proprietary Industries, Inc.
- I herewith grant my permission for Newmex Minerals, Inc., to use this report for whatever purposes they deem necessary.

Dated at CARSON CITY, NEVADA, USA, on this 14th day of March, 2001.

William R. Henkle, Jr., P. Geol,

# APPENDIX A

# **TABLES 1,2,3**

Table 1

# HIGH GRADE ORE RESOURCES 4 METALS MINE SANTA CRUZ COUNTY, ARIZONA

# TYPE - A: HIGH GRADE RESOURCES - UNDERGROUND TARGET

#### Cutoff - 1.0% Cu

High Grade Resources are projected from 50 feet above 5260 Level to 50 feet below 5090 Level (Elevation 5040) for 270 total vertical feet 5260 Level grades are projected to extend for a total of 135 vertical feet (from 50 feet above the 5260 Level, to half way to 5090 Level) 5090 Level grades are projected to extend for 135 vertical feet (from midway to 5260 Level, to 50 feet below 5090 Level) Consequently, the High grade Reserves are projected to extend for a total of 270 Vertical feet, along the southern contact of the breccia pipe Ore blocks used were similar to those used by Bentley (1996) Areas were determined using a Digital Planimeter

### **5260 LEVEL**

Block	Area	Vertical	Volume	Tons	Grade(%Cu)	Tons Cu
A B C D E F G H I J TOTAL TONS 5260 I	5000 5300 5500 7000 7600 3800 5000 4600 14600 10500	135 135 135 135 135 135 135 135 135 135	675,000 715,500 742,500 945,000 1,026,000 513,000 675,000 621,000 1,971,000 1,417,500	54,000 57,240 59,400 75,600 82,080 41,040 54,000 49,680 157,680 113,400 <b>744,120</b>	1.55 1.66 1.94 1.56 2.25 1.18 1.31 1.23 1.20 1.39	837 950 1,152 1,179 1,847 484 707 611 1,892 1,576 <b>11,237</b>

AVERAGE GRADE (% Cu) = 1.51

**5090 LEVEL** 

AVERAGE GRADE (% Cu) = 1.48

 4 METALS HIGH GRADE TOTAL:
 1,055,160
 Tons
 1.50
 % Cu

 TOTAL TONS CU
 15,837

CHALCOCITE CAP / MIXED ZONE - RESOURCE BREAKDOWN

Table 2

	CHALCO				-	Oreda (% Cu)	Tone Cu	Ανα (	Grade (%	Cu)
<u>Block</u>		<u>Area</u>	<u>Thickness</u>		<u>Tons</u>	Grade(%Cu)	Tons ou	<u> </u>	Jiaue 17	Out
TYPE -	B: CHALC	OCITE	CAP - LITT	LE OR NO (	CHALCOPY	RITE				
MEASUF	RED RESOU	RCES				0.000				
A - I		34200	104	3,556,800	284,544	0.87	2,476			
B - I		13200	60	561,000	44,880	0.90	570			
C - I		11400	35	399,000	31,920	1.08	345 3,390		0.94	
	TOTAL:				361,344		3,330		0.01	
INDICATI	ED RESOUR	CES								
D - I		41200	104	4,284,800	342,784	0.87	2,982			
E - I		18900	60	803,250	64,260	0.90	816			
F - I		37100	35	1,298,500	103,880	1.08	1,122 470			
J - I		6500	104	676,000	54,080	0.87	112			
K - I		2600	60	110,500	8,840	0.90	5,503		0.96	
	TOTAL:				573,844		5,505		0.00	
INFERRE	ED RESOUR	CES								
G - I		34500	104	3,588,000	287,040	0.87	2,497			
H-I		8800	60	374,000	29,920	0.90	380			
1-1	TOTAL:	21900	35	766,500	61,320	1.08	662			
					378,280		3,540		0.94	
TOTAL	RESOURCI	ES - CHA	L COCITE C	AP	1,313,468	Tons ore	12,432	Tons Cu	<u>0.94</u>	Avg Gr.
TUTAL	RESOURCE	23 - 011/			Contraction of the local division of the					
TVDE	-C: MIXE				TE ZONE					
IYPE -	-C: MIXEL	JUNAL	COTE - OI		LEGHE					
MEASU	JRED RESO	URCES				more relation				
A - 11		34200	103	3,522,600	281,808	0.43	1,212			
B - II		13200	60	792,000	63,360	0.26	165			
C - 11		11400	60	684,000	54,720	0.34	186		0.00	
	TOTAL:				399,888		1,563		0.39	
INDICA'	TED RESOU				000 400	0.42	1,460			
D - II		41200		4,243,600	339,488	0.43	236			
E - II		18900		1,134,000	90,720	0.26 0.34	605			
F - 11		37100		2,226,000	178,080	0.34	230			
J - 11		6500	103	669,500	53,560	0.43	32			
K - II		2600	60	156,000	12,480 <b>674,328</b>	0.20	2,564		0.38	
	TOTAL:				014,020		_,			
	RED RESOUR		402	3,553,500	284,280	0.43	1,222			
G - 11		34500		528,000	42,240	0.26	110			
H - II		8800		1,314,000	105,120	0.34	357			
-	TOTAL:	21900	, 00	1,014,000	431,640		1,690		0.39	
TOTAL		DEC MIX			1,505,856	Tons ore	5,816	Tons Cu	0.39	Avg Gr.
ΤΟΤΑΙ	L RESOURC	JES MIX	EDZONE		1,000,000	10110 010				
DEAC				SENE CHA	COCITEC	AP - MIXED	ZONES			
RESC	JURGE TO	ALS P	JR SUPER							
					Tons		Tons Cu	Ave	. Grade	
MEAS	SURED RE	SOURC	ES		761,232		4,953		0.65	
									c ==	
INDIC	CATED RE	SOURC	ES		1,248,172	2	7,065		0.57	

RESOURCE TOTALS FOR SUPERGENE CI	ALCOUTE CAP - MIL	ALD LONLO	
MEASURED RESOURCES	<u>Tons</u> 761,232	<u>Tons Cu</u> 4,953	<u>Avg. Grade (%Cu)</u> 0.65
INDICATED RESOURCES	1,248,172	7,065	0.57
INFERRED RESOURCES	809,920	5,229	0.65
CHALCOCITE CAP - MIXED ZONE AVG.	<u>2,819,324</u>	<u>17,247</u>	<u>0.61</u>

CHALCOPYRITE RESOURCES

Avg Grade (%Cu) Grade Tons Cu Vert Volume Tons Area Block TYPE - D1: CHALCOPYRITE RESOURCES BELOW SUPERGENE CHALCOCITE CAP MEASURED 223,200 0.23 513 2,790,000 37200 75 A 110 1,551,000 124,080 0.174 216 14100 в 1,908,000 152,640 0.34 519 21200 90 С 0.25 499,920 1,248 SUB-TOTAL INDICATED 1,755,000 140,400 0.23 323 23400 75 D 110 935,000 74,800 0.174 130 8500 Е 90 1,602,000 128,160 0.34 436 17800 F 75 1,515,000 121,200 0.23 279 20200 G 153 10000 110 1,100,000 88,000 0.174 н 118 432,000 34,560 0.34 4800 90 1 0.24 1,438 587,120 SUB-TOTAL INFERRED 1,972,500 157,800 0.23 363 75 26300 110 1,056,000 84,480 0.174 147 9600 κ 56 2300 90 207,000 16,560 0.34 1 90 0.23 6800 72 489,600 39,168 M 34 19,360 0.174 2200 110 242,000 N 317,368 690 0.22 204400 SUB-TOTAL CHALCOPY. RESOURCES BELOW CHALCOCITE CAP 3,376 0.24 1,404,408 TYPE - D2: CHALCOPYTITE RESOURCES ADJACENT TO HIGH GRADE ZONE MEASURED 215 526,500 42,120 0.51 3900 135 61,560 0.78 480 5700 135 769,500 II 526,500 42,120 0.62 261 3900 135 ш 302 8000 135 1,080,000 86,400 0.35 IV 0.63 1,232 2,443,500 1,849,500 195,480 V 18100 135 858 147,960 0.58 13700 135 VI 634,500 50,760 0.38 193 VII 4700 135 73,440 0.52 382 135 918,000 6800 VIII 268 1,080,000 86,400 0.31 8000 135 IX 1,036 18800 2,538,000 203,040 0.51 135 Х 0.53 5,226 SUB-TOTAL MEASURED CPY. RESOURCES 989,280 INDICATED 2,227,500 178,200 0.32 570 16500 135 XI 428 194,400 356,400 0.22 18000 135 2,430,000 XII 4,455,000 0.43 1,533 33000 135 XIII 4,359 13,972,500 1,117,800 0.39 103500 135 XIV 6,210,000 496,800 0.25 1,242 46000 135 XV 1,147,500 91,800 0.38 349 XVI 8500 135 415,800 0.36 1,497 5,197,500 XVII 38500 135 2,851,200 9,978 0.35 SUB-TOTAL INDICATED CPY. RESOURCES TOTAL CPY. RES. ADJACENT TO HIGH GRADE 3,840,480 15,204 0.40 TYPE - D3: CHALCOPYRITE RESOURCES BASED ON DEEP INTERCEPT IN DH - 4M95-04 MEASURED 499 0.52 SUB-TOTAL 100 1,200,000 96.000 12000 INDICATED 998 0.52 192,000 SUB-TOTAL 12000 200 2,400,000

TOYAL CHALCOPYRITE RESOURCES	Tons	Tons Cu	Avg Grade (%Cu)
MEASURED	1,585,200	6,974	0.44
NDICATED	3,630,320	12,414	0.34
NFERRED	317,368	690	0.22
GRAND TOTAL CHALCOPYRITE RESOURCES	5,532,888	20,078	<u>0.36</u>

TOTAL DEEP CHALCOPYRITE RESOURCES

288,000

1,498

0.52

#### Table 3

# **APPENDIX B**

# **ORE RESOURCE CALCUALTION NOTES**

# **4 METALS PROJECT**

# ORE RESOURCE CALCULATION NOTES

Prior to this ore resource estimate, other resource estimates have been completed from time to time. Mine Reserves Associates of Wheat Ridge, Colorado and Michael Bentley of Reno, Nevada completed the most recent estimates in 1995 and 1996, respectively.

This current estimate is based on these past studies, and includes some modifications, which take into account the most recent drilling information as well as geologic considerations which affect the extent of the reserves. The most important of these modifications is the inclusion of the results of the 1995-drilling program, which penetrated the supergene enriched, chalcocite cap. This information increased the quality of the resources. Another important change is the recognition of the localization of a higher grade zone parallel to the southeastern margin of the breccia pipe. All of the previous ore reserve calculations, appeared to have treated the deposit as a classic porphyry style deposit. This means that the deposit was treated as a three-dimensional model, with the metal grades estimated by linear kriging, with search distances of up to 500 feet on the secondary passes.

The localization of the higher zone grade along the south-eastern margin of the breccia pipe suggests some sort of structural control influences the localization of the mineralization. This, then, indicates that the classical threedimensional model with the linear kriging, may not be appropriate over the entire deposit.

The current resource estimate relies heavily on using the geology of the deposit to define the limits of the metal values. This leads to the definition of the high grade zone, extending from below the 5090 Level to above the 5260 Level. Bentley also recognized this zone in 1996. The supergene chalcocite zone and the mixed chalcocite – chalcopyrite zones are recognized as blanket type deposits which lie between a near surface leached cap and a primary chalcopyrite zone at depth. Chalcopyrite resources are defined using drill data projected over limited distances with no kriging or averaging. Future resource calculations may incorporate kriging and averaging into the model for appropriate parts of the deposit.

# MINERALIZATION TYPES

### TYPE A: HIGH GRADE ZONE

This is a zone of chalcopyrite copper resources with a cut off grade of 1.0%. Bentley in 1966, was the first to define this zone in the resource calculations. This zone is recognized on both the 5090 Level and the 5260 Level. The zone is much thicker and slightly higher grade in the 5260 Level. The blocks used in the present resource calculation are similar to those used by Bentley in 1966. The areas, however, were calculated using a digital planimeter. The values and areas were projected to extend 50 feet above the 5260 Level and 50 feet below the 5090 Level, for a total vertical distance of 270 feet. The values from each level were projected to extend for a distance of 135 vertical feet. The blocks are shown in the Level Maps(Figures & ).

## TYPE – B: SUPERGENE CHALCOCITE ZONE

This zone consists of a secondary blanket deposit which lies beneath a barren, leached cap and above the underlying mixed chalcocite – chalcopyrite and primary chalcopyrite mineralization, The chalcocite blanket is the upper-most deposit and varies between 104 feet and 35 feet thick, and consists predominantly of secondary chalcocite. This zone is projected to extend over the entire breccia pipe.

### TYPE – C: SUPERGENE MIXED CHALCOCITE - CHALCOPYRITE ZONE

A mixed-mineralization blanket deposit lies beneath the chalcocite blanket and consists of primary chalcopyrite and secondary chalcocite. This zone varies between 60 to 100 feet thick. This zone is also projected to extend over the entire breccia pipe.

# TYPE – D1: CHALCOPYRITE ZONE LYING IMMEDIATELY BENEATH SUPERGENE MINERALIZATION AND ABOVE THE HIGH GRADE ZONE

Chalcopyrite mineralization is projected to fill the volume which lies between the bottom of the supergene enriched layers and the projected top of the High Grade and adjacent lower grade chalcopyrite mineralization. The grades are taken from intercepts from the 1995 drilling. This zone is between 75 and 110 feet thick, depending on the drill intercepts. This zone also is projected over the entire aerial extent of the breccia pipe. TYPE – D2: CHALCOPYRITE RESOURCES ADJACENT TO HIGH GRADE ZONE

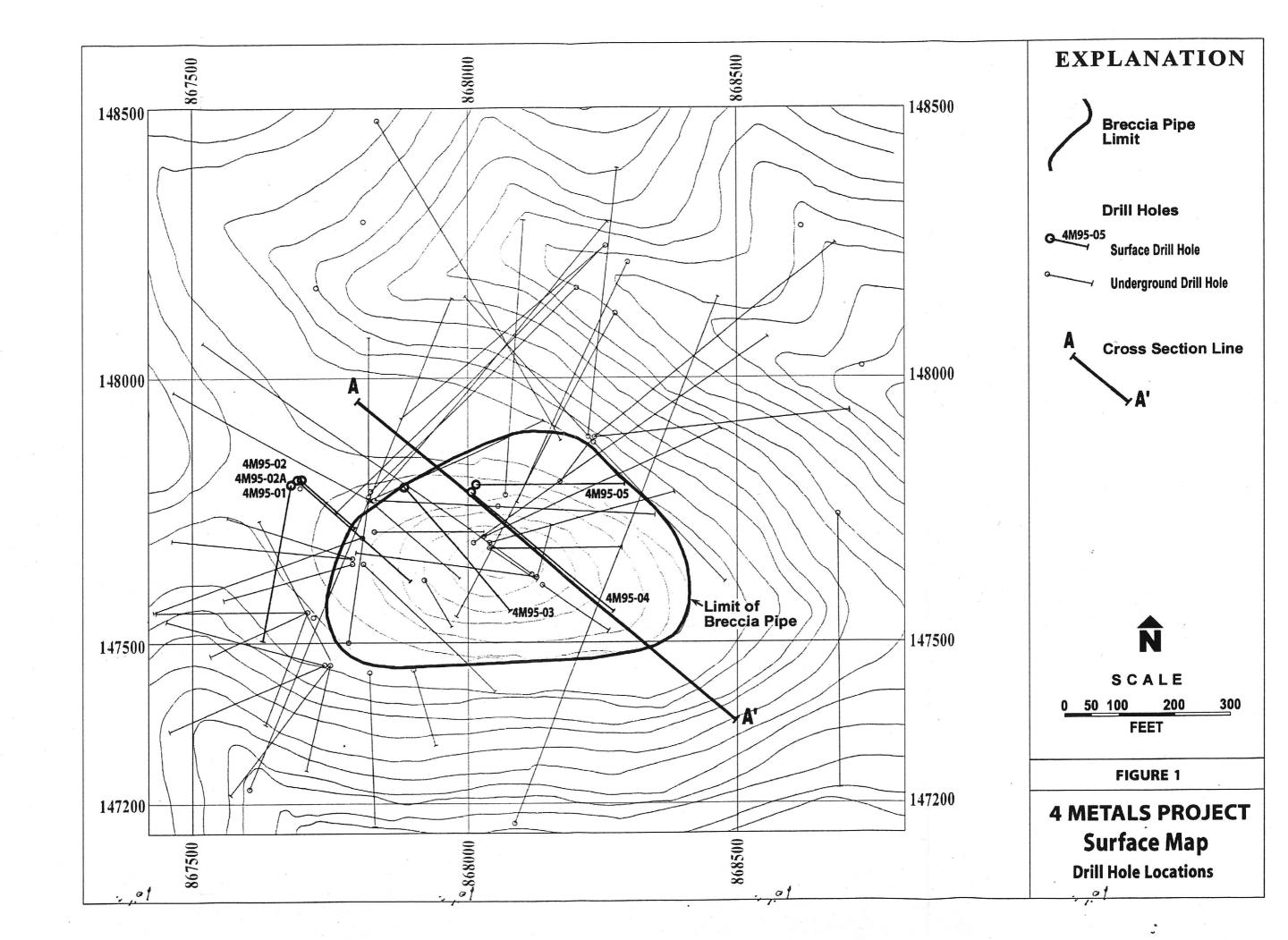
This zone is interior to and adjacent with the High Grade Zone, but has lower grades. These resources were only calculated for the 5260 level, and for the same vertical interval as the High Grade resources, i.e., a total of 135 vertical feet. This zone is not well developed on the 5090 Level. Both Measured and Indicated Resources have been delineated. The measured resources are of higher grade and better defined than then indicated resources. Both classes of resources are based on drill assay data.

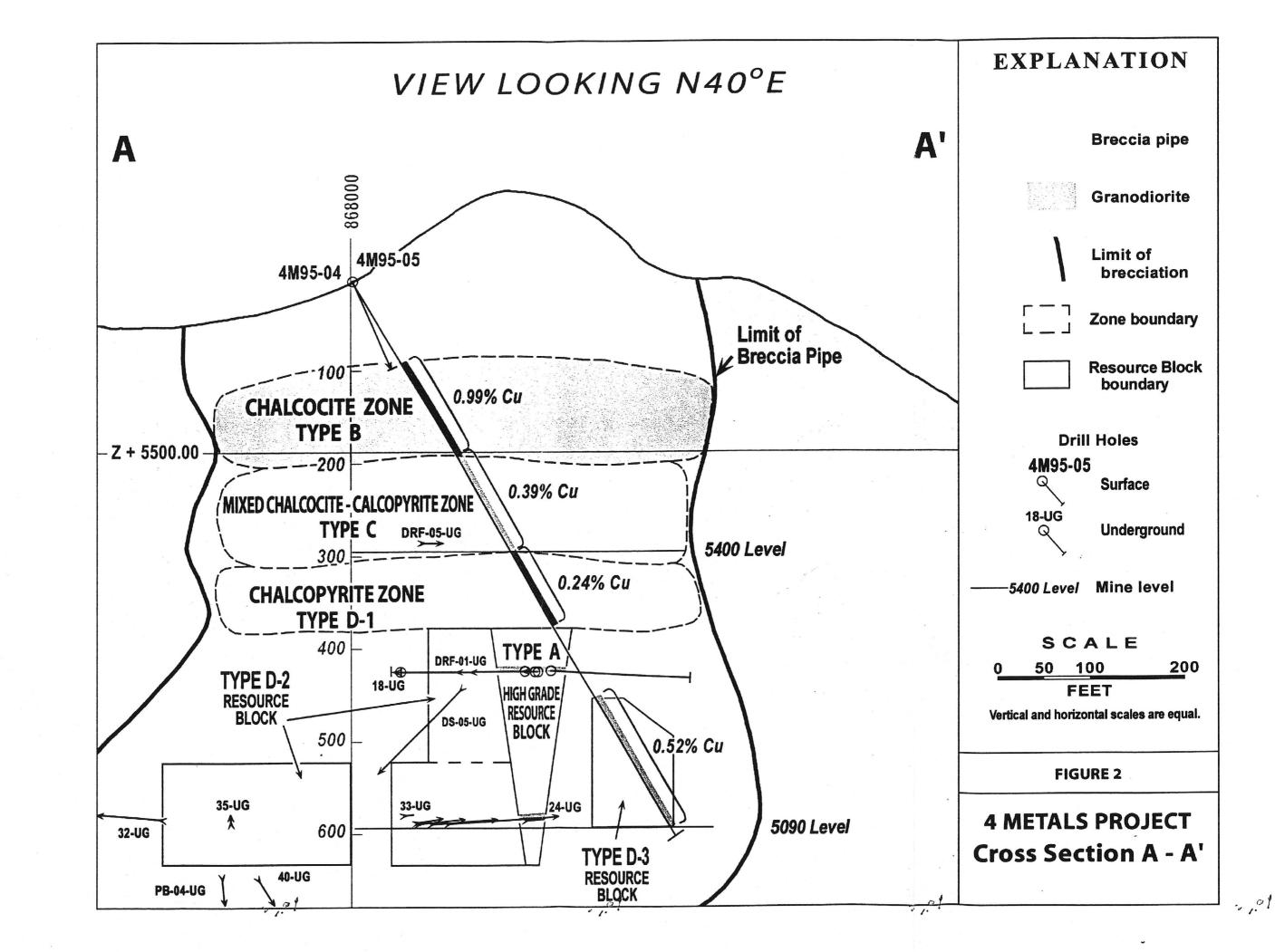
# TYPE – D3: DEEP CHALCOYRITE MINERALIZATION EXTERNAL TO HIGH GRADE ZONE

This type of mineralization has been recognized only in drill hole 4M95-04. The mineralization lies on the convex side of the Type - A high grade mineralization noted above. Previous reports and discussions had indicated that the high-grade mineralization was interpreted to be developed along the breccia pipe contact zone, and that this was the effective outer limit of breccia pipe mineralization. However, the drill logs from DH-4M-04 indicate that mineralized breccia does occur further from the presumed center of the breccia pipe than was previously thought.

# APPENDIX C

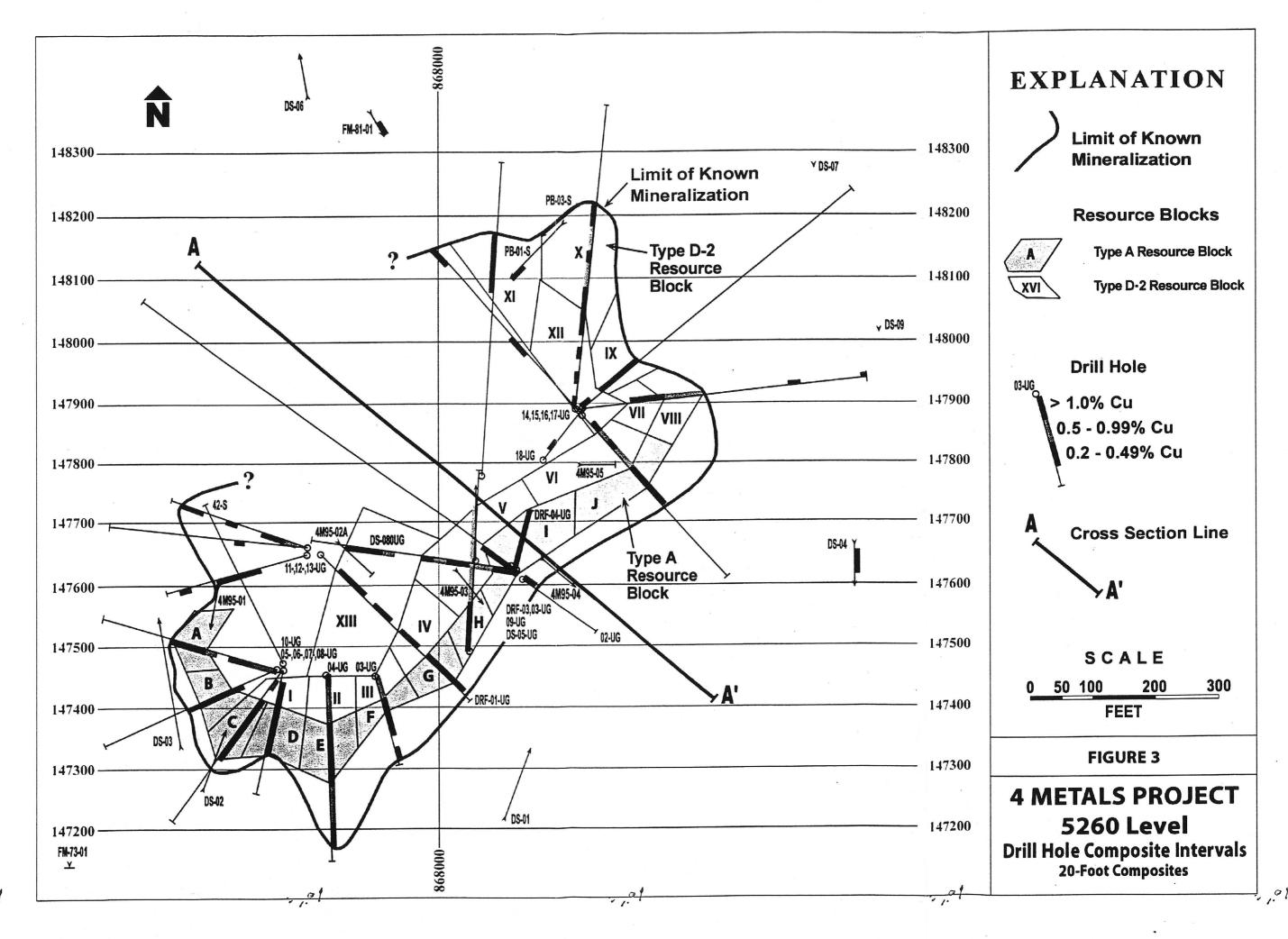
# FIGURES 1 - 6



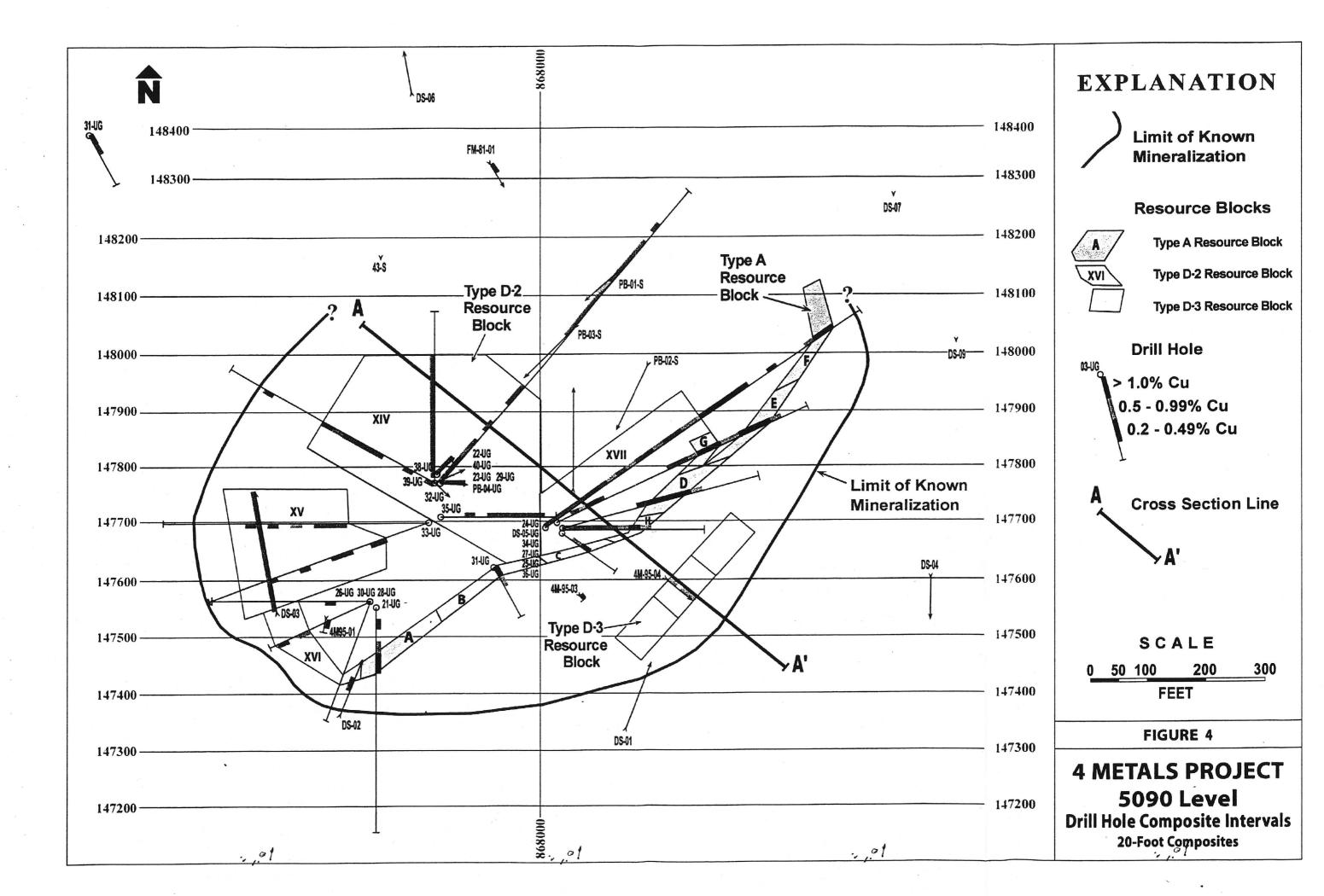


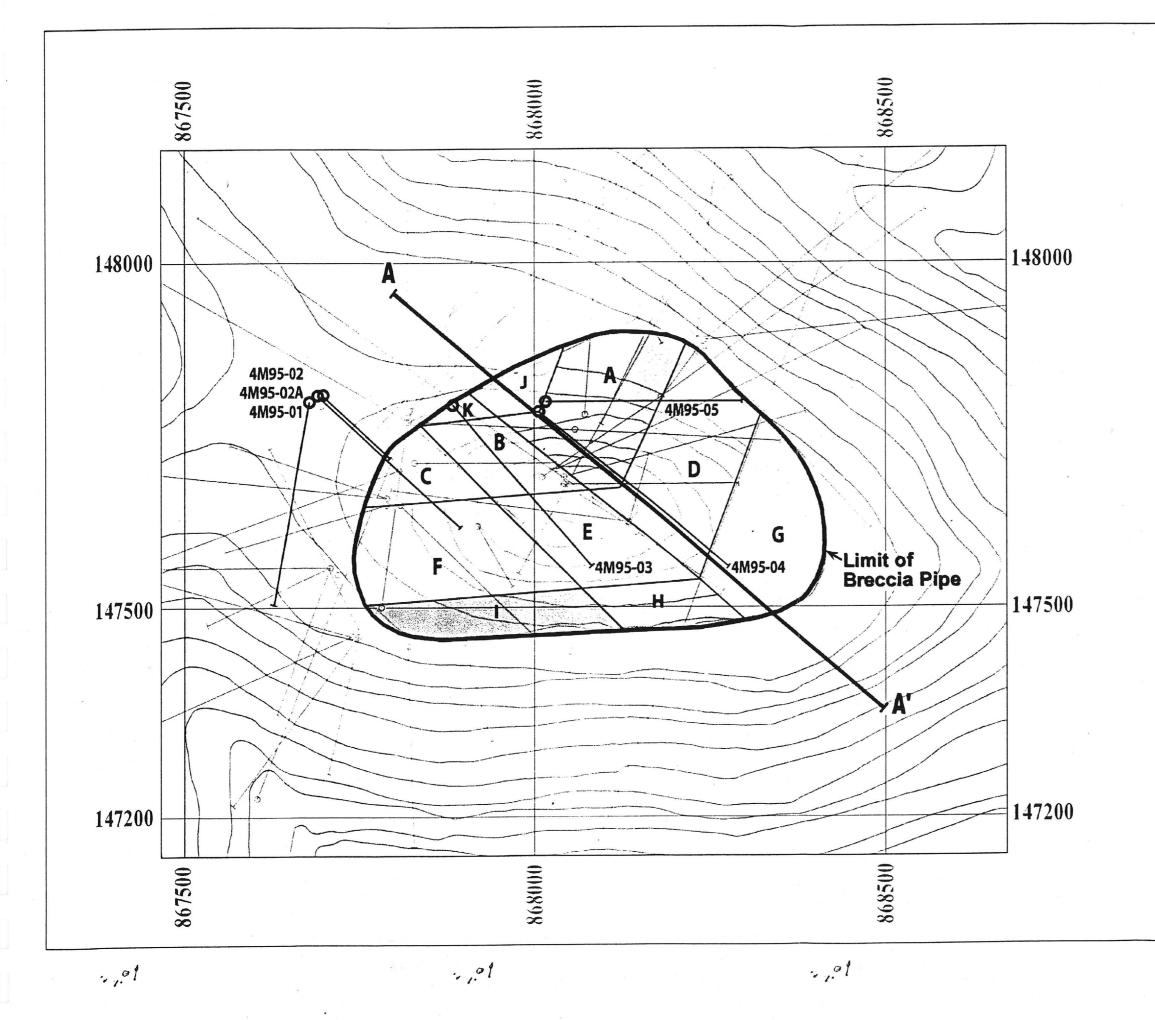
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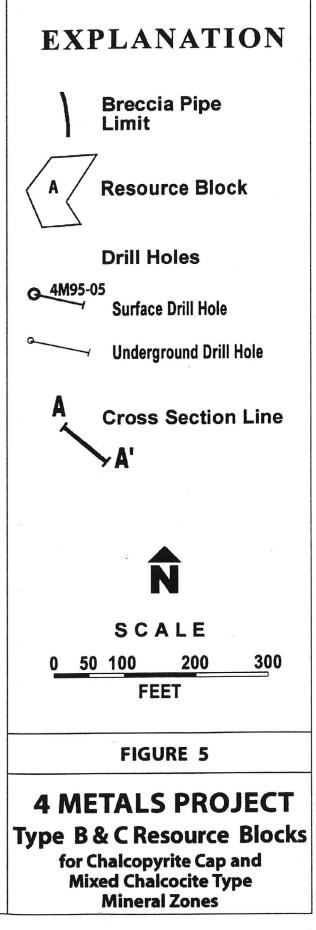
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