CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
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Tucson, Arizona 85701
602-771-1601
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inquiries@azgs.az.gov

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QUALITY STATEMENT

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D.K. MARTIN & ASSOCIATES
Mining Development & Administration
4728 N. 21st Avenue
Phoenix, Arizona 85015

"B R X" PROCESS

A BRIEF SUMMARY

(602) 246-9573

"BRX" PROCESS
A Brief Summary

It is generally known in the mining industry, the conventional method smelting establishments in Arizona (the majority being copper reduction facilities), a measurable amount of precious metals are lost due to the fluxing formulation for the primary ore, and the burning of the ultra fine precious metal particles, a small portion of this "lost" metal is collected at a later time when many ounces are retrieved from the flues and stacks each year.

BRX Minerals Company has developed a metalurgical process of smelting ores for silver and gold using a formulated flux and a proven method of inquarting silver as a collector, capturing the fine particles of precious metal previously lost with conventional methods.

Two and one-half years have been devoted to the development of this process. Numerous tests, verifying reliability and recovery on particular ores have been conducted with very encouraging results. A demonstration of the process will be accomplished for those who are capable of handling a project of this magnitude.

Charges (bulk samples) ranging in size from one assay ton up to and including 40 pounds, produced results ranging from 200 ounces silver to 700 ounces silver per ton, on ores and concentrates which fire assayed from 20 ounces to 80 ounces silver per ton.

Attached are copies of assays made by independant laboratories showing lo-grade ore and the results using the BRX method. One test shows ore of only 2.23 ounces silver per ton by standard fire assay resulting 408.5 ounces silver per ton recovery using the BRX Process.

TABLE 1

Sample #		Dore' % Silver	Calculated Oz/ton Silver
61	Tailings from Pond	96.40	570.34
62	" " "	91.95	2203.84*
63	" " "	97.85	572.63
64	" " "	97.10	647.85
65	Spanish Mine Dump	98.20	1146.51
66	" " "	99.10	1113.68
67	" " "	95.20	1701.10*
87A**	" " "		920.00*
88A**	" " "		980.00
89A**	" " "		1140.00
90A**	" " "		1480.00
91A**	" " "		960.00
92A**	" " "		1120.00
37	Concentrated Tailings	95.25	377.63*
38	" "	94.00	2097.02
42	" "	94.18	2422.64
43	" "	93.73	1898.71
44	" "	96.51	1254.94
45	" "	89.51	2872.38*
46	" "	92.43	1373.05
47	" "	97.47	595.48*
50	" "	95.44	1304.24
53	" "	90.00	1093.31
54	" "	96.00	1573.04
55	" "	96.60	1054.52

AVERAGES (less highest & lowest)*

Tailings From Pond	596.94 ounces Silver per ton
Concentrated Tailings	1563.50 ounces Silver per ton
Spanish Mine Dump	1134.31 ounces Silver per ton

** 15 gm (1/2 assay ton fluxed sample, cupelled weight

The average grade of ore on the above tailings and dump as reported by Asarco, Magma Copper Company and North American Laboratories, using fire assay methods, is as follows:

Tailings from Pond	0.079 oz. Ag
Spanish Mine Dump	0.066 oz. Ag
Concentrated Tailings	2.478 oz. Ag

NORTH AMERICAN LABORATORIES, INC.

M E M O R A N D U M

TO: Mr. Doug Martin

FROM: Jim Anderson, Laboratory Director

DATE: December 11, 1984

SUBJECT: Investigation of Process, Materials Provided by Mr. Walter Knott

1. As requested by the client, materials supplied by Mr. Knott have been assayed, and an assay has been conducted by Mr. Knott's special procedure. The materials consisted of a flux of unknown composition, a sample of silver ore, and silver chloride. Results are reported below.

Assay of Flux provided by client -

(1Assay Ton, Standard Procedure)
Dore' = 2.113 mg
Inquart = 1.88 mg

0.233 oz/ton Ag

Assay of Ore -

(1 Assay Ton, Standard Procedure)
Dore' = 4.606 mg
Inquart = 1.88 mg

2.726 oz/ton Ag

Assay of Silver Chloride provided by client -

(39.861 g AgCl = 30.000 g Ag)
(39.861 g AgCl fluxed and assayed)
Dore' = 29.701 g

$\frac{29.701}{30.000} \times 100 = 99.0\%$ of theoretical yield

Clients Procedure -

(30 g of ore, 75 g special flux, 39.861 g AgCl, mixed, fired 1 hour at 1850°F, cupel,)
Dore' = 29.827 g
Ag from AgCl = 29.701 g

0.126 g

Analysis of dore': Ag from AgCl = 99.97%
Ag from Special Procedure = 99.98%

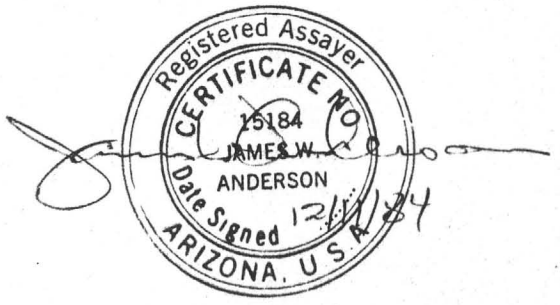
Mineral and Water Analysis

1022 West 23rd Street•Tempe,Az.85282•(602)894-0919

2. The results of the analyses show a higher recovery of silver by the client's special procedure. However, in the writer's opinion, the difference is within the range of analytical precision one might expect when treating such large amounts of silver and does not necessarily indicate a better recovery by the special procedure.

3. One assay is not sufficient to establish any trend. The clients special procedure should be conducted several times to establish whether or not the additional silver recovery is consistent.

4. The writer's opinion is that the special procedure does not recover silver in amounts which would not be revealed by other analytical techniques.



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Assay of Flux provided by client -

(1 Assay Ton, Standard Procedure)
Dore' = 2.228 mg
Inquart = 1.88 mg

0.348 oz/ton Ag (Au = <.001 oz/ton)

Assay of Ore -

(1 Assay Ton, Standard Procedure)
Dore' = 4.110 mg
Inquart = 1.88 mg

2.230 oz/ton Ag (Au = <.001 oz/ton)

Assay of Silver Chloride provided by Client -

(39.861g AgCl = 30.000g Ag)
(39.861g AgCl fluxed and assayed)
Dore' = 30.7797g
Dore' Fineness = 95.508% (Au = <.0001%)
Dore' Ag = 29.397g

$\frac{29.397}{30.000}$ x 100 = 97.99% of theoretical yield

Clients Procedure -

(29.2 of ore, 75g of special flux, 39.861g of AgCl, mixed, fired 1 hour at 1850°F, cupelled)
Dore' = 29.8666g
Dore'Fineness = 99.796% (Au = <.0001%)
Dore'Ag = 29.8055g

$\frac{29.8055}{30.000}$ x 100 = 99.796% of theoretical yield.

Registered Assayer CERTIFICATE NO. 15184 JAMES W. ANDERSON Date Signed 1/14/85 ARIZONA, U.S.A.

Calculations for North American Laboratories:

14 January 1985

Dore @ 99.796 pure	29.9055 g
Inquart @ 97.99 pure	29.397 g
GAIN	0.4085 g

408.5 oz Ag per ton

11 December 1985

Dore @ 99.98	29.827 g
Inquart @ 99.97	29.701 g
GAIN	0.126 g

126.0 oz Ag per ton

ASARCO

Southwestern Ore Purchasing Department
A. J. Kroha
Manager
J. N. Lambe
Assistant Manager

September 24, 1982

Mr. Walter Knott
Golden State Mining
Box 688
Payson, AZ 85541

Dear Mr. Knott:

Our El Paso Plant has assayed your sample and reported the following results:

Gold	.03 opt
Silver	-
Lead	0.2%
Silica	71.0%

MID'S

This is to advise that we have no interest in similar material at this time; however, thank you for considering Asarco.

Yours very truly,

A. J. Kroha

AJK:sp

MAGMA COPPER COMPANY
Superior Division
ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 9/25 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
	"CONCTS"	0.70	16.40	38.20				

from table #2 mids from 1st table

MAGMA COPPER COMPANY
Superior Division
ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 10/2 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	TABLE TAILS #1	0.05	0.05	0.01				
2	TABLE TAILS #2	0.05	0.10	0.12				
3	#2 TABLE MIDS. #2	0.05	0.10	0.50				

S. M. Kalal

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 7/25 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% Pb			
944	LITTLE DAISY MINE		0.20	0.13				
945	SPANISH MINE	0.10	0.10	0.02				
946	SPANISH MINE	0.20	0.50	0.15				
947	SPANISH MINE	0.10	0.30	0.06	0.3			
948	SPANISH MINE		0.10	0.04				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 8/2 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	TAILS		0.10	0.02				
2	MIDS - S.P.		0.10	0.02				
3	MIDS - DAISY		0.10	0.04				
4	MIDS - RERUN OF #3 - 1 TRACE		1.20	0.82				
5	" " - 2 TRACES		2.60	1.12				
6	DAISY Pink granite		0.10	0.004				
7	DAISY Brown "		0.10	0.01				
8	DAISY Hill		0.10	0.02				
9	TAKEN FROM CLAIMS AT VERY Top of MOUNTAIN ABOVE DAISY		0.10	0.01				

L. M. Kalaf
CHIEF CHEMIST

SC-1005

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Clients Procedure -

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MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 9/25 1978

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from table #2
mids from 1st table

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 10/2 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	TABLE TAILS #1	0.05	0.05	0.01				
2	TABLE TAILS #2	0.05	0.10	0.12				
3	#2 TABLE MIDS. #2	0.05	0.10	0.50				

S. M. Kalaf

ASARCO

Southwestern Ore Purchasing Department
A. J. Kroha
Manager
J. N. Lambe
Assistant Manager

September 24, 1982

Mr. Walter Knott
Golden State Mining
Box 688
Payson, AZ 85541

Dear Mr. Knott:

Our El Paso Plant has assayed your sample and reported the following results:

Gold	.03 opt
Silver	-
Lead	0.2%
Silica	71.0%

MID'S

This is to advise that we have no interest in similar material at this time; however, thank you for considering Asarco.

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A. J. Kroha

AJK:sp

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT — DATE 7/25 — 1978

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MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT — DATE 8/2 — 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	Tribe		0.10	0.02				
2	MINE - S.W.		0.10	0.02				
3	MINE - DAISY		0.10	0.04				
4	MINE - RAISE #3 - 1 TRACE		1.20	0.82				
5	" " - 2 TRACES		2.60	1.12				
6	Daisy Pink granite		0.10	0.004				
7	Daisy Green "		0.10	0.01				
8	Daisy Float		0.10	0.02				
9	TAKEN FROM CLAIMS AT VALLEY TOP OF MOUNTAIN ABOVE DAISY		0.10	0.01				

L. M. Kalaf
CHIEF CHEMIST

SC-1005

MAGMA COPPER COMPANY
Superior Division
ASSAY CERTIFICATE 'A'

WALLY

DATE 5/30 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	} AFTER AMALGAMATION	0.75	6.60	3.30	rerun over 1 table			
2	} SULFIDES ONLY	0.00	22.90	3.98	" " 2 tables			
3	LITTLE DAISY. J&C #2	0.95	46.20	10.65				

MAGMA COPPER COMPANY
Superior Division
ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 6/28 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% SiO_2	% Al_2O_3	% Pb	% ZN
918	LITTLE DAISY (East side of ore hopper)	0.05	0.10	0.08			0.0	0.2
919	" "	0.10	0.80	1.02			0.2	0.2
920	" "	0.05	0.05	0.02			0.0	0.2
921	" " (West side Dump) (Dump)	0.05	0.10	0.03			0.0	0.2
922	" "	0.05	0.05	0.01			0.0	0.1
[illegible]	" "	0.05	0.05	0.01			0.0	0.1
924	" " } Above	0.05	0.20	0.03			0.0	0.1
925	" " } Daisy	0.05	0.15	0.05			0.0	0.2
926	SPANISH MINE NEAR SHAFT	0.10	0.05	0.10	78.6	6.6	0.0	0.2
927	" " DUMP	0.05	0.10	0.005	77.8	7.5	0.0	0.1
928	[illegible] " LARGE VEIN	0.05	0.05	0.01	82.6	1.9	0.0	0.1
929	GOLDEN RULE DUMP	0.05	0.20	0.03			0.0	0.1
930	LITTLE DAISY MILL NEAR PILE	0.05	0.10	0.02			0.0	0.1
931	LITTLE DAISY	0.05	0.20	0.05			0.0	0.1
932	LITTLE DAISY MINE WATER TANK	0.05	0.05	0.02			0.0	0.1

#23 should be drill on road [illegible]

S.M. Kalal

D.K. MARTIN & ASSOCIATES

Mining Administration
and
Development

4728 North 21st Avenue
Phoenix, Arizona 85015
(602) 246-9573

DOUG MARTIN

LITTLE DAISY MINE GROUP

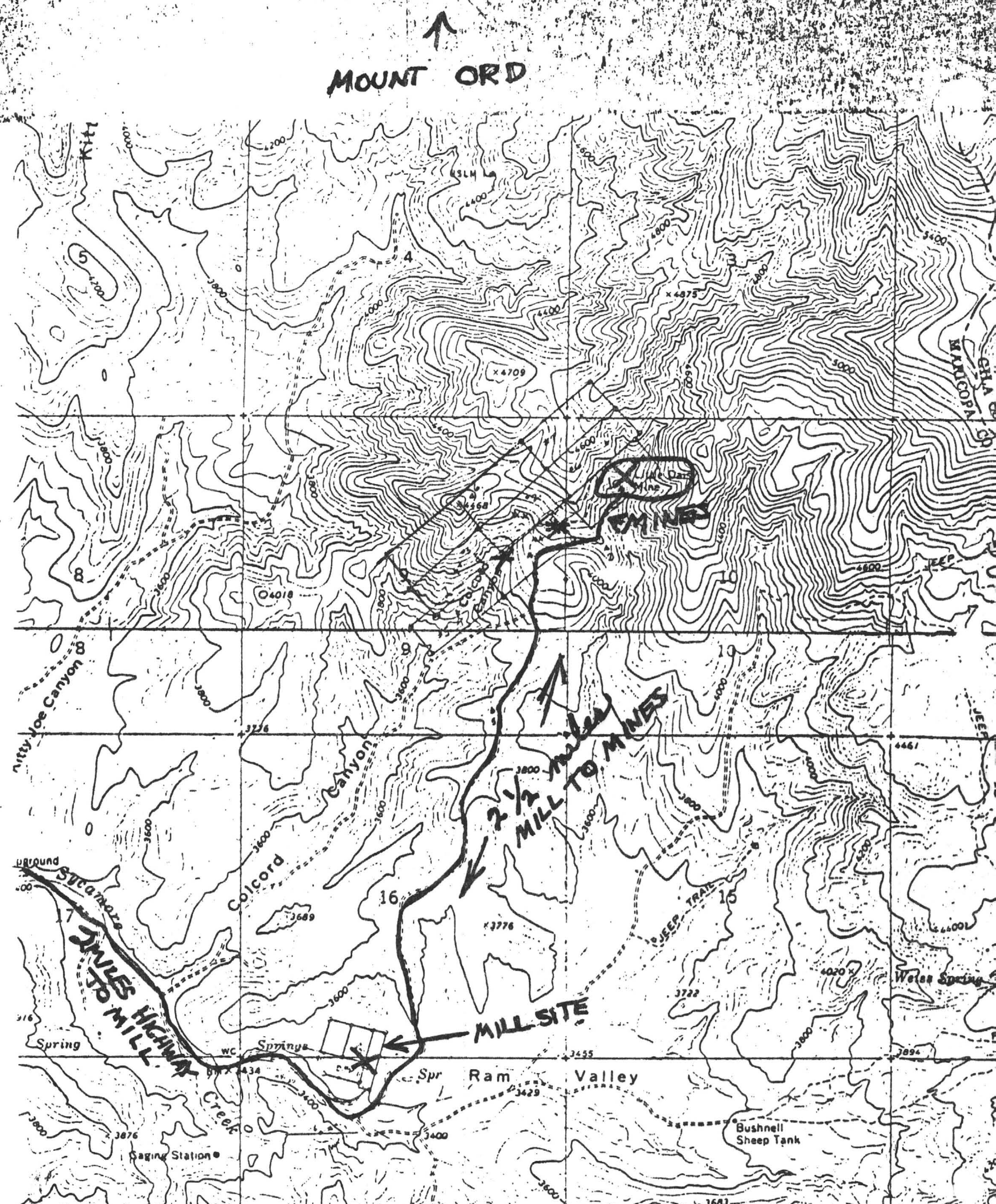
SUNFLOWER DISTRICT

TONTO NATIONAL FOREST

MARICOPA COUNTY

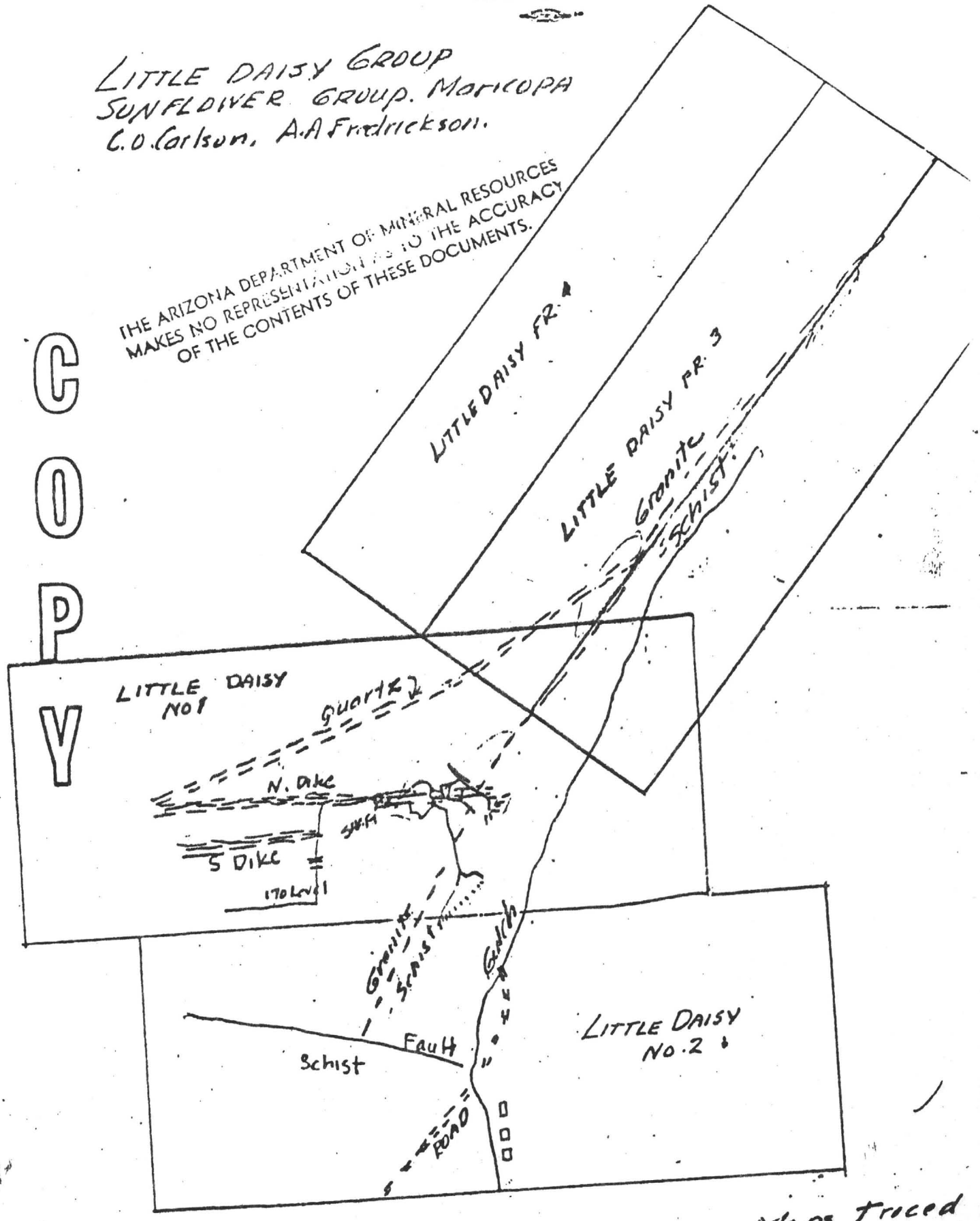
ARIZONA


LITTLE DAISY GROUP
COCONINO
YAVAPAI
MARICOPA
PINAL
Flagstaff
Williams
Seligman
Ash Fork
Red Lake
Winslow
Leupp
Leupp Corner
Two Guns
Canyon Diablo
Winona
Sedona
Clarkdale
Jerome
Cottonwood
Cornville
Camp Verde
Rimrock
Prescott
Chino Valley
Skull Valley
Kirkland
Kirkland Jct.
Hillside
Camp Wood
Simmons
Paulden
Perkinsville
Mayer
Humboldt
Dewey
Cordes
Cordes Jct.
Dugas
Crown King
Bumble Bee
Black Canyon City
Rock Springs
New River
Cave Creek
Carefree
Wickenburg
Congress
Yarnell
Stanton
Octave
Wagoner
Peeples Valley
Date Creek
Constellation
Castle Hot Springs
Morristown
Circle City
Wittman
Beardsley
Surprise
El Mirage
Youngtown
Sun City
Peoria
Glendale
Paradise Valley
PHOENIX
Scottsdale
Tolleson
Litchfield Park
Goodyear
Avondale
Tonopah
Wintersburg
Arlington
Palo Verde
Buckeye
Hassayampa
Liberty
Laveen
Tempe
Mesa
Guadalupe
Chandler
West Chandler
Gilbert
Higley
Queen Creek
Ocotillo
Chandler Heights
Sacaton
Maricopa
Mobile
Gila Bend
Theba
Casa Grande
Coolidge
Florence
Florence Jct.
Superior
Globe
Miami
Claypool
Kelvin
Riverside
Kearny
Hayden
Winkelman
Dudleyville
Oracle
Oracle Jct.
San Manuel
Mammoth
Red Rock
Picacho
Eloy
Arizona City
Randolph
La Palma
Stanfield
Chuichu
Cuckelbur
Kohatk
Jackrabbit
North Komelik
Friendly Corner
Fort McDowell
Fountain Hills
Tortilla Flat
Apache Jct.
Kings Ranch
Roosevelt
Punkin Center
Sunflower
Rye
Payson
Gisela
Star Valley
Kohls Ranch
Christopher Creek
Young
Pine
Strawberry
Childs
Happy Jack
Mormon Lake
Mountainaire
Clints Well
Heber
Sunrise
Parks
Bellemont
Pine Springs



MOUNT ORD
MINES
2 1/2 miles
MILL TO MINES
MILL SITE
3 MILES HIGHWAY TO MILL
Colcord Canyon
Kitty Joe Canyon
Sycamore
Creek
Springs
Spring
Ram Valley
Bushnell
Sheep Tank
Gaging Station
JEEP TRAIL
JEEP
Weiss Spring
MARICOPA

LITTLE DAISY GROUP
SUNFLOWER GROUP. MARICOPA
C.O. Carlson, A.A Fredrickson.



Maps traced
Lines about - from
Maps Returned.

Arizona Testing Laboratories

815 West Madison · Phoenix, Arizona 85007 · Telephone 254-6181

For: Little Daisy Mine

Date: March 22, 1978

Lab. No.: 6413

Received: ---

Marked: 1st Line Clean Cut, 40 mesh

Submitted by: same

REPORT OF QUALITATIVE SPECTROGRAPHIC EXAMINATION

ELEMENT	APPROXIMATE PERCENT
Boron	0.01
Silicon	2.0
Aluminum	4.0
Manganese	0.6
Magnesium	0.3
Lead	Major Constituent
Chromium	0.3
Copper	2.0
Iron	Major Constituent
Bismuth	1.0
Beryllium	0.001
Calcium	2.0
Vanadium	0.005
Yttrium	0.01
Ytterbium	0.001
Sodium	0.1
Titanium	0.2
Silver	0.1
Zirconium	0.8
Nickel	0.07
Gold	0.07

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.

mountain states research & development

on of Mountain States Mineral Enterprises, Inc. P. O. BOX 17960, INTERSTATE 10 & VAIL RD., TUCSON, ARIZONA 85731 (602) 792-2800

March 10, 1980

Mr. Walter Knott
c/o Demetra's Kitchen
2334 East McDowell
Phoenix, Arizona

REF: Project 2177
Cyanidation Tests - Gold Ore

Dear Mr. Knott:

Three preliminary cyanidation tests have been completed on the sample of gold ore that you delivered to us on February 20, 1980.

Objective of the tests was to determine if the gold is soluble in cyanide solution, particularly at coarse sizes. In other words, will the ore be amenable to heap leaching methods, or will it be necessary to use fine grinding.

Analysis of a representative minus 10-mesh head sample was as follows:

Ounces per Ton	
Au	Ag
0.054	0.12

Twenty four hour bottle leaching tests were run on samples of ore:

1. Crushed to minus 3/8-inch.
2. Crushed to minus 10-mesh.
3. Ground to minus 65-mesh.

Results are tabulated below, and are detailed in the attached test data sheets.

		Calc. Head oz./ton		Leach Residue Assay oz./ton		Recovery in Preg. Soln. oz./ton		Recovery in Preg. Soln. Percent	
Size	Test No.	Au	Ag	Au	Ag	Au	Ag	Au	Ag
Minus 3/8-inch	1	0.045	0.09	0.037	0.07	0.008	0.02	17.8	22.2
Minus 10-mesh	2	0.042	0.13	0.017	0.09	0.025	0.04	59.5	30.8
Minus 65-mesh	3	0.042	0.12	0.002	0.06	0.040	0.06	95.2	50.0

BRC

BAHAMIAN REFINING CORPORATION

CUSTOM REFINERS, COMPLETE ANALYSIS & FLOWSHEET DESIGN

9222 N. 14TH AVE., PHOENIX, ARIZ. 85021

TELEPHONE (602) 279-9702

April 4, 1978

Re: Little Daisy Mining & Milling Co.

Dear Mr. Knott:

Your concentrate is one of the best submitted to us this year and we are very interested in entering into a contract on your entire production

As you said, the samples submitted to us were not the best but were adequate for a preliminary work up.

Due to the latest EPA ruling and regulations this ore cannot be smelted due to the 40# per ton of mercury and the high (15.5%) sulfer and 22% lead contents However, it is very amenable to Hydrometallurgical recovery.

We have obtained a 54.75% recovery efficiency in just a one hour autoclave extraction, breaking down the sulfide and cinnabar into the spent pulp getting a seperate lead drop of 99% purity, and putting all the metals into Solution for the electrowinning stage. This stage will recover the Gold, Silver, Copper, Zinc, and other precious metals in the Solution

I am anxiously awaiting your top line production after making the flow sheet changes recommended

Sincerely,

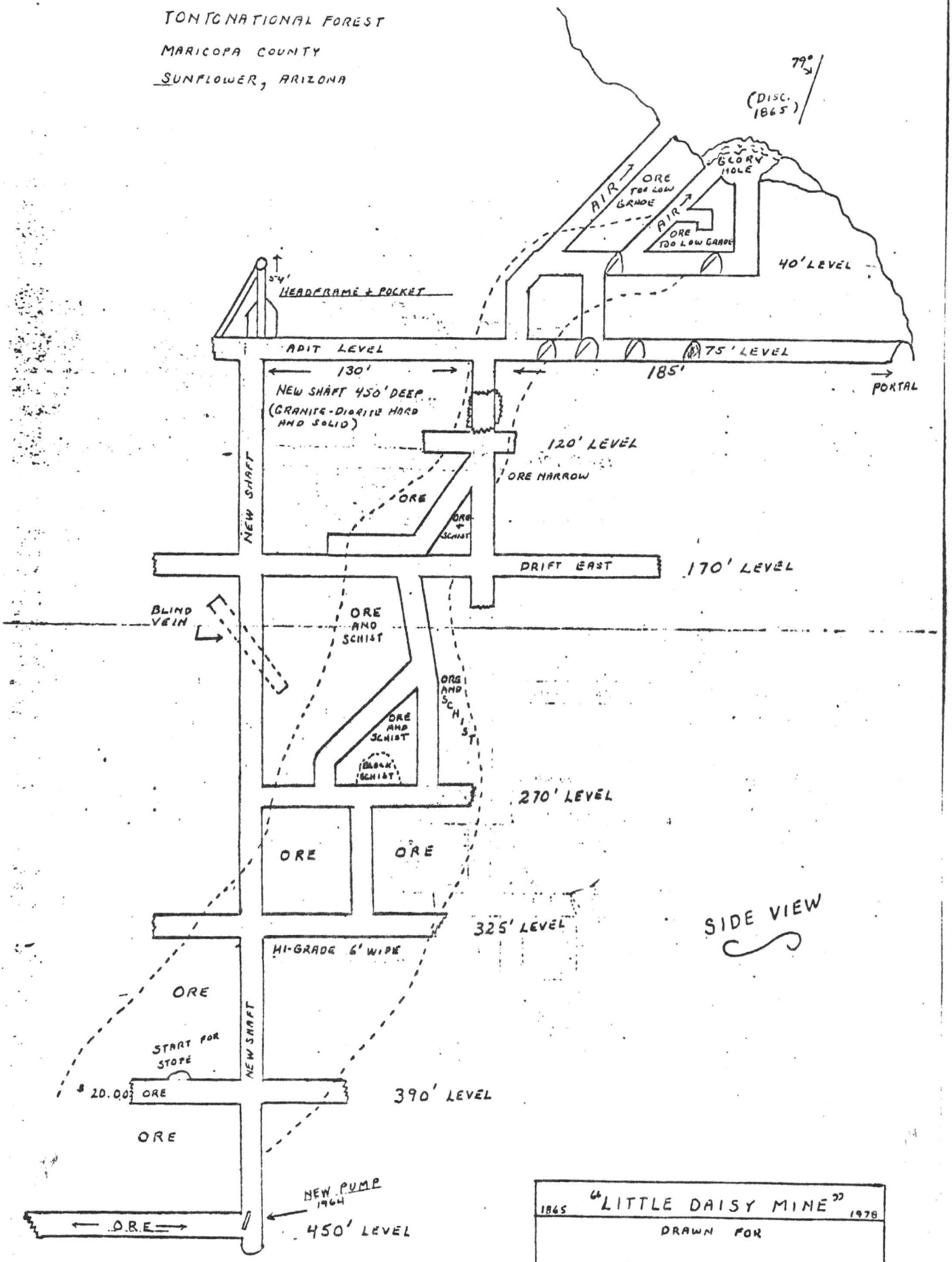
Fred Finell Jr.

Fred Finell, Jr.

TONTO NATIONAL FOREST

MARICOPA COUNTY

SUNFLOWER, ARIZONA



1865 "LITTLE DAISY MINE" 1978
DRAWN FOR
COPIED FROM ORIGINAL PLAN DRAWN 1940

D.K. MARTIN & ASSOCIATES
Mining Development & Administration
4728 N. 21st Avenue
Phoenix, Arizona 85015

Mr. Walter Knott
Sunflower, Arizona

12/18/80
RE: Little Daisy
Mine Project

Dear Mr. Knott:

As per your request and plan of operation, we submit the following estimates for capital required to place your "Daisy Mine" Property into operation.

The information provided in this report is only a broad general estimate and these preliminary figures should only be used as an estimate towards a decision for the commitment of capital. The capital estimates are probably within +- 30% of the final actual costs, whereas, the operating costs are somewhat more accurate. These estimates will be revised several times during the course of a developmental program, however, and become more accurate as additional data becomes available. Each phase of the operation will indicate the feasibility of continuing the project or guide the exploration and development towards a different approach. In general, capital requirements will usually increase during the course of the development program.

The general estimate is based upon incomplete data from various sources which has not been verified by this firm. The true situation can only be determined by a detailed engineering and geological survey. These figures are presented to help assist you to make reasonable estimates of capital needs and operating expenses involved.

If the assays and old production records show commercial ore has been located, a development program can be planned, and if capital is available, this plan can be put into operation. The first step is to determine if the ore is actually commercial and sufficient ore blocked out to justify a mill. It is also necessary to determine the type and complexity of the ore before an efficient mill can be designed. It requires considerable mining and metallurgical experience to determine if the valuable minerals can be extracted profitably.

At this point, the wise mine owner or investor should obtain the services of a competent mining consultant to either direct the operator or advise him as to the best operating procedures. The

D.K. MARTIN & ASSOCIATES
Mining Development & Administration
4728 N. 21st Avenue
Phoenix, Arizona 85015

cost of a reliable geological examination is money well spent and his advice should be followed. Although professional services may seem costly, the advice given will generally save many times the cost of these services.

The figures, graphs and estimates could and probably will change as the input data and information is scientifically and methodically analized. Therefore do not consider nor use this proposal other than as intended - a guide to the success of the "Little Daisy Mining Project".

CONTRACTS
Prepare with legal counsel & satisfy indebtedness. $ 31,000

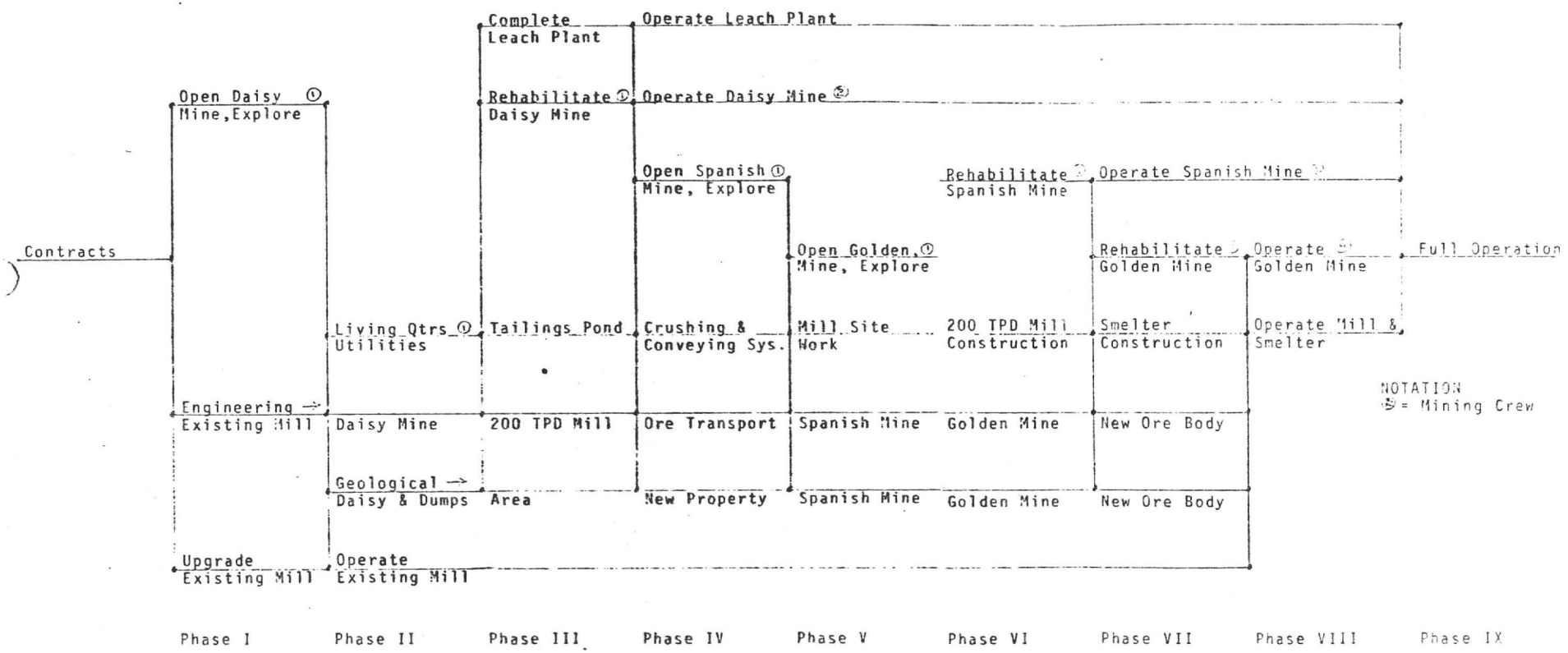
PHASE I
Open Daisy Mine for geological exploration, Engineer existing mill and install necessary equipment to upgrade present operation. Improve access to mill. $ 67,300

PHASE II
Prepare site and install living quarter including utilities. Complete geological and engineering study of Daisy Mine and various dumps. This includes approximately 2000 feet of exploration drilling. Operate existing mill on stockpiled and available ores which includes the purchase of a dump truck. $351,000

PHASE III
Complete the leaching facility, rehabilitate the Daisy Mine, layout and construct the tailings disposal area, begin engineering on the 200TPD mill and smelter, develope the water supply, and complete the geological survey of the area. $478,000

PHASE IV
Operate the leaching facility (a 12 month calculation), and install a stripper. Operate the Daisy Mine (a 12 month calculation), Open Spanish Mine for geological exploration, engineer and install conveyor and crushing system from mines to mill, conduct geological evaluation of the additional property required. $1,153,600

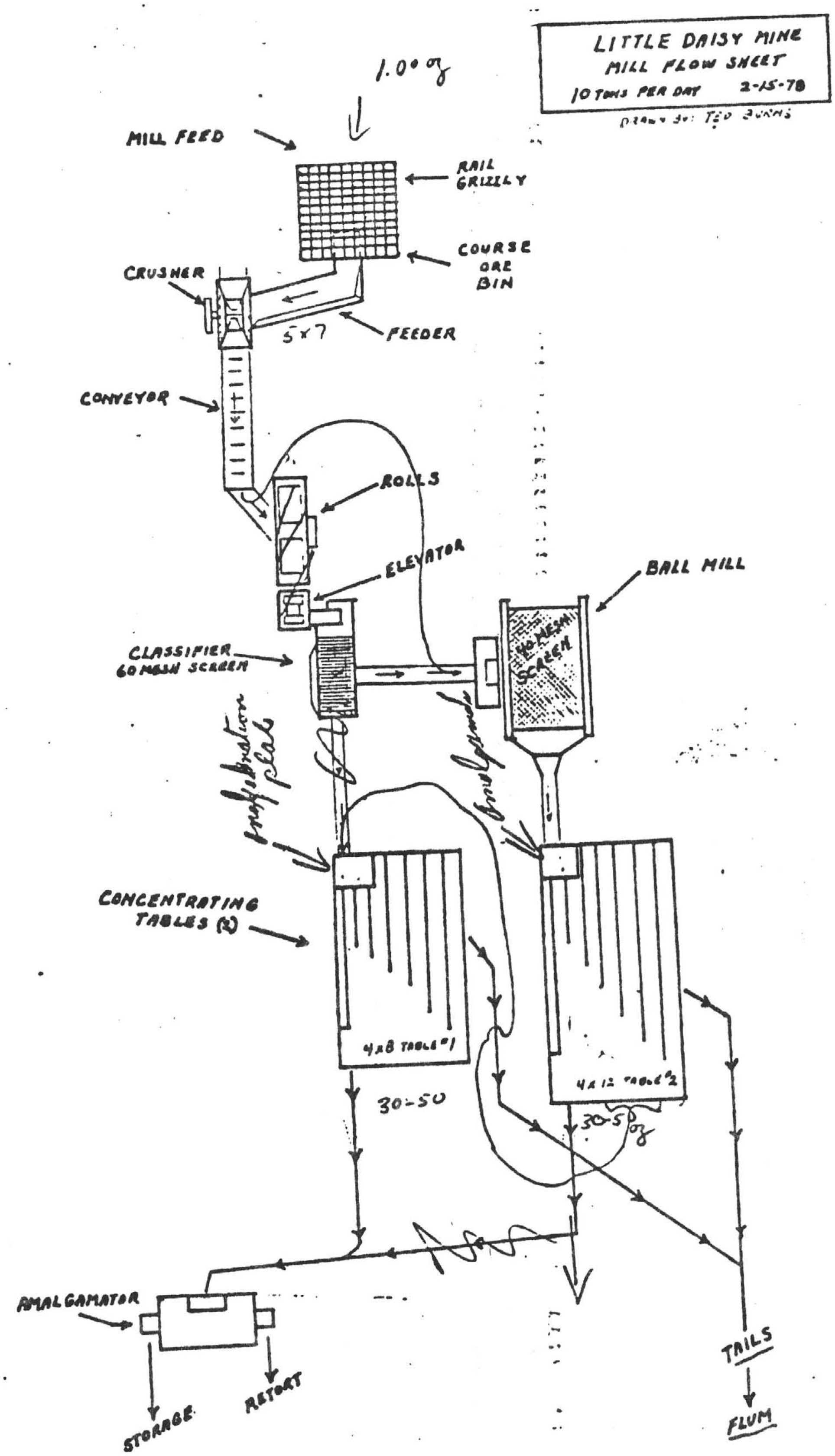
(continued)



PRELIMINARY PLAN OF OPERATION "LITTLE DAISY PROPERTIES"

DKM 12/20/82

D. K. MA
4228
PHOE



LITTLE DAISY MINE
MILL FLOW SHEET
10 TONS PER DAY 2-15-78
1.0 oz
MILL FEED
RAIL GRIZZLY
COURSE ORE BIN
CRUSHER
5x7
FEEDER
CONVEYOR
ROLLS
ELEVATOR
BALL MILL
CLASSIFIER 60 MESH SCREEN
40 MESH SCREEN
amalgamation plate
CONCENTRATING TABLES (2)
4x8 TABLE #1
4x12 TABLE #2
30-50
30-50 oz
AMALGAMATOR
STORAGE
RETORT
TAILS
FLUM

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine: Little Daisy — Date: September 29, 1961

District: Sunflower Dist., Maricopa County — Engineer: Lewis A. Smith

Subject: Interview with C.O. Carlson (9-27-61) (Supplementary)

Minerals: Gold, silver, lead.

Work: Mr. Carlson reports that the old workings are now open down to the 350 foot level in a winze which was sunk from a 350 foot-adit. The winze is in 300 feet from the portal and is 100 feet south of the main vein. The winze has 4 levels at 100, 200, 250 and 350 feet, respectively. The main shaft was sunk on the main vein to a depth of 450 feet and the collar is about 95 feet above the adit which connects with it. The 100 and 200 levels of the winze are connected to this shaft. The 250 and 350 levels do not reach the shaft but did reach the vein which, most of the way down, is vertical. The 250 foot level cut a 45° dipping vein which carries lead (galena) (4-6% lead) and gold ($60.00 per ton) with some silver (4 ounce per ton). This same vein encountered on the 350 foot level and here it was composed of red iron oxide and pyrite which carries up to $40.00 gold. This vein ranges from 2-6 feet wide where exposed. According to Carlson's measurements this vein should intersect the main vein at about 50-70 feet below the 350 level. The two bottom levels reached the vein and encountered relatively low-grade ore ($15 to $25 to the ton). Carlson plans to winze down to pick up the vein intersection, since he feels that his would be a fine locus for ore accumulation. The main shaft passed through three lenses of ore with narrow bottle necks between them. At the bottlenecks the rock (schist) was severely shattered but more strongly or densely silicified. It is assumed by him, that these bottlenecks represent flat pre-mineral shears which are probably roughly parallel to the 45° veins. It is evident that the widest parts of the lenses of ore immediately underlie the bottlenecks. The main vein follows the contact between a dense hard diorite and a medium bedded schist. The lenses are formed in the schist, but little ore is found in the diorite. The schist is severely metamorphored and altered by the mineral solutions. Generally the vein, as it passes through the bottlenecks is narrow (up to 2 feet) whereas it reaches 3-9 feet in width in the lenses. Since similar flat shearing is not uncommon in the Sunflower area, Mr. Carlson appears to be right as to their influence on ore accumulation. The rising hydrothermal solutions easily could have been damed by the shear planes causing the lenses to develop. The veins trends NE-SW and the shear planes are at an oblique angle to the main vein. The lenses are tapered from bottom to top with the wide part being at the top against the inferred shear planes. Mr. Carlson said that the shears show only as iron stained bands in the surface rocks, and the 45 degree vein does not, to his knowledge, outcrop. Mr. Carlson also stated that longitudinal development has not been extensive so that eventually he hopes to develop more lenses along the strike. Considerable high-grade ore was mined many years ago by Tom Russell's grandfather from three lenses. One pocket ran very high (reportedly over $10,000 per ton). Tom Russell said some ore ran around $2,000 to $2,500. The canyon which runs south of the main vein has yeilded very good placer gold. Carlson reported that the narrow bottlenecks are very low grade. A condition which is not too common. Considerable ore, running $12.00 up to $40.00 has been developed.

A new mill has just about been completed. It will employ gravity concentration, followed later by flotation to separate galena. The best gold is

LITTLE DAISY MINE

MARICOPA COUNTY
SUNFLOWER DIST.

The Daisy Group (between the National & the Ord) is being cleaned up and Carlson's old mill is being revamped to handle gold ore. Tests are underway to determine whether cyanidation or gravity concentration will be best suited to the ore.

L.A.SMITH - Weekly Report - 6-5-59

C.O. Carlson, Payson, Arizona reported that he and two others are cleaning up the Little Daisy gold property. Some gold values have been found in a quartz stringer lode in schist. Carlson stated that he plans to begin quick-silver operations on the Red Bird about November 1st.
L. A. SMITH - Cf - Sunflower 10-7-59

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Little Daisy Date February 3, 1960

District Sunflower Dist., Maricopa Engineer Lewis A.Smith

Subject:

C.O. Carlson has been opening up and repairing the older part of the Little Daisy and is now installing a gasoline hoist and skip. He has developed a small reserve of fair ore($25.00 to 35.00) and has encountered a few small high grade pockets. He plans to use his old gravity mill, now located at his home 1½ miles north of the Bee Line Highway on Sycamore Creek, and to add a ball mill. The road has been re-opened after it was severely damaged by recent heavy rains. He has two men working for him. A. A. Fredrickson, 7045 N 12th St., Phoenix, is affiliated with him in the venture. Carlson also has raised 25 feet from the end of the south drift in ore.

Grady Harrison, who with Lovelace and Tom Russell, used to operate the mine, stated that the old workings included a 65 foot inclined shaft and 200 feet of underground lateral work. He stated, also, that the mine is inclined to be pockety and erratic, but some pockets were very high grade. They had a mill 1½ miles below the Daisy which employed pan-amalgamation. This mill, as far as is now known, has been largely dismantled. Original mill was built by Harry Burton.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine: Little Daisy — Date: November 13, 1978

District: Sunflower - County, Maricopa — Engineer: Ken A. Phillips

Subject: Present activities and field interview. (The interview was held with the owner in Phoenix, not at the property). Owner, Walter Knott, c/o Denetra's Kitchen, 2334 E. McDowell, Phoenix.

Mr. Knott reported he is presently processing gold lead ore from dumps, outcrops and open trenches. Ore is hauled to the mill from the workings in a 1 ton two wheeled trailer pulled by a jeep. Ore is dumped onto a 5" grizzly, plus 5 inches being broken with a double jack, and falls into the coarse ore bin. Coarse ore is fed to a 5"x7" jaw crusher. The jaws discharge onto a conveyor which feeds a 2'x4' rod mill, the rod mill discharges onto a 40 mesh screen with the oversize being returned to the mill. The -40 mesh material is deposited onto a 2'x6' (approx.) amalgamation plate. The ground ore passes over the amalgamation plate and onto a 4'x12' homemade Wilfrey type table. The table concentrate is collected and stored for shipment to smelters. The table middlings and tailings are combined and passed over a second amalgamation plate, then over a second table. The second table concentrate is combined with the first and tailings sent to disposal.

The head run 0.40 Au, 0.80 Ag, 1.5 Pb to as high as 1.2 Au, 4.0 Ag, 11% Pb and from assay reports average in the somewhere between 0.7 Au and 1.0 Au. The concentrates run between 20 and 50 Tr. oz. of gold per ton and the tails from .01 oz. to .06 oz. Au. with an average near 0.02. The heads, cons., tails and middlings are regularly sampled during operation and the samples sent for fire assay.

The mill is capable of handling around 10 tons daily, but production is less due to haulage method. Mining, loading, hauling, unloading by hand and mill operation is done by Knott with occasional part time labor. He is presently in need of money to improve his mining and haulage or to step up sampling and drilling to delineate a larger deposit. He is looking at the possibility of either taking in investors or joint venturing with a drilling company.

Inspiration has indicated they would take his concentrate and pay for the gold and what little copper is available. He is contacting the lead smelter at ASARCO, El Paso, they might pay for the lead.

He has proposed an improvement in his mill flowsheet, a copy is attached. However, there appears too little room for improvement.

Between 15 and 30 tons of ore has been milled at the property by the present owner. He has accumulated about one ton of lead-gold concentrate.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine LITTLE DAISY

Date June 18, 1979

District Sunflower, Maricopa County

Engineer Ken A. Phillips KAP

Subject: Concentrate Values

Walter Knott reported on concentrate assay results on his Little Daisy Mine. The samples were assayed by ASARCO.

		FIRST LINE TABLE CONCENTRATES	SECOND LINE TABLE CONCENTRATES	TABLE MIDDLINGS
Gold	(Tr.oz./ton)	75.82	2.48	0.44
Silver	(Tr.oz./ton)	26.9	1.9	0.5
Lead	(%)	48.1	4.3	2.0
Copper	(%)	1.0	0.7	0.6
Zinc	(%)	0.1	0.1	0.1
SiO_2	(%)	27.2	68.0	74
Iron	(%)	20.1	8.9	6.1
CaO	(%)	1.0	1.2	1.1
Al_2O_3	(%)	1.1	4.5	5.2
Mercury	(ppm)	14,600 (1.46%)	348	182

KAP:mw

W

SURVEY OF OPERATING MINES

July 25, 1942

By: Fred H. Perkins

LITTLE DAISY MINE

Problems:

This is a gold mine and due to their inability to get supplies, closed down May 25, 1942.

ARIZONA DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA

DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine: LITTLE DAISY GROUP — Date: June 5, 1959

District: Sunflower District, Maricopa County — Engineer: LEWIS A. SMITH

Subject: Interview with C. O. Carlson 6-3-59

Claims: 4 - unpatented

Owners: A.A. ~~Fredrickson~~ Frederickson and Co., 7045 N. 12th St., & C. O. Carlson, Payson, Arizona

Location: Sec. ~~3~~ 10, T. 6 N., R. 9 E. A/C Topog. sheet Reno Pass

Work: Consists of 6 levels (40 ft, 75 ft., 120 ft., 170 ft., 270 ft., and 325 ft.). The 75' level is connected to an adit. A shaft extends vertically downward from the 75 foot or adit level to below the 325 foot level. The levels from the 270 foot upward are connected by a group of vertical and inclined raises which follow the ore zone which pitches northward down to the 170 level where it steepens up to nearly vertical. The 170 level is the most extensive. It follows the ore body for 200 feet turns south for 240' and follows the west trending south vein for about 200 feet. Stopes are above the 75 foot level. The north ore zone varies from 15 feet near the 75' level to as much as 50 feet on the 270 level. The ore length and width is variable and the length is known for several hundred feet.

GEOLOGY: Ore lies in two veins (north and south) which strike nearly E-W. and have ariable dips. They dip northward at steep angles. The main ore shoots are in schist, h appears to be high in hornblende contact, and are centered near the vein inter- ions with the granite schist contact. Blebs of quartz and local stringers carry gold. he average ore runs 0.14 oz in gold but hot spots run up to 6.16 oz in gold. The o.14 z material concentrates to about 3.76 oz gold with a tail of 0.02 oz gold. The ore hus far developed runs between 0.04 and 0.18 oz gold. Work on an old mill at Carlson's lace is proceeding. A new crusher and ball mill are to be installed. The tests indicate hat the gold is free in limonite, but is quite fine in grain size, and that it will separate n tables. However, tests by cyanidation will be run before either method of adopted. No ppreciable quicksilver has been observed in the oxidized material. Sulphide is largely imited to pyrite but sphalerite is suspected. Carlson stated that it was his opinion that he gold was introduced with the pyrite, This is most probably true as this is a very ommon association.

ASARCO

Southwestern Ore Purchasing Department
A. J. Kroha
Manager
J. N. Lambe
Assistant Manager

June 8, 1979

Mr. Walter Knott
P. O. Box 688
Payson, AZ 85541

Dear Mr. Knott:

Our El Paso Plant has assayed the samples from the Little Daisy mine and reports the following results:

	Oz per Ton		Percent							PPM
	Au	Ag	Pb	Cu	Zn	SiO2	Fe	CaO	Al2O3	Hg
1st line-last drift	75.82	26.9	48.1	1.0	.1	7.2	20.1	1.0	1.1	14,600
2nd line drift	2.48	1.9	4.3	0.7	.1	68.0	8.9	1.2	4.5	348
Last drift	.44	0.5	2.0	0.6	.1	74.0	6.1	1.1	5.2	182

The mercury content of sample marked "1st line-last drift" is too high to consider treatment at our smelters.

Yours very truly,

A. J. Kroha

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010

PRODUCT DEVELOPMENT APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: H. R. Norman
1313 W. Camelback Rd.
Phoenix, Arizona

DATE Feb. 1, 1973
LAB No. 12082

RESULTS

Gold (Au) - 4.80 oz/ton

Lab Number 12082

270' level
Little Daisy
Grab Sample

Respectfully submitted,
ARC LABORATORIES

John T. Long, Jr.

PRODUCT DEVELOPMENT APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: Walter Knott
4712 E. Osborn Rd
Phoenix, AZ 85018

DATE 9 September 1977

LAB No. 15137

Diversified # 2

RESULTS

	Gold	Silver
Sandy material in peanut butter jar	7.35 oz/T	1.13 oz/T

Lab Number 15137

Spanish Mine Dump
Bottom edge

75 lbs tabled
Assayed 1st run

Respectfully submitted,
ARC LABORATORIES

John Sickafoose

John P. Sickafoose Ph.D.
Technical Director

ODUCT DEVELOPMENT

APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: Walter Knott
4712 E. Osborn Rd
Phoenix, AZ 85018

DATE 6-2-77

LAB No. 14459

Diversified # 2

RESULTS

Gold	43.9 oz/ton
Silver	10.2 "

Lab Number 14459

Spanish Mine Dump
Top Center

(Pulverized 1 ton, sluiced,
assayed 1st run)

Respectfully submitted,
ARC LABORATORIES

John T. Long, Jr.

Arizona Testing Laboratories

817 West Madison · Phoenix, Arizona 85007 · Telephone 254-6181

For Mr. Jerome Joffe
353 Park Avenue
Highland Park, ILL. 60035

Date October 13, 1978

ASSAY CERTIFICATE

LAB NO.	IDENTIFICATION	OZ. PER TON		PERCENTAGES			
		GOLD	SILVER	COPPER			
8138	Spanish Mine -dump	0.02					
	Daisy-floor near short shaft,side drift	0.02					
	Daisy - hopper	0.01	nil				
	Daisy-inside and around	0.07	trace				
	Little Daisy - sulfide ore	26.	8.5				
	Little Daisy - 1st line Conc.	38.	29.				

Lab Number: 10/13/78 8138

Little Daisy - Sulfide Ore

Dump material
Selective sample
Pyrite material

itted,

NG LABORATORIES

Claude E. McLean, Jr.

Registered Assayer
CERTIFICATE NO. 6238
CLAUDE EUGENE McLEAN, JR.
Date Signed 10/13/78
ARIZONA, U.S.A.

PRODUCT DEVELOPMENT

APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: Walter Knott
4712 E. Osborn Rd.
Phoenix, AZ 85018

DATE 14 September 1977

LAB No. 15151

Diversified # 2

RESULTS

Gold	5.89 oz/ton
Silver	0.88 "

Lab Number 15151

Spanish Mine Ore

East Drift, limonite material

Head ore assay

Respectfully submitted,
ARC LABORATORIES

John Sidhoose

John F. Sichafoose
Technical Director

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT — DATE 11/5 1979

	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
	1st LINE ROASTED		1.84	0.58	feed too fast			
	2nd LINE ROASTED		4.65	0.07				
	1st LINE 12" CUT ROASTED		1.50	0.60				
	TAILS ROASTED		1.80	0.20				
[illegible]	1st LINE QUARTZ VEIN ABOVE		11.55	10.84				
	EAST DRIFT MATERIAL ROASTED							

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT — DATE 12/4 1979

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
	#1 TAIL TABLE		0.30	0.01				
	#2 TAIL TABLE		0.20	0.07				
	2nd LINE SLOW FEED		0.70	0.06				
	2nd LINE [illegible]		0.60	0.04				
	1st LINE [illegible]		4.15	14.26				
	[illegible] LINE 2" CUT		0.40	0.20				
7	1st [illegible] CUT		0.50	0.38				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

[illegible] KNOTT — DATE 7/31 1979

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% Pb.			
1	HEADS		0.10	0.02				
2	TABLE #2 TAILS		0.10	0.01				
3	TABLE #1 – 1st LINE	0.15	0.20	0.36	0.90			
4	TABLE #1 – 2nd LINE [illegible]		0.05	0.19				
5	TABLE #1 – [illegible] LINE		0.10	0.06	0.50			
6	TABLE #2 – 1st LINE		0.50	2.10				
7	TABLE #[illegible] – 2nd LINE		0.10	0.30				
8	[illegible]		0.10	0.11				

Dump material
Chris #1

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

ALLY

DATE 5/30 1978

LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
AFTER ALMALGAMATION	0.75	6.60	3.30	rerun over 1 table			
SULFIDES ONLY	0.00	22.90	3.48	" " 2 tables			
LITTLE DAISY JAR #2	0.95	46.20	10.65				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

DATE 7/7 1978

LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% Pb	% ZN.		
Little Daisy Sulfides	0.35	7.50	5.82	1.1	0.2		
	7# P.T.			22# P.T.	4# P.T.		

(ORE)

L. M. Kalal
CHIEF CHEMIST

SC-1005

VALLEY ASSAY OFFICE
AND ORE TESTING LABORATORY
MEMORANDUM OF ASSAY

Made for H. R. Norman — Tempe, Arizona ..... Jan. 30 ....., 1972..

SAMPLE NO.	PER TON OF 2000 POUNDS AVOIRDUPOIS								COPPER, OR			LEAD, OR			ZINC, OR			TOTAL	
	GOLD, PLATINUM				SILVER														
	AT	PER OUNCE			AT	PER OUNCE			AT	PER LB.		AT	PER LB.		AT	PER LB.			
	OZS.	100's	$	Cts	OZS.	100's	$	Cts.	%	$	Cts.	%	$	Cts.	%	$	Cts.	$	Cts.
1-Cons.	84.	22																	
REMARKS:		Copper is also present.																	

REGISTERED ASSAYER — CERTIFICATE EXPIRES — L. LEE BOYER — DEC. 31, 19[illegible] — ARIZONA, U.S.A.

NO. .....

BY ..... Registered Assayer.

CHARGE $ 3.50 PAID

T.Z.B.

Superior Division

ASSAY CERTIFICATE 'A'

WALLY

DATE 5/11 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	TAILS	0.05	0.10	0.12				
2	QUARTZ ROCK	0.15	0.20	0.03				
3	ORE PILE BY WATER TANK	0.02	0.50	0.10				
4	BUG HOLE QUARTZ ("CONCTS.")	0.55	7.40	18.34				
5	ORE ON HILL ("CONCTS.")	0.10	1.00	0.44				

MAGMA COPPER COMPANY

Superior Division

ASSAY CERTIFICATE 'A'

WALLY

DATE 5/30 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	} ~~AFTER [illegible]~~	0.75	6.60	3.30	rerun over 1 table			
2	} SULFIDES ONLY	0.00	22.90	3.98	" " 2 tables			
3	LITTLE DAISY JAR #2	0.95	46.20	10.65				

MAGMA COPPER COMPANY

Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 7/7 1978

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% Pb	% ZN.		
	[illegible] DAISY SULFIDES	0.35	7.50	5.82	1.1	0.2		

MAGMA COPPER COMPANY

Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 6/5 1979

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% Pb			
1	SPANISH ORE - FINE 1/4" AND UNDER		1.60	0.14	0.50			
2	SPANISH FINES - 1ST LINE	1.60	9.70	5.70	19.40			
3	SPANISH FINES - 2ND LINE	0.50	7.40	0.38	5.70			
4	DAISY - 2ND LINE CARS - RE-RUN MIDS.		0.90	0.24	0.60			

D.K. MARTIN & ASSOCIATES

Mining Administration
and
Development

4728 North 21st Avenue
Phoenix, Arizona 85015
(602) 246-9573

DOUG MARTIN

LITTLE DAISY MINE GROUP

SUNFLOWER DISTRICT

TONTO NATIONAL FOREST

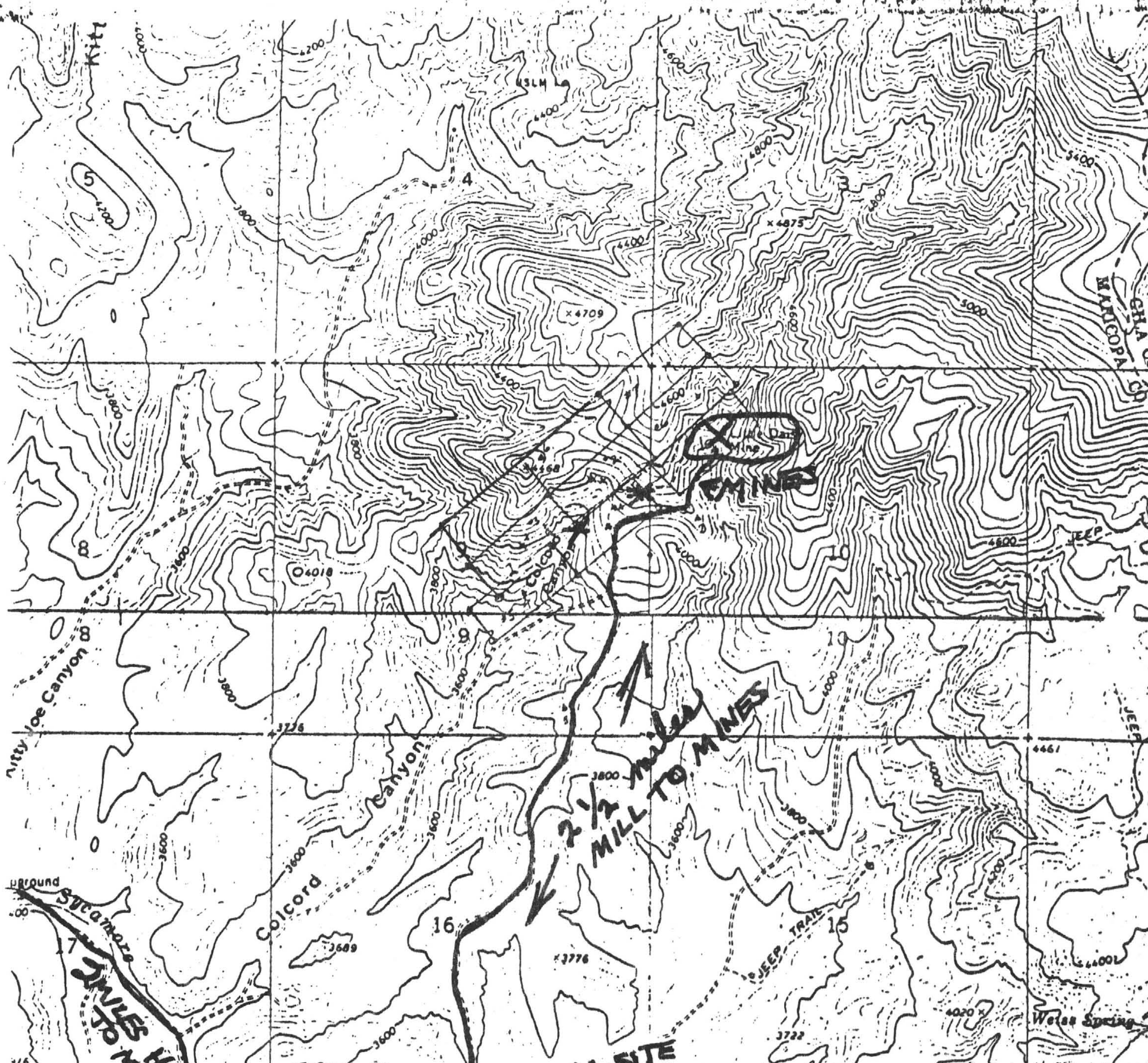
MARICOPA COUNTY

ARIZONA

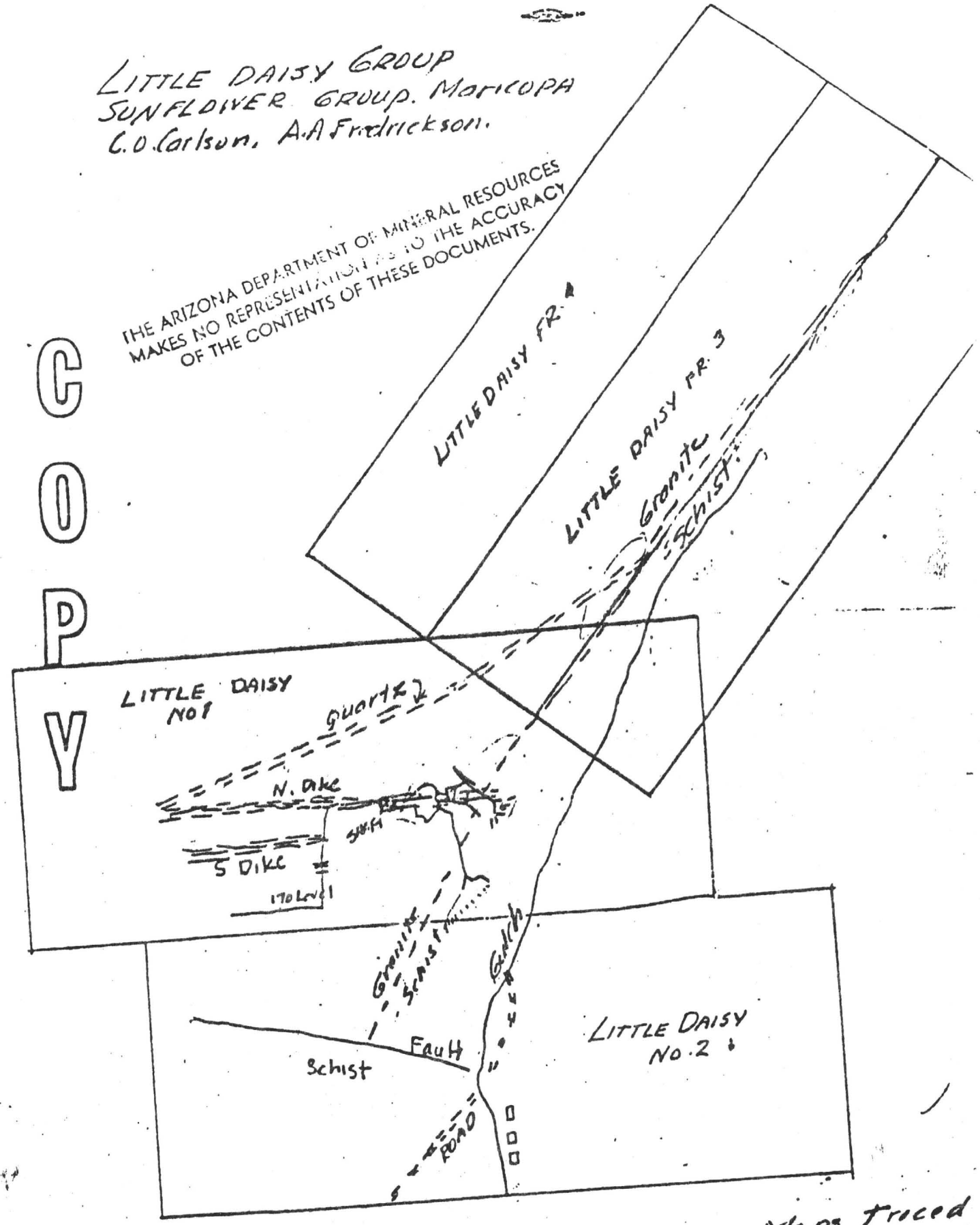

LITTLE DAISY GROUP
Seligman
Ash Fork
Williams
Flagstaff
Red Lake
Parks
Bellemont
Winona
Angell
Canyon Diablo
Leupp
Leupp Corner
Two Guns
Winslow
Sunrise
Mormon Lake
Happy Jack
Perkinsville
Paulden
Sedona
Clarkdale
Jerome
Cottonwood
Cornville
Page Springs
Chino Valley
Simmons
Camp Wood
Prescott
Prescott Valley
Skull Valley
Dewey
Humboldt
Mayer
Cherry
McGuireville
Rimrock
Lake Montezuma
Camp Verde
Clints Well
Strawberry
Pine
Childs
Dugas
Cordes
Cordes Jct.
Cleator
Crown King
Bumble Bee
Kirkland
Kirkland Jct.
Hillside
Date Creek
Peeples Valley
Yarnell
Congress
Stanton
Octave
Wagoner
Black Canyon City
Rock Springs
Castle Hot Springs
New River
Constellation
Wickenburg
Aguila
Morristown
Circle City
Wittman
Cave Creek
Carefree
Star Valley
Payson
Gisela
Rye
Punkin Center
Young
Grasshopper
Cibecue
Heber
Overgaard
Christopher Creek
Kohls Ranch
Roosevelt
Fort McDowell
Fountain Hills
Beardsley
Surprise
El Mirage
Youngtown
Sun City
Peoria
Paradise Valley
Glendale
Litchfield Park
PHOENIX
Scottsdale
Tonopah
Goodyear
Tolleson
Avondale
Mesa
Tempe
Tortilla Flat
Apache Jct.
Kings Ranch
Wintersburg
Arlington
Palo Verde
Buckeye
Hassayampa
Liberty
Laveen
Guadalupe
Chandler
West Chandler
Gilbert
Higley
Queen Creek
Boys Ranch
Florence Jct.
Superior
Miami
Globe
Claypool
Inspiration
St. Johns Mission
Rainbow Valley
Ocotillo
Chandler Heights
Bapchule
Olberg
Sacaton
Maricopa
Mobile
Florence
Riverside
Kelvin
Christmas
Hayden
Winkelman
Kearny
Dudleyville
Coolidge Dam
Coolidge
Gila Bend
Theba
Stanfield
Francisco Grande
Casa Grande
Randolph
La Palma
Arizona City
Eloy
Picacho
Chuichu
Cuckelburg
Kohatk
Jackrabbit
North Komelik
Kaka
Friendly Corner
Red Rock
Oracle
Oracle Jct.
San Manuel
Mammoth
Caliente
DANGER

↑

MOUNT ORD


MINES
2 1/2 miles
MILL TO MINES
MILL SITE
3 MILES HIGHWAY
TO MILL
Colcord Canyon
Colcord
Sycamore
Creek
Springs
Spring
Spr
Ram Valley
Bushnell
Sheep Tank
Gaging Station
Weiss Spring
JEEP TRAIL
JEEP
MARICOPA CO
×4875
×4709
4018
3726
3689
×3776
3722
4020
4461
3894
3455
3434
3429
3876
3683
3690

LITTLE DAISY GROUP
SUNFLOWER GROUP. MARICOPA
C.O. Carlson, A.A Fredrickson.



Maps Traced
Lines about - from
Maps Returned.

Arizona Testing Laboratories

815 West Madison · Phoenix, Arizona 85007 · Telephone 254-6181

For: Little Daisy Mine

Date: March 22, 1978

Lab. No.: 6413

Received: ---

Marked: 1st Line Clean Cut, 40 mesh

Submitted by: same

REPORT OF QUALITATIVE SPECTROGRAPHIC EXAMINATION

ELEMENT	APPROXIMATE PERCENT
Boron	0.01
Silicon	2.0
Aluminum	4.0
Manganese	0.6
Magnesium	0.3
Lead	Major Constituent
Chromium	0.3
Copper	2.0
Iron	Major Constituent
Bismuth	1.0
Beryllium	0.001
Calcium	2.0
Vanadium	0.005
Yttrium	0.01
Ytterbium	0.001
Sodium	0.1
Titanium	0.2
Silver	0.1
Zirconium	0.8
Nickel	0.07
Gold	0.07

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean

Claude E. McLean, Jr.

mountain states research & development

on of Mountain States Mineral Enterprises, Inc. P. O. BOX 17960, INTERSTATE 10 & VAIL RD., TUCSON, ARIZONA 85731 (602) 792-2800

March 10, 1980

Mr. Walter Knott
c/o Demetra's Kitchen
2334 East McDowell
Phoenix, Arizona

REF: Project 2177
Cyanidation Tests - Gold Ore

Dear Mr. Knott:

Three preliminary cyanidation tests have been completed on the sample of gold ore that you delivered to us on February 20, 1980.

Objective of the tests was to determine if the gold is soluble in cyanide solution, particularly at coarse sizes. In other words, will the ore be amenable to heap leaching methods, or will it be necessary to use fine grinding.

Analysis of a representative minus 10-mesh head sample was as follows:

Ounces per Ton	
Au	Ag
0.054	0.12

Twenty four hour bottle leaching tests were run on samples of ore:

1. Crushed to minus 3/8-inch.
2. Crushed to minus 10-mesh.
3. Ground to minus 65-mesh.

Results are tabulated below, and are detailed in the attached test data sheets.

		Calc. Head oz./ton		Leach Residue Assay oz./ton		Recovery in Preg. Soln. oz./ton		Recovery in Preg. Soln. Percent	
Size	Test No.	Au	Ag	Au	Ag	Au	Ag	Au	Ag
Minus 3/8-inch	1	0.045	0.09	0.037	0.07	0.008	0.02	17.8	22.2
Minus 10-mesh	2	0.042	0.13	0.017	0.09	0.025	0.04	59.5	30.8
Minus 65-mesh	3	0.042	0.12	0.002	0.06	0.040	0.06	95.2	50.0

BRC

BAHAMIAN REFINING CORPORATION

CUSTOM REFINERS, COMPLETE ANALYSIS & FLOWSHEET DESIGN

9222 N. 14TH AVE., PHOENIX, ARIZ. 85021

TELEPHONE (602) 279-9702

April 4, 1978

Re: Little Daisy Mining & Milling Co.

Dear Mr. Knott:

Your concentrate is one of the best submitted to us this year and we are very interested in entering into a contract on your entire production

As you said, the samples submitted to us were not the best but were adequate for a preliminary work up.

Due to the latest EPA ruling and regulations this ore cannot be smelted due to the 40# per ton of mercury and the high (15.5%) sulfer and 22% lead contents However, it is very amenable to Hydrometallurgical recovery.

We have obtained a 54.75% recovery efficiency in just a one hour autoclave extraction, breaking down the sulfide and cinnabar into the spent pulp getting a seperate lead drop of 99% purity, and putting all the metals into Solution for the electrowinning stage. This stage will recover the Gold, Silver, Copper, Zinc, and other precious metals in the Solution

I am anxiously awaiting your top line production after making the flow sheet changes recommended

Sincerely,

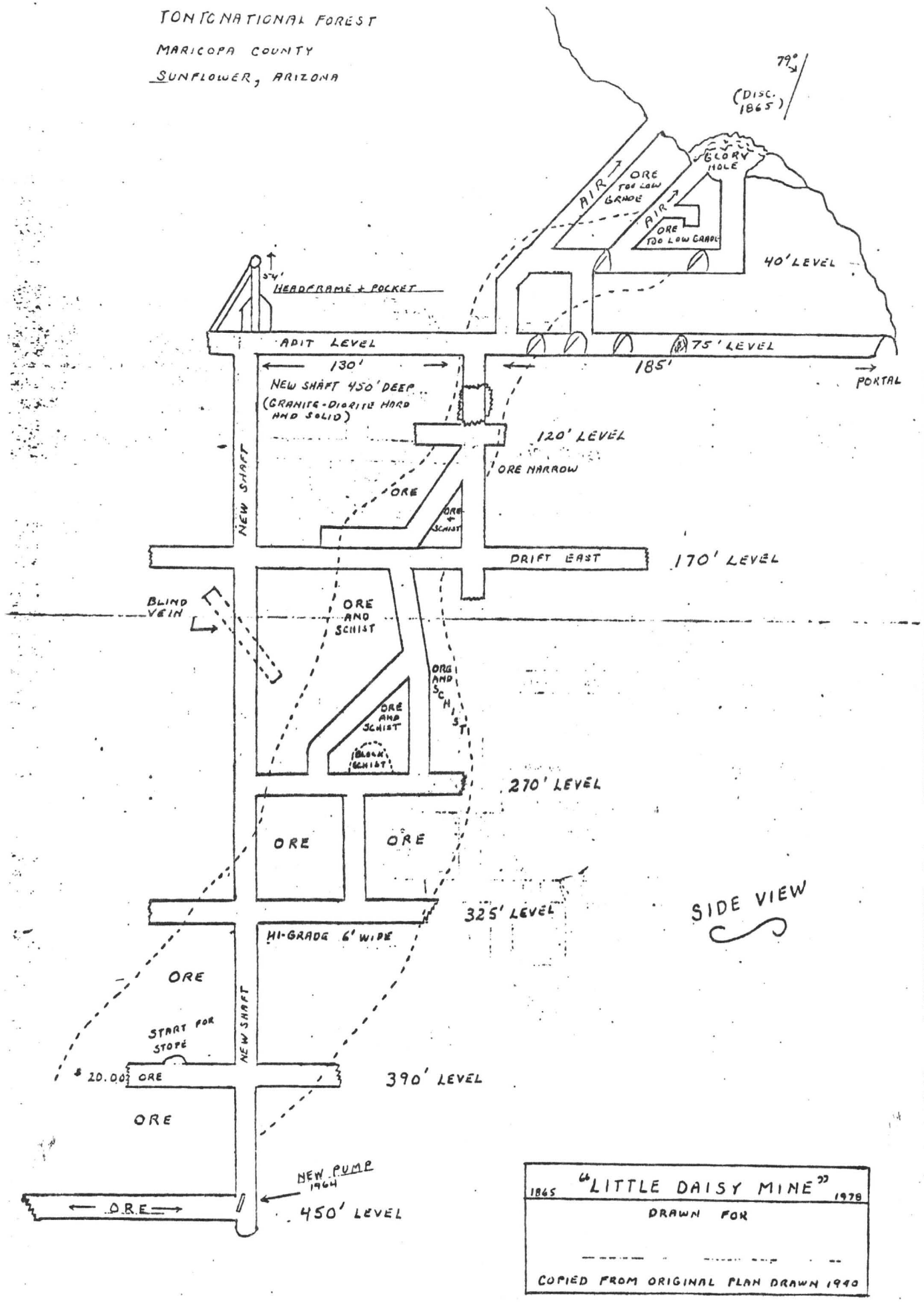
Fred Finell Jr.

Fred Finell, Jr.

TONTO NATIONAL FOREST

MARICOPA COUNTY

SUNFLOWER, ARIZONA



1865 "LITTLE DAISY MINE" 1978

DRAWN FOR

COPIED FROM ORIGINAL PLAN DRAWN 1940

D.K. MARTIN & ASSOCIATES
Mining Development & Administration
4728 N. 21st Avenue
Phoenix, Arizona 85015

Mr. Walter Knott
Sunflower, Arizona

12/18/80
RE: Little Daisy
Mine Project

Dear Mr. Knott:

As per your request and plan of operation, we submit the following estimates for capital required to place your "Daisy Mine" Property into operation.

The information provided in this report is only a broad general estimate and these preliminary figures should only be used as an estimate towards a decision for the commitment of capital. The capital estimates are probably within +- 30% of the final actual costs, whereas, the operating costs are somewhat more accurate. These estimates will be revised several times during the course of a developmental program, however, and become more accurate as additional data becomes available. Each phase of the operation will indicate the feasibility of continuing the project or guide the exploration and development towards a different approach. In general, capital requirements will usually increase during the course of the development program.

The general estimate is based upon incomplete data from various sources which has not been verified by this firm. The true situation can only be determined by a detailed engineering and geological survey. These figures are presented to help assist you to make reasonable estimates of capital needs and operating expenses involved.

If the assays and old production records show commercial ore has been located, a development program can be planned, and if capital is available, this plan can be put into operation. The first step is to determine if the ore is actually commercial and sufficient ore blocked out to justify a mill. It is also necessary to determine the type and complexity of the ore before an efficient mill can be designed. It requires considerable mining and metallurgical experience to determine if the valuable minerals can be extracted profitably.

At this point, the wise mine owner or investor should obtain the services of a competent mining consultant to either direct the operator or advise him as to the best operating procedures. The

D.K. MARTIN & ASSOCIATES
Mining Development & Administration
4728 N. 21st Avenue
Phoenix, Arizona 85015

cost of a reliable geological examination is money well spent and his advice should be followed. Although professional services may seem costly, the advice given will generally save many times the cost of these services.

The figures, graphs and estimates could and probably will change as the input data and information is scientifically and methodically analized. Therefore do not consider nor use this proposal other than as intended - a guide to the success of the "Little Daisy Mining Project".

CONTRACTS
Prepare with legal counsel & satisfy indebtedness. $ 31,000

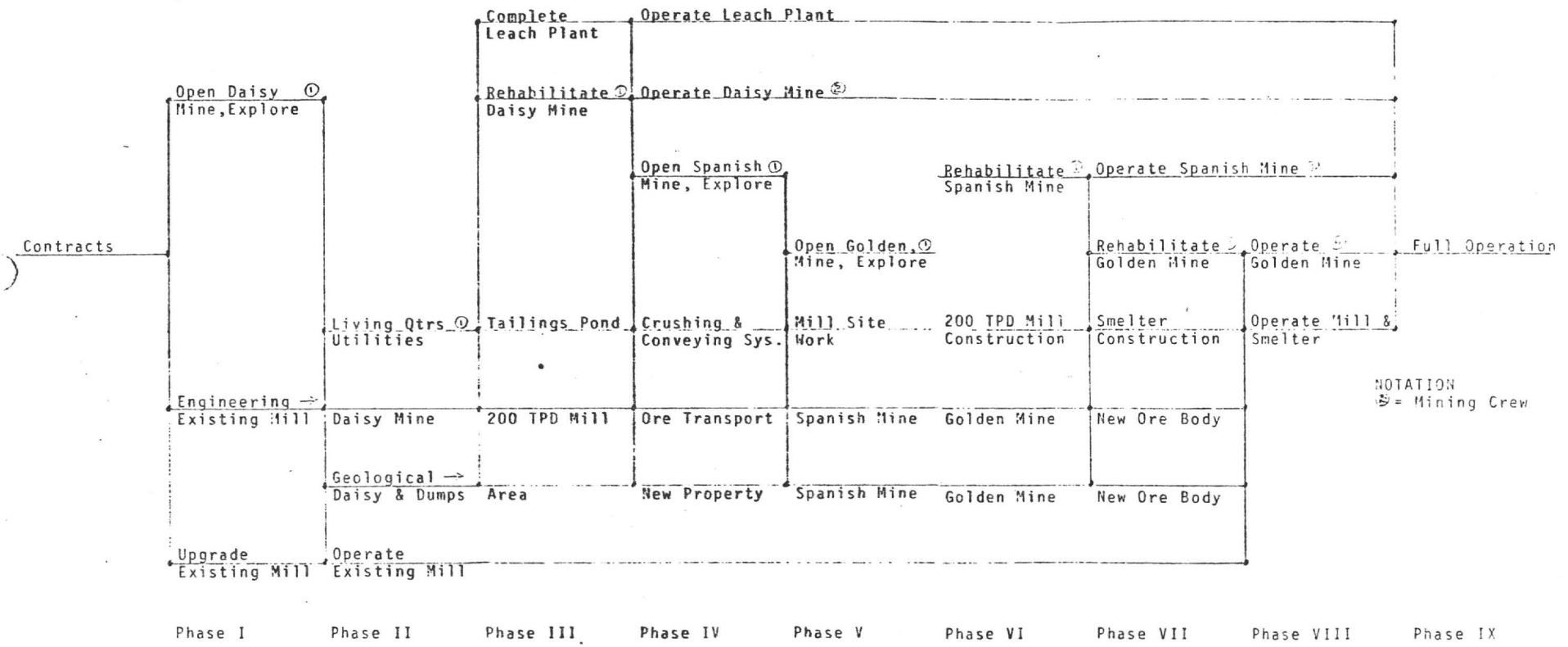
PHASE I
Open Daisy Mine for geological exploration, Engineer existing mill and install necessary equipment to upgrade present operation. Improve access to mill. $ 67,300

PHASE II
Prepare site and install living quarter including utilities. Complete geological and engineering study of Daisy Mine and various dumps. This includes approximately 2000 feet of exploration drilling. Operate existing mill on stockpiled and available ores which includes the purchase of a dump truck. $351,000

PHASE III
Complete the leaching facility, rehabilitate the Daisy Mine, layout and construct the tailings disposal area, begin engineering on the 200TPD mill and smelter, develope the water supply, and complete the geological survey of the area. $478,000

PHASE IV
Operate the leaching facility (a 12 month calculation), and install a stripper. Operate the Daisy Mine (a 12 month calculation), Open Spanish Mine for geological exploration, engineer and install conveyor and crushing system from mines to mill, conduct geological evaluation of the additional property required. $1,153,600

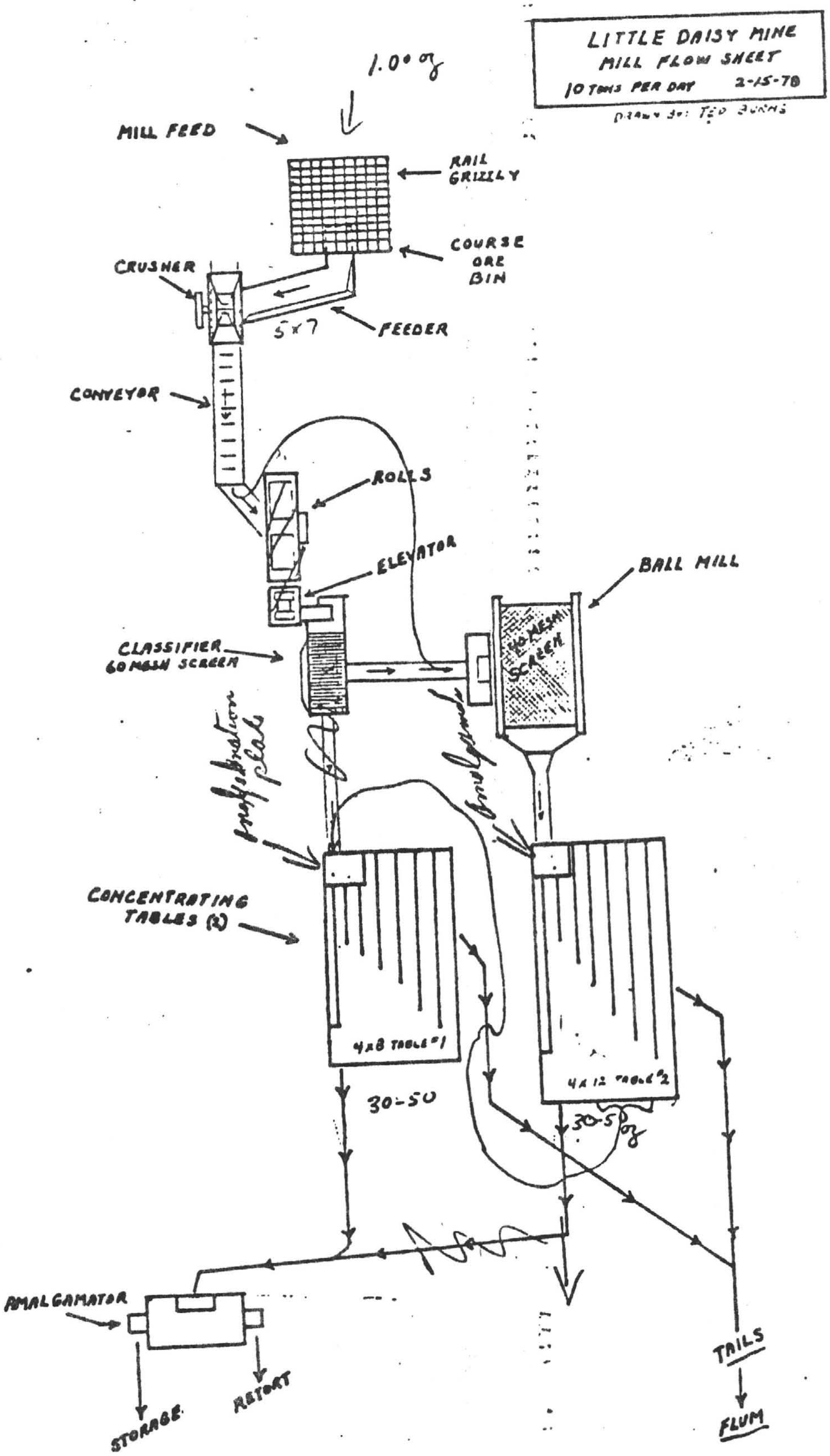
(continued)



PRELIMINARY PLAN OF OPERATION "LITTLE DAISY PROPERTIES"

DKM 12/20/82

D. K. M
4220
PHOE


LITTLE DAISY MINE
MILL FLOW SHEET
10 TONS PER DAY 2-15-78
1.0 oz
MILL FEED
RAIL GRIZZLY
COURSE ORE BIN
CRUSHER
5x7
FEEDER
CONVEYOR
ROLLS
ELEVATOR
BALL MILL
CLASSIFIER 60 MESH SCREEN
40 MESH SCREEN
CONCENTRATING TABLES (2)
4x8 TABLE #1
4x12 TABLE #2
30-50
30-50 oz
AMALGAMATOR
STORAGE
RETORT
TAILS
FLUM

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine: Little Daisy — Date: September 29, 1961

District: Sunflower Dist., Maricopa County — Engineer: Lewis A. Smith

Subject: Interview with C.O. Carlson (9-27-61) (Supplementary)

Minerals: Gold, silver, lead.

Work: Mr. Carlson reports that the old workings are now open down to the 350 foot level in a winze which was sunk from a 350 foot-adit. The winze is in 300 feet from the portal and is 100 feet south of the main vein. The winze has 4 levels at 100, 200, 250 and 350 feet, respectively. The main shaft was sunk on the main vein to a depth of 450 feet and the collar is about 95 feet above the adit which connects with it. The 100 and 200 levels of the winze are connected to this shaft. The 250 and 350 levels do not reach the shaft but did reach the vein which, most of the way down, is vertical. The 250 foot level cut a 45° dipping vein which carries lead (galena) (4-6% lead) and gold ($60.00 per ton) with some silver (4 ounce per ton). This same vein encountered on the 350 foot level and here it was composed of red iron oxide and pyrite which carries up to $40.00 gold. This vein ranges from 2-6 feet wide where exposed. According to Carlson's measurements this vein should intersect the main vein at about 50-70 feet below the 350 level. The two bottom levels reached the vein and encountered relatively low-grade ore ($15 to $25 to the ton). Carlson plans to winze down to pick up the vein intersection, since he feels that his would be a fine locus for ore accumulation. The main shaft passed through three lenses of ore with narrow bottle necks between them. At the bottlenecks the rock (schist) was severely shattered but more strongly or densely silicified. It is assumed by him, that these bottlenecks represent flat pre-mineral shears which are probably roughly parallel to the 45° veins. It is evident that the widest parts of the lenses of ore immediately underlie the bottlenecks. The main vein follows the contact between a dense hard diorite and a medium bedded schist. The lenses are formed in the schist, but little ore is found in the diorite. The schist is severely metamorphored and altered by the mineral solutions. Generally the vein, as it passes through the bottlenecks is narrow (up to 2 feet) whereas it reaches 3-9 feet in width in the lenses. Since similar flat shearing is not uncommon in the Sunflower area, Mr. Carlson appears to be right as to their influence on ore accumulation. The rising hydrothermal solutions easily could have been damed by the shear planes causing the lenses to develop. The veins trends NE-SW and the shear planes are at an oblique angle to the main vein. The lenses are tapered from bottom to top with the wide part being at the top against the inferred shear planes. Mr. Carlson said that the shears show only as iron stained bands in the surface rocks, and the 45 degree vein does not, to his knowledge, outcrop. Mr. Carlson also stated that longitudinal development has not been extensive so that eventually he hopes to develop more lenses along the strike. Considerable high-grade ore was mined many years ago by Tom Russell's grandfather from three lenses. One pocket ran very high (reportedly over $10,000 per ton). Tom Russell said some ore ran around $2,000 to $2,500. The canyon which runs south of the main vein has yeilded very good placer gold. Carlson reported that the narrow bottlenecks are very low grade. A condition which is not too common. Considerable ore, running $12.00 up to $40.00 has been developed.

A new mill has just about been completed. It will employ gravity concentration, followed later by flotation to separate galena. The best gold is

LITTLE DAISY MINE

MARICOPA COUNTY
SUNFLOWER DIST.

The Daisy Group (between the National & the Ord) is being cleaned up and Carlson's old mill is being revamped to handle gold ore. Tests are underway to determine whether cyanidation or gravity concentration will be best suited to the ore.

L.A.SMITH - Weekly Report - 6-5-59

C.O. Carlson, Payson, Arizona reported that he and two others are cleaning up the Little Daisy gold property. Some gold values have been found in a quartz stringer lode in schist. Carlson stated that he plans to begin quicksilver operations on the Red Bird about November 1st.
L. A. SMITH - Cf - Sunflower 10-7-59

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Little Daisy Date February 3, 1960

District Sunflower Dist., Maricopa Engineer Lewis A.Smith

Subject:

C.O. Carlson has been opening up and repairing the older part of the Little Daisy and is now installing a gasoline hoist and skip. He has developed a small reserve of fair ore($25.00 to 35.00) and has encountered a few small high grade pockets. He plans to use his old gravity mill, now located at his home 1½ miles north of the Bee Line Highway on Sycamore Creek, and to add a ball mill. The road has been reopened after it was severely damaged by recent heavy rains. He has two men working for him. A. A. Fredrickson, 7045 N 12th St., Phoenix, is affiliated with him in the venture. Carlson also has raised 25 feet from the end of the south drift in ore.

Grady Harrison, who with Lovelace and Tom Russell, used to operate the mine, stated that the old workings included a 65 foot inclined shaft and 200 feet of underground lateral work. He stated, also, that the mine is inclined to be pockety and erratic, but some pockets were very high grade. They had a mill 1½ miles below the Daisy which employed pan-amalgamation. This mill, as far as is now known, has been largely dismantled. Original mill was built by Harry Burton.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine: Little Daisy — Date: November 13, 1978

District: Sunflower - County, Maricopa — Engineer: Ken A. Phillips

Subject: Present activities and field interview. (The interview was held with the owner in Phoenix, not at the property). Owner, Walter Knott, c/o Denetra's Kitchen, 2334 E. McDowell, Phoenix.

Mr. Knott reported he is presently processing gold lead ore from dumps, outcrops and open trenches. Ore is hauled to the mill from the workings in a 1 ton two wheeled trailer pulled by a jeep. Ore is dumped onto a 5" grizzly, plus 5 inches being broken with a double jack, and falls into the coarse ore bin. Coarse ore is fed to a 5"x7" jaw crusher. The jaws discharge onto a conveyor which feeds a 2'x4' rod mill, the rod mill discharges onto a 40 mesh screen with the oversize being returned to the mill. The -40 mesh material is deposited onto a 2'x6' (approx.) amalgamation plate. The ground ore passes over the amalgamation plate and onto a 4'x12' homemade Wilfrey type table. The table concentrate is collected and stored for shipment to smelters. The table middlings and tailings are combined and passed over a second amalgamation plate, then over a second table. The second table concentrate is combined with the first and tailings sent to disposal.

The head run 0.40 Au, 0.80 Ag, 1.5 Pb to as high as 1.2 Au, 4.0 Ag, 11% Pb and from assay reports average in the somewhere between 0.7 Au and 1.0 Au. The concentrates run between 20 and 50 Tr. oz. of gold per ton and the tails from .01 oz. to .06 oz. Au. with an average near 0.02. The heads, cons., tails and middlings are regularly sampled during operation and the samples sent for fire assay.

The mill is capable of handling around 10 tons daily, but production is less due to haulage method. Mining, loading, hauling, unloading by hand and mill operation is done by Knott with occasional part time labor. He is presently in need of money to improve his mining and haulage or to step up sampling and drilling to delineate a larger deposit. He is looking at the possibility of either taking in investors or joint venturing with a drilling company.

Inspiration has indicated they would take his concentrate and pay for the gold and what little copper is available. He is contacting the lead smelter at ASARCO, El Paso, they might pay for the lead.

He has proposed an improvement in his mill flowsheet, a copy is attached. However, there appears too little room for improvement.

Between 15 and 30 tons of ore has been milled at the property by the present owner. He has accumulated about one ton of lead-gold concentrate.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine LITTLE DAISY

Date June 18, 1979

District Sunflower, Maricopa County

Engineer Ken A. Phillips KAP

Subject: Concentrate Values

Walter Knott reported on concentrate assay results on his Little Daisy Mine. The samples were assayed by ASARCO.

		FIRST LINE TABLE CONCENTRATES	SECOND LINE TABLE CONCENTRATES	TABLE MIDDLINGS
Gold	(Tr.oz./ton)	75.82	2.48	0.44
Silver	(Tr.oz./ton)	26.9	1.9	0.5
Lead	(%)	48.1	4.3	2.0
Copper	(%)	1.0	0.7	0.6
Zinc	(%)	0.1	0.1	0.1
SiO_2	(%)	27.2	68.0	74
Iron	(%)	20.1	8.9	6.1
CaO	(%)	1.0	1.2	1.1
Al_2O_3	(%)	1.1	4.5	5.2
Mercury	(ppm)	14,600 (1.46%)	348	182

KAP:mw

W

SURVEY OF OPERATING MINES

July 25, 1942

By: Fred H. Perkins

LITTLE DAISY MINE

Problems:

This is a gold mine and due to their inability to get supplies, closed down May 25, 1942.

DEPARTMENT OF MINERAL RESOURCES STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine: LITTLE DAISY GROUP — Date: June 5, 1959

District: Sunflower District, Maricopa County — Engineer: LEWIS A. SMITH

Subject: Interview with C. O. Carlson 6-3-59

Claims: 4 - unpatented

Owners: A.A. Frederickson and Co., 7045 N. 12th St., & C. O. Carlson, Payson, Arizona

Location: Sec. 10, T. 6 N., R. 9 E.

A/C Topog. sheet Reno Pass

Work: Consists of 6 levels (40 ft, 75 ft., 120 ft., 170 ft., 270 ft., and 325 ft.). The 75' level is connected to an adit. A shaft extends vertically downward from the 75 foot or adit level to below the 325 foot level. The levels from the 270 foot upward are connected by a group of vertical and inclined raises which follow the ore zone which pitches northward down to the 170 level where it steepens up to nearly vertical. The 170 level is the most extensive. It follows the ore body for 200 feet turns south for 240' and follows the west trending south vein for about 200 feet. Stopes are above the 75 foot level. The north ore zone varies from 15 feet near the 75' level to as much as 50 feet on the 270 level. The ore length and width is variable and the length is known for several hundred feet.

GEOLOGY: Ore lies in two veins (north and south) which strike nearly E-W. and have variable dips. They dip northward at steep angles. The main ore shoots are in schist, which appears to be high in hornblende content, and are centered near the vein intersections with the granite schist contact. Blebs of quartz and local stringers carry gold. The average ore runs 0.14 oz in gold but hot spots run up to 6.16 oz in gold. The o.14 oz material concentrates to about 3.76 oz gold with a tail of 0.02 oz gold. The ore thus far developed runs between 0.04 and 0.18 oz gold. Work on an old mill at Carlson's place is proceeding. A new crusher and ball mill are to be installed. The tests indicate that the gold is free in limonite, but is quite fine in grain size, and that it will separate on tables. However, tests by cyanidation will be run before either method of adopted. No appreciable quicksilver has been observed in the oxidized material. Sulphide is largely limited to pyrite but sphalerite is suspected. Carlson stated that it was his opinion that the gold was introduced with the pyrite, This is most probably true as this is a very common association.

ASARCO

Southwestern Ore Purchasing Department
A. J. Kroha
Manager
J. N. Lambe
Assistant Manager

June 8, 1979

Mr. Walter Knott
P. O. Box 688
Payson, AZ 85541

Dear Mr. Knott:

Our El Paso Plant has assayed the samples from the Little Daisy mine and reports the following results:

	Oz per Ton		Percent							PPM
	Au	Ag	Pb	Cu	Zn	SiO2	Fe	CaO	Al2O3	Hg
1st line-last drift	75.82	26.9	48.1	1.0	.1	7.2	20.1	1.0	1.1	14,600
2nd line drift	2.48	1.9	4.3	0.7	.1	68.0	8.9	1.2	4.5	348
Last drift	.44	0.5	2.0	0.6	.1	74.0	6.1	1.1	5.2	182

The mercury content of sample marked "1st line-last drift" is too high to consider treatment at our smelters.

Yours very truly,

A. J. Kroha

ASARCO Incorporated P. O. Box 5747 Tucson, Az 85703
1150 North 7th Avenue (602) 792-3010

PRODUCT DEVELOPMENT

APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: H. R. Norman
1313 W. Camelback Rd.
Phoenix, Arizona

DATE Feb. 1, 1973

LAB No. 12082

RESULTS

Gold (Au) - 4.80 oz/ton

Lab Number 12082

270' level
Little Daisy
Grab Sample

Respectfully submitted,
ARC LABORATORIES

John T. Long, Jr.

PRODUCT DEVELOPMENT

APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: Walter Knott
4712 E. Osborn Rd
Phoenix, AZ 85018

DATE 9 September 1977

LAB No. 15137

Diversified # 2

RESULTS

	Gold	Silver
Sandy material in peanut butter jar	7.35 oz/T	1.13 oz/T

Lab Number 15137

Spanish Mine Dump
Bottom edge

75 lbs tabled
Assayed 1st run

Respectfully submitted,
ARC LABORATORIES

John Sickafoose

John P. Sickafoose Ph.D.
Technical Director

ODUCT DEVELOPMENT

APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: Walter Knott
4712 E. Osborn Rd
Phoenix, AZ 85018

DATE 6-2-77

LAB No. 14459

Diversified # 2

RESULTS

Gold	43.9 oz/ton
Silver	10.2 "

Lab Number 14459

Spanish Mine Dump
Top Center

(Pulverized 1 ton, sluiced,
assayed 1st run)

Respectfully submitted,
ARC LABORATORIES

John T. Long, Jr.

Arizona Testing Laboratories

817 West Madison · Phoenix, Arizona 85007 · Telephone 254-6181

For Mr. Jerome Joffe
353 Park Avenue
Highland Park, ILL. 60035

Date October 13, 1978

ASSAY CERTIFICATE

LAB NO.	IDENTIFICATION	OZ. PER TON		PERCENTAGES			
		GOLD	SILVER	COPPER			
8138	Spanish Mine -dump	0.02					
	Daisy-floor near short shaft,side drift	0.02					
	Daisy - hopper	0.01	nil				
	Daisy-inside and around	0.07	trace				
	Little Daisy - sulfide ore	26.	8.5				
	Little Daisy - 1st line Conc.	38.	29.				

Lab Number: 10/13/78 8138

Little Daisy - Sulfide Ore

Dump material
Selective sample
Pyrite material

itted,

NG LABORATORIES

Claude E. McLean, Jr.

CLAUDE EUGENE McLEAN, JR. Date Signed 10/13/78 ARIZONA, U.S.A.

PRODUCT DEVELOPMENT

APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: Walter Knott
4712 E. Osborn Rd.
Phoenix, AZ 85018

DATE 14 September 1977

LAB No. 15151

Diversified # 2

RESULTS

Gold	5.89 oz/ton
Silver	0.88 "

Lab Number 15151

Spanish Mine Ore

East Drift, limonite material

Head ore assay

Respectfully submitted,
ARC LABORATORIES

John F. Sickafoose
Technical Director

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WILLY KNOTT — DATE 11/5 19 79

	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
	1ST LINE ROASTED		1.84	0.58				
	2ND LINE ROASTED		4.65	0.07				
	1ST LINE 12" CUT ROASTED		1.50	0.60				
	TAILS ROASTED		1.40	0.20				
PRIVATE	1ST LINE QUARTZ VEIN ABOVE		11.55	10.84				
	EAST DRIFT MATERIAL ROASTED							

feed to float

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WILLY KNOTT — DATE 12/4 19 79

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
	#1 TAIL TABLE		0.30	0.01				
	#2 TAIL TABLE		0.20	0.07				
	2ND LINE SLOW FEED		0.70	0.06				
	2ND LINE FAST FEED		0.60	0.04				
	1ST LINE FAST		4.15	14.20				
	1ST LINE 2" CUT		0.40	0.20				
	1ST LINE 4" CUT		0.50	0.38				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WILLY KNOTT — DATE 7/31 19 79

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% Pb.			
1	HEADS		0.10	0.02				
2	TABLE #2 TAILS		0.10	0.01				
3	TABLE #1 – 1ST LINE	0.15	0.20	0.36	0.90			
4	TABLE #1 – 2ND LINE OVERFLOW		0.05	0.19				
5	TABLE #1 – 2ND LINE		0.10	0.06	0.50			
6	TABLE #2 – 1ST LINE		0.50	2.10				
7	TABLE #2 – 2ND LINE		0.10	0.30				
8	HEADS		0.10	0.11				

Dump material Claim #1

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

ALIN

DATE 5/30 19 78

LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
AFTER ALMAGAMATION	0.75	6.60	3.30	return over		1 table	
SULFIDES ONLY	0.00	23.90	3.48	"	"	2 tables	
LITTLE DAISY JAR #2	0.95	46.20	10.65				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

DATE 7/7 19 78

LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% Pb	% ZN		
LITTLE DAISY SULFIDES	0.35	7.50	3.82	1.1	0.2		
	7# RT.			22# P.T	4# P.T		

ORE

L. M. Kalal
CHIEF CHEMIST

SC-1005

VALLEY ASSAY OFFICE
AND ORE TESTING LABORATORY
MEMORANDUM OF ASSAY

Made for H. R. Norman   Tempe, Arizona Jan. 20, 1972.

SAMPLE NO.	PER TON OF 2000 POUNDS AVOIRDUPOIS								COPPER, OR			LEAD, OR			ZINC, OR			TOTAL	
	GOLD, PLATINUM				SILVER														
	AT	PER OUNCE			AT	PER OUNCE			AT	PER LB.		AT	PER LB.		AT	PER LB.			
	OZS.	100's	$	Cts	OZS.	100's	$	Cts.	%	$	Cts.	%	$	Cts.	%	$	Cts.	$	Cts.
1-Cons.	84.	22																	

REMARKS: Copper is also present.

REGISTERED ASSAYER / CERTIFICATE EXPIRES / L. LEE BOYER / DEC. 31, 19[illegible] / ARIZONA, U.S.A.

BY [signature] Registered Assayer.

NO.

CHARGE $ 3.50 [handwritten initials]

Superior Division

ASSAY CERTIFICATE 'A'

WALLY

DATE 5/11 19 78

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	TAILS	0.05-	0.10	0.12				
2	QUARTZ ROCK	0.15-	0.20	0.03				
3	ORE PILE BY WATER TANK	0.02	0.50	0.10				
4	BUG HOLE QUARTZ ("CONCTS.")	0.50-	7.40	18.34				
5	ORE ON HILL ("CONCTS.")	0.10	1.00	0.44				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY

DATE 5/30 19 78

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	AFTER ALLOCATION SULFIDES ONLY	0.75-	6.60	3.30	rerun over 1 table			
2		0.00	22.90	3.98	" " 2 tables			
3	LITTLE DAISY Jal #2	0.95-	46.20	10.65-				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 7/7 19 78

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% PB	% ZN.		
	LITTLE DAISY SULFIDES.	0.35-	7.50	5.82	1.1	0.2		

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 6/5- 19 79

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% PB			
1	SPANISH ORE - FINE 1/4" AND UNDER		1.60	0.14	0.50			
2	SPANISH FINES - 1ST LINE	1.60	9.70	5.70	19.40			
3	SPANISH FINES - 2ND LINE	0.50	7.40	0.38	5.70			
	DAISY - 2ND LINE CARS - RE-RUN MIDS.		0.90	0.24	0.60			

MAGMA COPPER COMPANY
Superior Division
ASSAY CERTIFICATE 'A'

WALLY

DATE 5/30 19 78

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	~~AFTER AMALGAMATION~~ }	0.75	6.60	3.30	rerun over 1 table			
2	SULFIDES ONLY }	0.00	22.90	3.98	" " 2 tables			
3	LITTLE DAISY. [illegible]	0.95	46.20	10.65				

MAGMA COPPER COMPANY
Superior Division
ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 6/28 19 78

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% SiO_2	% Al_2O_3	% Pb	% ZN
918	LITTLE DAISY EAST SIDE ORE HOPPER	0.05	0.10	0.08			0.0	0.2
919	" "	0.10	0.80	1.02			0.2	0.2
920	" "	0.05	0.05	0.02			0.0	0.2
921	" " WEST SIDE DAISY	0.05	0.10	0.03			0.0	0.2
922	" " DUMP	0.05	0.05	0.01			0.0	0.1
923	" " [illegible]	0.05	0.05	0.01			0.0	0.1
924	" " ABOVE DAISY	0.05	0.20	0.03			0.0	0.1
925	" "	0.05	0.15	0.05			0.0	0.2
926	SPANISH MINE NEAR SHAFT	0.10	0.05	0.10	78.6	6.6	0.0	0.2
927	" " DUMP	0.05	0.10	0.005	77.8	7.5	0.0	0.1
928	[illegible] " LARGE VEIN	0.05	0.05	0.01	82.6	1.9	0.0	0.1
929	GOLDEN RULE DUMP	0.05	0.20	0.03			0.0	0.1
930 ✓	LITTLE DAISY MILL [illegible] PILE	0.05	0.10	0.02			0.0	0.1
931	LITTLE DAISY	0.05	0.20	0.05			0.0	0.1
932	LITTLE DAISY MINE WATER TANK	0.05	0.05	0.02			0.0	0.1

#23 should be drift on road [illegible]

S.M. Kalal

LEACH

MOUNTAIN STATES RESEARCH & DEVELOPMENT

PROJECT NO. 2177 CYANIDATION TEST LOG SHEET	Date 2/21/80	Test Sample minus 60-mesh	Test No. CH-3

CONDITIONS AND REAGENTS

Point of Addition	Conditions				Reagent Addition				Solution Strength Lbs./Ton		
	Time Mins	Solids (%)	pH	Temp.	CaO	NaCN			CaO	NaCN	
Grind	5	60									
Agitation	Hours 0	30			5.0						
	1/2		11.5			4.0					
	2		11.5						0.9	1.6	
	24		11.4						0.5	1.5	
Reagent Consumption (Lbs./Ton)					3.8	0.5					

Remarks 1,165 ml. water
500 gm. ore sample

METALLURGICAL RESULTS

Product	Weight (%)	Assays (%)			Contents			Distribution (%)		
		Au	Ag		Au	Ag		Au	Ag	
Preg. and Wash	394.7	0.010	0.015		0.040	0.06		95.2	50.0	
Leached Residue	100.0	0.002	0.06		0.002	0.06		4.8	50.0	
ad		0.042	0.12		0.042	0.12		100.0	100.0	
		0.054	0.12							

difference

Screen Analysis Grind

Mesh		(%)
+ 48		
+ 65	1.30	
+100	8.92	10.22
+150	19.14	29.36
+200	19.91	49.27
-200	50.73	

MOUNTAIN STATES RESEARCH & DEVELOPMENT

PROJECT NO. 2177 CYANIDATION TEST LOG SHEET	Date 2/21/80	Test Sample minus 10-mesh	Test No. CH-2

CONDITIONS AND REAGENTS

Point of Addition	Conditions				Reagent Addition Lbs./Ton				Solution Strength Lbs./Ton		
	Time Mins	Solids (%)	pH	Temp.	CaO	NaCN			CaO	NaCN	
Grind											
Agitation	Hours 0	30			5.0						
			11.9			4.0					
			11.8						0.9	1.7	
	24		11.6						0.5	1.6	
Reagent Consumption (Lbs./Ton)					3.8	0.3					

Remarks 1,165 ml. water
500 gm. ore sample

METALLURGICAL RESULTS

Product	Weight (%)	Assays (%)			Contents			Distribution (%)		
		Au	Ag		Au	Ag		Au	Ag	
Preg. and Wash	409.6	0.006	0.009		0.025	0.04		59.5	30.8	
Leached Residue	100.0	0.017	0.09		0.017	0.09		40.5	69.2	
Calc. Head		0.042	0.13		0.042	0.13		100.0	100.0	
Assay Head		0.054	0.12							

Remarks

Screen Analysis Residue

Mesh	(%)
+ 48	
+ 65	
+100	Minus 10-mesh
+150	
+200	
-200	

MOUNTAIN STATES RESEARCH & DEVELOPMENT

PROJECT NO. 2177 CYANIDATION TEST LOG SHEET	Date 2/21/80	Test Sample -3/8 inch	Test No. CH-1

CONDITIONS AND REAGENTS

Point of Addition	Conditions				Reagent Addition Lbs./Ton				Solution Strength Lbs./Ton		
	Time Mins	Solids (%)	pH	Temp.	CaO	NaCN			CaO	NaCN	
Grind											
Agitation	Hours 0	30			5.0						
	1/2		11.9			4.0					
	2		11.8						0.9	1.7	
	24		11.6						0.6	1.6	
Reagent Consumption (Lbs./Ton)					3.6	0.3					

Remarks

1,165 ml. water
500 gm. ore sample

METALLURGICAL RESULTS

Product	Weight (%)	Assays (%)			Contents			Distribution (%)		
		Au	Ag		Au	Ag		Au	Ag	
Preg. and Wash	386.5	0.002	0.006		0.008	0.02		17.8	22.2	
Leached Residue	100.0	0.037	0.07		0.037	0.07		82.2	77.8	
Calc. Head		0.045	0.09		0.045			100.0	100.0	
Assay Head		0.054	0.12							

Remarks

Screen Analysis Residue

Mesh	(%)
+ 48	
+ 65	
+100	Minus 3/8 inch
+150	
+200	
-200	

Mr. Walter Knott
c/o Demetra's Kitchen
Phoenix, Arizona

March 10, 1980

Note that, although highest gold extraction (95 percent) was obtained on ore ground to 65-mesh, the contact time with cyanide in all tests was only 24 hours. Please note that gold extractions on coarse minus 3/8 inch crushed ore was 18 percent, and on minus 10-mesh crushed ore was almost 60 percent in identical 24 hour periods.

These latter results on coarse ore can be considered favorable for application of relatively low capital and operating cost heap leaching methods, for treating ore similar to the sample submitted for testing.

In order to confirm the foregoing possibility, we recommend running a small 3 inch column leach test on minus 3/8 inch ore, to more nearly simulate actual heap leaching conditions. In this type of test, a 3 inch diameter plastic column is charged with approximately 15 pounds of ore crushed to a preselected size such as 1/2 inch or finer.

Cyanide solution is then added to the top of the column at a certain rate in gallons per square foot per 24 hours. This test normally will continue for approximately 30 days, with the pregnant off solution measured and assayed every 24 hours.

From these test data, a rate of gold extraction versus time curve can be developed, and the optimum leach time calculated. This test will also develop valuable data on whether or not problems may develop with solution channeling (short circuiting), possible percolation rate problems due to slimes, etc.

Cost of such a test would be $3,500, and would take approximately five to six weeks for completion and submission of a final report. Leaching extraction data, of course, will be available as the test progresses.

Enclosed is a report of a recent paper on heap leaching of low grade gold ore at Round Mountain, Nevada, which you may find of interest. Our organization did all the laboratory and pilot plant testing for this operation, followed by design engineering, construction and startup.

Please let us know if we can be of any further service to you.

Sincerely yours,

J. A. McAllister
Vice President and
Assistant General Manager

JAM:sco

Att.

cc: Curtis D. Ensign
(w/att)

QUANTITY TAKE-OFF DATA

SHEET ____ OF ____

JOB NAME ____ QUANTITIES BY ____ CHECKED BY ____

ITEM ____ QUANTITY EXTENSIONS

ACCT. NO.	IND	DESCRIPTION	LENGTH Ag	HEIGHT Au	WIDTH Cu	NUMBER	PSI	%
		Dany						
54407		Spanish	.02	.003				
54408			.10	.122				
54410		Dany	.42	.124				
54411		✓	.02	.003				
54412			.01	.003				
54413		G R	.03	.003				
54414			.01	.003				
	15		.05	.010				
	16		>.01	.003				
	17		.04	.005				
	18		.02	>.003				
~~Dmat~~					0%			
	419		.02	>.003	.02			
	420		.06	.003	.22			
	21		.04	.003	.01			
	22		.10	0.150	2.9			
	23		.08	.068	.42			

246-9573

Spanish Mine

			Au	Ag	Cu	Pb	Zn	Al_2O_3	SiO_2
6/28/78	Magma	Near Shaft	0.10	0.5	0.10	0.0	0.2	6.6	78.6
		Dump	0.005	0.10	0.05	0.0	0.1	7.5	77.8
		Lone Vein	0.01	0.05	0.05	0.0	0.1	1.9	82.6
7/25/78	Magma		0.02	0.10	0.10				
9/14/77	ARC	east drift limonite material	5.89	0.88					
10/13/76	ATL	dump = of Caving Stope	0.02						
5/29/79	Magma	#2 claim E face	0.08	0.10	0.08	0.0			
			0.06	0.10	0.10	0.0			
			0.03	0.10	0.05	0.0			
4/30/79	East Drift Vein	claim #2	0.10	6.80	0.68	5.8	0.4		

		Does (cont)	Au	Ag	Cu	Pb	Zn			
7/7/78	Magma	Sulfides	5.82	7.50	0.35	1.1	0.2			
2/1/73	ARC	270' level - Grab Sample	4.80							
10/13/78	ATL	Floor near shaft, side drift	0.02							
		Hopper	0.01	Nil						
		Inside & around	0.07	tr						
		Sulfide ore	26.0	8.5						
								FE	CaO	Al_2O_3
6/8/79	ASARCO	Last drift	0.44	0.5	0.6	2.0	0.1	6.1	1.1	5.2
7/31/79	Magma	Dump	0.02	0.10						
6/18/79	Magma	Placer	0.39	2.90						
5/8/79	Maga	Placer	0.04	0.10						
5/14/79	Magma	E Drift	0.32	0.30	0.10	0.30				
10/10/78	Magma	40' level	0.02	0.10	0.10					
		Short Shaft	0.26	0.30	0.20					
8/2/78	Magma	Pink Granite	0.005	0.10						
		Green granite	0.01	0.10						
		Shaft	0.02	0.10						
		Top of Mt	0.01	0.10						
7/10/78	Magma		0.04	0.35	0.15					
~~7/7/78~~	~~Magma~~	~~Sulfides~~	~~5.82~~	~~7.5~~	~~0.35~~	~~1.1~~	~~0.2~~			
11/7/77	Magma	2.	0.31	0.90						
1935	April	Smelter Reports	1.87	.80						
	Oct		0.85	1.15						
	Dec		0.96	0.95						
	Nov		0.34	0.70						
	Oct		1.16	1.50						
1936	Jan		1.54	0.60						
	Aug		1.87	0.80						
	Aug		1.38	0.40						
	June		0.66	0.50						
	Dec		0.97	0.80						
	Dec		0.59	0.80						

~~Head Ore~~ Daisy

			Au	Ag	Cu
mit states	3/10/80	Head ore			
Daisy			0.045	0.09	
			0.042	0.13	
			0.042	0.12	
Magma	7/10/68	Daisy	0.04	0.35	0.15
Magma	10/10/78	Daisy 40' Level	0.02	0.10	0.10
✓	✓	✓ Short Shaft	0.26	0.30	0.20

			Au	Ag	Cu	Pb	Zn
6/28/78	Magma	East Side Hopper	0.08	0.10	0.05	0.0	0.2
			1.02	0.80	0.10	0.2	0.2
			0.02	0.05	0.05	0.0	0.2
		West Side Hopper	0.03	0.10	0.05	0.0	0.2
		Dump	0.01	0.05	0.05	0.0	0.1
			0.01	0.05	0.05	0.0	0.1
		Above Daisy	0.03	0.20	0.05	0.0	0.1
			0.05	0.15	0.05	0.0	0.2
		Sm pile by tree	0.02	0.10	0.05	0.0	0.1
		Large Pile	0.05	0.20	0.05	0.0	0.1
		Water tank	0.05	0.05	0.02	0.0	0.1
7/25/78	Magma		0.13	0.20			
4/5/79	Magma	Red Ore Shaft Shaft	0.08	0.10			
	✓ Shaft w/ iron Oxide - 60' in side portal - 75' level		TR	none			
	✓ side wall & Drift near 200' shaft		TR	none			
	✓ floor & drift near 200' Shaft		0.09	none			
6/11/78	✓ Quartz Rock ore pile near water tank		0.03	0.20	0.15		
			0.10	0.50	0.02		
	X ~~Bug hole~~ quartz (concts)		18.34	7.40	0.55		
	X ~~ore on hill~~ (concts)		0.44	1.00	0.10		

Mill Run Assays

			1st line Table			2nd line			Mids
4/18/78	Magma		Au	Ag	Cu	Au	Ag	Cu	
			4.81	12.60	1.00	0.38	2.30	0.30	
			2.14	12.90	0.50	0.60	7.70	0.30	
			9.60	14.40	0.70				
			0.68	16.70	0.55				
						Au	Ag	Cu	
Magma	11/27/77					2.78	3.10		
✓	✓		23.52	53.10					
✓	4/5/79		1.80	2.20					
✓	5/11/78	Tails	0.12	0.10	0.05				
✓	5/11/78	Big hole quantity (Dump) (cont)	18.34	7.40	0.55				
		ore on hill (cont)	0.44	1.00	0.10				
✓	5/30/78	Sulfides after Amalgamation	3.30	6.60	0.75				
			3.98	22.90	0.00				
		Little Daisy 2nd line Cons	0.45	46.20	10.65	Pb			
6/5/79	Magma	Re-run mids	0.24	0.90		0.60			
		Spanish ore fine 1/4 & under	0.14	1.60		0.50			
		Spanish fines 1st line	5.70	9.70	1.60	19.40			
		Spanish fines 2nd line	0.38	7.40	0.50	5.70			
1/20/72	Valley	1 Cons	84.22						
6/2/77	ARC	Spanish Dump top corner	43.9	10.2	pulverized 1 ton, sluiced, 1st run				
9/9/77	ARC	Spanish Dump Bottom Edge	7.35	1.13	75 lbs tabled – 1st run				
10/13/78	ATL	Daisy 1st line	38.0	29.0		Pb	Zn	SiO_2	Fe	CaO	Al_2O_3
6/8/79	ASARCO	1st line last drift	75.82	26.9	1.0	48.1	0.1	7.2	20.1	1.0	1.1
		2nd line drift	2.48	1.9	0.7	4.3	0.1	68.0	8.9	1.2	4.5

	Mill	Au	Ag	Cu	Pb	Zn				
11/5/79	Magma, 1st line Roasted	0.58	1.84				(fed too fast)			
	2nd line Roasted	0.07	4.65							
	1st line 12" cut Roasted	0.06	1.50							
	Tails Roasted	0.20	1.40							
	1st line Spanish Quartz	10.84	11.55				Vein above East drift (Roasted			
		Au	Ag							
12/4/79	Magma #1 Tail table	0.30	0.01							
	#2 " "	0.20	0.07							
	2nd line slowfeed	0.70	0.06							
	2nd line fastfed	0.60	0.40							
	1st line Test	4.15	14.26							
	1st line 2" cut	0.40	0.20							
	1st line 6" cut	0.50	0.38							
7/31/79	Magma (testing only - not shown here)				Pb					
6/18/79	Quarry Red clay 1st line	3.40	2.40							
	" " 2nd line	0.56	0.80							
	" mide test #2	0.08	1.50							
	" 2nd line - test #2	0.94	1.30							
	" Fuse Pile 1st time test,	8.84	10.40	0.7						
	" 1st time test 2	5.03	5.10	3.4	SiO_2	Al_2O_3	CaO			
9/6/79	Magma 2nd line	0.24	0.10		56.2	8.9	7.1			

S/H

~~Doug~~

Smith reports
Jan 1940 0.08
0.16
0.20
0.42
0.20
0.50

~~Doug~~ Sample from shaft 0.10
0.30
Quartz South Vein → 0.24
→ 0.02
Schist tr
Heavy Condensed quartz 0.03
Ave 12' in shaft 325 level 0.10
Quartz north side 170' level DEV fault ccs 0.04
Micaceous in back ✓ 0.02
Ave dike Material E.D 325' 0.06
Next to East round East drift 325' 0.20
Last Round East drift 325' 0.04
oxided granite in schist 0.04
North Side DW Fault 170' level 0.04
Ave Shaft Sample 24' in shaft 0.02
Shaft 3' Car ~~at~~ dump 0.20
0.14
0.06
0.16

~~Sp~~ Golden Rule

			Au	Ag	Cu	Pb	Zn	Al_2O_3	SiO_2
6/28/78	Magma	Dump	0.03	0.20	0.05	0.0	0.1		

Daisy - Smelter reports

1937	Sept	0.96	0.80		0.90
	March	0.79	0.80		2.29
1938	Nov	0.01	~~3.50~~		1.00
		0.12	~~4.20~~		0.20
		0.06	~~2.10~~		0.06
		0.11			0.14
		0.60		Quartz Stope 270' level	0.06
		0.12			0.02
1938	Dec	0.14	Nov 1939		0.16
1939	Jan	0.06	across drift 75' east of Shaft 270 level		2.36
		0.06	4" quartz on hanging wall drift east on South vein		0.04
		0.04	18" quartz vein surface 12" vein		0.02
		0.05	phyolite schist South vein next to hanging wall		Tr
		0.04	10' below surface 400' E of Shaft 2' wide		0.32
		0.16	50' level 4' wide		0.40
		0.06			2.76
		0.10	East side of Shaft at collar		1.94
		0.38	West side of Shaft at collar 4' wide between water tank & Shaft		2.48
		0.06			
	325' level	0.06	2' wide 25' East of Shaft		1.08
	355' level East drift	0.16	Grab Samples		0.68
		0.04	Ore showing copper 2' wide E side of Shaft at collar		1.96
		0.05			

VALLEY ASSAY OFFICE

AND ORE TESTING LABORATORY

MEMORANDUM OF ASSAY

Made for H. R. Norman

Tempe, Arizona ..... Jan. ....30..... , 1972..

SAMPLE NO.	PER TON OF 2000 POUNDS AVOIRDUPOIS								COPPER, OR			LEAD, OR			ZINC, OR			TOTAL	
	GOLD, ~~PLATINUM~~				SILVER				AT		PER LB.	AT		PER LB.	AT		PER LB.		
	AT	PER OUNCE			AT	PER OUNCE													
	OZS.	100's	$	Cts	OZS.	100's	$	Cts.	%	$	Cts.	%	$	Cts.	%	$	Cts.	$	Cts.
1-Cons.	84.	22																	
REMARKS:	Copper is also present.																		

REGISTERED ASSAYER
CERTIFICATE EXPIRES
L. LEE
BOYER
DEC. 31, 19 73
ARIZONA, U.S.A.

BY L. Lee Boyer
Registered Assayer.

NO.

CHARGE $ 3.50 PH

T.T.B.

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 6/18 19 79

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% Pb.			
	RED CLAY DAISY – 1ST LINE		2.40	3.40		TABLE CONCENTRATES		
	RED CLAY DAISY – 2ND LINE		0.80	0.56		✓		
	MIDS – TEST #2		1.50	0.08		✓		
	2ND LINE – TEST #2		1.30	0.94		✓		
	PLACER – LITTLE DAISY		2.90	0.39	✓	CREEK BED SAMPLE		
(	1ST LINE – TEST #1 fine		10.40	8.84	0.7)	TABLE CONCENTRATES		
	1ST LINE TEST #2 large pieces		5.10	5.03	3.4)	✓	✓	

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 7/31 19 79

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% Pb.			
1	HEADS		0.10	0.02		SPANISH MINE DUMP		
2	TABLE #2 TAILS		0.10	0.01			CONCENTRATES	
3	TABLE #1 – 1ST LINE	0.15	0.20	0.36	0.90		–	
4	TABLE #1 – 2ND LINE OVERFLOW		0.05	0.19			✓	
5	TABLE #1 – 2ND LINE		0.10	0.06	0.50		✓	
6	TABLE #2 – 1ST LINE		0.50	2.10			✓	
7	TABLE #2 – 2ND LINE		0.10	0.30			✓	
8	MIDS.		0.10	0.11			✓	

S. M. Kalal
CHIEF CHEMIST

SE–1005

DEVELOPMENT APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.

9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: Walter Knott
4712 E. Osborn Rd
Phoenix, AZ 85018

DATE 9 September 1977

LAB No. 15137

Diversified # 2

RESULTS

	Gold	Silver
Sandy material in peanut butter jar	7.35 oz/T	1.13 oz/T

Respectfully submitted,
ARC LABORATORIES

John Sickafoose

John P. Sickafoose Ph.D.
Technical Director

PRODUCT DEVELOPMENT APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: Walter Knott
4712 E. Osborn Rd
Phoenix, AZ 85018

DATE 6-2-77

LAB No. 14459

Diversified # 2

RESULTS

Gold	43.9 oz/ton
Silver	10.2 "

Respectfully submitted,
ARC LABORATORIES

John T. Long, Jr.

Arizona Testing Laboratories

815 West Madison · Phoenix, Arizona 85007 · Telephone 254-6181

For: Little Daisy Mine

Date: March 22, 1978

Lab. No.: 6413

Received: ---

Marked: 1st Line Clean Cut, 40 mesh

Submitted by: same

REPORT OF QUALITATIVE SPECTROGRAPHIC EXAMINATION

ELEMENT	APPROXIMATE PERCENT
Boron	0.01
Silicon	2.0
Aluminum	4.0
Manganese	0.6
Magnesium	0.3
Lead	Major Constituent
Chromium	0.3
Copper	2.0
Iron	Major Constituent
Bismuth	1.0
Beryllium	0.001
Calcium	2.0
Vanadium	0.005
Yttrium	0.01
Ytterbium	0.001
Sodium	0.1
Titanium	0.2
Silver	0.1
Zirconium	0.8
Nickel	0.07
Gold	0.07

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean

Claude E. McLean, Jr.

MAGMA COPPER COMPANY

Superior Division

ASSAY CERTIFICATE 'A'

WALLY 58.32 11.9%

DATE 11/29 19 77

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	DAISY MIDDLINGS		3.10	2.78				
2	DAISY 1ST. LINE		52.10	23.52				

S. M. Kalaf

CHIEF CHEMIST

SE-1005

PRODUCT DEVELOPMENT

APPLIED RESEARCH

ARC LABORATORIES

Division of Arizona Research Consultants, Inc.
9236 NORTH 10TH AVE. PHOENIX, ARIZONA 85021 943-3573

FOR: Walter Knott
4712 E. Osborn Rd.
Phoenix, AZ 85018

DATE 14 September 1977

LAB No. 35151

Diversified # 2
SPANISH MINE

RESULTS

Gold	5.89 oz/ton
Silver	0.88 "

Sample Taken Across West Drift Vein

Respectfully submitted,
ARC LABORATORIES

John Sickafoose

John P. Sickafoose
Technical Director

VALLEY ASSAY OFFICE

AND ORE TESTING LABORATORY

MEMORANDUM OF ASSAY

Made for H. R. Norman

Tempe, Arizona ..... Jan. .... 18 ....., 1978.

SAMPLE NO.	PER TON OF 2000 POUNDS AVOIRDUPOIS								COPPER, OR			LEAD, OR			ZINC, OR			TOTAL	
	GOLD,				SILVER														
	AT	PER OUNCE			AT	PER OUNCE			AT	PER LB.		AT	PER LB.		AT	PER LB.			
	OZS.	100's	$	Cts	OZS.	100's	$	Cts.	%	$	Cts.	%	$	Cts.	%	$	Cts.	$	Cts.
1	2.	62			0.	30													
REMARKS:																			

REGISTERED ASSAYER
CERTIFICATE EXPIRES
L. LEE
BOYER
DEC. 31, 19
ARIZONA, U.S.A.

NO. LITTLE DAISY MINE

CHARGE $ 6.00 Pd.

BY L. Lee Boyer
Registered Assayer.

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY

DATE 11/29 1977

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	DAISY MIDDLINGS.		3.10	2.78				
2	DAISY 1ST. LINE		3.10	23.52				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALTER KNOTT

DATE 11/17 1977

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
			0.90	0.31				

L. M. Kalal
CHIEF CHEMIST

SC-1005

MAGMA COPPER COMPANY
Superior Division
ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 9/6 19 79

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.	% SiO_2	% Al_2O_3	% CaO	
	2nd LINE		0.10	0.24	56.2	8.9	7.1	

MAGMA COPPER COMPANY
Superior Division
ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 9/11 19 79

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
	1ST LINE		2.60	5.76				
	2nd LINE		0.20	0.24				
	1ST and 2nd TOGETHER		0.10	0.84				
	Mids.		0.10	0.11				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 10/9 19 79

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
1	1ST LINE WIDE CUT		8.45	12.84				
2	1ST LINE CLEAN CUT		0.40	3.02				

MAGMA COPPER COMPANY
Superior Division

ASSAY CERTIFICATE 'A'

WALLY KNOTT

DATE 11/5 19 79

NO.	LOCATION AND REMARKS	CU %	AG OZ.	AU OZ.				
	1ST LINE ROASTED		184	0.58				
	2ND LINE ROASTED		4.65	0.07				
*	1ST LINE 12" CUT ROASTED		1.50	0.60				
	TAILS ROASTED		1.40	0.20				
SPRINKLE	1ST LINE QUARTZ VEIN ABOVE		11.55	10.84				
	EAST DRIFT MATERIAL ROASTED							

fed to float

S. M. KALAF
CHIEF CHEMIST

SC-1005