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1-10-81

This same model can be found at the MNM Claims, also probably at the Gold Reef & W. Rhen Claims C. of Hwy. 9.

COPPERSTONE
GEOLOGIC SUMMARY

The Copperstone gold deposit is located in an area of flat, dry, sandy terrain with several small knolls about 40 feet high and prominent longitudinal sand dunes. Only 17 outcrops with a total surface area of approximately one acre are exposed. At the southern end of the Copperstone claim block and beyond is exposed an igneous and metamorphic outlier of the Dome Rock Mountains. These rocks include granite, gneiss, schist, quartzite and amphibolite of uncertain age - Precambrian to Jurassic. A low angle fault (detachment?) separates these rocks from an upper plate consisting of a thick sequence of Jurassic age quartz latite welded tuffs (qlt). The upper plate sequence has been affected by weak green schist facies metamorphism in Cretaceous time. This fault probably extends beneath the Copperstone gold deposit, but drilling failed to confirm its presence.

No early prospect pits, shafts or adits were found at Copperstone. Prospecting began in 1968 with bulldozer trenching by a prospector to better expose weak copper mineralization. The property was submitted to Cyprus in 1980, and a lease was signed after initial field evaluation and sampling indicated 0.02 to 0.09 ounce per ton gold in a few small breccia outcrops. During 1981 through 1983 conventional percussion drilling in a 140 foot grid by Cyprus (Amoco Mineral Company) tested the limits of the Copperstone mineralization. Extensive induced polarization and ground magnetic surveys were run. Anomalous frequency effects outlined the gold deposit with considerable accuracy. Drilling from 1984 through 1985 further defined the deposit.

The Copperstone gold deposit is hosted by a thick sequence of foliated to massive and brecciated quartz latite tuffs. These rocks are correlated regionally with the Jurassic volcanics exposed in the Dome Rock Mountains to the south and throughout west-central Arizona. In the deposit area the quartz latite tuffs are at least 900 feet thick based on drilling formation. The tuffs are characterized by variable degrees of foliation defined by segregated bands of quartz - feldspar and sericite, probably developed along original primary laminations in the tuff. The foliations exposed in surface outcrops in the deposit area all dip 30-50° to the southwest. The indurated breccia dike that hosts the main gold zone within the deposit strikes approximately N45W and dips on an average of 30° to the northeast. These breccias continue along strike at least 2,500 feet and down-dip 1,500 feet. The breccias range in thickness from 50 to 200 feet and contain variably altered fragments of quartz latite in a hematite matrix. The main ore zone within the deposit generally occurs along the basal contact of these breccias with the underlying foliated quartz latite tuff. This mineralized zone is defined by an extensive multi-stage hydrothermal breccia zone. Fragments of quartz vein material, quartz latite tuff and earlier developed breccia are contained within a hematite - specularite matrix. Gold mineralization occurs primarily within this hydrothermal breccia zone and in quartz - amethyst veins cutting through the adjacent latite tuffs. Specular hematite, chrysocolla, minor malachite, and barite are the most common accessory minerals with lesser amounts of calcite, siderite, manganese oxide, fluorite, adularia, magnetite,

chalcopryite and pyrite. Multiple episodes of mineralizing hydrothermal events and brecciation occurred at Copperstone.

Mineralizing solutions also formed local zones of alteration in and near the ore zones. Bleaching effects are caused by argillization and sericitization. Local secondary gray-green chlorite as wispy veining and minor chalcedonic silicification with small patches of chalcopryite, pyrite and native gold have been seen. Microscopic examination of a gravity concentrate was made from a floatation concentrate of the ore. About 80 percent of the gold occurs in small flakes ranging between 4 and 40 microns. Coarse gold plates range from 50 to 150 microns. Most gold is free, but a small amount is locked within quartz and iron hydroxides.

The few mineralized outcrops at Copperstone contain highly anomalous gold, silver and copper. Initial sampling found subore and ore grade gold values that led directly to drilling. Several early core holes and a large suite of surface samples were analyzed for a broad spectrum of trace elements in an effort to characterize the deposit.

Copperstone is characterized by high barium, manganese, uranium and low arsenic, antimony, thallium and mercury. Barite and fluorite are most abundant in the extreme southeastern end of the deposit where they occur in massive 4-5 foot veins.

Generally, gold mineralization is sharply defined within the mineralized breccia zone. It markedly decreases over a few tens of feet into hanging wall and footwall rocks where often no gold is detected by atomic absorption analysis. In higher gold grade zones within the deposit, silver values are higher and may provide some recoverable value. Copper ranges up to several percent within the gold zone, mostly as chrysocolla.

SCHEMATIC GEOLOGIC SECTION

SW

NE

DOME ROCK MTNS

COPPER PEAK

COPPERSTONE MINE AREA

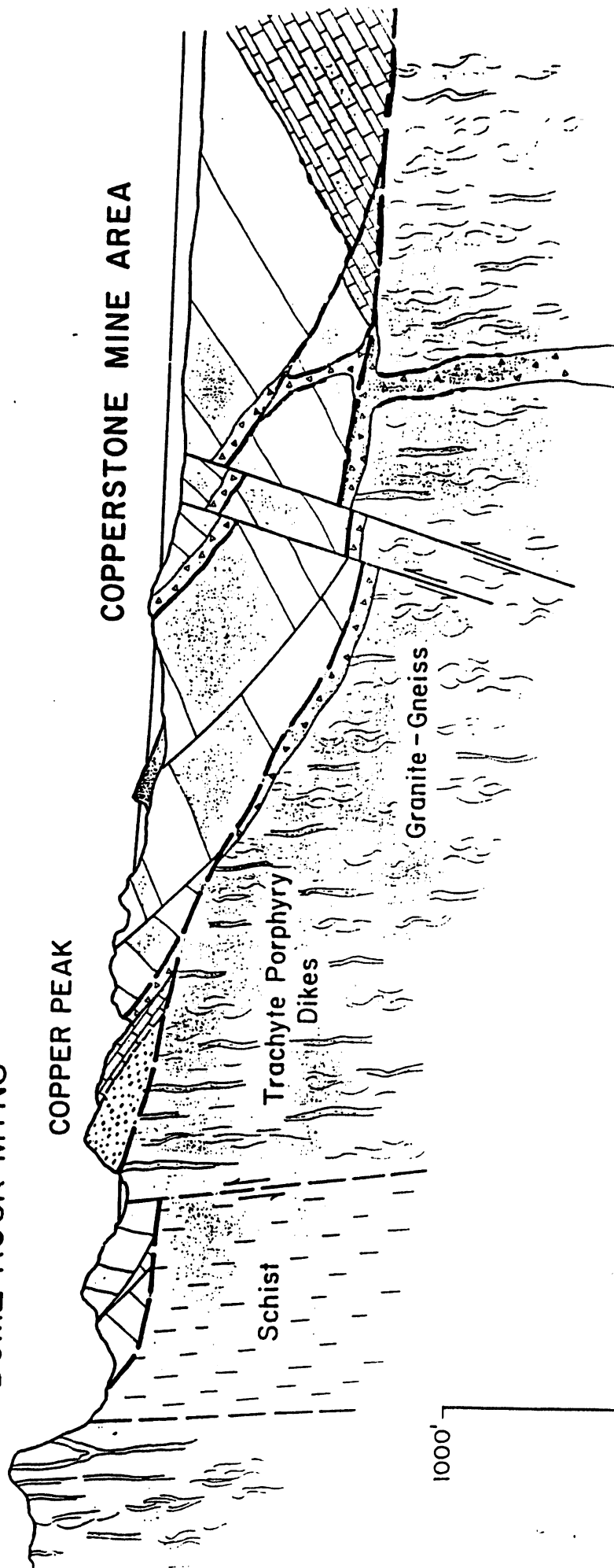
Schist

Trachyte Porphyry

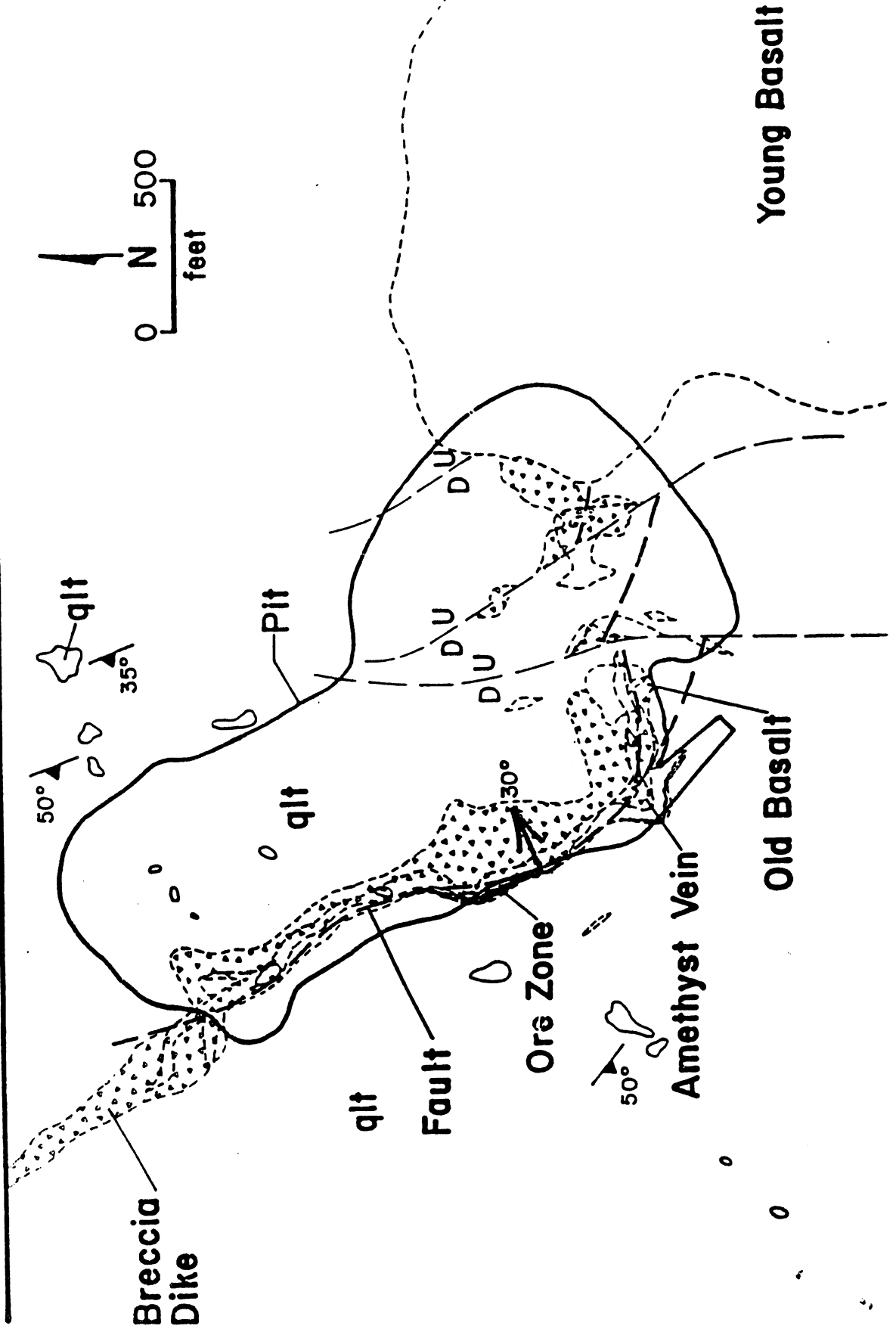
Dikes

Granite - Gneiss

1000'



SUBSURFACE GEOLOGY



MNM GOLD PROSPECT-PLOMOSA MINING DISTRICT-LA PAZ COUNTY, ARIZONA

Introduction

Location of Area

The MNM claims are in western Arizona adjacent to the eastern boundary of the Colorado Indian Reservation boundary and approximately mid-way between Parker and Quartzsite(see location map).

Size of Claim Block

The area of the MNM claim block of unpatented lode locations is nearly one and onehalf miles square. The claims adjoin the southern boundary of Cyprus Minerals Company Copperstone claims and about two miles south of the largest open pit gold mine in Arizona.

Work Completed to Date on MNM Claims

Due to the thin veneer of gravels and blow sand which cover nearly 100% of the MNM area, very limited and only indirect information regarding the composition of rock types and their areal distribution is possible.

Some limited petrographic and geochemical work has been done on rock exposures on the western boundary of the claims.

A ground magnetic survey has also been performed over the entire claim block.

Access

The claims are easily accessible from highway 95 via a six mile dirt road which passes through the Cyprus property.

Summary

Geologically, the MNM claim area is similar to the Copperstone gold deposit. Hematitic-quartz veined quartz porphyry breccias host the gold mineralization at Copperstone. Similar breccias are found at the MNM area and the presence of additional breccia zones beneath the thin veneer of gravel covering most of the area is highly possible.

The following information is available for review:

1. Petrographic results from the MNM claims and the Copperstone orebody.
2. Ground magnetic survey.

Recommendations

The initial drilling at the Copperstone prospect was mostly a step-out grid from the scattered outcropping breccia zones. Later detailed ground magnetic surveys were performed to locate weakly magnetic buried breccias. Although I.P. and gravity surveys were performed, the ground magnetic surveys were found to be the most useful.

Cyprus also successfully used CO₂ gas surveys. From extensive testing, a direct correlation between anomalous CO₂ and gold bearing breccias covered by alluvium was proven.

I would suggest as an initial exploration approach on the MNM claims, additional fill-in ground magnetic surveys. The above-mentioned gas surveys would also work well. Anomalies found by the preceding techniques would then be tested by drilling.

A more direct approach might be to drill along the anomalous drainages which are inferred to reflect fault zones, possibly mineralized with gold.

Geography

Relief and Elevations

The MNM prospect consists of a relatively flat area interrupted locally by N-S dry desert washes. The area lies at the eastern base of the Moon Mountain area and part of the north end of the Dome Rock mountain range.

Elevations range from about 800 to 900 feet above sea level.

Drainage

The area has no permanent flow of water. Summer flash flooding have moderately dissected the gravel benches forming a N-S direction.

Vegetation

The primary growth of this desert area is the creosote bush with lesser amounts of other bushes and cactus such as the saguaro and barrel varieties. In the arroyos, ironwood, mesquite and palo verde trees are found.

Proximity to Population Centers

The claim area is an unpopulated area with only the Copperstone Mine as the nearest neighbor. Quartzite is about 12 miles south of the area and Parker, a larger city, is nearly equidistant to the north via state highway 95.

Geology

Regional

The area surrounding the MNM project is composed of mountain ranges which are not aligned along the regional N-W trend present toward the east and south. Although in a non-aligned pattern, similar rocks such as Mesozoic metasediments, schist, gneiss and crystalline intrusives and Tertiary intrusives are present in both tectonic settings.

The reason for this variation of structural aligned mountain ranges is that the north end of the Dome Rock Mountains within which both MNM and Copperstone are located was subjected to a different type of tectonism which altered the NW trend as large blocks of the Moon Mountains were detached or dislocated from their original location by means of large scale gravity gliding eastward and northeastward. Some of the detached blocks were subsequently buried beneath varying thicknesses of alluvium.

The rocks composing the Dome rock mountains(north) consist of Mesozoic metasedimentary, metavolcanic, igneous and metaigneous rocks which have been intruded by late Tertiary andesite and granite. Quaternary basalt flows cap low lying hills locally.

Structurally, the mountains of the area are bounded by high angle Basin and Range faults, however the low angle thrust faulting of the Dome Rock Mountains predates the Basin and Range faulting. This low angle faulting is responsible for the migration of detached blocks of rock from the Moon Mountains onto the Copperstone claims(hosting the orebody) and the MNM claims potential gold zones.

MNM Prospect Geology

As previously mentioned, only a small portion of the MNM claims have exposed rock outcrops. These outcrops are confined to the western edge of the claims and represent the eastern margin of the Moon Mountain area of the Dome Rock Range.

Petrographic work was done on four rock types. The following is a brief summary:

1. Sheared granodiorite-quartz latite(porphyry?)
2. Quartz Monzonite gneiss
3. Andesite
4. Breccia-silicified volcanic(?) and vein quartz with repeated crushing, cementing by hematite and quartz.

The complete petrographic analysis is available upon request.

Structure

A photogeologic interpretation of the MNM claims indicates a mostly N-NW structural trend. Geomorphic linear drainage patterns visible on photos are in my opinion a reflection of mostly N-S trending sub-parallel fracture system in the bedrock below the relatively thin overburden. The N-S fracture system is interpreted to be faults resulting from the eastward movement of detached blocks of varying rock types.

Geochemistry

Although only five geochemical samples have been taken on the MNM claims, results definitely indicate that anomalous gold and copper are present(see geochemical map). Further testing to determine if economical amounts of gold are within either host rocks or structures would seem to be a logical next step for these claims.

Other than the western margin of the claims along the Colorado River Indian Reservation boundary, no rock outcrops were observed eastward. The gravels that cover part of the area and some blow sand would probably not be an effective geochemical sampling medium for soil. The gravel originated as outwash from an ancestral lobe of the Gulf of California therefore probably not a suitable carrier of trace elements from bedrock. It was locally observed however that small deposits of

spring water deposited lime is found within the gravels. This may have originated from buried blocks of limestone and may worth sampling.

Cyprus conclusively proved that there is a definite correlation between buried gold bearing breccia zones and anomalous CO₂ detected in gas collector cups buried a few feet below the surface. This gas testing would be effective for delineating drill target sites.

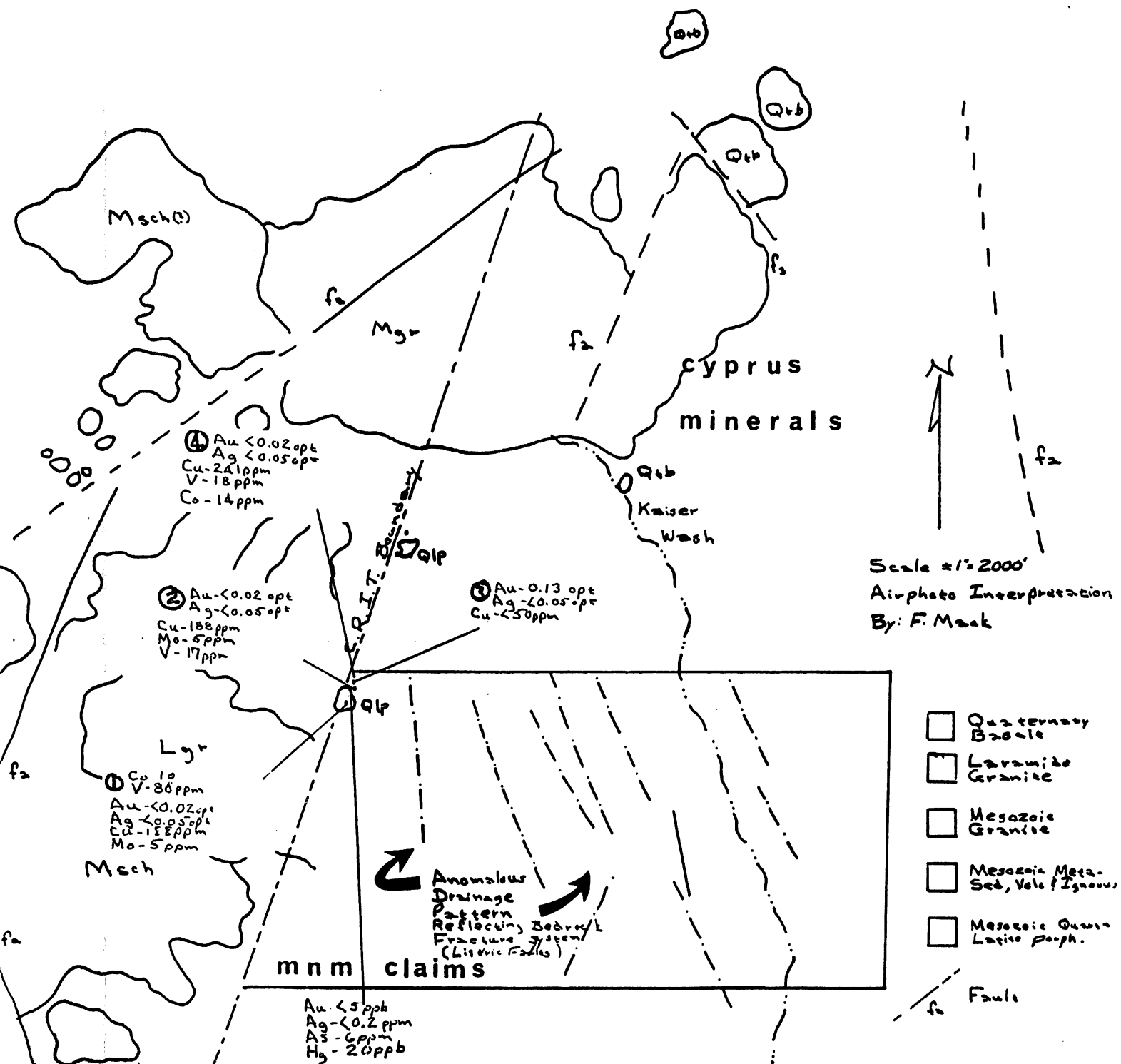
Geophysics

A wide spaced ground magnetic survey has been performed over the MNM claims. A total of 60,750 feet or 11.5 miles were magnetically surveyed. Spacing of readings along the N-S lines were 20 feet. The Distance between the sixteen N-S lines is 600 feet.

The survey was to determine magnetic profiles of the area. Several anomalous areas appear to reflect bedrock fault zones. The next phase of the magnetic surveying will be fill-in work enabling the construction of a contour map.

La Paz County - Arizona

A diagram of a vertical, irregularly shaped object, possibly a cross-section of a biological specimen. A horizontal arrow points from the left towards the object, indicating a direction of force or measurement.



DIRECTIONS TO THE MNM CLAIMS & COPPERSTONE AREA-LA PAZ COUNTY-ARIZONA

From Quartzite, Arizona(on Interstate 10)

North on Arizona state highway 95 about ten miles.

Proceed to mile post 121 then 0.7 miles further.

Turn west or left and enter wire gate, it should not be locked.

This is a dirt road, fairly well graded, sandy in places.

Westward and a little north, you can see the Copperstone project about 4 miles away.

Drive westward about 4.5 miles about where the road splits.

One branch goes NW to Copperstone and the one west goes toward the small mountain area. Go west toward the mountains for about 0.5.

After the road reaches the base of the mountain, it will skirt in a southwesterly direction, the base of the mountain. My claims are about 1.5 miles further south-southwest. You will pass another

wire gate. The remainder of the route is difficult to explain as there are quite a few roads winding throughout the area. The Cyprus claim posts are 4' high, 4" PVC plastic pipe. My claim posts are wood, 4' high and 2"x2" and painted white. A pickup or four wheel drive will get to paractically any part of my claim block. The gravel ridges will permit to some of the claims by car.

From Parker Arizona, take state highway 95 south, turn on 95 at Junction of Route 72 to Quartzite-Interstate 10 and drive to mile post 122 and drive 0.3 miles further. This is the gate previously described, turn right or west and follow above instructions.

Copperstone Mine Statistics

Proven Reserves- 6 million tons. 2.5 million more probably tons(10 yr. life)

Ore grade- 0.09 ounces per ton of gold

Open pit mine dimensions- 4,000' X 2000' and 300' deep

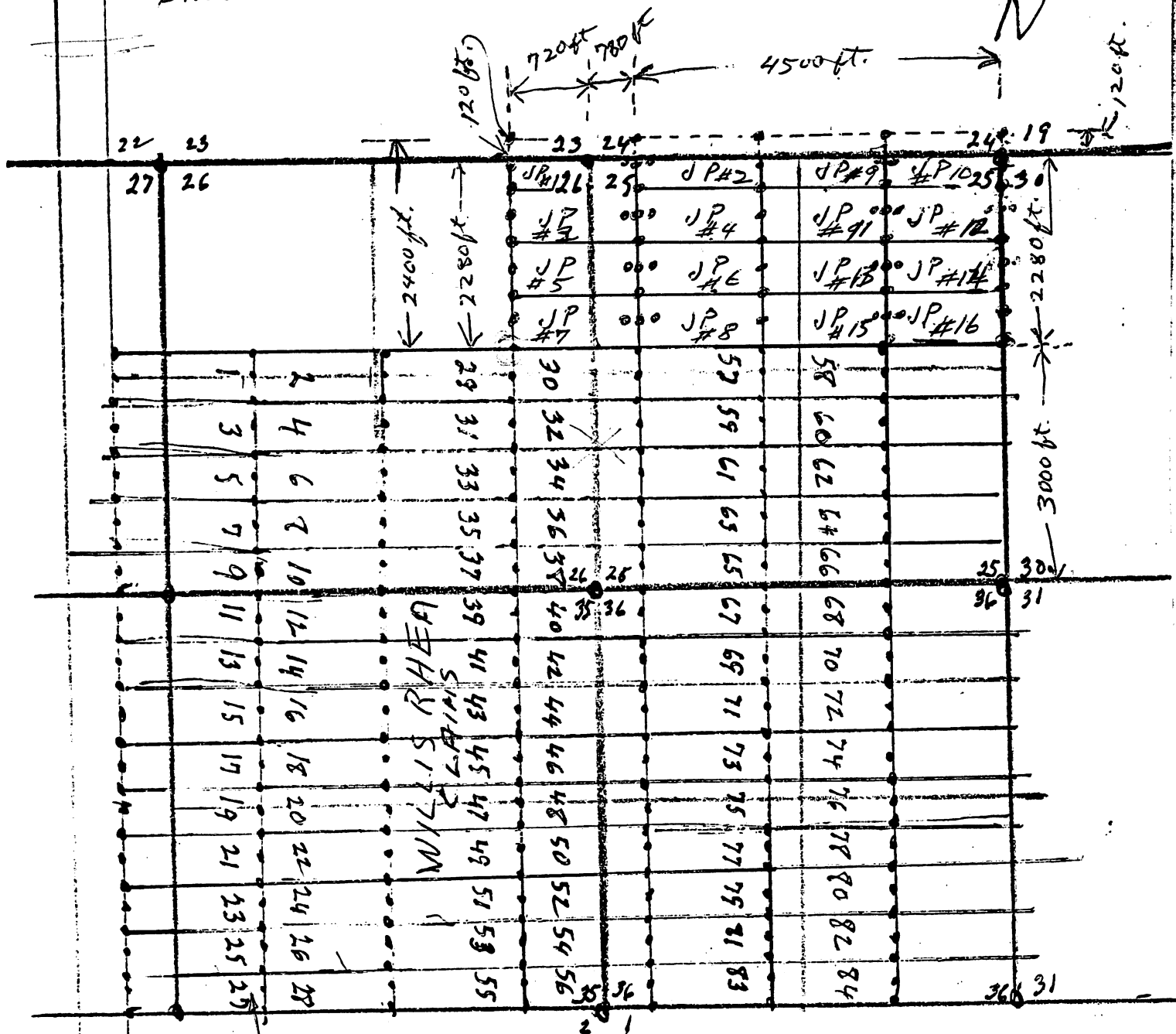
Gold content- about 600,000 ounces

Planned production rate- 2,300 tons per day

@60,000 ounces per year, @95% recovery, Cost to produce one ounce of gold-\$200, a net profit per year will be about \$11,400,000.

La Paz County.
T6N R19W

↑



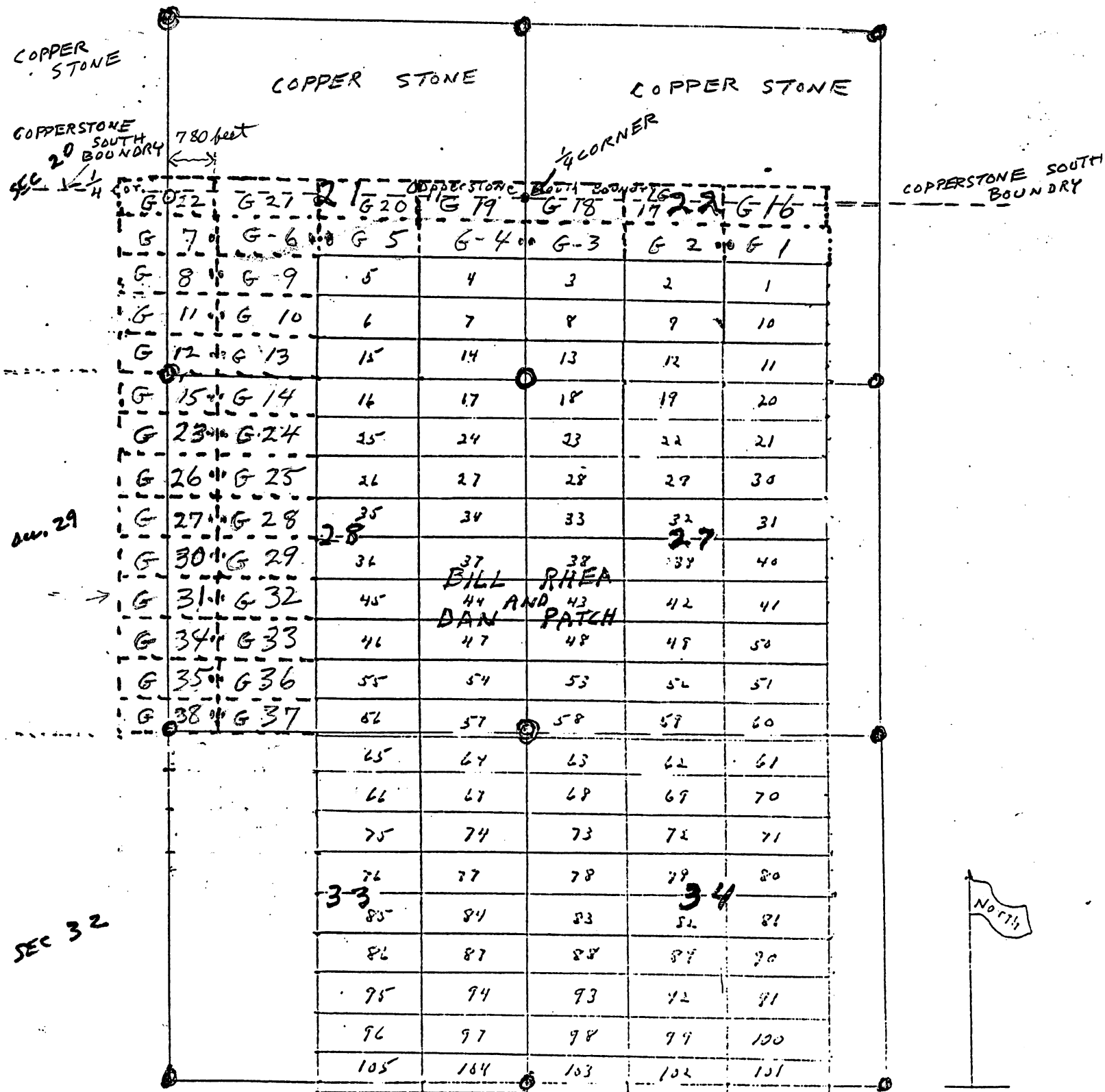
lease expires
if 2 holes not
drilled by 5/31/88
another 28 days.

Gold Reef Lode Mining Claims

Sections 21, 22, 27, 28, 33, 34 Township 6 N. Range 19 W. G.S.R.B.M.
LA PAZ COUNTY ARIZONA

Locators Bill Rhea and Dan Patch

(TOWNSHIP 6 N RANGE 19 W GSRBM.)



G = GAMBLER

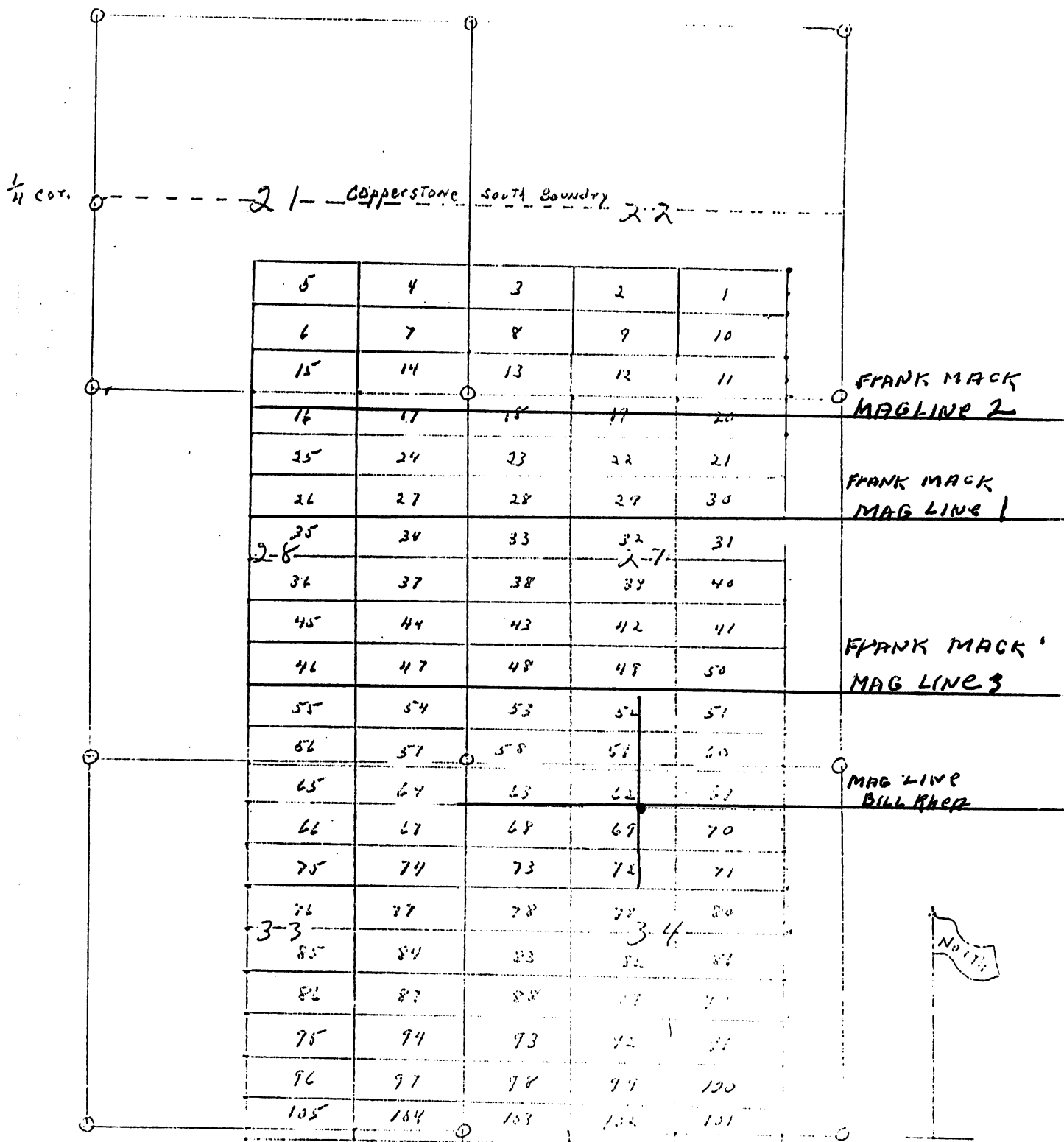
SCALE 1" = 2000'

Drawn by Dan Patch
11/1/85

Gold Reef Lode Mining Claims

Sections 21, 22, 27, 28, 33, 34 Township 6 N. Range 17 W. G. 1 S. 1 E.
La Paz County Arizona

Locators Bill Rhea and Van Rhee



SCALE 1" = 2000'

DRAWN BY J. H. RHEA
11/1/12

EXTENSION LODE CLAIMS

SECTION 26-25-35-36

TOWNSHIP 6N RANGE 19W

LA PAZ COUNTY, ARIZONA

LOCATOR: WILLIS V. Rhea



22 23 24 19
27 26 25 30

		58	60	62	64	66	68	70	72	74	76	78	80	82	84
		57	59	61	63	65	67	69	71	73	75	77	79	81	83
						26	25	36							
		30	32	34	36	38	40	42	44	46	48	50	52	54	56
		29	31	33	35	37	39	41	43	45	47	49	51	53	55
		2	4	6	8	10	12	14	16	18	20	22	24	26	28
		1	3	5	7	9	11	13	15	17	19	21	23	25	27
						27	26	35							
						34									

25 30
36

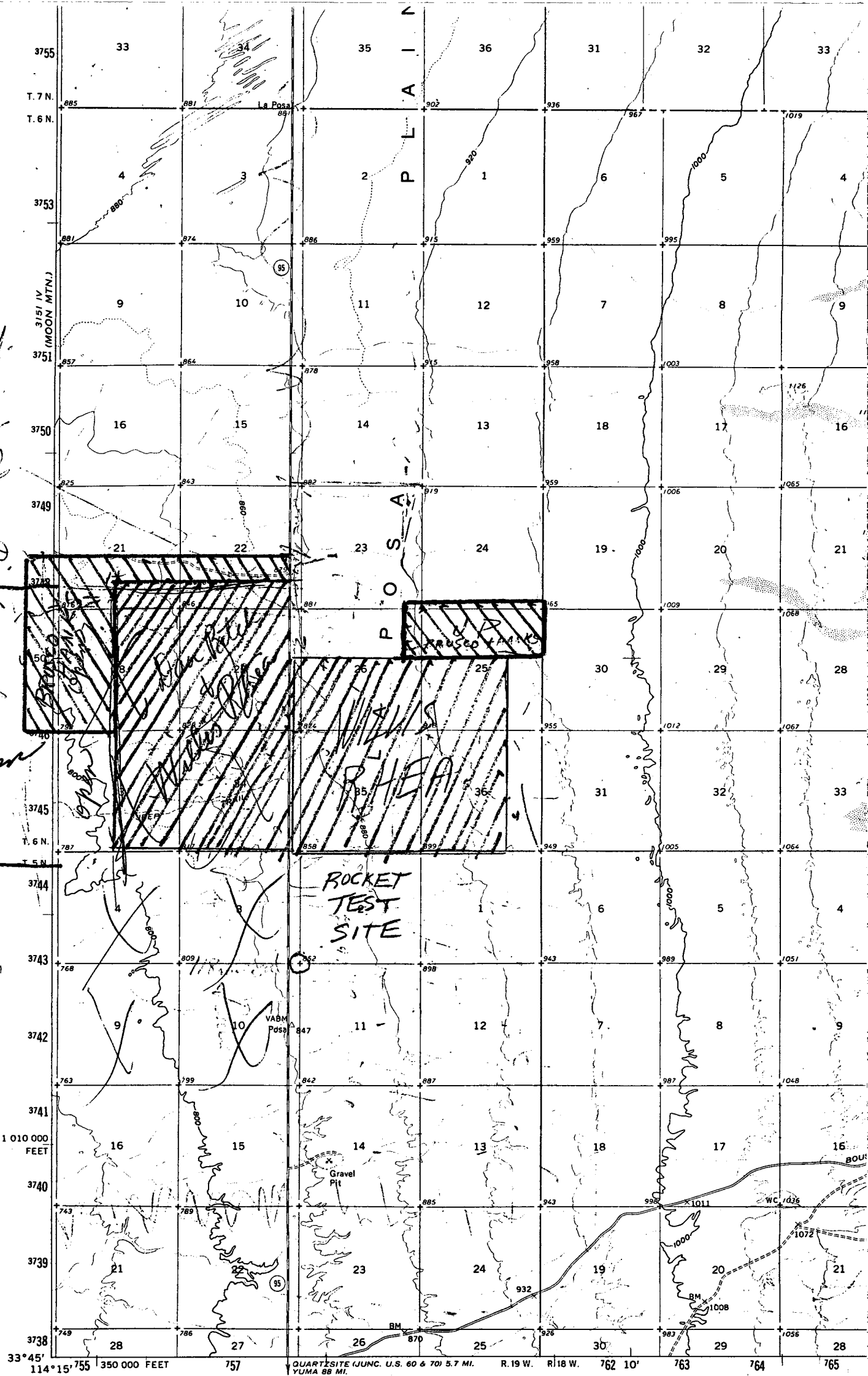
36 31

STATE LAND

2

HWY 95

POWER LINE
RIGHT OF WAY FENCE

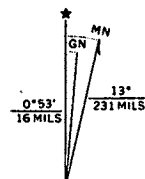


Mapped, edited, and published by the Geological Survey
Control by USGS and USC&GS

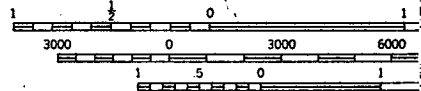
Topography by photogrammetric methods from aerial
photographs taken 1951 and 1960. Field checked 1962

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, west zone
1000-meter Universal Transverse Mercator grid ticks,
zone 11, shown in blue

Where omitted, land lines have not been established



UTM GRID AND 1962 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET



CONT.
DOTTED LINE
DATE

THIS MAP COMPLIES
FOR SALE BY U. S. GEOLOGICAL SURVEY
A FOLDER DESCRIBING TOPOGRAPHY

MINEX COMPANY

P. O. BOX 1949
GLENDALE, AZ 85311
(602) 931-1038

May 08, 1988

Hugo Dummett
WESTMONT MINING CO.
2341 South Friebus, Ste.#12
Tucson, Arizoan 85713

RE: WELL IN T6N R19 & 20W

Dear Hugo,

Pursuant to your direction, we have researched the Arizona Department of Water Resources for the existance of water or exploration drill holes in the captioned lands.


The two (2) well logs, hereto attached, are for the most Southerly of the wells. These are Cyprus Copperston's water supplies.

Other drill holes, mineral exploration or water, exist in Sections 2, 4, 6, 7, 12, 17, 22 & 23, T6N, R19W; and Sections 1, 11, 12, 14, 16, 26 & 27, T6N, R20W. In Section 12, T6N, R20W, Cyprus did not file the logs for their mineral exploration holes.

If you have any questions or desire additional information, please do not hesitate to contact us.

Very truly yours,

MINEX COMPANY



James A. Hutchison
President

enclosures.

STATE OF ARIZONA
DEPARTMENT OF WATER RESOURCES
99 EAST VIRGINIA AVENUE
PHOENIX, ARIZONA 85004

WELL DRILLER REPORT

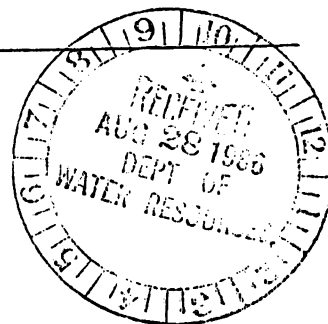
This report should be prepared by the driller in all detail and filed with the Department within 30 days following completion of the well.

1. Owner CYPRUS MINERALS CO
Name
7200 S. ALTON WAY, ENGLEWOOD, COLORADO 80155
Mailing Address

2. Driller B-J DRILLING COMPANY, INC.
Name
P.O. BOX 815, BENSON, ARIZONA 85602
Mailing Address

3. Location of well: TWP. 6N., RGE. 19W., SECTION 3: NE $\frac{1}{4}$, NE $\frac{1}{4}$, NE $\frac{1}{4}$

4. Permit No. 55-514525
(if issued)



DESCRIPTION OF WELL

5. Total depth of hole 640 ft.
6. Type of casing STEEL
7. Diameter and length of casing 10" in. from +1' to 23', 8 in from +16" to 640'.
8. Method of sealing at reduction points CEMENTED
9. Perforated from 548 to 580, from 580 to 600, from 600 to 640.
48 SL/FT from 580-600
10. Size of cuts .125 x 3 Number of cuts per foot 24 SL/FT 548-580 & 600-640
11. If screen was installed: Length ft. Diam in. Type
12. Method of construction DRILLED
drilled, dug, driven, bored, jetted, etc.
13. Date started 7/08/86
Month Day Year
14. Date completed 7/11/86
Month Day Year
15. Depth to water STATIC @ 499 ft. (If flowing well, so state.)
16. Describe point from which depth measurements were made, and give sea-level elevation if available TOP OF CASING
17. If flowing well, state method of flow regulation:
18. Remarks:

DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Registration No. 55-514525
Received By
Entered By
File No. B(6-19)3 aaa

ENTERED SEP 02 1986

LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

[illegible]

I hereby certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein contained are true to the best of my knowledge and belief.

Driller Robert J. Jackson

Driller

Name
B-J DRILLING COMPANY, INC.
P.O. BOX 815

Address

BENSON, ARIZONA 85602
City State Zip

Date 8/25/86

STATE OF ARIZONA
DEPARTMENT OF WATER RESOURCES
99 EAST VIRGINIA AVENUE
PHOENIX, ARIZONA 85004

WELL DRILLER REPORT

This report should be prepared by the driller in all detail and filed with the Department within 30 days following completion of the well.

1. Owner CYPRUS MINERAL CO
Name
7200 S. ALTON WAY, ENGLEWOOD, COLORADO 80155
Mailing Address

2. Driller B-J DRILLING COMPANY, INC.
Name
P.O. BOX 815, BENSON, ARIZONA 85602
Mailing Address

3. Location of well: TWP. 6N, RGE. 19W, SECTION 22: SE $\frac{1}{4}$, NE $\frac{1}{4}$, SE $\frac{1}{4}$

4. Permit No. 55-514526
(if issued)

DESCRIPTION OF WELL

5. Total depth of hole 657 ft.

6. Type of casing STEEL

7. Diameter and length of casing 10" in. from + $\frac{1}{2}$ ' to 20 $\frac{1}{2}$ ', 8 1/8" in from +1' to 657.

8. Method of sealing at reduction points CEMENTED

9. Perforated from 545 to 637, from 637 to 657, from _____ to _____.

10. Size of cuts .125 x 3 Number of cuts per foot 24 from 545-637
48 from 637-657

11. If screen was installed: Length _____ ft. Diam _____ in. Type _____

12. Method of construction DRILLED
drilled, dug, driven, bored, jetted, etc.

13. Date started 6/28/86
Month Day Year

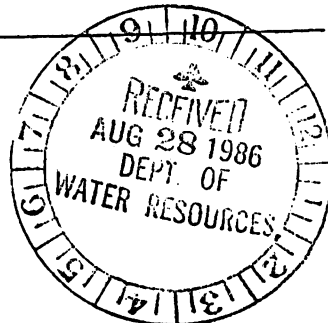
14. Date completed 7/02/86
Month Day Year

15. Depth to water 527' STATIC ft. (If flowing well, so state.)

16. Describe point from which depth measurements were made, and give sea-level elevation if available TOP OF CASING

17. If flowing well, state method of flow regulation: _____

18. Remarks: _____



DO NOT WRITE IN THIS SPACE
OFFICE RECORD
Registration No. 55-514526
Received _____ By _____
Entered _____ By _____
File No. B(6-19)22 dad

ENTERED SEP 02 1986

LOG OF WELL

Indicate depth at which water was first encountered, and the depth and thickness of water bearing beds. If water is artesian, indicate depth at which encountered, and depth to which it rose in well.

[illegible]

I hereby certify that this well was drilled by me (or under my supervision), and that each and all of the statements herein contained are true to the best of my knowledge and belief.

Driller

Robert A. Jackson

B-J DRILLING COMPANY, INC.
P.O. BOX 815

Address

BENSON, AZ 85602
City State

Zip

Date 8/25/86

DRILL HOLE DATA

T6N R19W

<u>SEC</u>	<u>REG NO</u>	<u>MX/WATER</u>
4	55-509261	MX
6	509488	MX
7	509487	MX
12	513137	MX
17	509934	MX
22	516871	WATER - Dry 650'
22	517883	WATER
22	517526	WATER
22	514525	WATER
23	520197	WATER

T6N R20W

<u>SEC</u>	<u>REG NO</u>	<u>MX/WATER</u>
1	55-509260	MX Goldfields
11	519477	MX "
12	509337	MX Amoco
12	509336	MX "
12	517141	MX Cyprus
12	518329	MX "
12	519478	MX "
12	514220	WATER "
13	519476	MX "
14	507506	MX "
16	509489	MX Goldfield
26	518507	MX Cerro DE C MINING
27	518506	MX "

December 31, 1987
8655 East Phillips Avenue
Englewood, CO 80112

Mr. William Rhea
Star Route, Box 24
Salome, Arizona 85348

Dear Bill:

Please find enclosed some information on my MNM claims located on the south boundary of Cyprus Minerals Copperstone claims.

In addition to this report, I have:

1. Geology-Assay drill log from hole drilled on the western edge of my claims.
2. North-South and East to West ground magnetic profiles.
3. Petrographic and geochemical results from Phelps Dodge.

If anyone you show the property to has interest in any of the above data, just call my home and my wife will mail it off to the interested party

Very truly yours,



Frank Mack