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PRIMARY NAME: GORILLA PROPERTY

ALTERNATE NAMES:

BONANZA

PINAL COUNTY MILS NUMBER: 219A

LOCATION: TOWNSHIP 3 S RANGE 11 E SECTION 29 QUARTER N2 LATITUDE: N 33DEG 08MIN 53SEC LONGITUDE: W 111DEG 14MIN 20SEC

TOPO MAP NAME: MINERAL MTN - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

COPPER OXIDE

SILVER GOLD

MOLYBDENUM

BIBLIOGRAPHY:

ADMMR GORILLA PROPERTY FILE

PRIMARY NAME: GORILLA GROUP 1

ALTERNATE NAMES:

MARGUERITE LAKE MNS LTD PROP.

LOST GORILLA BIG BONANZA LEW CLAIMS

GORILLA PROPERTY

PINAL COUNTY MILS NUMBER: 211B

LOCATION: TOWNSHIP 3 S RANGE 11 E SECTION 17 QUARTER S2 LATITUDE: N 33DEG 10MIN 00SEC LONGITUDE: W 111DEG 14MIN 17SEC

TOPO MAP NAME: MINERAL MTN - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

COPPER SILVER GOLD

MOLYBDENUM

BIBLIOGRAPHY:

ADMMR GORILLA PROPERTY FILE

PROPERTY EXTENDS OVER SEC. 16, 17, 20 & 21

T3S-R11E

PRIMARY NAME: GORILLA GROUP 2

ALTERNATE NAMES:

MARGUERITE LAKE MNS LTD PROP.

LOST GROUP BIG CONANZA LEW CLAIMS

GORILLA PROPERTY

PINAL COUNTY MILS NUMBER: 212A

LOCATION: TOWNSHIP 3 S RANGE 11 E SECTION 20 QUARTER NE LATITUDE: N 33DEG 09MIN 50SEC LONGITUDE: W 111DEG 14MIN 05SEC

TOPO MAP NAME: MINERAL MTN - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

COPPER SILVER GOLD

MOLYBDENUM

BIBLIOGRAPHY:

ADMMR GORLILLA PROPERTY FILE

UNSURE OF LOCATIONS JOINS THE OKLAHOMA ON THE EAST, 6 SHAFTS, 3 TUNNELS, 1000 T MILL

PRIMARY NAME: GORILLA GROUP 3

ALTERNATE NAMES:

MARGUERITE LAKE MNS LTD PROP.

LOST GORILLA BIG BONANZA LEW CLAIMS

GORILLA PROPERTY

PINAL COUNTY MILS NUMBER: 212D

LOCATION: TOWNSHIP 3 S RANGE 11 E SECTION 20 QUARTER E2 LATITUDE: N 33DEG 09MIN 32SEC LONGITUDE: W 111DEG 14MIN 02SEC

TOPO MAP NAME: MINERAL MTN - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

COPPER SILVER GOLD

MOLYBDENUM

BIBLIOGRAPHY:

ADMMR GORILLA PROPERTY FILE

PRIMARY NAME: GORILLA GROUP 4

ALTERNATE NAMES:

MARGUERITE LAKE MNS LTD PROP.

LOST GROILLA BIG BONANZA LEW CLAIMS

GORILLA PROPERTY

PINAL COUNTY MILS NUMBER: 212C

LOCATION: TOWNSHIP 3 S RANGE 11 E SECTION 20 QUARTER E2 LATITUDE: N 33DEG 09MIN 27SEC LONGITUDE: W 111DEG 14MIN 15SEC

TOPO MAP NAME: MINERAL MTN - 7.5 MIN

CURRENT STATUS: DEVEL DEPOSIT

COMMODITY:

COPPER SILVER GOLD

MOLYBDENUM

BIBLIOGRAPHY:

ADMMR GORILLA PROPERTY FILE



Date Printed: 01/31/96

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

INFORMATION SUMMARY

Information from: Will McCurry

Company:

Cyprus Sierrita c/o Sand Castle @ Twin

Address:

P.O. Box 527

City, State ZIP: Green Valley, Arizona 85622

Phone:

MINE:

Gorilla Property

ADMMR Mine File: Gorilla Property

County:

Pinal

AzMILS Number:

219A

SUMMARY

Will McCurry of Cyprus Amax at Twin Buttes requested any file information on the Gorilla Property in Pinal County. Alanco, Inc. still owns the claims and has submitted it to Cyprus.

In the process of making copies for Mr. McCurry the file was reorganized and poor quality duplicate file copies were eliminated.

The Pinal County AZMILS records; 211B for Gorilla Group 1, 212A for Gorilla Group 2, 212C for Gorilla Group 4 and AZMILS 212D for Gorilla Group 3 reference fields were changed from "Y" to "A" and Grollia Property was added to their list of AKA's.

Ken A. Phillips, Chief Engineer Date: January 30, 1996

GORILLA PROPERTY

Return to Phoenix via Florence where Mr. "Lew" Cody was contacted regarding his Gorilla property east of Florence. FTJ WR 2/8/72

WILLARD D. PYE
Consulting Geologist
3418 North Forgeus Avenue
Tucson, Arizona 85716

TELEPHONE 327-2956

THE CODY - LOST GORILLA GROUP OF CLAIMS MINERAL HILL MINING DISTRICT PINAL COUNTY, ARIZONA PRELIMINARY REPORT

Introduction

This summary report on the Cody-Lost Gorilla group of lode mining claims is based upon a reconnaisance visit to the property and the writer's general knowledge of the geology of the region as based upon other work he has done in the general area of the claims. No sampling was done and only general observations were made in regards to the mineralization present. The purpose of the visit was to become acquainted with the general features of the property pending a more thorough study after certain base maps and surveys were completed.

The property consists of 20 Lost Gorilla Claims, 20 Lew Claims and 10 Big Bonanza Claims, making a total of 50 lode claims logated in the Mineral Hill (Mineral Mountain) Mining District in Sections 17, 20 and 29, Township 3 South, Range 11 East, some twelve miles northeast of Florence, Pinal County, Arizona. The property is found on the Mineral Mountain, $7\frac{1}{2}$ minute, U. S. Geological Survey map. The claims lie south and southwest of Mineral Mountain and some six miles north of the Gila River.

The elevation ranges from about 2,000 feet to 2,800 feet above sea level giving a relief of some 800 feet. However, much of the higher elevations are due to the northern tier of claims extending up onto the southwest slope

of Mineral Mountain. The topography is generally semi-rugged to foot-hill in character.

The group of claims are readily accessible being connected with paved U.S. Highways 80 and 89, which pass through Florence, by a well graded road. Road-trails lead to the various portions of the claims. The Southern Pacific Rail-road passes some 6 miles south of the claims.

No power is found in the claim area, the nearest being probably 6 or more miles away; water is present along the Gila River. A closer supply could probably be developed by wells since some of the old mine shafts have water in them at depths estimated at somewhat over 50 feet.

Geology

Rock Type

The basic geology consists of faulted and sheared metamorphic and granitic rocks which have been intruded by Tertiary and younger (?) dikes and veins. Mineralization is wide-spread and consists, at the surface, of copper oxides with reports of silver and gold values.

The western and northern claims of the Cody-Lost Gorilla Group of Claims are largely underlain by the older Pinal Schist, which is a low-grade metamorphosed sequence of sediments and igneous rocks. Although quartz veinlets, massive quartz veins and a wide range of intrusive rock types occur as dikes cutting the schist, the number and variety of intrusives appears to be less than in the area to the west, which is underlain mainly by coarse crystalline rocks.

The eastern part of the group of claims is mainly underlain by medium to coarse crystalline granites, granodiorites and diorites. Schistose rocks are rare, or at least in these portions of the eastern claims visited. The relationship of the various types of coarse crystalline rocks was not determined, but

as a group they are probably younger than the schists. Their age is probably Precambrian, although some or all may be of Laramide age.

The coarse crystalline rocks have been intruded by quartz veinlets, massive quartz veins, aplite dikes, leuco-granites and some basic dikes. Some, if not all, of these dikes are younger than the schists; they are probably of Precambrian or possibly Laramide age. Tertiary (?) rhyolite porphyries and rarer andesite porphyries intrude the older rocks; some Tertiary (?) volcanics are also present.

Shearing has strongly controlled the pattern of emplacement of the intrusive dikes and veins since many, although not all, have followed the trend of the major shear zones.

The relationship of the eastern crystalline rock block to the western Pinal schist block was not determined. Structure

Several major northwest-southeast steep angle faults are exposed along the south side of Mineral Mountain and there is probably at least one cross fault. These have strongly warped the adjacent rocks and produced wide breccia and sheared zones. Undoubtedly other faults are present to the south.

The crystalline area in particular, and possibly to a lesser extent the schistose area, is strongly sheared. The strongest trend swings from a generally north-south to an east-west direction from the northern to the southern porties of the claim area. The parallelism to this shear trend of the older as well as the younger intrusives, is strongly apparent in the area of the claims underlain by the crystalline rocks. The shear trend is also a direction of silicification with the result that many of the secondary topographic ridges follow this pattern.

At approximately right angles to the main shear trend is a lesser north-

west trending one, or at least fewer of the dikes and less silicification appears to be controlled by it. These northwest shears may have been tight while the conjucate trends were more open allowing easier access of the fluids and intrusive rocks.

The quartz veins may follow the shear zones, but the impression is that they often are quite independent of them.

Mineralization

The quartz veins are of two types (1) massive milky quartz, usually occuring as wide veins, and (2) vein filling quartz, which may show banded and crustiform structure and often good quartz crystal development into cavities. These latter veins may have specular hematite and copper carbonates filling cavities. Sulfide casts, partially filled with limonitic and hematitic iron oxides, suggests some other sulfides were also originally present. It is not known whether the quartz veins carried any gold or silver values and if so, which type of vein was the more likely to contain values. In earlier times it appears that both types were worked for their precious metal content.

Copper oxides are abundant in both the crystalline rock area and to a lesser (?) extent in the schistose area. The copper occurs as oxides at the surface, being mainly malachite and chrysacolla. The copper oxides occur as coatings of fractures and joints and where strongest developed, it may fill some cavities and stain partially decomposed feldspars. Most of the copper oxides appear to follow the major shear zones.

In the crystalline areas, the copper oxides appear to occur mainly in the granitic types of rocks, but this may be because they are most extensive. However, copper oxides were noted in the leuco-granites, in the aplite dikes, and with the quartz veins. None were noted with the rhyolite or andesite porphyries

or the late volcanics.

It is recognized that the copper oxides, occurring as they do primarily on the surface of fractures and as filling of rare cavities in the crystalline rock, were probably moved into and deposited in these localities by ground water and do not necessarily represent the loci in which the original primary sulfides were deposited.

No primary sulfides were observed during the brief examination of the property, but it is believed that at depth they will occur. In some places well developed box-works filled with limonitic and hematitic oxides, ranging form bright yellow to deep purplish brown, indicate sulfides as having been present. These box-works were probably originally filled with pyrite, copper sulfides and possibly zinc and lead sulfides.

Assays for gold and silver mineralization were not made to determine their presence but the area was first opened for its gold and silver values. The various shafts, pits, tunnels and other workings were opened in search of these metals. The remains of one, relatively recent, cyanidation plant for the extraction of gold and silver from the mined ores was found. The gold and silver mineralization is probably associated with the period of copper mineralization but also may be the result of the later (?) quartz period of mineralization.

In some areas similar to this, the gold at the surface is found in or associated with iron stained quartz, often close to the gouge zones along the margins of the shear zones. It also occurs in the limonite filled box-works and was incorporated in the primary pyrite.

Specular hematite occurs throughout the area wherever there has been mineralization.

The above are the main metalic minerals of economic importance noted in the

area of the claims. Other minerals, other types of vein fillings and hydrothermal alteration were observed at various places but are not herein considered. Past Development

As has been mentioned earlier, the area was first opened, probably during the late 1800's, for it's gold content. At that time numerous shafts, some over 100 feet deep, tunnels, pits and other workings were made to explore and produce the gold and probably silver. At that time copper was of no interest because of it's low price. Later, and continuing to today, extensive cuts and pits have been made to evaluate the copper potential of the area. In addition, some shallow drilling was done and both magnetic and I.P. lines were run. The writer has no knowledge of the findings of either the drilling or the geophysical work.

Summary and Conclusion

In evaluating the property, the following facts have been established:

- 1. The area is one of extensive copper mineralization with shows of copper extending in the east-west dierection for almost 2 miles and in a north-south direction for an equal distance.
- 2. Assays were not run to determine gold and silver values, but evidence and information received from other sources indicates that they are present and the property lies near well proven metal producing areas.

In light of this extensive display of mineralization over a wide area, it is concluded that at depth the upward moving mineral bearing solutions could have thoroughly saturated the enclosing rock and produced a porphyry copper deposit containing values in gold and silver.

Recommendations

It is recommended that the property be acquired and explored geologically,

and geophysically, employing sufficient drilling to assess the potential of an underlying porphyry copper deposit and, in light of the present market and price for silver and gold, its potential as a producer of precious metals.

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Willand D. Pye

WILLARD D. PYE Consulting Geologist Arizona Board of Technical Registration # 4033

Rochie Assay Office. The.

P. O. BOX 1323 FHONE (AC 602) 364-8092

DOUGLAS, ARIZONA - 85007

ASSAYERS & METALLURGICAL CHEMISTS

CERTIFICATE OF ASSAY

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	GOLD DZS.	SILVER DZS.	COPFER	LEAD %	ZINC	SiO ₂	AI203	CaF2	
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ANTHONY LANE & ASSOCIA 5

P. O. BOX 1843 TUCSON AR-70NA 632 634 6651

November 1, 1974

SUMMARY REPORT

LOST GORILLA GROUP OF CLAIMS

MINERAL MOUNTAIN MINING DISTRICT

PINAL COUNTY, ARIZONA

Introduction

This report was prepared to correlate the information and data prepared by previous lessees, together with recent observations and conclusions by the writer. The information is not complete in as far as total maps and documentation from the previous leessees of the property.

Location and History

The property is located approximately 9 miles North-East of Florence,
Arizona and more specifically is located in Sections 16, 17, 20 and 21 of Township 3 South, Range 11 East.

of Emil and Mary Cody by location and/or assignment. The property is reached by following State Highways 89 and 80 North from Figure approximately a mile and one half to where a dirt road intersects at this point and the Stat Highways bridges the Gila River. The dirt road, at this point, leads North-East and this is followed a distance of seven miles passing over the Gila River and the Southern Pacific De Locad tracks to the property boundaries.

The boundaries are fairly well defined with 4' by 4' posts on corners with adequate documentation attached identifying the claims and ownership.

The property immediately adjoins that which is held in succession by Folaris

Miring Company who is presently involved in a sevelopment program.

Geology

The area is predominately the Pinal schist which has been faulted and intruded by quartz-monzonite. The major trend of the schist is to the North 15° West, which is the regional trend of the Tortolito Mountains, which extend from the Northern Pima County through the Eastern half of Pinal County.

In addition to the regional trends and faults, a series of East-West vein systems have intruded the quartz-monzonite and the metamorphosed Pinal schists.

The mineralization consists of copper, silver, gold and molybdenite within the quatz-monzonite, however this is somewhat localized.

The area was originally explored and prospected for gold and silver and alsamples taken by previous lessees contained assayable amounts of gold and silver (see Marguerite Lake Mine Ltd. Report.)

Previous lessees have completed geochemical and geophysical surveys which, according to their reports, indicate anomalous conditions occur where surface mineralization is constant.

One of the main exposures of the copper mineralization has been tracedover three thousand feet on the surface, although no drilling or trenching has
been completed on this exposure.

Molybdenite has been observed in several exposures associated directly with the copper mineralization.

Immediate Operations In and Near the Property.

The Polaris Mining Company is developing the property immediately adjacent to the Lost Gorilla Group by trenching and drilling. Their purpose within the program that they are pursoing is two fold - (1. The development of copper ore for leaching and 2. the recovery of precious metals by electron bembardment and gravity concentration.) The leach test facility for leaching is located

at the mine site and the precious metal pilot plant is located at the Sovreign Industries plant West of Florence.

Exploration is underway throughout the Western Mountain area by Anamax and Phelps Dodge.

Continental Oil Company is developing it's operation West of this property a distance of some sixteen miles to the Santan Mountains.

This operation is a disseminated copper deposit in the Pinal schists and monzonite intrusive.

American Smelting and Refining Company recently made it's announcement on a significant find in the Sacaton Mountains West of the Conoco discovery.

The Ray operation lies some seventeen miles East of the Gorilla Group.

Underground operations at the Superior-Magma operation and the San Manuel-Mammoth-Hayden operations lie on the extreme ends of the North-West trending or mineral occurence.

Recommendations and Potentiality.

The potential of the Gorilla Group lies in two specific categories, (1.

The development and operation of the small high grade vein occurences containing base and precious metal values - copper, molybdenum, silver and gold and 2. the exploration of probable development of disseminated copper occurences as indicated by the geophysical and geochemical anomalies.)

It is recommended that the property be completely mapped with all structural and mineralogical features being plotted, together with control of property boundaries and elevations.

In view of the mineral exposure in relationship to other known deposits in the immediate area, it is recommended that this property be thoroughly explored and developed.

Respectfully submitted.

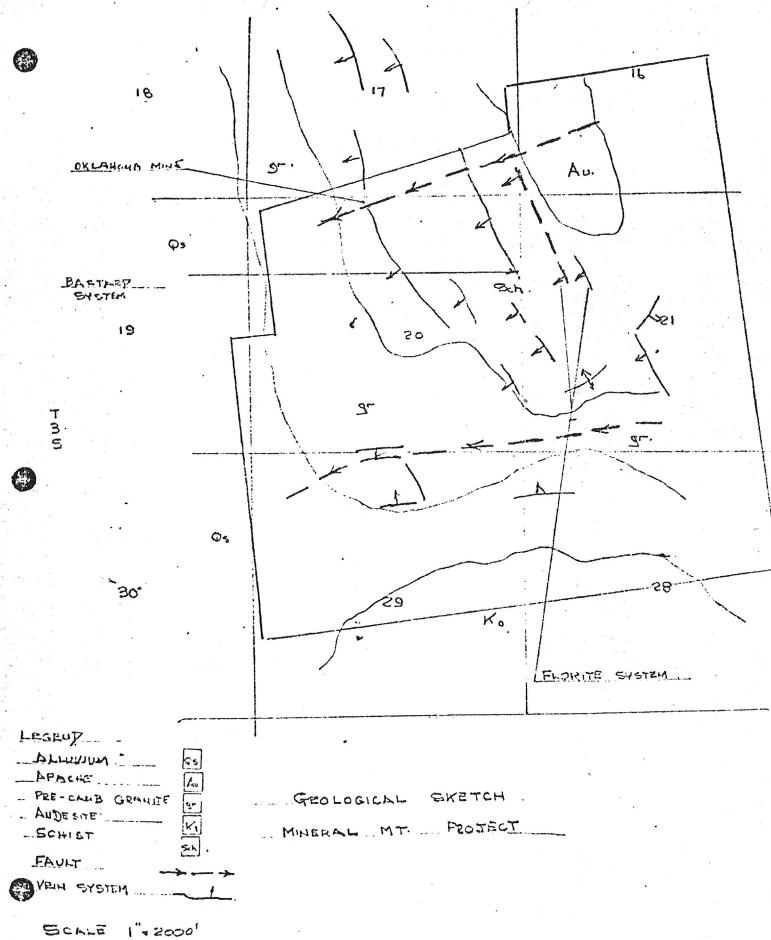
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Tass

MINERAL MT PROJECT

SCALE 1 = 2000 ft.



Dudley W. Lewis 3450 M. Mourthein Cert Only Copy we have)
Only Segron to bee Oudley: Hope this is all you need. Food fortune in getting pioper operate people to develop a Operate this fabulous property, PRELIMINARY REPORT ON Emila mary GORILLA PROPERTY FLORENCE, ARIZONA Dec 17, T35, R 11E for MARGUERITE LAKE MINES LTD (N. P. L.)

November 30th, 1970

10-13-77

Emil Cody Bolly Wills P.O. Box 1 1412 Wrenet

Fluence, Chiz arlington TX 76013 817-4617857

James R. Glass Consulting Geologist

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APPENDICES

Report on Induced Polarization Survey by Fred Syberg, Geophysicist

Map of Geochemical Results - Scale 1" = 500 feet

Map of Induced Polarization Results - Scale 1" = 500 feet

SUMMARY

Marguerite Lake Mines Ltd (N.P.L.) holds the rights to 50 contiguous mining claims, located about ten miles north-east of Florence, Arizona.

Kennecott's 23,000 ton per day open pit mins at Ray, is seventeen miles east of the Marguerite property. Newmont's 1,500 ton per day underground mine at Superior is fourteen miles to the north-west and the Miami copper camp with a combined production of some 36,000 tons per day is thirty miles to the north-west.

The rock formations underlying the claim group are Precambrian Pinal schist and Precambrian quartz monzonite. Pinal schist is host rocks for copper mineralization at the Ray Mine and at the Miami mining camp. The Precambrian monzonite is host rock for the copper mineralization in other mines in Arizona.

Three parallel veins containing gold, silver and copper cut the Pinal schist. A small amount of mining has been done on these veins, although no shipments have been recorded.

Copper mineralization has been found over a wide area in the Precambrian granite and subsequent geochemical soil surveys and induced polarization surveys have indicated coincidental anomalous conditions.

It is recommended that an exploration programme be initiated on this property which should include the following:

- 1. Reconnaissance geochemical soil sampling
- 2. Reconnaissance induced polarization survey
- 3. Diamond drilling

It is anticipated that the budget for this programme would be \$86,000.00 divided into two phases.

CONCLUSIONS

- 1. Sporadic copper mineralization has been found in Precambrian quartz monzonite over an area approximately 3,000 feet by 2,000 feet. This copper occurs mainly as a chrysacolla stain on fracture planes but it is also disseminated through the rock at times. One vein containing chalcocite has been noted and minor amounts of molybdenum have been seen.
- 2. Three veins containing copper, gold and silver cut the Pinal schist.

 Samples of these veins as reported by Dr. A.C. Skerl returned the following assays:

Vein	Cu	Au	Ag	Width
No. 1	1.24	0.17	0.10	4'
Dump of vein mat-		0.14	0.10	
erial	, not ass	ayed		

The extension of one of the veins can be seen for many hundreds of feet with the vein swelling to a width of 20 feet in places.

- 3. Anomalous amounts of copper are found in the soil in five separate zones in the vicinity of the known copper mineralization. Two of these zones are "open" to the west.
- An induced polarization survey performed over part of the property shows an area of high chargeability near the contact between Pinal schist and the Precambrian quartz monzonite and an area of moderate chargeability over the main geochemical anomaly.

RECOMMENDATIONS

PHASE I

- Perform a geochemical soil survey along the southern and western extensions of the present survey.
- Perform an induced polarization survey to the north of the present survey and extend the coverage on lines No. 2 and No. 3 to the east.
- 3. Sample the bedrock under the present induced polarization anomaly by drilling holes to a depth of 700 feet. Sample the bedrock under the geochemical anomaly-moderate induced polarization anomaly by drilling one hole to a depth of 700 feet.

PHASE II

4. Diamond drill any subsequent induced polarization anomalies found in the proposed survey. It is anticipated that 3, 400 feet of drilling would adequately explore and sample any bedrock source.

BUDGET FOR PROPOSED PROGRAMME

PHASE I

	•		
Geochemical Survey	4	\$	2,000.00
Induced Polarization Survey	•	\$	3,500.00
Surveying and geological ma	apping	\$	1,000.00
Vehicles		\$	1,000.00
Travel and living expenses		\$	1,500.00
Diamond drilling 1,400' @ \$	10.00/ft	\$ 1	14,000.00
Engineering-assaying, draf	ting etc	\$	2,000.00
Administration		\$	1,000.00
Contingency		\$	3,000.00
•			*
	TOTAL	\$2	9,000.00
		-	

PHASE II

Diamond drilling, 3,400' @ \$10.00/ft	\$34,000.00
Drill pad preparation and bulldozer work	\$ 5,000.00
Engineering and Supervision	\$ 6,000.00
Living and accommodation	\$ 1,000.00
Administration and Communication	\$ 4,000.00
Sampling and Mapping	\$ 1,000.00
Vehicles	\$ 1,000.00
Contingencies	\$ 5,000.00
PHASE II TOTAL	\$57,000.00
PHASE I TOTAL	\$29,000.00
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GRAND TOTAL	\$86,000.00

PROPERTY AND LOCATION

Marguerite Lake Mines Ltd (N.P.L.) holds an option on 50 contiguous mining claims which are located some ten miles north-east of Florence, Arizona on the south-west side of Mineral Mountain. The claims are recorded in the Court House, Florence, Arizona, as follows:

Claim Name	County	Docket No.	Page
Lost Gorilla 1	Pinal	522	451
Lost Gorilla 2	Pinal	522	452
Lost Gorilla 3	Pinal	522	453
Lost Gorilla 4	Pinal	522	454
Lost Gorilla 5	Pinal	522	454
Lost Gorilla 6	Pinal	522	456
Lost Gorilla 7	Pinal	536	20
Lost Gorilla 8	Pinal	536	21
Lost Gorilla 9	Pinal	536	22
Lost Gorilla 10	Pinal	536	23
Lost Gorilla 11	Pinal	536	. 24
Lost Gorilla 12	Pinal	536	2.5
Lost Gorilla 13	Pinal	536	26
Lost Gorilla 14	Pinal	536	27
Lost Gorilla 15	Pinal	536	28
Lost Gorilla 16	Pinal	558	113
Lost Gorilla 17	Pinal	558	115
Lost Gorilla 18	Pinal	558	116
Lost Gorilla 19	Pinal	558	117
Lost Gorilla 20	Pinal	558	118
LEW 1 to 20 Incl.	Pinal	. 571	442-461
Big Bonanza 1	Pinal	560	8 5 4
Big Bonanza 2	Pinal	562	802
Big Bonanza 3	Pinal	562	803
Big Bonanza 4	Pinal	562	804
Big Bonanza 5	Pinal	562	805
Big Bonanza 6	Pinal	56 8 ,	533
Big Bonanza 7	Pinal	568	534
Big Bonanza 8	Pinal	568	535
Big Bonanza 9	Pinal	568	536
Big Bonanza 10	Pinal	568	537

The 50 claims make up an area of approximately 1,050 acres.

The property can be reached by a fairly good gravel road maintained by local ranchers.

TOPOGRAPHY

The topography is gently rolling with elevations from 2,000 feet to 2,300 feet. Intermittent streams flow in the sand-filled gulleys during the rainy seasons.

CLIMATE AND VEGETATION

The climate is desert-type. Winter temperatures seldom reach freezing point and summer temperatures peak around 110°F. Rainfall annually is less than eight inches. Vegetation includes many kinds of cactus, mesquite bushes and palo verde trees.

HISTORY

There is no history of significant mining from the Gorilla property. Limited mining was done on one of the copper, silver, gold veins cutting the Pinal schist, but no shipment records exist.

An exploration shaft was sunk at least 60 feet which is located south of the main area of showings. No mineralization was observed in the dump of this shaft.

Arcan Mining & Smelting Ltd (N. P. L.) acquired an option to the property by an Agreement dated June 11, 1969, and Marguerite acquired an option from Arcan in July, 1970. Dr. A. C. Skerl (P. Eng.,) of Vancouver, Canada, visited the property in April of 1969, sampled two of the veins and made a brief geological examination and recommended that further work be done. To date Marguerite has performed a geochemical survey and Metals Petroleum and Hydraulic Resources Consulting Ltd has carried out an induced polarization survey and an extremely cursory geological examination.

REGIONAL GEOLOGY

The Gorilla property is on the western portion of the Tortilla Mountains, part of the basin and range province. These mountains consist of Precambrian granite, quartz monzonite, granodiorite and quartz diorite; locally there are other igneous rocks of post Paleozoic age. The granitic rocks intrude Precambrian Pinal schist and are overlain by Tertiary volcanics and sedimentary rocks.

LOCAL GEOLOGY

The rocks underlying the property consist of Precambrian Pinal schist intruded by Precambrian quartz monzonite.

Schistosity is approximately N 15° W, dipping steeply to the west.

The quartz monzonite is altered somewhat, and is cut by aphanitic acidic dykes which are classified as rhyolite.

North of the schist monzonite contact is a prominent ridge of highly altered limestone which is overlying the Pinal Schist. The exact relationship however, is unknown at this time.

MINERALIZATION

Three veins of widths from less than two feet to over twenty feet, are found in the Pinal Schist, in the northern portion of the property. These veins are in large shear zones, strike approximately N 15° W, and dip to the west at 65°. They are conformable with the schistosity.

Vein material consists of vuggy quartz, specular hematite with secondary limonite and jasper. Copper stain is noted in the material although no copper sulphides were seen. A band of altered limestone is associated with one of the veins.

Assays taken by Dr. A. C. Skerl returned the following:

Vein No.	Au oz/ton		Ag oz/ton	Cu %	Width
No. 1	0.17		0.10	1.24	4'
No. 2	0.14	*	0.14	Not assayed	dump
No. 3	0.11		0. 3	Not ! assayed	41

An assay taken by Marguerite returned the following:

No. 2 0.11 0.13 1.84 3

The surface expression of one of the veins can be seen extending to the north for many hundreds of feet.

There are some old workings in the ridge of altered limestone, but no economic mineralization was seen.

Small patches and stringers of "oxide" copper mineralization are seen in the quartz monzonite over an area approximately 3,000 feet by 2,000 feet. Some fairly local concentrations of copper are included in this area. With one exception the copper is found in the "oxide" form, i.e. chrysacolla, chalcanthite. One vein of chalcocite was noted.

Molybdenite was seen disseminated in the granite in one location.

An old exploration shaft was sunk in the monzonite south of the main zone of mineralization. No copper mineralization was seen in this old working.

GEOCHEMICAL SURVEY

During the year 1969, Arcan Mining & Smelting Ltd (N. P. L.) carried out a geochemical soil survey over the property. The results of this survey are plotted on map of scale 1" = 500 feet included with this report.

Background in the area is considered to be 30 parts per million of copper.

Any value over 100 parts per million is considered to be anomalous.

There are five areas on the survey that are anomalous, as well as a number of single "highs."

The main anomaly is of dimensions roughly 1,500' x 1,200' with an individual high of 23,500 ppm. This anomaly coincides fairly well with the main surface mineralization. Patches of mineralization however, are seen outside the anomalous area.

One lense-shaped anomaly is associated with the schist-monzonite contact. It has dimensions roughly 2,500'x 200' with an individual high of 290 ppm.

One anomaly is associated with the mineralized veins in the schist. It has dimensions roughly 1, $500' \times 200'$ with an high of 1, 250 ppm.

Two anomalous zones exist on the west side of the property. Both these are "open" to the west so the ultimate size is unknown at this time. In the smaller anomaly the individual high is 198 ppm and the other peaks at 205 ppm.

GEOPHYSICAL SURVEY

In 1970 an induced polarization survey was carried out by Metals,
Petroleum & Hydraulic Resources Consulting Ltd on behalf of
Marguerite Lake Mines Ltd (N. P. L.) The survey was carried
out along six lines spaced 1,000 feet apart with an electrode separation
of 800 feet using a dipole-dipole configuration and searching to a
theoretical depth of approximately 1,600 feet.

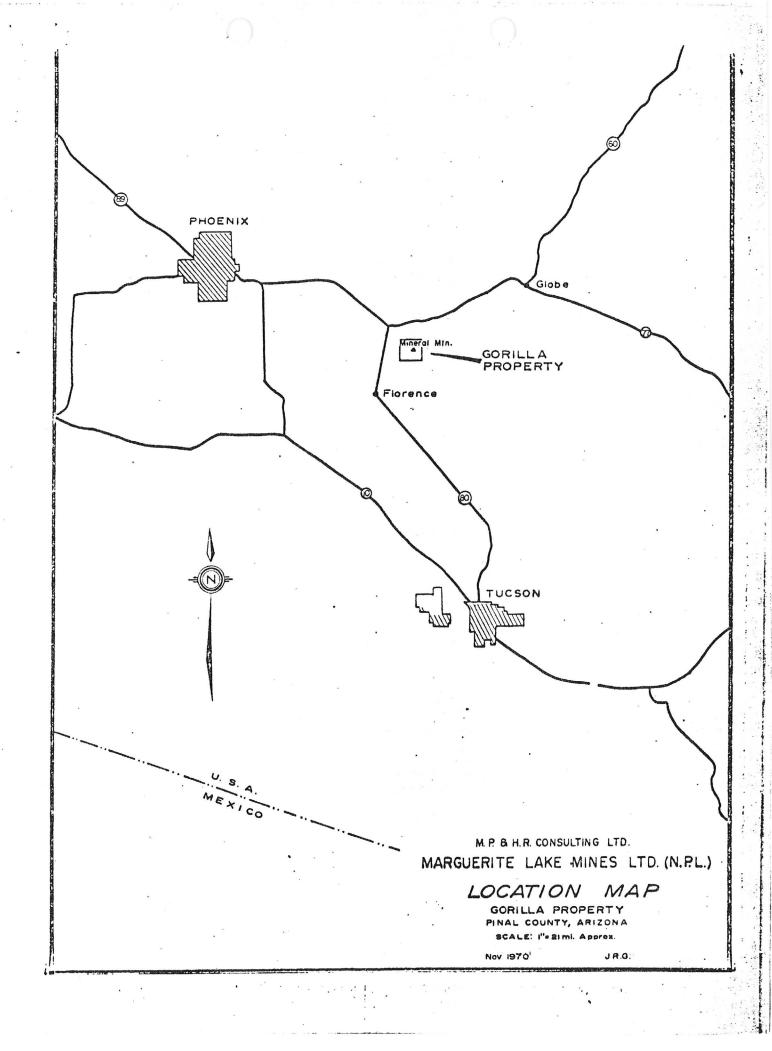
The results of this survey and the report prepared by Mr. Fred Syberg, geophysicist, are included with this report.

Mr. Syberg states that there is a definite high chargeability zone near the schist granite contact which may be caused by massive sulphides. He further states that a rather subtle anomaly with readings slightly above background is found over the area containing the surface mineralization. Mr. Syberg recommends that diamond drilling be used to sample the bedrock under these two areas.

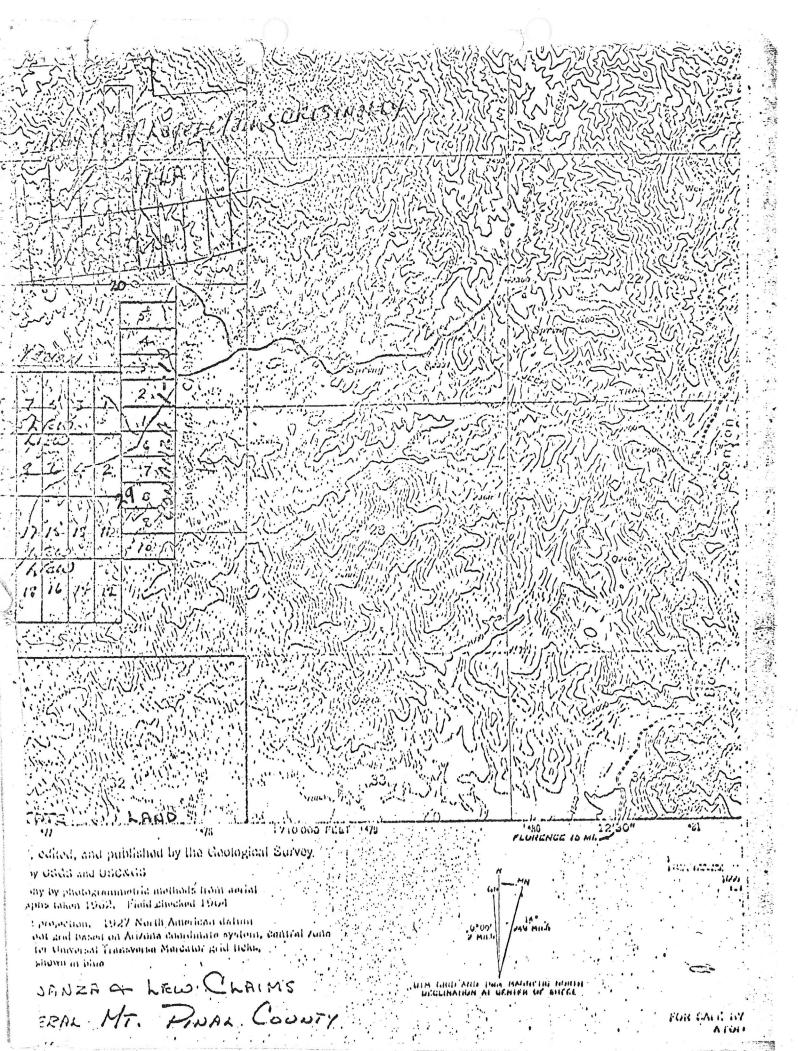
Respectfully submitted,

James R. Glass, B. Sc.,

Consulting Geologist



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APPENDIX "A"

Report on Induced
Polarization Survey by
Fred Syberg, Geophysicist

REPORT ON

AN INDUCED POLARIZATION SURVEY

GORILLA PROPERTY PINAL COUNTY, ARIZONA

Owned by

, MARGUERITE LAKE MINES LTD (N. P. L.)

for

METALS PETROLEUM & HYDRAULIC RESOURCES
CONSULTING LTD

by

FRED J. SYBERG, B.Sc.,

November 15, 1970

TABLE OF CONTENTS

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INTRODUCTION	1
PROPERTY	1
SURVEY SPECIFICATIONS	2
Instrumentation	2
Electrode Configuration	3
Presentation of Data	3
INTERPRETATION	4
CONTOUR PLANS	6
CONCLUSIONS AND RECOMMENDATIONS	7

APPENDICES

Map of apparent chargeability

n = 2 Scale 1" = 500 feet

Author's certificate

INTRODUCTION

This report contains the results of an Induced Polarization Survey which was carried out by Mr. Carlos Aiken, a geophysicist, employed by Metals, Petroleum & Hydraulic Resources Consulting Ltd. This report was prepared in Vancouver, B. C. in November, 1970.

PROPERTY

The property consists of 50 continguous claims which are located on the south-west side of Mineral Mountain, about ten miles north-east of Florence, Arizona.

The claims which are recorded in the Court House, Florence, Arizona are listed as follows:

	•		
Claim Name	County	Docket	Page
Lost Gorilla 1	Pinal	522	451
Lost Gorilla 2	Pinal	522	452
Lost Gorilla 3	Pinal	522	453
Lost Gorilla 4	Pinal	522	454
Lost Gorilla 5	Pinal	522	454
Lost Gorilla 6	Pinal	522	456
Lost Gorilla 7	Pinal	536	20
Lost Gorilla 8	Pinal	536	21
Lost Gorilla 9	Pinal	536	22
Lost Gorilla 10	Pinal	536	23
Lost Gorilla 11	Pinal	536	24
Lost Gorilla 12	Pinal	536	25
Lost Gorilla 13	Pinal	536	26
Lost Gorilla 14	Pinal	536	27
Lost Gorilla 15	Pinal	536	28
Lost Gorilla 16	Pinal	558	113
Lost Gorilla 17	Pinal	558	. 115
Lost Gorilla 18	Pinal	558	116
Lost Gorilla 19	Pinal	558	117
Lost Gorilla 20	Pinal	558	118
LEW 1 to 20 Incl.	Pinal	571	442-441

Claim Name		County	Docket	Page
Big Bonanza	2 3 4 5 6 7 8	Pinal Pinal Pinal Pinal Pinal Pinal Pinal Pinal Pinal	562 568 568 568	854 802 803 804 805 533 534
Big Bonanza Big Bonanza		Pinal Pinal	568 568	536 5 37

SURVEY SPECIFICATIONS

Instrumentation:

The Induced Polarization equipment used was 2.5 kw. pulse-type transmitter manufactured by Sharp Instruments combined with a Scintrex Newmont type MKVII receiver.

Type of Current	-	Direct current broken at
	*	periodic intervals
Pulse duration	-	2 seconds "current on"
	, i	2 seconds "current off"
		Alternate pulses have
		reverse polarity
Integrating time	-	650 milliseconds
Delay time	-	450 milliseconds
Maximum available current		5.0 amps

Measurements taken in the field were:

1. Current flowing through current electrodes C₁ and C₂.

2. Primary voltage, V_p, between measuring electrodes during "current off" time. V_s divided by V_p gives the apparent chargeability (Ma) in milliseconds.

The apparent resistivity is calculated by dividing $\mathbf{V}_{\mathbf{p}}$ by the current and multiplying by the geometrical factor appropriate to the electrode array being used.

Electrode Configuration:

The entire survey was carried out using the dipole-dipole configuration or array. The current electrodes C_1 and C_2 and the potential electrodes, P_1 and P_2 are moved in unison along the survey line. Current is applied to the ground at two points a distance (a) feet apart. The potentials are measured at two points (a) feet apart, in line with the current electrodes. The distance between the nearest current and potential is an integral number (n) times the basic distance (a). For this survey "a" was chosen to be 800 feet and "n" values of 1, 2, 3 and sometimes 4 were used.

The product of "n" and "a" is a rough approximation of the maximum depth of penetration. Covering the survey area using multiple separations provides more information as to depth, dip, location and metallic distribution of sources than does a single profile.

Presentation of Data:

The survey results are plotted in the two-dimensional "pseudo-section" manner with apparent resistivity in ohm-feet being plotted above the survey line and chargeability (Ma) in milliseconds below. This method of display is not to be taken as the vertical section of the electrical properties of the ground surveyed. The electrode separation is only one factor that determines the depth to which the ground affects a measurement. It is rather a convenient way of plotting all the data, especially lines of limited length.

The reading for any given set up is the mid-point between the centre point of the current electrodes and the centre point of the potential electrodes.

Contour plan maps of the apparent resistivity and chargeability were also plotted for n= 2.

The data received by the author of this report is believed to be accurate and the survey appears to have been well executed.

INTERPRETATION

The interpretation was based on a study of the existing chargeability and resistivity data both in "pseudo-section" as well as in contour form. Generally, highest priorities were given to anomalous areas having high chargeabilities and low apparent restivities along with greatest lateral and depth extent.

The two-dimensional "pseudo-sections" were mainly used to obtain information regarding apparent dip, depth determinations, and vertical distribution of metallically conducting material along the lines surveyed.

The contour plans provide information concerning strike, true dip, lateral distribution between survey lines and were used to correlate chargeability and resistivity with geological and geochemical data.

SECTIONS

line No. 1

The maximum apparent chargeability was 15 milliseconds which is considered above a variable background chargeability across the property of an estimated
maximum of 6 milliseconds in the area of this line.

The shape of the profile suggests a good anomalous
condition due to an I. P. source with an easterly dip

in the direction of the line. It is suggested that the vertical extent of the I.P. source is greater than 800 feet since no "double peaking" is evident. There appears to be some correlation between low resistivity and high chargeability.

Line No. 2

This line should be extended beyond the 11.2 millisecond reading, for n = 2, at the eastern end of the line in attempt to show a similar condition to that along Line No. 1. There is a good correlation between low resistivity and high chargeability. along this line.

Line No. 3

The background chargeability appears to charge from 4 milliseconds in the western area covered by this line to about 7 milliseconds at the eastern end. Therefore, an anomalous condition exists at the eastern end of this line which is open to the east. The correlation between resistivity and chargeability is not significant.

Line No. 4

No apparent anomalous conditions seem to appear along this line.

Line No. 5

No apparent anomalous conditions seem to appear along this line.

Line No. 6

The background chargeability of the area covered by this line appears to be of the order of 3 milliseconds suggesting an anomalous area in the neighbourhood of station 8 W. Since only the reading at 16 W may be suggesting a continuous anomaly, some detail surveying should be done in this area in order to verify the high value. There appears to be no correlation between low resistivity and high chargeability.

CONTOUR PLANS

The contour map for n = 2 suggests a high chargeability trend across lines No. 1, No. 2 and No. 3. In the neighbourhood of station 8 E along line No. 3 this trend coincides with a granite-schist contact. Along Line No. 2 this coincidence is fair, and along line No. 1 there exists no coincidence. Consequently, it is believed that the I.P. sources may not necessarily be related to the contact. The pattern of the contours in this area suggests an I.P. source which dips in a N.N. easterly direction and has a W.N. westerly strike. Along Lines No. 1 and No. 2 the anomalous pattern coincides with four geochemical anomalies striking in approximately the same direction.

A rather subtle anomaly may be suggested along the baseline and between Lines No. 3 and No. 4. The relief of this pattern is only slightly above background; however, it coincides with an anomalous geochemical condition. Since an electrode spacing as large as 800 feet was used it is possible, when using a 2.5 kw. transmitter, that anomalies due to interesting mineralization could be subtle due to averaging over very large volumes. The author of this report has in a number of surveys made such observations.

CONCLUSIONS AND RECOMMENDATIONS

The background chargeability appears to vary across the granite-schist contact with the background being estimated at about 3 to 4 milliseconds throughout the granitic rocks and as high as 7 milliseconds in the contact area or in the schist.

The anomalous areas vary from two times background to slightly above background. Then highly anomalous areas would suggest mineralization well in excess of 1% sulphides or equivalent oxides. This rule could be varied in light of the large electrode spacing such that a much smaller anomaly relative to background may be indicative of commercially interesting mineralization. The coincident geochemical anomalies and favourable rock units seem to support this suggestion.

Mineralization in the anomalous area could be massive in the area of the granite-schist contact. In the granitic rock units the mineralization is most likely disseminated as is suggested by the history of the Arizona metallogenic province.

It is recommended that further surveying be done along the eastern extensions of Lines No. 2 and No. 3.

It is further recommended that a diamond drill programme be undertaken to investigate the sources of the I.P. anomalies and the geochemical anomalies. At least three diamond drill holes should be spotted to investigate the I.P. anomaly crossing lines No. 1 and No. 2. Also, a drill hole should

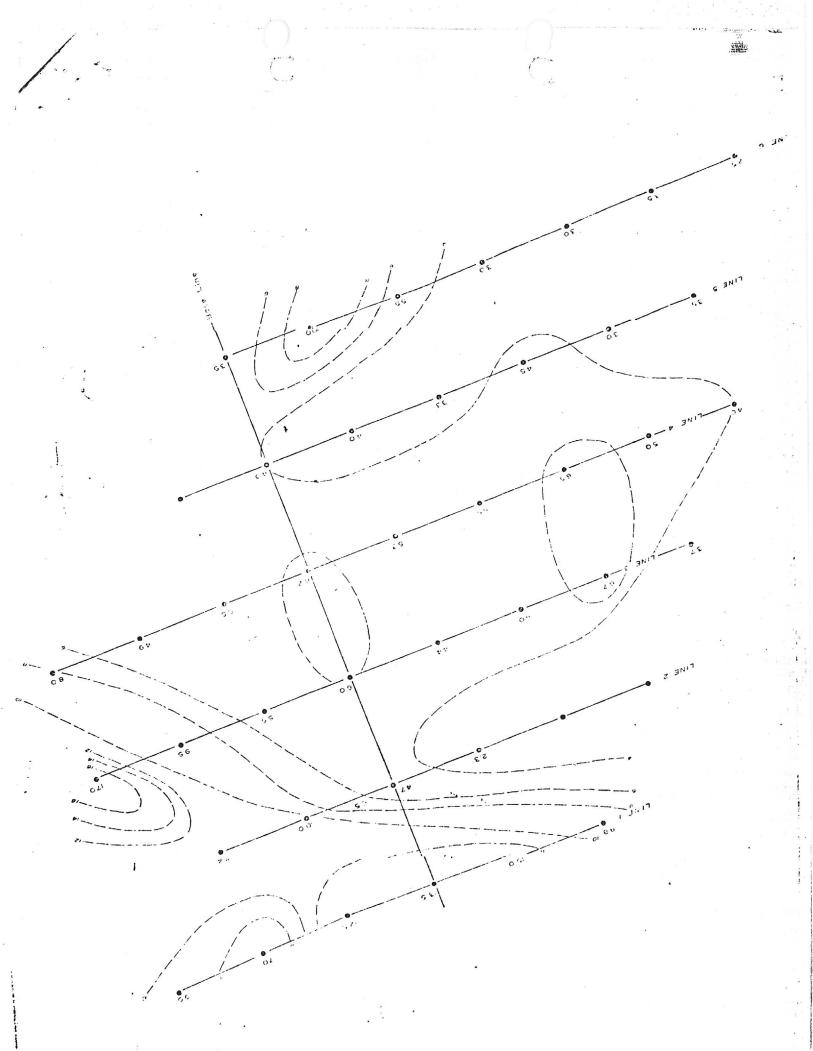
be spotted on the baseline and between lines No. 3 and No. 4. All core holes should be drilled to a minimum of 800 feet vertical.

Respectfully submitted,

Fred J. Syberg, B.Sc.,

Consulting Geophysicist

November 15, 1970



The green copper mineral observed in outcrops has been previously identified as chalcanthite. The molybedenist can be observed both in the disseminated copper zone and also within quartz stringent carrying both copper and molybdenum.

As indicated, copper is found disseminated and in vertical quartz stringers. These stringers are oriented in an E - W direction and follow the joint pattern of the intrusive rock. Hence unless there is a change of pattern with depth, the potential expectation will be disseminated copper with local enrichment along the quarta-temper veinlets.

The 60-foot exploration shaft was collared and laiders placed for access. Unfortunately the walls of the shaft contained much loose rock and the hazardous conditions made for only a cursory examination. A few rock specimens were taken from 10 feet above water level. These did not show mineralization of interest apart from a scattered showing of a soft mineral having the appearance of sooty chalcocite.

GROCHEMICAL EXPLOSIATION

A systematic soil sampling program has been conducted at the Gorilla. The control lines were laid out 500 feet apart in a north-south direction and samples taken at 200-foot intervals. This whole survey embracis an area about 9000 feet long and 3500 feet wide with a total of 363 samples. The samples were submitted for geochemical analysis and anomalous results obtained (see attached map data sheet and frequency diagram).

Geochemical determinations were also made for molybdenum and although anomalous results were obtained for this element, there is little correlation between copper and molybdenum.

PROPOSED INDUCED POVIENTIAL SURVEY

Based on the evidence to date, including the geochemical data, it is proposed to run an I.P. survey over the area that appears to offer potential.

The parallel veins to the north have a strike of about S 20 E and hence a base line was laid out having this direction. The baseline starts at a point about 500 feet east of the exploration shaft and runs N 20 W. I.P. lines have been surveyed normal to the baseline and spaced 400 feet spart. The first line has a bearing S 70 W and is some 200 feet south of the exploration shaft. The lines was in length from 1500 to 2200 feet and cover the geochemical anoanaly.

SUBSEARY AND CONCLUSIONS

The Gorilla Group is still only a prospect, but as a prospect it has mark. Based on the favorable locality for copper mineralization, the environment and nature of the mineralization as observed and the results from soil sampling, it is recommended that the proposed I.P. vervey be carried out. Subsequent exploratory work will depend on the results of this survey.

Florence, Arizona. July 15, 1969. Donald L. Anderson, Resistered P.E. State of Washington, No. 04965 (Frofessor Mining Engineering, University of Walnington)

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- Geochemical Geological Composite.

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