



CONTACT INFORMATION

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Phoenix, AZ 85007
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Arizona Department of Mines and Mineral Resources Mining Collection

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PRINTED: 06-05-2006

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: RACKENSACK

ALTERNATE NAMES:

DALLAS PAT. CLAIM
EL PASO PAT. CLAIM
FORT WORTH PAT. CLAIM

MARICOPA COUNTY MILS NUMBER: 601

LOCATION: TOWNSHIP 7 N RANGE 5 E SECTION 33 QUARTER SW
LATITUDE: N 33DEG 54MIN 03SEC LONGITUDE: W 111DEG 51MIN 04SEC
TOPO MAP NAME: HUMBOLDT MTN - 7.5 MIN

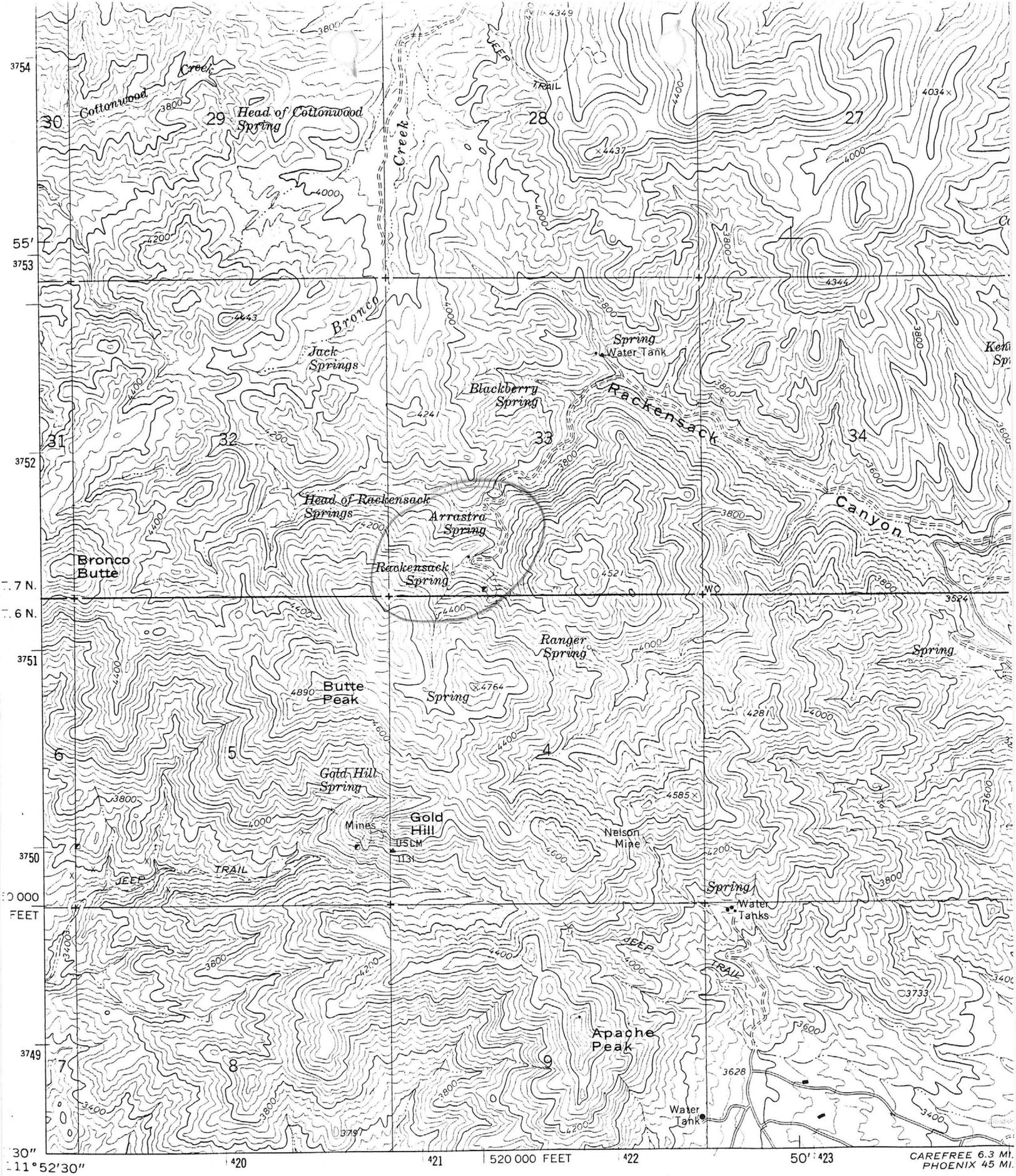
CURRENT STATUS: PAST PRODUCER

COMMODITY:

GOLD LODE
SILVER
COPPER
MOLYBDENUM SULFIDE
BERYLLIUM

BIBLIOGRAPHY:

USGS HUMBOLDT MTS QUAD
BLM MINERAL SURVEY MS 2916
ADMMR RACKENSACK FILE
WILSON E, CUNNINGHAM J & BUTLER G AZBM BULL
137 P 165
MOORE R AZBM BULL 180 P 106



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

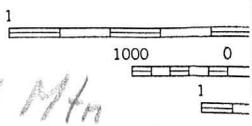
Topography by photogrammetric methods from aerial photographs taken 1962. Field checked 1964

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

SW 1/4 Sec. 33, T 9 N, R 5 E



Humboldt Mtn



ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

1. Mine file: RACKENSACK
2. Mine name if different from above:
3. County:
4. Information from: Bob Coblio
Company:
Address: 2506 E. Highland
Mesa, AZ 85203
Phone: 241-6000 (work)
5. Summary of information received, comments, etc.:

Mr. Coblio reports he has approval by the Forest Service for the operating plan at the Rackensack Mine. He is conducting negotiations with ITC Consulting Services of Salt Lake City, Utah to be financial partners in the development.

Date: December 8, 1988

Nyal J. Niemuth, Mining Engineer



A+171-1

C-1950



ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY (SHORT FORM)

May be Reproduced

May Be Inserted Into Mine File Or Added To "Rumor Page"

1. Information from: Wade Pierson, Meyer Resources

Address:

2. Phone:

3. Mine: Lady Luck, Ironwood, Orogrande, MCL

4. ADMMR Mine File: Middlecamp Placers

5. County: La Paz

6. MILS Number:

7. Operational Status: Exploration work

8. Summary of information received, comments, etc.:

Mr. Pierson reported on activity at the companies placer sampling project and provided some company addresses.

The company plans to sample some dry placer ground in Secs. 28 & 29, T4N, R20W. They will cut trenches, wash and screen material to minus 3/4. The minus 3/4 material will be treated by jigs to produce a concentrate. The address of their corporate headquarters is:

Meyers Properties, Inc.
14132 E. Firestone Blvd.
Santa Fe Springs, CA 90670

Bob Meyer is the head individual.

Date: March 1988



(Signature) AzDMMR

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY (SHORT FORM)

May be Reproduced

May Be Inserted Into Mine File Or Added To "Rumor Page"

1. Information from: Bob Coblio

Address:

2. Phone:

3. Mine: Rackensack

4. ADMMR Mine File: Rackensack

5. County: Maricopa

6. MILS Number:

7. Operational Status:

8. Summary of information received, comments, etc.:

Bob Coblio reported he is in the process of acquiring an operating plan for some pilot production at the Rackensack Mine.

Date: Sept. 7, 1988



RACKENSACK MINE

MARICOPA COUNTY

Mrs. Ivy Edgar visited office and stated that her husband Milton Edgar is half owner of this property. 5-9-67 MSparkes

Milton A. Edgar, 1409 W. Cheryl Drive, Phoenix, and Mrs. Mable Steinegger, 701 N. 7th St., Phoenix, co-owners of Rackensack. Claims in contest - BLM says non-mineral. Property in Rackensack Canyon (formerly Rackensack Gulch) approx. SW $\frac{1}{4}$ Sec. 33, T7N, R5E 4-24-69 LP

Mr. George Edeline, Cave Creek, came in with some nice Au quartz specimen from the Rackensack mine north of Cave Creek. He said the Forest Service has been harassing him in order that they may exchange a section of land containing the seven Rackensack claims for a section owned by a realty concern. It was suggested he talk with Hal Susie as the BLM would have the final authority in any land exchange. GW WR 1/5/73

Jack Gillespie, of CF&I regarding hearing on validity of the Rackensack mine near Cave Creek. A hearing will be conducted by the Forestry Monday, March 19, 1973. FTJ WR 3/15/73

Went to Tonto Mining and Milling Company mill at Punkin Center where Mr. Howe said they had been closed for several months due to the fall in price of acid grade flourspar. He also stated that their exploration at the Rackensack mine had revealed considerable MoS₂ but they had stopped work until the title of the land was cleared. He gave the impression that if and when the price of spar goes to \$70.00/ton that they will probably get spar from the McFadden Peak deposit, which was recently drilled and turned down by U.S. Steel Company. GW WR 10/30/73

Visited the Rackensack mine but found no one. GW WR 11/7/75

Reference: ABM Bull. 137, p. 165

~~SECRET - NOT FOR PUBLICATION~~

RACKENSACK MINE

MARICOPA COUNTY

ABM Bull. 137 p. 165 - *in file*

GFBX 143 1981 Radioactive Occurrences and Uranium Production in Arizona p. 200
ABG&MT Report

ASSAY REPORTS

Cont D for 1D

Sampling by R. E. Mieritz, Mining Consultant, Phoenix, Ariz.
November 27, 1976

Sample Number	Sample Description	Ounces/ton	
		Gold	Silver
1397	15" across top of quartz vein (pocket?) in granite in Pit on small bench. Much yellow to brown to red FeOx (Iron oxide). Specks of gold visible.	1.536	1.02
1398	15" across white quartz vein, 80° NE dip, strong FeOx near foot-wall, some yellow to red FeOx throughout. Above #1397	0.028	0.34
1399	Blind grab sample of heavily FeOx stained (yellow-orange-brown-red) quartz, some box-work, from shaft dump	0.402	0.66
1400	Blind grab of stockpile, mostly granitoid, some FeOx, some pyrite, some Moly? Copper assay 0.04%, Moly assay Nil.	Tr.	0.36
1401	4.0 foot chip down bank wall in small pit. Highly altered granitoid of pinkish color, some FeOx but not live type. This material was milled.	Tr.	2.44

Controlled Exp. # 0

REPORT ON THE RACKENSACK AND SERRO DE ORO CLAIMS

Maricopa County, Arizona

Prepared for Tonto Mining and Milling Co.

Perry Bigbee, Don Howe, and Don Tidwell

By

James R. Brooks

March 17, 1973 ●

EXH 0

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
817 WEST MADISON ST. PHOENIX, ARIZONA 85007

PHONE 254-6181

For **Tonto Mining & Milling Co., Inc.** Date **March 15, 1973**
P.O. Box 275
Tonto Basin, Arizona 85553

Sample of Ore Received:
 Submitted by: same All on Rackensack #1 ad #2 Claims.

ASSAY CERTIFICATE

Gold figured at \$ **38.00** per ounce Silver figured at \$ **2.00** per ounce

LAB. NO.	IDENTIFICATION <i>Width Length</i>		GOLD		SILVER		PERCENTAGES	
			OZ. PERTON	VALUE	OZ. PERTON	VALUE	Copper	
4030	3-13-1		Trace		Nil			
	3-13-2		0.02	0.76	Nil			
	3-13-3		0.03	1.14	Trace			
	3-13-4	2' 40'	2.90	110.00	1.65	3.30		
	3-13-5	2.5' 30'	0.61	23.18	8.40	16.80		
	3-15-6	2.5' 20'	0.66	25.08	0.30	0.60		
	3-15-7		Trace		Nil			
	3-15-8		0.04	1.52	0.20	0.40	0.05	
	3-15-9		0.02	0.76	0.60	1.20	0.80	
	3-15-10		Nil		0.05	0.10		
	3-15-11	2.2' 40'	0.41	15.58	0.25	0.50		

Granite wall rock adjacent to vein (bracketed next to 3-15-7 to 3-15-11)

→ Rattles Adit. (arrow pointing to 3-15-11)

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.
 Claude E. McLean, Jr.

INTRODUCTION

The Rackensack Mine was examined on March 2, 1973, at the request of Mr. Don Howe and Mr. Perry Bigbee, both of Tonto Mining and Milling Company. Subsequent visits were made on March 8, 10, 13 and 16 to further evaluate the property.

The Rackensack property consists of four Rackensack claims and four Cerro De Oro claims located about seven miles Northwest of Carefree, Arizona. The district has been a minor producer of copper, gold, lead, and silver since the 1880s, the principal producer being the Red Rover Mine some six miles North.

GEOLOGY

The Rackensack Mine proper lies along a prominent shear zone trending N55°W which has been intruded by a tertiary granite and numerous quartz veins. These veins roughly parallel the shear zone and dip northerly.

The veins on the Cerro De Oro claims tend to bloom out into large massive quartz outcrops at fracture intersections and these silicified areas tend to carry copper, lead, silver, gold, and fluorite.

*

MINERALIZATION

RACKENSACK

The Rackensack vein strikes N50°W and dips 50°N. Most of the mineralization is confined to a quartz vein ranging from 1 to 4 feet which can be traced for about 600 feet. The mineralized structure can be traced for over 1500 feet but may actually consist of several different veins.

The ore mineralization is principally native gold with minor amounts of galena, chalcopyrite and its oxidation products, sylvanite, wulfenite, mimetite and pyrite. The gold tends to be rather coarse and the higher values appear to be associated with the galena-rich portions of the vein. The ores assay as much as 8 ounces of silver to the ton but no attempt has been made to determine how much is in the gold and what part is carried by the galena.

CERRO DE ORO

Mineralization on the Cerro De Oro claims is principally copper, silver, lead, and fluorite. The large silicified outcrop on the Cerro De Oro #1 has had the most amount of work done and a small tonnage of ore has been shipped. Very little work has been done on the remainder of the Cerro claims but significant exposures of fluorspar and galena warrant further development.]

SAMPLING

Samples were collected from the discoveries of the claims as noted on the sample location sheet, see page 4. In addition, preliminary sampling was done on both the Rackensack vein material and adjacent wall rock.

[The erratic distribution of gold mineralization in the Rackensack vein made meaningful sampling difficult. It was decided that a composite sampling of the exposed portions of the vein would probably give the best results as time did not permit a systematic trenching of the surface and channel sampling the drift bottoms. Rain, snow, and flooded mine workings compounded the problems so the boundaries of the sample units were of necessity picked by accessibility of exposures.]

TONNAGE AND GRADE

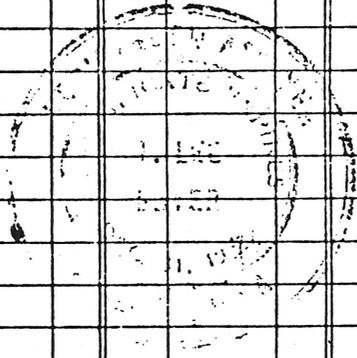
[The Rackensack vein proper can be traced for at least, 550 feet and of that 160 feet has been examined and is known to be ore grade material. 390 feet could not be examined at this time due to lack of exposures or inaccessible mine workings but is known to be at least in part mineralized. Assuming that half of this area is barren this gives a total mineralized strike length of 355 ft.] The average width of sample cut was 2.5 feet; therefore, the tonnage above the present adit being driven can be calculated as follows:

**VALLEY ASSAY OFFICE
AND ORE TESTING LABORATORY
MEMORANDUM OF ASSAY**

Made for J. D. Glover

Tempe, Arizona..... REC..... 1....., 19..56

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.	
	OZS.	100's	\$	Cts.	OZS.	100's	\$	Cts.	%	\$	Cts.	%	\$	Cts.	%	\$	Cts.	\$	Cts.
R-21	10.55			14.50															
" 22	14.09			2.80															
" 23	11.82			12.40															
"	21.90			1.70															
REMARKS:																			



NO.

BY J. Lee Brown
Registered Assayer.

CHARGE \$ 56.00 Per S. J. B.

**IRON KING ASSAY OFFICE
ASSAY CERTIFICATE**

BOX 14 - PHONE 632-7410
HUMBOLDT, ARIZONA 86329



-ASSAY
MADE
FOR

W. D. PYE
Rackensack Claims

Dec. 4, 1976

Ref no.	DESCRIPTION	oz/ton Au	oz/ton Ag	% Fe	% Pb	% Zn	% Cu
12-6-1	Sample #1, General pit along Vein.	7.34	3.69				
12-6-2	Sample #1A, General pit area along vein	4.58	4.32				
12-6-3	Sample #2, Rackensack #3 location shaft area	.544	1.26				
12-6-4	Sample #3, main tunnel claim #1, So. branch	1.748	2.01				
12-6-5	Sample #4, main tunnel west branch along dyke	.340	1.26				

CHARGES \$30.00 paid _____

ASSAYER _____

#12

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
817 WEST MADISON ST. PHOENIX, ARIZONA 85007

PHONE 254-5131

For Mr. Harve I. Ashby, M. E.
U.S.D.A., Forest Service
517 Gold Avenue,, S.W.
Albuquerque, New Mexico 87101

Date February 24, 1971
Your P.O. No. BPA-12-5059

Sample of Ore

Received: 2-9-71

Submitted by: Mr. Ashby & Mr. R.E. Wilson

ASSAY CERTIFICATE

Gold figured at \$35.00 per ounce

Silver figured at \$ 2.00 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
9544	Rackensack #3	6.2	\$217.00	1.45	\$2.90		

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.
Claude E. McLean, Jr.

11
ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
817 WEST MADISON ST. PHOENIX, ARIZONA 85007

PHONE 254-6181

For Mr. Harve I. Ashby, M. E.
U.S.D.A., Forest Service
517 Gold Avenue, S.W.
Albuquerque, New Mexico 87101

Date February 24, 1971
Your P.O. No. BPA-12-5059

Sample of Ore

Received: 2-9-71

Submitted by: Mr. Ashby & Mr. R.E. Wilson

ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce.

Silver figured at \$ 2.00 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
9543	Rackensack #2	15.8	\$553.00	0.65	\$1.30		

Respectfully submitted,

ARIZONA TESTING LABORATORIES

C. E. McLean, Jr.
Claude E. McLean, Jr.

Edwin - J. Terrey

INSPIRATION CONSOLIDATED COPPER CO.
SMELTING DEPARTMENT

Melter Lot 5407 Shipper Lot 2

DATE NOVEMBER 18, 1921
Date Received NOVEMBER 6, 1921

BOUGHT OF MAJOR MINERALS

Direct Box 743 City COPPER FREE, DRIZARD

Car Number	WET WEIGHT	Moisture %	DRY WEIGHT	LOCATION	N. Y. QUOTATIONS
ICC 925	20,640	4.99	19,610	OVERBUNDEN FROM TOP & SIDE OF GOLD VEIN # 2 CLAIM RACKENSAEK	Copper (per lb.) <u>52.75¢</u> Less <u>6.00¢</u> = <u>46.75¢</u> Silver (per oz.) _____ Gold (per oz.) <u>112.225 = 2 1/2% = \$51.12</u>

ASSAY and ANALYSES	Copper %	Silver Oz.	Gold Oz.	Silica %	Alumina %	Iron %	Lime %	Sulphur %
	<u>0.62</u>	<u>.94</u>	<u>0.647</u>	<u>85.5</u>	<u>2.1</u>	<u>4.1</u>	<u>1.5</u>	<u>0.1</u>

PAYMENTS PER TON			DEBITS	CREDITS	Value For Freight
per <u>12.40</u>	Lbs. per ton, less <u>10</u> ^{lbs} / _{8%}	<u>2.40</u> Lbs. at <u>46.75¢</u> per Lb.	\$ _____	\$ <u>1.12</u>	\$ _____
per _____	Ozs. per ton, less _____%	Ozs. at _____ per Oz.	_____	_____	_____
per <u>0.647</u>	Ozs. per ton, less _____%	<u>0.647</u> Ozs. at <u>\$38.939</u> per Oz.	_____	<u>25.19</u>	_____
NET CREDIT: SILVER - (CALC'D + IRON + LIME) = 11.111 X 8¢			_____	<u>4.71</u>	_____
Less Metal Values $\frac{1}{2} \times 26.31 - 15.00 = 11.31 @ 10\%$			<u>1.13</u>	_____	_____
Treatment Charge _____			<u>6.00</u>	_____	_____
TOTALS			<u>7.13</u>	<u>31.02</u>	_____
Net Value per ton _____			_____	<u>23.89</u>	_____

Net Value for Freight Charges, per wet ton _____ \$ _____

Amount to be paid to _____	<u>9.805</u> Dry tons at \$ <u>23.89</u>	\$ <u>234.24</u>
Sampling _____	<u>.195</u> tons at \$ <u>2.00</u>	<u>(1.39)</u>
Freight _____		
Trucking _____		
AMOUNT DUE SHIPPER _____		<u>233.85</u>
Less _____ % Royalty _____		
NET AMOUNT DUE SHIPPER _____		\$ <u>233.85</u>

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
817 WEST MADISON ST. PHOENIX, ARIZONA 85007

PHONE 254-6131

Mr. Harve I. Ashby, M.E.
For U.S.D.A., Forest Service
517 Gold Avenue, S.W.
Albuquerque, New Mexico 87101

Date February 15, 1971

Your P.O. No. BPA-12-5059

Sample of Ore

Received: 2-9-71

Submitted by: Mr. Ashby & Mr. R.E. Wilson

ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce

Silver figured at \$ 2.00 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE	COPPER	LEAD
9542	Moni #5	0.05	1.75	Trace			
9543	Rackensack #2 VEIN	23.0	805.00	2.4	\$ 4.80		
9544	Rackensack #3 VEIN	7.2	252.00	3.9	7.80		
9545	Provier #1	0.17	5.95	0.30	0.60	0.22%	
9546	Provier #2	0.03	1.05	0.10	0.20	1.17%	
9547	Ediline #1 <i>OK CERRO DE ORO</i>	0.02	0.70	1.80	3.60	2.96%	0.48%
9548	Ediline #2 <i>CERRO DE ORO</i>	0.02	0.70	5.80	11.60	0.11%	1.70%
9549	Ediline #3 <i>CERRO DE ORO</i>	0.02	0.70	0.35	0.70	0.06%	0.11%

→ Cerro de Oro Claims.

cc: Mr. Robert E. Wilson
U.S.D.A., Zone Minerals Unit
Tonto National Forest
230 North 1st Ave., Room 6208
Phoenix, Arizona 85025

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.

Claude E. McLean, Jr.

INSPIRATION CONSOLIDATED COPPER CO.

SMELTING DEPARTMENT

Car No. 158 Shipper Lot 1 DATE NOVEMBER 20, 1957

SHIPMENT OF MAJOR MINERALS COMPANY Date Received NOVEMBER 13, 1957

at 701 N. 7th STREET City PHOENIX, ARIZONA

FEDERAL BUREAU OF INVESTIGATION
 DEPARTMENT OF JUSTICE
 APR 14 1958
 DIVISION OF MINES
 DENVER, COLORADO

CAR Number	WET WEIGHT	Moisture %	DRY WEIGHT	Notes	N. Y. QUOTATIONS
269	74,460	1.10	73,641	Limited El Paso Cerro DE ORO #1 - 5211/2 to be reloaded to Rockersack Deposit This was loaded from place with	Copper (per lb.) <u>41.702</u> Less <u>5.254</u> = <u>36.453</u> Silver (per oz.) <u>2.04</u> Gold (per oz.) <u>26.685</u>

Copper %	Silver Oz.	Gold Oz.	Sulca %	Alumina %	Iron %	Lime %	Sulphur %
1.50	1.28	.160	82.8	2.3	5.1	1.6	71.

PAYMENTS PER TON				DEBITS	CREDITS	Value For Freight
30.00	Lbs. per ton, less <u>10%</u>	20.00	Lbs. at <u>36.4534</u>	\$	\$ <u>7.29</u>	\$
1.28	Ozs. per ton, less <u>5%</u>	1.22	Ozs. at <u>2.04</u>		<u>2.49</u>	
.160	Ozs. per ton, less <u>-%</u>	.160	Ozs. at <u>26.685</u>		<u>5.87</u>	
Credit - 82.8 less 29.7 = 53.1 units @ 84					<u>4.25</u>	
Metal Values <u>\$15.65 - 15.03 = \$0.65 @ 10%</u>					<u>.07</u>	
Treatment Charge					<u>6.00</u>	
TOTALS				<u>6.07</u>	<u>19.90</u>	
Net Value per ton					<u>12.83</u>	
Net Value for Freight Charges, per wet ton						\$

Amount to be paid to	<u>36.8205</u>	Dry tons at \$ <u>12.83</u>	\$ <u>509.25</u>
Sampling		tons at	
Freight			
Trucking			
AMOUNT DUE SHIPPER			<u>509.25</u>
Less % Royalty			
NET AMOUNT DUE SHIPPER			<u>509.25</u>

x D Shipping costs were \$7.00 per ton of wet weight. Approx. 100 miles. Approved: R. J. ...

HOMESTAKE MINING COMPANY

LEAD, SOUTH DAKOTA 57754

Contested E B

October 12, 1971

Mr. George R. Edeline
P.O. Box 743
Carefree, Arizona 85331

Dear Mr. Edeline:

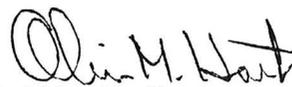
The gold ore specimens submitted to us contained abundant free gold. One specimen contained sylvanite which is a high grade gold telluride. An assay of the samples showed 66.04 ounces of gold per ton. These samples of course were specimens and an abnormally high assay was to be expected. A copy of the assay report is enclosed.

Here at Homestake we can operate on \$12.00 to \$13.00 per ton gold ores, but this will be of little value regarding costs on your operations. Mining costs are dependent on so many factors governed by local property conditions that each operation must be considered on its own merit. Tonnage in reserves, grade of production, mining methods, area, access, concentration, extraction, metallurgy, labor, etc. all must be considered in costs. Operating costs of one or a few men on a small production property are far different and often less than costs of a large mining company. My only suggestion would be to have a geologist examine your property to assess its value and ore potential, and provide you with costs estimates and professional assistance in presenting valid discovery data to maintain your mining claims contested by the Forest Service.

I certainly wish I could be of more assistance to you in holding your mining properties, but documented evaluation data is the only means I know of to support your claims.

I wish you the best of luck in holding your property.

Sincerely


Olin M. Hart
Chief Geologist

OMH:pe

Enc.

cc: J. C. Ruckmick

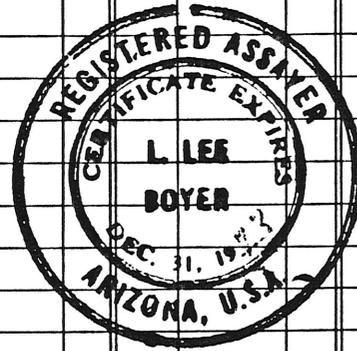
Continued Exp. J

**VALLEY ASSAY OFFICE
AND ORE TESTING LABORATORY
MEMORANDUM OF ASSAY**

Made for George Edelline

Tempe, Arizona..... Feb. 23....., 1973

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.	
	OZS.	100's	\$	Cts.	OZS.	100's	\$	Cts.	%	\$	Cts.	%	\$	Cts.	%	\$	Cts.	\$	Cts.
# 1 Raginsack	34.	22																	
# 2	28.	41			24.	30			4.7										
C.D.F. 1					7.	10			3.8										
REMARKS:																			



NO.

BY *L. Lee Boyer*
Registered Assayer.

CHARGE \$ 18.00 Pd.

EXH. J

Slip No. 7451.....

Date.....20 AUG 1967

Phoenix, Arizona 85001

File No. 315 E.D.....

P. O. BOX 1148

VALUES
Latest Quotation

Arizona Assay Office

- 1 oz. Gold.....
- 1 oz. Silver.....
- 1 lb. Copper.....
- 1 lb. Lead.....
- 1 lb. Zinc.....

815 NORTH FIRST STREET

Phone: 253-4001

MR. GEORGE EDELINE

- Short Ton 2000 Lbs.
- Short Ton Unit 20 Lbs.
- Long Ton 2240 Lbs.
- Long Ton Unit 22.4 Lbs.

THIS CERTIFIES
Samples submitted for assay
contain as follows:

MARKS	SILVER PER TON		GOLD PER TON		VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE	REMARKS
	Ozs.	100ths	Ozs.	100ths				
CERRO-DEL ORO # 1 MIXED VEIN	1.1		.58		\$20.30	7.30		
CERRO-DEL ORO # 2	3.5		.26		\$ 9.10	1.55		

Charges \$ 11.00.....

Assayer.....



JACK STONZ REG. No. 5479

ANDY CHUKA, PRINT

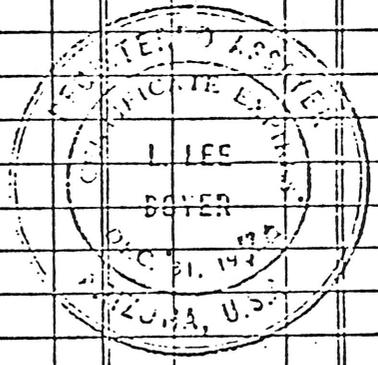
[Handwritten signature]

**VALLEY ASSAY OFFICE
AND ORE TESTING LABORATORY
MEMORANDUM OF ASSAY**

Made for John B Thompson

Tempe, Arizona 85231 May 20, 1970

SAMPLE NO.	PER TON OF 2000 POUNDS AVOIRDUPOIS								COPPER, OR			LEAD, OR			ZINC, OR			TOTAL		
	GOLD, PER OUNCE				SILVER															
	AT \$30.00 PER OUNCE				AT 2.00 PER OUNCE				AT	PER LB.		AT	PER LB.		AT	PER LB.		\$	Cts.	
	OZS.	100's	\$	Cts.	OZS.	100's	\$	Cts.	%	\$	Cts.	%	\$	Cts.	%	\$	Cts.	\$	Cts.	
CLAIM # 4 Parto- DE-010 1-Qtz.	0.	04	1	40	0.	10		20											1.	60
PACKED 2 Small	6.	82	238	70	0.	40		80											239.	50
REMARKS:																				



NO. _____

BY _____ Registered Assayer.

CHARGE \$ 10.00 Pd.

Cortestee & F

Shop No. 1700 S
 File No. 1475 SP

Date... 22 FEB 1966

Phoenix, Arizona 85001
 P. O. BOX 1148

Arizona Assay Office

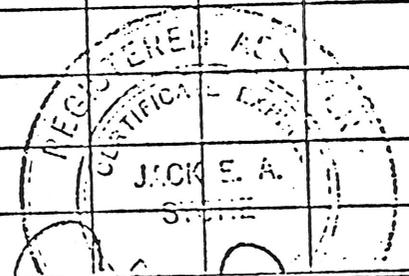
815 NORTH FIRST STREET
 Phone: 253-4001

STEINER

Short Ton 2000 Lbs.
 Short Ton Unit 20 Lbs.
 Long Ton 2240 Lbs.
 Long Ton Unit 22.4 Lbs.

VALUES
 Latest Quotation
 1 oz. Gold.....
 1 oz. Silver.....
 1 lb. Copper.....
 1 lb. Lead.....
 1 lb. Zinc.....
 THIS CERTIFIES
 Samples submitted for assay
 contain as follows:

MARKS	SILVER PER TON		VALUE PER TON	GOLD PER TON		VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE			REMARKS	
	Ozs.	Tenths		Ozs.	Tenths							
CERR-DE-SRD. #1	2.5		\$5.32	.02		\$6.70						



Charges \$ 5.50

Assayer..... *Jack Stone*
 JACK STONE REG. NO. 5479

ANDY CHUKA, PRINT

2298

23 JAN 1967

Shop No. 334 ED

Date

File No.

VALUES
Latest Quotation

1 oz. Gold.....

1 oz. Silver.....

1 lb. Copper.....

1 lb. Lead.....

1 lb. Zinc.....

THIS CERTIFIES
Samples submitted for assay
contain as follows:

Arizona Assay Office

815 NORTH FIRST STREET

Phone: 253-4001

~~MR. HILTON SUGAR~~

P.O. BOX 927

CAREFREE ARIZONA

Cerro de Oro
Above Rackens

Phoenix, Arizona 95001
P. O. BOX 1148

Short Ton 2000 Lbs.
Long Ton 2240 Lbs.
Long Ton Unit 22.4 Lbs.

MARKS	SILVER PER TON		VALUE PER TON	GOLD PER TON		VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	COPPER	PERCENTAGE		MARKS
	Ozs.	Tenths		Ozs.	100ths						
CERR-DE-ORO #1	6	1	\$7.52	0	02	\$0.70		8.92	68		
									76.2		
									75.67		

Charges \$ 5.50 D

Assayer.....

JACK STONE REG. NO. 5479

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
 817 WEST MADISON ST. PHOENIX, ARIZONA 85007 PHONE 254-6181

For **Dan Howe** *(Tonto Mining & Milling Co.)*
 275 Tonto Basin
 Tonto Basin, Arizona 85553

Date **March 8, 1973**

Sample of **Ore**

Received:

Submitted by: **same**

ASSAY CERTIFICATE

Gold figured at \$ **38.00** per ounce

Silver figured at \$ **2.00** per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PER TON	VALUE	OZ. PER TON	VALUE		
3990	{ R-3-2-1 R-3-3-2 ↘ Toothpick adit.	0.29	11.02				
		0.03	1.14			4' across shear zone Altered wall rock	

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.
 Claude E. McLean, Jr.

ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
817 WEST MADISON ST. PHOENIX, ARIZONA 85007

PHONE 254-6181

For **Tonto Mining & Milling Co., Inc.** Date **March 15, 1973**
P.O. Box 275
Tonto Basin, Arizona 85553

Sample of **Ore** Received:

Submitted by: **Bigbee-Howe & Tidwell**

ASSAY CERTIFICATE

Gold figured at \$ **38.00** per ounce Silver figured at \$ **2.00** per ounce

LAB. NO.	IDENTIFICATION <i>Width Length</i>	GOLD		SILVER		PERCENTAGES		Moly
		OZ. PERTON	VALUE	OZ. PERTON	VALUE	Copper	Lead	
4013 <i>#3 claim</i>	Rackensack #1	0.50	19.00	6.50	13.00		1.7	0.07
	Rackensack #1A	0.04	1.52	0.10	0.20			
	Rackensack #2	1.20	45.60	6.90	13.80		1.10	0.13
<i>#1,2 claims</i>	Serro De Oro #1	0.02	0.76	3.70	7.40	4.30		
	Serro De Oro #2	0.03	1.14	2.40	4.80	0.08	1.85	
	Serro De Oro #3	0.01	0.38	0.10	0.20			
<i>→ Cerro de oro #1 claim</i>								

Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean, Jr.
 Claude E. McLean, Jr.

RESUME

WILLARD D. PYE

Exhibit A

PERSONAL DATA

Willard Dickison Pye

Office Address: 3418 N. Forgeus Ave., Tucson, Arizona 85716

Home Address: 3418 N. Forgeus Ave., Tucson, Arizona 85716

Born: February 20, 1915

TRAINING (College and University)

Oberlin College, Oberlin, Ohio
A.B., 1935

California Institute of Technology, Pasadena
M.S., 1937

University of Chicago, Ph.D., 1942

FIELDS OF SPECIALIZATION

Undergraduate: Geology and Mathematics majors; Physics and Chemistry minors.

Graduate (M.S.): Geophysics and Economic Geology (ore deposits)

Graduate (Ph.D.): Petroleum, Ore Deposits, and Sedimentation

SCHOLASTIC HONORS

President, Geology Club, 1934-35

Phi Beta Kappa, 1935

Sigma Xi, 1937

Virgil Kirkham Fellowship in Geology (University of Chicago) 1940-42

PROFESSIONAL LICENSES

Arizona State Board of Technical Registration (Consulting Geologist) No. 4033

California State Board of Registration for Geologists No. 2654

REFERENCES

Who's Who in America

American Men of Science

Who's Who in American Education

Various oil, geological, and other directories

POSITIONS

Consulting Geologist: Full time 1970 – present; also, for short periods at various times from 1935 – 1970.

Professor of Geology, Department of Geology, University of Arizona, Tucson, Arizona, 1957 – 1970.

Chairman and Professor, Department of Geology and Geography, North Dakota State University, Fargo, North Dakota, 1947-57.

Executive Secretary, Yellowstone-Bighorn Research Association, 1954-55.

National Science Foundation Research Associate – Research Northern Great Plains, 1953-54.

Research Geologist, Princeton University, 1953-54.

Director, Elk Basin Geological Summer Field Camp, 1953-54.

The Texas Company, Rocky Mountain Division Research Geologist – special geological problems, 1946-47.

The Texas Company, in charge Idaho-Utah District, 1943-46.

National Defense Research Corporation (N.D.R.C.) - In charge classified research, for Chemical Warfare Service, 1942-43.

Illinois Geological Survey, Research Assistant, 1940-42.

University of Chicago, Instructor, 1940-42.

Carter Oil Company, Geologist, 1937-40 (Now part of EXXON corporation)

U.S. Soil Conservation Service, Sedimentation Research, 1936-37.

California Institute of Technology, Graduate Instructor, 1935-37.

Shell Oil Company, Geophysicist, 1936.

Oberlin College, Laboratory Assistant, 1933-35.

OTHER NON-COMMERCIAL ACTIVITIES (selected)

Arizona Oil and Gas Commission, Advisor, 1964-1970.

National Petroleum Council, Committee on Future Petroleum Resources of the United States, Southern Arizona and New Mexico district; also, reviewer of papers on Arizona, Utah, Western Colorado, Western New Mexico and Nevada – 1969-1970.

Director, Arizona Oil and Gas Association, 1961 – present;
President 1965-66.

Director, International Geophysical Year (I.G.Y.) Aurora and Airglow studies, Northern Great Plains, 1956-57.

Director, North Dakota Institute of Regional Studies, 1956-57.

Secretary and Director, Red River Valley Investment Fund, 1957-58.

President, Northwest Investors Research, 1956-57.

Delegate and consultant to National Science Foundation conference on geology in colleges with small geology departments, 1953.

Rackensack (5)

MS
K

MINING LEASE

THIS LEASE, made and entered into this 7th day of September, 1988, by and between U.S. LAND INVESTMENT ANALYSTS, a California corporation, and REDFIELD MINING, INC., 14249 N. 83rd Ave, Peoria, Arizona 85345, hereinafter collectively referred to as "Lessor" and MARATHON MINING AND MILLING, INC., 11645 N. Cave Creek Rd, Phoenix, Arizona 85020, hereinafter referred to as "Lessee."

The effective date of this Lease shall be the 7th day of May, 1988, and all rights, duties and liabilities shall be calculated from that date.

WITNESSETH:

WHEREAS, Lessor holds ten (10) lode mining claims located on December 7, 1983 in Sections 32 and 33 of Township 7 North, Range 5 East, G&SRB&M, Maricopa County, Arizona, hereinafter referred to as the "Mining Property", more specifically described in below.

<u>Lode Claim Names</u>	<u>Date</u>	<u>Document #</u>	<u>BLM AMC #</u>
Nueva Esperanza #1	12/7/83	83 507897	211601
Nueva Esperanza #2	12/7/83	83 507898	211602
Nueva Esperanza #3	12/7/83	83 507899	211603
Nueva Esperanza #4	12/7/83	83 507900	211604
Nueva Esperanza #5	12/7/83	83 507901	211605
Nueva Esperanza #6	12/7/83	83 507902	211606
Nueva Esperanza #7	12/7/83	83 507903	211607
Nueva Esperanza #8	12/7/83	83 507904	211608
Nueva Esperanza #9	12/7/83	83 507905	211609
Nueva Esperanza #10	12/7/83	83 507906	211610
<u>Millsite Claim Name (another locator also claims this millsite)</u>			
Redfield Mill & Reduction	12/15/83	83 511925	211710

MS

WHEREAS, Lessee is in possession of or has access to fourteen (14) unpatented lode mining claims located by Dennis W. Rector and Victor J. Renzoni, in behalf of Lessee, during January, March and April of 1988 in Sections 32 and 33 of Township 7 North, Range 5 East, G&SRB&M, Maricopa County, Arizona, hereinafter referred to as the "Lessee Locations," more specifically described in below.

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

1. Information from: Bob Cobllo

Company:

Address:

2. Phone:

3. Mine:

4. ADMMR Mine File: RACKENSACK

5. County: Maricopa

6. Summary of information received, comments, etc.:

Bob Cobllo reported he is now partners with ITC Consulting Services, 870 E. 7145 South, Midvale, Utah 84047, phone (801) 561-2044 in an option on the Rackensack Mine. He said ITC plans to begin some exploration work on the property this week.

A call to ITC was made to obtain their address. Their receptionist (the only person available) confirmed they were involved with the Rackensack and also looking for other properties. They are a mining consulting firm.

Date: January 3, 1989

Ken A. Phillips, Chief Engineer

RACKENSACK

MARICOPA COUNTY

KAP WR 6/3/88: A number of reports on the Rackensack Mine (file) Maricopa County were received from the Forest Service through John Gutierrez of the Forest Service Zone Office. The reports were generated before and during validity contests which took place in the mid 1970's.

excepted, without demand or further notice, on the last day of the term hereof, or of any extended term, or upon termination hereof.

24. SOLE AGREEMENT. This Mining Lease constitutes the sole agreement between the parties hereto and supersedes all prior written and oral agreements and understandings between Lessor and Lessee. There are no terms, obligations, covenants or conditions other than those contained in this Lease. No variation thereof shall be deemed valid unless signed by the parties with the same formality as this Lease.

25. TRANSFERABILITY. This Mining Lease is not assignable by Lessee without the written consent of U.S. Land Investment Analysts which consent shall not be unreasonably withheld, and shall be binding upon and inure to the benefit of the successors and permitted assigns of Lessee and the successors and assigns of Lessor.

26. NOTICE AND PAYMENTS OF ROYALTIES. Any notice or payments of royalties contemplated herein to be given to either party shall be in writing and shall be sufficiently given if delivered by hand or mailed by registered mail in any Post Office, postage prepaid, if to Lessor, addressed to:

U.S. Land Investment Analysts and Redfield Mining, Inc.
c/o William H. Bass
14249 N. 83rd Ave
Peoria, Arizona 85345

or such other address as Lessor may from time to time designate in writing;
and if to Lessee, addressed to:

Marathon Mining and Milling, Inc.
11645 N. Cave Creek Rd.
Phoenix, Arizona 85020

or such other address as Lessee may from time to time in writing designate.

Time of posting shall be deemed as time of giving notice.

27. FURTHER ASSURANCES; GOVERNING LAW. Either party hereto, upon the reasonable request of the other party, shall execute such further documents as may be reasonably necessary to evidence and/or place of record the terms and conditions of this Mining Lease. This Mining Lease shall be governed by and interpreted in accordance with the applicable laws of the State of Arizona and the United States of America.

1.2.3.4.
PMA
H

and interpreted in accordance with the applicable law of the State of Arizona and the United States of America.

28. BINDING EFFECT. This lease shall inure to the benefit of and be binding upon the parties hereto, their respective heirs, executors, administrators, successors and assigns.
29. HEADINGS. The headings to the paragraphs of this instrument, having been inserted for convenience only, constitute no part of the agreement between the parties.
30. SEMANTICS. Unless the context otherwise clearly indicates, words used in the singular include the plural, the plural includes the singular and the neuter gender includes the masculine and feminine.

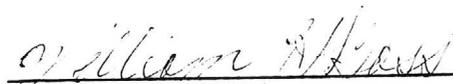
IN WITNESS WHEREOF, we have executed this Mining Lease on the day and year first above written.

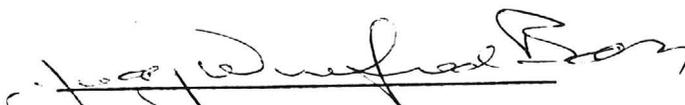
LESSEE: MARATHON MINING & MILLING, INC. U.S. LAND INVESTMENT ANALYSTS


Robert Coblio, President

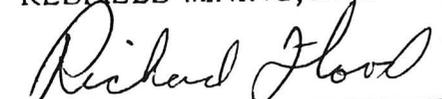

Victor J. Renzoni, Secretary

LESSOR:
REDFIELD MINING, INC.


William H. Bass, President


Judy W. Bass, Secretary

LESSOR:
REDFIELD MINING, INC.


Richard Flood, President


Mary K. Flood, Secretary

SOCIETY MEMBERSHIPS (Scientific and Professional – both current and former)

National and Regional

American Association of Petroleum Geologists
 American Institute of Mining and Metallurgical Engineers
 Geological Society of America
 Seismological Society of America
 Sigma Xi
 Society of Economic Paleontologists and Mineralogists
 Society of Exploration Geophysicists

SOCIETY OFFICES AND COMMITTEES

American Association of Petroleum Geologists

Committee on Stratigraphic Correlations, 1959-63
 Carbonate Rock Sub-Committee, of Research Committee, 1959-61
 Committee for Preservation of Samples and Cores, 1959-60
 Research Committee on Subsurface Reservoir Conditions, 1948-51

American Geological Institute

Chairman, Glossary Committee on Sedimentation, 1951-56
 Chairman, Glossary Committee on Paleogeography, 1951-56
 Chairman, Educational Committee for North and South Dakota and Montana, 1950-54

Arizona Geological Society – Geological Society of America, Cordilleran Section

Chairman, Registration and Arrangements Committee, 1958 Joint Meeting
 Editor, Stratigraphic Papers, 1959 Joint Meeting Guidebook
 Field Trip Leader (Stratigraphic Trip), 1959 Joint Meeting

Arizona Oil and Gas Association

Director, 1961 – present
 President, 1965-66
 Chairman various committees (Speaking, Membership, Public Relations, etc.) 1961 – present
 Chairman, Arizona Mineral Information Planning Committee, 1962-64

Society of Economic Paleontologists and Mineralogists

Research Committee, 1957-61
 Co-chairman, Research Fund Committee, 1959-60
 Steering Committee representing Society of Economic Paleontologists and Mineralogists to
 American Geological Institute Glossary Committee, 1953-56

Miscellaneous

Chairman, Research Committee, American Association of University Professors, 1951-52

Field Trip Leader, New Mexico Geological Society, Black Mesa Trip, 1958

Research Committee, North Dakota Geological Society, 1951-53

Chairman, Research Committee, Wyoming Geological Society, 1946-68

PUBLICATIONS

Author of approximately 50 publications on various topics including, oil and gas, coal, helium, oil shales, metallic and non-metallic mining, sedimentation, stratigraphy, paleogeological and tectonic studies, drilling and reservoir engineering, geophysics and related topics.

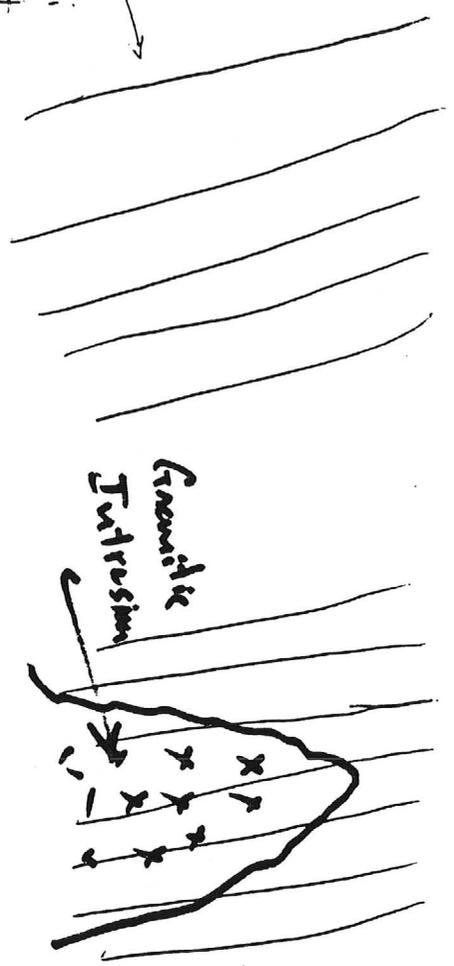
TRAVEL

Geological work and/or travel throughout the United States and most of the provinces of Canada. Geological work in Mexico, northwestern South America, and travel and geological work throughout Europe, Near and Middle East and North Africa.

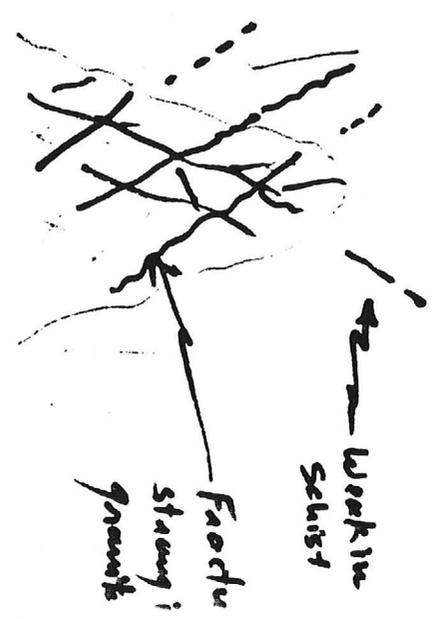
Vertical sections

①

Yavapai Schist



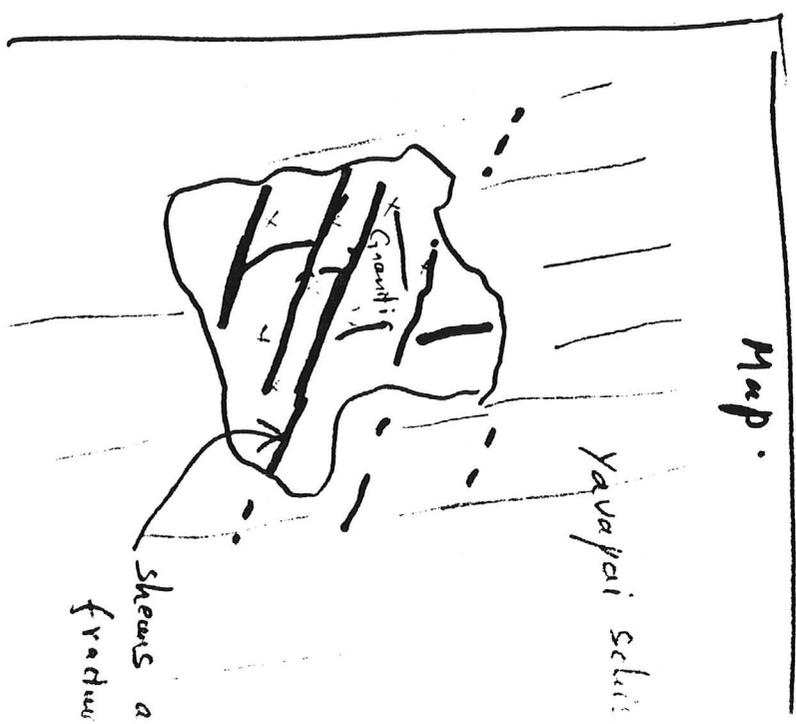
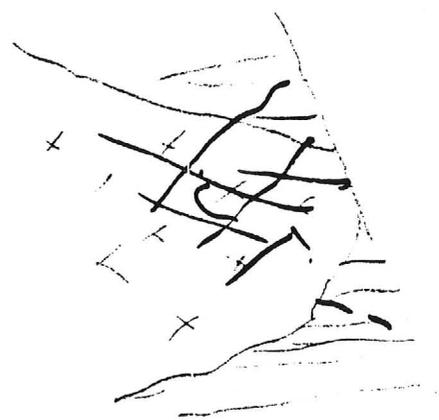
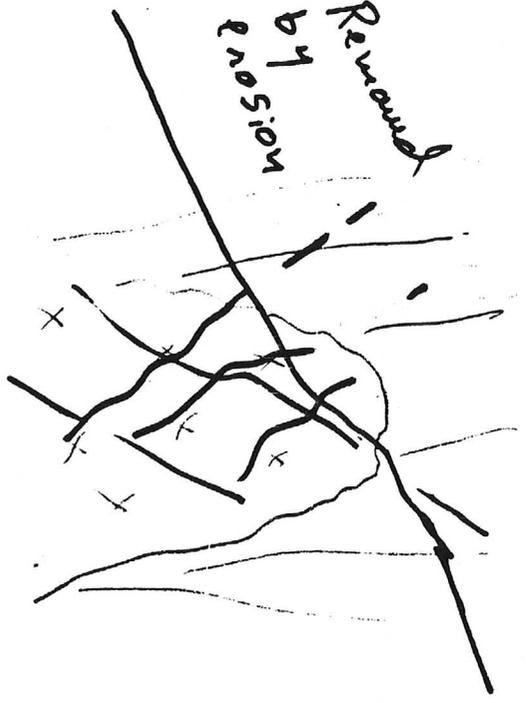
Granitic Intrusion



Weak Schist

Fault strong granitic

Remnant by erosion



Map.

Yavapai Schist

shows a fracture

C# B(11)

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

VERBAL INFORMATION SUMMARY

May be Reproduced

1. Information from: Robert (Bob) Cobllo (card), Marathon Mining & Milling (make card)
2. Phone: 241-6000
3. Mine: Rackensack
4. ADMMR Mine File: Rackensack
5. County: Maricopa
6. MILS Number: _____
7. District: (mining) Cave Creek (or mineral) _____
8. Township: _____ Range _____ Sec(s) _____
9. USGS Topographic Map: _____
10. Location (descriptive): _____
11. Number of Claims: Patented _____ Unpatented _____
12. Owner(s): (if different from above) Redfield Mining Inc. (make card)
and U.S. Land Investment Analysts (make card)
13. Address: 14249 N. 83rd Ave., Peoria, AZ 85345
14. Operating Company: Marathon Mining & Milling
15. Pertinent People and/or Firm: Cobllo and Victor J. Renzoni of Marathon,
William and Judy Bass of U.S. Land, Richard and Mary Flood of Redfield
16. Commodities: Gold, Specimens-Native Gold, Lead-sulfide
17. Operational Status: Exploration
18. Summary of information received, comments, etc.: _____

Bob Cobllo brought in a copy of the lease he has obtained from Redfield Mining and U.S. Land Investment for the file.

He is trying to get a revised plan of operations approved by the Forest Service. He claims they are dragging their feet, in part because of their past history with property.

He wants to do the pilot production he had hoped to do 6 months ago, but was unable to do so because of the long time it took to get a lease contract negotiated.

Date: Oct. 5, 1988



(Signature) AzDMMR

<u>Claim Names</u>	<u>Location Date</u>	<u>Maricopa County Document #</u>	<u>BLM A MC #</u>
Connie's Dream	1/21/88		279669
Medicine Man 1	3/15/88	88 174399	282981
Medicine Man 2	3/17/88	88 174400	282983
Medicine Man 3	3/19/88	88 174401	282982
Medicine Man 4	3/20/88	88 174402	282984
Peraltas Pride #25	3/28/88	88 180809	283130
Dutchmans Last Laugh #27	3/30/88	88 180813	283128
Dutchmans Last Laugh #26	4/2/88	88 180810	283127
Oro-Bueno #24	4/7/88	88 211204	283746
Oro-Bueno #23	4/8/88	88 211205	283745
Oro-Bueno #22	4/9/88	88 211202	283744
Oro Grande #28	4/10/88	88 211206	283741
Oro Grande #29	4/10/88	88 211207	283742
Oro-Bueno #21	4/11/88	88 221203	283743

NOW, THEREFORE, in consideration of payment of ten dollars (\$10), the completion of the 1987-88 annual assessment work on the Mining Property, the quitclaiming of the Lessee Locations by the locators to Lessor, and the further consideration of the covenants and agreements herein set forth, Lessor does hereby lease the Mining Property to Lessee, in accordance with the terms of this Mining Lease, for an initial term of five (5) years with the option to an additional five (5) year term and so long thereafter that the mining property is continuously mined, minimum and actual royalties are fully paid, all development commitments are performed, and all other terms of this Lease are in full compliance.

TO HAVE AND TO HOLD this Lease and the mining rights hereby granted to Lessee for developing, mining, processing, and marketing of gold and other minerals and mineral concentrates under the terms and conditions herein set forth.

1. DEVELOPMENT OBLIGATIONS. During the first year of this Lease and each year thereafter that this Lease is in effect, Lessee shall expend on the Mining Property the sum of twenty thousand dollars (\$20,000) per year for exploration, development, excavation, crushing, transportation, concentration, beneficiation or any other work that directly benefits the Mining Property. The locations of such operations shall be determined by Lessee in its discretion and the same may be carried on at any place or places within or without which benefit said Mining Property.

required to conduct operations on or in connection with the Property; unusually severe weather; mining casualty; unavoidable mill or smelter shutdown; damage to or destruction of mine plant or facility; fire, explosion; flood; insurrection; riot labor disputes; inability after diligent effort to obtain workmen or material; delay in transportation; and acts of God.

21. TERMINATION AND RELEASE. Lessee may cancel or terminate this Lease and the Lease acquired through their operation upon thirty (30) days notice in writing to that effect mailed to Lessor as provided under "Notice". In the event of such termination, Lessee shall have the right to abandon his operation without the payment of any further sums or completion of additional work except those obligations previously accepted for the subsequent year by having passed the annual November 7th term date, including but not limited to royalties and development work required to be paid or completed before the expiration of said notice period. Upon termination of this Lease by Lessee, Lessor may direct, Hale C. Tognoni, to deliver to Lessor the deed and/or record the same thus conveying the mining property back to Lessor.
22. DEFAULT. If Lessee fails, neglects or refuses to pay the royalty as herein provided, or fails or neglects to perform any other term, covenant or condition of this Mining Lease, or any part hereof, as herein provided, and such default continues for thirty (30) days after Lessor has given notice to Lessee in writing to rectify such default, thereupon this Lease shall be forthwith terminated and Lessor or their agents may re-enter and take possession of said mining claims and the Mining Property and may remove all persons therefrom. Upon such termination, all payments of every kind theretofore made to Lessor shall be retained as rental for the use and occupation of the Mining Property by Lessee, and within ninety (90) days, Lessee shall remove his personal property and other property from said Mining Property. Upon such termination then Hale C. Tognoni shall release all documents to Lessor and Lessor may record the Deed held by the Hale C. Tognoni conveying the Mining Property back to Lessor.
23. SURRENDER OF MINING PROPERTY ON TERMINATION. Lessee will deliver to Lessor the Mining Property, with the appurtenances and improvements, in good order and condition, reasonable wear and tear and damage by natural causes and the mining operations herein authorized

17. SHIPMENT AND CONSERVATION OF ORES. Lessee agrees to remove, insofar as practicable and consistent with good mining practice, all mineral encountered in development and mining operations to the end that such mineral shall be preserved or removed and shall not be wasted or left in an inaccessible condition. All waste material produced at the mine site shall be leveled off and the land rehabilitated.
18. PAYMENT OF LABOR AND MATERIAL CLAIMS. Lessee agrees to furnish and pay for all labor, power, tools, equipment, powder, timber and other materials and supplies which may be used by Lessee in the prosecution of work under this Lease and not to allow any claim or lien for any such thing to be effectually made or asserted against the Mining Property or against Lessor.
19. LIABILITY AND NON-RESPONSIBILITY. Lessee shall pay, when due, all valid claims for work done, services rendered, or material furnished to the Lessee, and shall hold Lessor harmless and fully indemnified against all claims and demands of any kind or nature which may be made upon him, or against the Mining Property, for or on account of any debt or expenses contracted or incurred by Lessee, and Lessee shall defend and save Lessor harmless and fully indemnified as to any liability or asserted liability for or on account of injury to or death of any person or for damage to any property sustained during the term of this Lease resulting from any act or omission of Lessee.
20. FORCE MAJEURE. If Lessee is prevented by force majeure from timely performance of any of its obligations hereunder, with the exception of the payment of Minimum Advance or Actual Royalties, whichever is larger, and the performance of annual labor, the failure of performance shall be excused and the period for performance shall be extended for an additional period equal to the duration of the force majeure. Upon the occurrence and upon the termination of any force majeure, Lessee shall promptly notify Lessors in writing. Lessee shall use reasonable efforts to remedy a force majeure, but shall not be required to contest the validity of any law or regulation of any action or inaction of civil or military authority.

"Force Majeure" means any cause beyond a party's reasonable control, including law or regulation, action or inaction of civil or military authority; inability to obtain a license, permit, or other authorization that may be

14. RESERVATION OF TITLE TO EQUIPMENT. Title to all mining machinery and equipment placed upon the Mining Property by Lessee shall be reserved to said Lessee and shall remain the personal property of Lessee, subject to removal at his will and pleasure during the continuance of this agreement and one hundred eighty (180) days thereafter. Structures such as timber, ladders and other fixtures attached to the ground or installed underground shall become property of the Lessor. Structures such as buildings, including, but not limited to underground piping, rails, ventilation tubing, electrical wiring may be removed by Lessees within 180 days. In the event that any mining machinery and equipment, buildings, pipe, rails, ventilation tubing and electrical wiring are on the property after said one hundred eighty (180) day period and extensions of said period, the title to all such mining machinery, and equipment structures, buildings, piping, rails ventilation tubing and electrical wiring shall rest in Lessor.
15. POSTING NOTICE. Lessee agrees that upon entering into possession of the Mining Property to post forthwith and thereafter keep posted thereon, such notices as may be necessary to adequately notify all persons who may come in or upon the Mining Property that said Mining Property is held by Lessee under lease from Lessor and that Lessee shall be liable for due compensation of all labor employed and the cost of all supplies and materials purchased and used by Lessee in or upon the Mining Property and that Lessee will be responsible for any and all debts and expenses incurred by him in mining operations thereon. Lessee shall otherwise comply with the present and future statutes of the State of Arizona in this regard.
16. SAFETY AND MAINTENANCE. Lessee agrees to keep all tunnels, drifts, shafts and other mine workings of a permanent nature which are used or necessary in mining operations free and clear of loose rock and rubbish except when prevented from so doing by mining casualty or other causes beyond Lessee's control; to make all workings, tunnels, drifts and raises on the Mining Property of such size as will meet all requirements of good mining practices; to timber and keep in repair all timbering necessary and proper to be done in the course of safe mining practices that meet the standards set by the State and Federal Mining Laws.

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Mr. Tognoni is unable to serve, then by an escrow agent designated by Lessor, to be delivered to Lessor upon this Lease being in default or otherwise terminated.

11. RECORDING. Lessor and Lessee agree that this Lease and Option shall not be recorded in the county in which the Mining Property is located or in any other county unless Lessee determines that recording is in its best interests. Simultaneously with the execution of this Lease and Option, Lessor and Lessee are executing a memorandum or notice of Lease and Option which may be recorded by either Lessor or Lessee.
12. TAXES. Lessee shall pay all state and county tax assessments upon any and all structures and other improvements, machinery, equipment, tools, supplies and personal property located on the Mining Property along with any personal property placed upon the Mining Property by the Lessee. Lessee shall also pay all state and county "net proceeds", production taxes and other taxes assessed on account of Lessee's operations hereunder. Lessor shall pay that portion of such taxes allocated to him.
13. MINING OPERATIONS AND INSURANCE. Lessee agrees to perform all development and/or mining work in miner-like fashion for the safety of the miners and the preservation of all underground workings as a mine. Lessee shall, at Lessee's own cost and expense, furnish such labor, material and supplies as Lessee may deem necessary for the proper development of the Mining Property and for the development, mining and removing of ore therefrom. Lessee, in the use, operation, and development of the Mining Property shall comply with all applicable federal and state laws, including laws pertaining to employer's liability, workman's compensation, and workman's old age and unemployment insurance. Lessee further agrees at all times during the term of this Lease to carry \$1,000,000 (U.S.) of public liability insurance per accident for injury to each person and \$500,000 (U.S.) of property damage liability insurance for property damaged in Lessee's operations. Lessee also agrees to name Lessor as an additional insured in all such insurance contracts and provide Lessor with a certificate of insurance to such effect within 20 days after receiving same from any insurance company concerned.

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- viii. that Lessor has the right and authority to enter into this Lease except as to the Redfield Millsite which may or may not be adjudicated to be owned by Lessor.
- b. Lessee may take all action necessary to defend title and to cure any defects therein and all amounts expended therefore by Lessee may be deducted from subsequent production royalty payments otherwise due to Lessor, in addition to all other rights or remedies of Lessee.
- c. Lessor agrees that Lessee, at Lessee's option, may pay and discharge any taxes, liens, charges, royalties, clouds on title or encumbrances existing, levied or assessed on or against the Claims, and in such event, Lessee shall be subrogated to the rights of any holder or holders thereof, and may reimburse itself for any such expenditures out of subsequent payments due to Lessor.
- d. Lessee shall have the right at any time, and from time to time, to relocate any Claim or amend the location notice of any Claim and to do all things necessary to conform the area of any such Claim to the requirements of the mining laws of the United States and the state where the Claims are located. All expenses incurred in relocating any Claim or amending the location notice of any Claim shall be borne by Lessee, and relocated or amended Claims shall be subject to all the terms, provisions and conditions of this Lease. Notwithstanding the above, Lessee is under no obligation to relocate Claims or amend the location notice of any Claim.
8. LESSEE'S RIGHTS TO WATER Lessors hereby grant to Lessee those water rights that are necessary for Lessors mining activities in coordination with and limited only by Lessors or other agents of Lessors mining activities. It is understood and agreed that any such water rights of Lessors now existing on or in the vicinity of the Mining Property may be subject to such use by Lessee as necessary, where Lessors have authority to make such a grant.
9. FURNISHING INFORMATION, RECORDS.
- a. Lessee shall furnish to Lessor brief semi-annual progress reports on the 30th day of June and the 31st day of December for the previous six month period including a statement as to whether or not any shipments of ores were made during the preceding period and if so to furnish Lessor with details.
- b. Lessee agrees to keep a full, true and accurate account book showing the ounces, pounds or tons of all shipments and sales of all minerals from the Mining Property and receipts therefrom in connection therewith along with sample records and maps of all surveys and engineering studies, which books, records and accounts may be inspected by Lessor at any reasonable time. Upon termination of this Lease, all such records, books, surveys, studies and maps shall be turned over to Lessor.
10. SPECIAL WARRANTY DEED. Upon signing of this Lease, Lessee shall also sign a Special Warranty Deed transferring back to Lessor all rights acquired by Lessee under this Lease. This deed is to be held by Hale C. Tognoni or, if

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terms of the production royalty set forth above; provided, however, that the locating party has given notice to the other party who has thirty days (30) in which to reject the additional properties. Upon rejection of such additional properties, the locating party may do as he wishes in his own discretion with such additional unpatented mining claims. The lease payments and Purchase Price payable to Lessor by Lessee hereunder shall not be increased or in any other way affected by the inclusion of such additional unpatented mining claims under this Lease. It is specifically understood that the additional unpatented mining claims shall include the Lessee Locations listed herein and any other unpatented mining claims and leases, or options on unpatented claims, which the Parties hereto shall have located or acquired prior to the date hereof.

7. TITLE MATTERS.

a. Lessor represents title to the Mining Property as follows:

- i. that Lessor is the owner of the Mining Property described herein (in this clause referred to as "Claims"); except for millsite claim which is also claimed by another locator.
- ii. that the location of each of the Claims has been perfected and maintained in substantial compliance with mining laws of the United States and the state where the Claims are located, and that during the term of this Lease, Lessee shall maintain the Claims in conformity therewith;
- iii. that the Claims are free and clear of any liens, charges, royalties, clouds on title and encumbrances, except as set forth herein;
- iv. that during the term of this Lease, Lessor shall not cause or permit any liens, charges, royalties, clouds on title or encumbrances on or against title to the Claims;
- v. that Lessor has exclusive possession of the Claims; except for the Redfield Mill and reduction millsite which is also claimed by another locator.
- vi. that Lessor has no knowledge of any conflicting or adverse claim presently asserted or which may be asserted by any person or entity adverse to Lessor's rights to use the surface of the land covered by the Claims for the purpose of exploring the Claims or to its right to mine and remove the minerals and ore found in, upon or within said Claims; except as set forth herein;
- vii. that the Claims are as described above; and

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proceeds from sale of such ore in its raw, crude form before any processing or beneficiation less the deductions set out in paragraph ii above.

d. Treasure Trove

In the event that any Treasure or Treasure Trove is found on the surface of, beneath the surface, or within the workings of the mining property then in that event such treasure shall be divided fifty percent (50%) to Lessor and fifty percent to Lessee.

"Treasure". A treasure is a thing hidden or buried in the earth, on which no one can prove his property, and which is discovered by chance.

"Treasure Trove". Literally, treasure found. Money or coin, gold, silver, plate or bullion found hidden in the earth or other private place, the owner thereof being unknown."

e. Settlement Period

All of the payments due Lessor provided for in Exhibit ii shall be due and payable within 10 days of date Lessee receives check either from the smelter or refinery. Some of the checks or funds from the smelter or refinery could be partial funding based on assay's with final payment due after ore, concentrates or Dore have been run and final settlement within ten (10) days of receipt of those funds. The Lessor's funds will be a percentage of Lessee's funds according to Paragraph ii as Lessee receives funds. Such funding shall be accompanied by statements indicating the quantities and values of the ores mined and removed. Payment of the amount due under any statement shall not prejudice the rights of Lessor to protest or question the correctness thereof. All statements rendered to Lessor by Lessee shall be conclusively presumed to be true and correct after 60 days of receipt thereof, unless within said 60 day period, Lessor takes exception thereto and makes written claim on Lessee for adjustment. Failure on the part of Lessor to make claim on Lessee for adjustment in the period and method outlined above will establish the correctness of the statement.

6. ADDITIONAL UNPATENTED MINING CLAIMS. Lessor and Lessee agree that if either of them should acquire (through location or purchase) rights in additional unpatented mining claims which are within a one mile radius of the outside boundaries of the Mining Property such "area of interest", or such additional "unpatented mining claims", shall be automatically included under and subject to the terms of this Lease to the same extent as the Mining Property, including the

of all Mineral, determine the tons of material mined and processed needed to receive that money and divide the total money received by the number of mined and processed tons or placed in a "leach heap" or in a "Vat" or otherwise In-Process to recover Minerals will not be counted for production for the previous month until such time as the leach material is abandoned. Money received for concentrate or other Minerals recovered from such leach heap, vats, or other Minerals in process will not be counted as income from the previous month until such time as the In-Process material is abandoned. The royalty rate for such "In-Process" Minerals shall be determined by dividing the total quantity of Material In Process into the Total Money received for the material mined and processed. The mine value of ore with a grade intermediate to those specified above shall be determined on a prorated basis under the above schedule.

- ii. The value of the ore, determined as provided above, shall have deducted therefrom (a) the cost of transporting the ore from the mine to the mill. (b) deductions for sampling, assaying, penalties and impurities, not to exceed those which would be made for such ore at independent processing plants: and (c) all taxes on the ore.
 - iii. The Mine value of gold bearing ores sold by Lessee in raw, crude form, prior to initial processing, shall be the actual gross proceeds for such ores by Lessee after the deductions permitted, listed in part (b) of paragraph (ii) above. For the purposes of this Lease incidental gold recovered from the mantal and stream beds shall not be "gold bearing" are and is not subject to royalty.
 - iv. In the event Lessee recovers and markets valuable constituents other than gold from said gold-bearing ores, waters and solutions as by products during the processing of such ores then Lessor shall receive seven percent (7%) of the products in their unprocessed form before upgrading or benefication, the applicable deductions provided in paragraph (ii) above.
- b. Payment for other ores, waters and solutions.
- c. For all ore other than gold-bearing ore (i.e., mineral bearing materials that are mined, produced, saved and removed by Lessee from the premises for sale or processing primarily for recovery of valuable constituents other than gold),

Expenditures to be credited against the minimum development work requirement shall include all expenditures made by Lessee in connection with any and all development of mineral within the Lease except, supervisory salaries not completely and directly connected with the ore development program on the Mining Property, the acquisition cost of depreciable items and allowance for depletion. Without limiting the generality of the foregoing, minimum development work requirement expenditures shall include depreciation on depreciable items acquired solely for development use on the Mining Property; the acquisition cost of items used solely in development, which by generally accepted accounting principles are expenses at the time of acquisition, reasonable rental charges for equipment owned and used by Lessee for only that time when used solely on development work; the reasonable portion of transportation expenses of employees, professional staff, materials and equipment to the site of the work on the Mining Property, and for the return of the equipment and such employees and staff on completion of their work in the proportion that such equipment, employees' and staffs' time was used in development work on the Mining Property.

2. ANNUAL ASSESSMENT WORK. As initial consideration Lessee agrees to complete the 1987-88 annual assessment work obligation prior to September 1, 1988. During the term of this Mining Lease, Lessee shall perform, at Lessee's expense, all assessment work required by law to maintain the Mining Property during each assessment year commencing on or after September 1, 1988. Such assessment work shall be completed and Lessee shall record with the Maricopa County Recorder and file with the Arizona State Office of the Bureau of Land Management a properly completed affidavit of such work, and provide a copy of the same to Lessor, no later than September 15, 1988 for the 1987-88 assessment year and no later than July 1 of each subsequent year during which Lessee is required to perform such work under the terms hereof. If Lessee shall fail to perform the annual assessment work within such time period, Lessor may, in addition to any other remedy under this Mining Lease, perform such work and the cost thereof shall be billed to Lessee and shall be due and payable ten (10) days thereafter. The annual assessment work and the filing and recording of the affidavit thereof shall be in compliance with all applicable state and federal laws, rules, and regulations.

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3. MINIMUM ROYALTY. Lessee agrees to pay to Lessor the following listed minimum advance royalty payments on November 7th of each year commencing on November 7, 1988 and continuing so long thereafter as this Lease is in effect:

<u>Date of Paymen</u>	<u>Minimum Royaty</u>
a. November 7, 1988	\$5,000
b. November 7, 1989 and each year thereafter	\$20,000

4. ROYALTY CREDIT. All actual royalty payments payable during the year preceding any minimum royalty payment, shall be fully deductible from said minimum royalty payment, but in no event shall the annual minimum royalty and actual royalties be less than the annual minimum royalty. Any actual royalties due prior to November 7, 1988 are deductible from the five thousand dollar (\$5,000) minimum royalty payment.

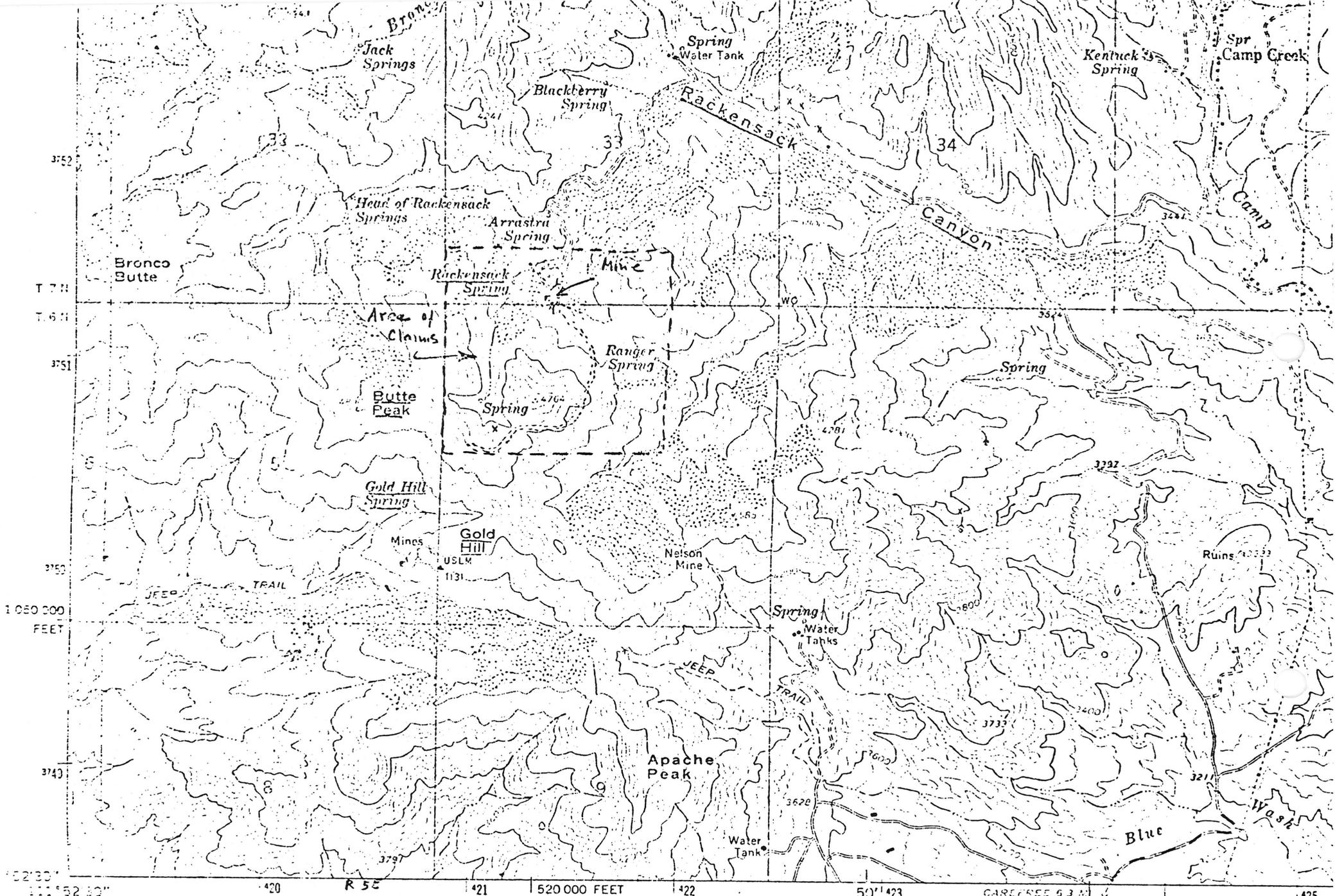
5. ACTUAL ROYALTIES. Lessee agrees to pay to Lessor, an actual royalty on all gold and other minerals, ores, concentrates, rock or rock products produced from the Mining Property, (Minerals) which shall be determined as set forth below:

- a. Payment of Gold Bearing Ores

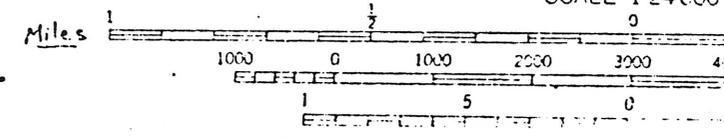
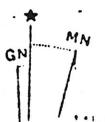
The mine value of gold bearing ores which are not sold in their raw form or are processed in a mill owned or controlled, wholly or partly, by Lessee or which are processed in a custom mill for Lessee shall be determined from the following price schedule with application of the deductions set out in Paragraph ii below.

<u>Grade of Ore</u> <u>Ounces of Gold Per Dry Short Ton</u>	<u>Royalty Gross</u> <u>Smelter Return</u>
less than .5 oz	3%
.5 to less than 1 oz	7%
1 to less than 3 oz.....	8%
3 to less than 5 oz.....	13%
5 to less than 10 oz	15%
10 to less than 20 oz.....	16%
20 to less than 30 oz.....	18%
30 oz. and over	20%

- i. In order to determine the grade of ore in ounces of gold per dry short ton, Lessee shall total all money received in the previous month from the sale



Humboldt Mountain Quadrangle
 Scale: 1/24,000
 1" equals 0.4- miles
 Contour Interval: 40 feet



SCALE 1:24,000

Rackensack

Contractors Exp. 19

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THE RACKENSACK PROSPECT

The Rackensack claims are on the north slope of Butte Peak, near the head of Rackensack Gulch in what would be the southwest quarter of Section 32, Township 7 North, Range 5 East, Gila River Base and Meridian, Maricopa County, Arizona, if it were surveyed. They are at an elevation of about 4500 feet and near the head of Rackensack Gulch. They are six and one-half miles northeast of the town of Cave Creek. Access to the property is over the Cave Creek-Bloody Basin road, (East seven miles. Road Blacktopped); thence north four and one-half miles over a good graded, gravel-surfaced road to Rackensack Gulch; thence two and one-half miles west over a very primitive road in the bottom of the gulch.

The property consists of four lode claims, containing approximately 80 acres in a block 3000 feet long (east to west) and 1200 feet wide (north to south). They lie on the north slope of Butte Peak and the south side of the gulch.

The owners are George Edeline and Mable Steinegger of 701 North 7th Street, Phoenix, Arizona.

The nearest railroad and supply point is Phoenix, about 45 miles to the south. This is not of any great importance since the ore is not of a type which will be shipped to a smelter. The roads are excellent all-weather roads, all black-topped except for the four and one-half miles of gravel-surfaced road and the final two and one-half miles up the gulch to the mine. This last bit will have to be improved to put the mine into operation, but this can be done at no great expense with a

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1 tractor and bulldozer.

2 The claims are the Rackensack Nos. 1, 2, 3, and 4. They
3 are not patented and are held by location. The ground on the
4 south, east and west extensions of the veins is open to location
5 of additional claims if exploratory work shows the veins to
6 extend over that ground. They are within the Tonto National
7 Forest and were the subject of a hearing initiated by the
8 U. S. Forest Service, challenging their validity. The decision
9 of the Hearings Examiner was that the claims were valid. Once
10 in production, there should be no difficulty in obtaining a
11 patent for them.
12

13 Brief mention of the property is made in Arizona Bureau
14 of Mines Bulletin No. 137, August 14th, 1934, by Eldred D. Wilson,
15 J. B. Cunningham, and G. M. Butler, page 165. It states that
16 the mine was being worked in 1934 by A. Verkroost and that it
17 had produced more than \$1000 worth of ore in the previous three
18 years, the ore being processed in a small stamp mill on the
19 Dallas-Ft. Worth property about two miles downstream in the
20 gulch. This mill is no longer in existence.
21

22 The country rock is shown on the Arizona Bureau of
23 Mines geologic map of Maricopa County as pre-Cambrian schist.
24 On the Rackensack claims it appears to be an altered rhyolite
25 with granite intrusions. The principal vein strikes nearly
26 East-West and dips to the North. It appears to be a true fissure
27 vein and as such should persist both longitudinally and to depth.
28 Where exposed it appears to be about four feet in thickness,
29 except at an open cut on the Rackensack No. 1 claim, where it has
30 widened to ten feet. At least one other vein branches in a
31
32

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1 southwesterly direction from the main vein into the Rackensack
2 No. 2 claim. These veins are exposed in five workings.] There is
3 a large open-cut on the main vein, also two tunnels, one above,
4 the other below the open-cut. The open cut is approximately 30
5 feet wide and 30 feet deep. The vein was sampled across a width
6 of 10 feet in this cut by an engineer of the U. S. Forest (who
7 were contesting the claim). His sample ran \$110 per ton in gold.
8 The tunnel below the open-cut crosscuts into the vein and samples
9 cut across the vein ran \$96 per ton. The other tunnel is in the
10 hillside about 100 feet above and 500 feet to the east of the
11 open cut. It crosscuts 40 feet into the vein and then drifts
12 600 feet on the vein. This is the place from which the production
13 mentioned in the Bulletin No. 137 was taken. The vein is from
14 18 inches to 48 inches in this drift. A short tunnel and shallow
15 shaft are found on the intersecting vein on the hillside above
16 the open-pit.

17
18
19 [The gold is free-milling and is found in the quartz
20 vein filling.] Considerable iron oxide, hematite and limonite,
21 is associated with the quartz. The gold ranges from coarse,
22 sometimes wire gold, to fine, in size. It can be easily separated
23 from the quartz by panning or other gravity methods. In milling
24 this would be accomplished by crushing, grinding, and separating
25 on Wilfley type tables. The degree of fineness to which the ore
26 should be ground in order to make the maximum recovery will have
27 to be determined by experimentation.

28
29 [Free-milling gold is notoriously spotty in its deposition
30 in a vein. It would be impossible to state or estimate what the
31 average value per ton of the ore in place might be without
32

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1 completely blocking it out by surface trenching, shafts, drifts
2 and raises; and by taking many closely spaced and carefully cut
3 samples. This has not been done on this property.

4 It is not at all difficult to pick specimens of quartz
5 from the exposed vein in the open cut in which free gold in spots
6 and along cracks is visible to the naked eye. This indicates a
7 very high-grade ore deposit, the extent of which should be
8 determined by additional exploratory work.]

10 In Rackensack Gulch, on the upper (western) end of the
11 No. 1 claim, is a spring which flows the year around. There is
12 also a tunnel and a winze in the same vicinity from which, it is
13 estimated, sufficient water to supply a 50-ton mill could be
14 obtained. There is no timber available on the property but the
15 character of the rock is such that a minimum would be required
16 for mining operations, the only requirements being for ore chutes
17 and occasional stulls.

19 A prospective investor should understand that mining
20 properties fall, generally speaking, into three classes, namely,
21 Mines, Probable Mines, and Possible Mines or Prospects. These
22 classifications may be defined as follows:

24 A Mine is a property that has its ore-bodies exposed
25 underground by openings, such as shafts, drifts, and raises in
26 such ways that the different blocks of ore can be examined and
27 sampled on more than two sides, at stated distances and the ore
28 must be of such quality (value per ton) and quantity to pay a fair
29 profit over all expenses, including purchase price, taxes, interest
30 on money invested, and all production, treatment, and marketing
31 costs. A property in this classification is, of course, no
32

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1 longer a speculative venture, but an investment which, under
2 proper management, will return a certain profit over a period
3 of years.

4 A Probable Mine is a partially developed prospect, that
5 has the ore bodies exposed on at least two sides, to a depth of
6 at least 100 feet below the surface, and the ore must be of a
7 grade to pay all expenses of mining and treatment and leave a
8 fair profit.

9
10 [A Possible Mine or Prospect is a property upon which a
11 discovery of valuable mineral, either in a vein or other type
12 deposit, has been made, but which has not been developed or
13 opened to a point where it is possible to make any meaningful
14 estimate of the size (tonnage) or value of the deposit. Some
15 prospects may show a much greater possibility or potential
16 for development than others. The function of the experienced
17 mining engineer is to evaluate this potential before any large
18 investment is made in the property.]

19
20
21 There is always a certain amount of risk involved in
22 any mining venture. The degrees of risk have been classified as
23 above. The less the risk, the higher the price of the property,
24 the greater the risk, the lower the price. At the same time,
25 it should be remembered, that where unusual risks are assumed,
26 there is the possibility of unusual profits. Here again, it is
27 the function of the mining engineer to evaluate and minimize
28 the risks and to limit the justifiable expenditures at each
29 stage of the exploration.

30
31 [The Rackensack property is still in the stage of
32 opening it up. It is, however, a very unique and very promising

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1 prospect. It is the best and most promising gold claims which I
2 have seen in my 53 years of experience as an examining engineer.
3 I believe it has the potential to become a very profitable
4 producer.]

5 All mineral deposits are originally discovered by the
6 prospector, who brings his discovery to an engineer, who in turn
7 of the capitalist or mining corporation who has the means to
8 explore and develop the property. In the past thirty years the
9 image of the prospector and the art of prospecting has changed
10 drastically. The old bearded, booted fellow, with his gold pan
11 and burro, who wandered through the hills, hoping to find or
12 stumble over an outcrop of rich, gold-bearing quartz has
13 disappeared from the scene. The days of the bonanza are gone.
14 The days of mining rich surface ores are in the past. Especially
15 the mining of gold came to an abrupt stop in 1942 when the
16 federal government closed down all gold mines and declared gold
17 to be a non-essential metal. During the ensuing 25 years, the
18 price of gold was pegged at \$35 per ounce, while the cost of
19 labor and supplies skyrocketed, the closed down mines filled
20 with water, machinery and surface plants fell into rust and rain
21 and the only gold produced in the country was a by-product of
22 the big copper mines.

23 The old prospector has been succeeded by the economic
24 geologist, generally employed full time by one of the big
25 producing companies, who are not particularly interested in
26 gold deposits, and who usually use highly sophisticated instru-
27 ments and techniques in his search for large, low-grade, usually
28 deep lying ore deposits. Only recently have the restrictions
29
30
31
32

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1 on the marketing of gold been relaxed, and it is now possible
2 to sell it on the market for more than the government price.

3 A deposit or prospect such as the Rackensack is there-
4 fore unique. It has been many years since anyone has searched
5 for such a deposit. Even in days past, such deposits were
6 seldom found. My reasons for saying that it is the most promising
7 gold claims that I have seen in 53 years of experience in examining
8 mining properties are as follows:

9
10 First: The property is in an area which has a history
11 of producing high-grade, free-milling gold.

12 Second: High-grade, free-milling gold ore is found on
13 the property, in several places.

14 Third: The geologic structure (a true fissure vein) is
15 such as to encourage the belief that the ore deposit may continue
16 over a length and to a depth sufficient to produce enough
17 tonnage to justify the erection of a mill to recover the gold.

18 Fourth: There appears to be sufficient water available
19 (a very important consideration) to supply a small mining and
20 milling operation.
21

22 Fifth: It is in an area in which the climate permits
23 year around operation.

24 Sixth: It is readily accessible. Only a minimum of
25 road work is needed to insure year around access to the property.

26 Seventh: It is only 45 miles from Phoenix, a supply
27 source.
28

29 Eighth: It can be opened and placed in production for
30 a relatively small cost, and the asking price for a 45% interest
31 is very low. Every large operating company in the country spends
32

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1 hundreds of thousands of dollars in their search for new ore
2 deposits. Less than one per cent of the properties examined are
3 accepted or recommended for further investigation.

4 Edeline states that he can purchase the required (used)
5 equipment for a mill of 50 tons a day capacity and install it at
6 the mine for \$30,000 or less. I have checked this over with him
7 and believe that this can be done. He is an electrician and a
8 millwright. To recover free-milling gold from a quartz ore
9 requires only that the ore be crushed and ground to a fineness
10 sufficient to liberate the gold from the quartz and then to
11 separate the two by means of one or more gravity type
12 concentrating tables and, possibly a Steffan type table to
13 recover the fine gold.
14

15 (I would recommend, however, that before any expenditure
16 for milling equipment is made, that enough work to prove or
17 block out enough ore to supply the mill for one year, say
18 15,000 or 20,000 tons, be done. This can be done by uncovering
19 the outcrop, so that it can be measured and sampled over a
20 length of at least 500 feet, and putting down at least two
21 shafts to a depth of 100 feet. The cost of this work would be
22 about \$20,000.) The most common reasons for the failure of
23 small mining operations are, lack of ore; the premature erection
24 of a mill; insufficient capital; and poor management. (It would
25 be foolish to spend \$30,000 for a mill, only to find that there
26 was not enough ore to amortize its cost.) If it can be shown
27 that there is available 15,000 tons of ore which will average
28 \$20 per ton, then the company can proceed confidently to put in
29 the mill, which should pay for itself in a year or less, and
30
31
32

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1 continue to return a handsome profit. Once the property has been
2 developed to this stage, its value will be many times the asking
3 price.

4 I therefore recommend the Rackensack property to an
5 investor who has the risk capital to venture in the hope of
6 making a large profit.
7

8 Before building the mill, ore samples can be taken to
9 the ore-dressing section at the University of Arizona, tests
10 made and a flow-sheet worked out.

11
12 

13 Donald F. Reed
14 Registered Mining Engineer

15
16 Registered
17 Mining Engineer
18 Since Dec. 31, 1928
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WILLARD D. PYE
Consulting Geologist

3418 NORTH FORGEUS AVENUE
TUCSON, ARIZONA 85716

TELEPHONE 327-2956

December 4, 1976

Mr. Dave Lackey
1508 E. Colter
Apt. 214
Phoenix, Arizona 85014

Dear Mr. Lackey:

Enclosed is my report on the Rackensack and Cerro de Oro claims, Maricopa County, Arizona, which I recently examined at your request. Included with the report are various assays of samples taken from the property.

My conclusions in regard to the property are that the various claims are covered by a series of quartz veins bearing gold, silver, copper and minor amounts of other metals. Further, that sufficient assaying, mapping and exploration in the form of cuts, pits, trenches, shafts and underground mining has been done to warrant the undertaking of development mining of the high-grade gold and silver pockets and ore chutes as well as those portions of the veins which may contain lower values of mineralization but which assay work and costs may indicate are feasible to mine.

Further development and blocking out of the ore bodies should be continued in conjunction with the development and production mining operations.

Included in the report are some general geological principles which may help you to understand the type of mineralization found in the veins and the distribution of values in them.

May I re-emphasize the final statement in the report, namely, development and production mining can off-set in whole or in part various mining costs, but undertake the operation and equipment of the mine as would a "prudent man": Too often this principle is not followed and usually the results are disastrous.

If there is any further information which you may need, please let me know.

Yours very truly,

Willard D. Pye

Willard D. Pye

Hydrothermal Veins. (Hot Water Veins)

2

Carry many chemicals

- silica
- gold
- silver
- Copper
- Zinc
- Lead
- sulfur
- Fluorine
- Calcium
- etc, etc

Boundaries of thermal zones not sharp — gradual

[only a few of metals shown]



Hot Springs

Sulfon.
Mercury

Epithermal
Zone

Gold.
Bonanza type

Silver
Lead
Zinc
Copper.

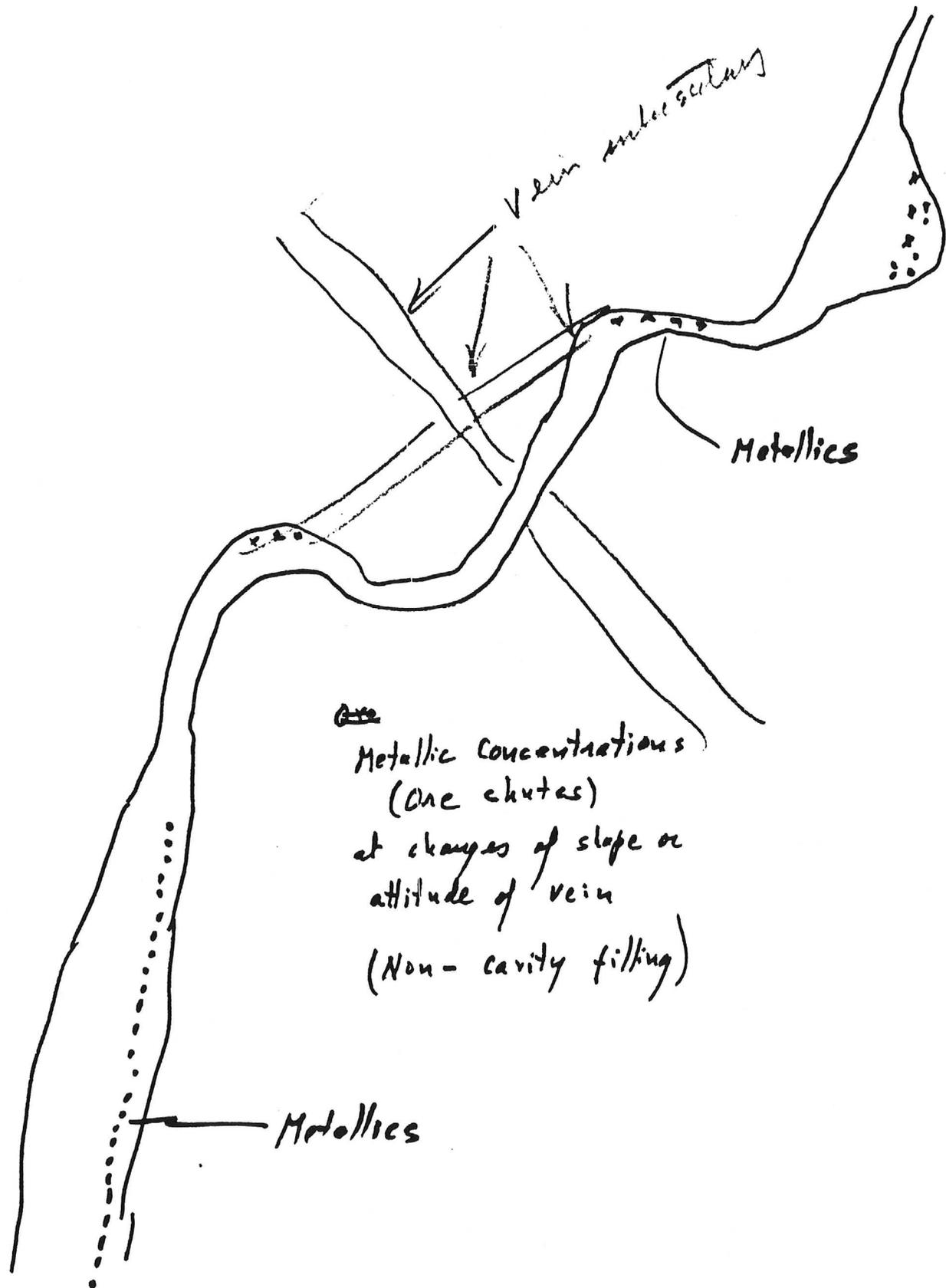
Mesothermal
Zone

Gold.
High Temp.
type.

Hypothermal
Zone

Tin.
Iron.
Chlorine

Source of
solution



"Bonanza"
Epithermal
vein

Hypothermal vein

Vein Hanging wall

Vein Foot wall

Hanging wall
vein wall

Bonanza
Cavity -
High grade

Fine
uniform Dis-
tributed gold

Coarse Quartz
crystals

Gold ore
clode

Low grade quartz
vein

Fine Quartz

ore clode

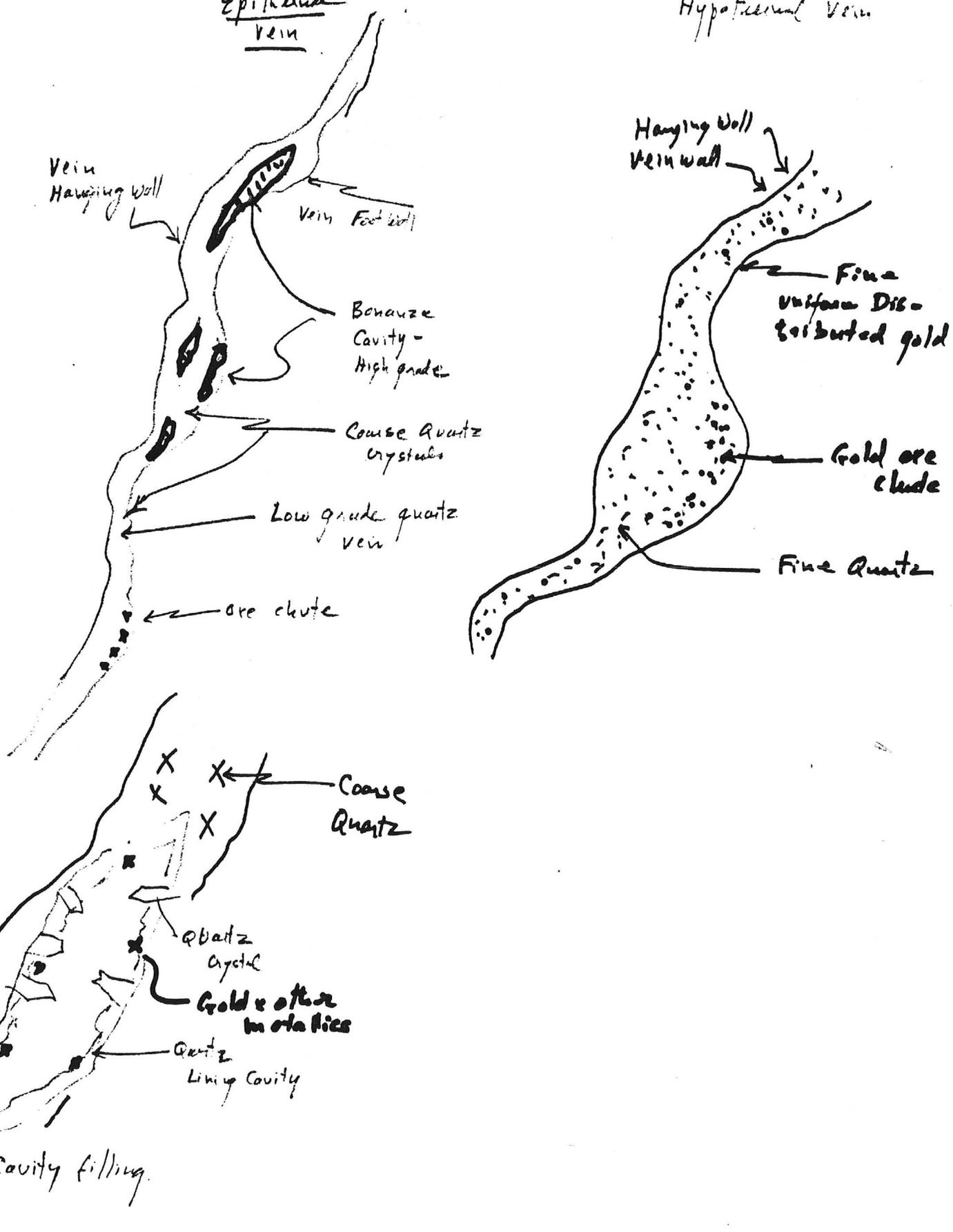
Coarse
Quartz

Quartz
Crystal

Gold & other
metals

Quartz
Lining Cavity

Cavity filling



ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.
817 WEST MADISON ST. PHOENIX, ARIZONA 85007

PHONE 254-6181

For **Tonto Mining & Milling Co., Inc.** Date **March 15, 1973**
P.O. Box 275
Tonto Basin, Arizona 85553

Sample of **Ore** Received:

Submitted by: **Bigbee-Howe & Tidwell**

ASSAY CERTIFICATE

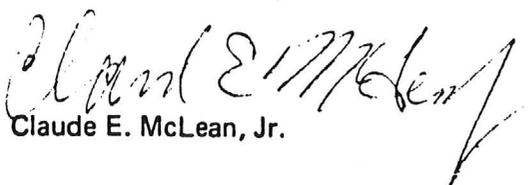
Gold figured at \$ **38.00** per ounce

Silver figured at \$ **2.00** per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES		Moly
		OZ. PERTON	VALUE	OZ. PERTON	VALUE	Copper	Lead	
4013	Rackensack #1	0.50	19.00	6.50	13.00		1.7	0.07
	Rackensack #1A	0.04	1.52	0.10	0.20			
	Rackensack #2	1.20	45.60	6.90	13.80		1.10	0.13
	Serro De Oro #1	0.02	0.76	3.70	7.40	4.30		
	Serro De Oro #2	0.03	1.14	2.40	4.80	0.08	1.85	
	Serro De Oro #3	0.01	0.38	0.10	0.20			

Respectfully submitted,

ARIZONA TESTING LABORATORIES


 Claude E. McLean, Jr.

WILLARD D. PYE
Consulting Geologist

3418 NORTH FORGEUS AVENUE
TUCSON, ARIZONA 85716

TELEPHONE 327-2936

December 4, 1976

RACKENSACK AND CERRO DE ORO CLAIMS

Maricopa County, Arizona

Location and Property

The property consists of 4 claims, namely, the Rackensack #1 - 3 and the Cerro de Oro #1 claims. This group of claims is located along the north side of Butte Peak and the south side of Rackensack Gulch in SW $\frac{1}{4}$ Sec. 33, T. 7 N., R. 5 E., and N $\frac{1}{2}$ Sec. 4, T. 6 N., R. 5 E., Maricopa County, Arizona.

The claims lie about 6 miles northeast of Cave Creek, or 50 miles northeast of Phoenix. Elevation is approximately 4500 feet and relief is over 700 feet and rugged.

A paved road becoming gravel in the last few miles passes within about 5 miles of the property. The rock road connecting the claims to the gravel road is a steep trail.

Springs are present in the area and a power line is located about 2 $\frac{1}{2}$ miles to the east.

Basis for Report

This report is based on a number of visits by the

writer to the property between 1972 and the present. No detailed mapping was undertaken at any time. However, the detailed report on the property by Halcapek, 1973, was checked in the field and found to be reliable and accurate. Field observations were supplemented by the writer's personal knowledge of the area, information in his files and by information derived from various people familiar with the property.

The scope of the writer's work on the property was to determine the general geology, the extent and type of mineralization, and the continuity and character of the vein systems. Costs of mining, milling and extraction, extraction processes, and tonnage of available ore were not included as part of the assignment.

Geology

The basic geology consists of a series of Precambrian Yavapai schists. These are steeply dipping to almost vertical. They are intruded by granitic rocks, rhyolites and basic volcanics. Quartz veins ranging from a few inches to 10 or more feet across are present and carry the mineralization. Dip of the more important veins is gently to the north and east; elsewhere, the dip may be almost vertical.

More specifically, the following salient geological points should be mentioned:

1. The rock in the mine area in which most of the veins occur is a coarse grained "granitic"

rock or "alaskite". There are some lateral variations in its composition and texture, but it keeps its general character. The intrusive is a stock or a roughly circular granitic mass several miles in diameter intruded into the surrounding rock. The rock into which it was intruded is the Precambrian Yavapai schist which is found within a few hundred or few thousand feet of the mine area in all directions. The schist also caps the higher portions of the mountains in which the claims lie.

2. In the area of the mine is a well developed shear zone with a northwest-southeast strike and a steep north dip. There are probably more than one parallel shears in the area. In addition, there are cross-cutting shears and faults and numerous irregular fractures and joints.
3. Quartz veins are present on the property with widths ranging from over 4 feet to less than one foot; except for the fracture and joint-filling veins, the average width of vein is probably close to 2 feet.
4. The vein systems extend from the area of major development on the Rackensack #2 claim onto and across the adjacent claims, namely, Rack-

ensack #1 and #3 claims and the Cerro de Oro #1 claim. These claims form an integral and essential unit for the mining and development of the mineral bearing veins found on the property. More specifically:

- (a) Rackensack #2 Claim. The main vein crosses the southern portion of the claim. Intersections of it with branch veins are well mineralized and contain high values of gold with some silver, lead and copper.
- (b) Rackensack #1 Claim. This claim lies immediately south of the #2 claim. The main vein crosses from claim #2 onto claim #1 and is equally persistent, well developed and mineralized. Other parallel shears and veins are present together with the usual network of minor veins and cross fractures.
- (c) Rackensack #3 Claim. This claim lies to the east of claims #1 and #2. The main vein and other parallel veins and shear zones pass across the end-lines of those claims and onto claim #3. In addition, independent veins are also present and in some cases well developed on this claim.

(d) Cerro de Oro #1 Claim. This claim lies south of the Rackensack #1 claim. The typical quartz gold bearing veins are present on its northern end, but of more importance is the copper bearing mineral development and vein found on the southern portion of the claim.

5. The veins are best developed in the alaskite rocks, although a number of thick, prominent vein structures are found cutting across the schistosity of the surrounding Yavapai schist.
6. The quartz veins follow two basic patterns:
 - (a) Those trending roughly parallel to the general shearing pattern in the alaskite, namely, striking northwest-southeast and steeply dipping, and
 - (b) Those cutting across the shear trend and which may or may not interconnect with the main veins which fill the fractures of the shear system.
7. There are at least two roughly parallel veins following the trend of the major shear zones as well as innumerable other irregular veins.
8. The main shear zones and their accompanying quartz veins are strong and can be traced over

hundreds of feet of length; their character suggests that they should persist to a considerable depth beyond the 150 feet. approximately of vertical depth that can be determined from present exposures.

9. All the veins pinch and swell and change dip and strike directions; the variations are more restricted in the veins confined to the shear zones, that is, the limits of change in strike and dip are restricted by the walls that bound the shear zones in which the veins occur, and the width is more constant being on the average about 2 feet.
10. The shear zone veins often have a gouge or clay zone along their foot-wall; the hanging-wall is less definitely defined. Veins filling fractures and joints and those interconnecting the shear zone veins often are tight to the walls of the enclosing rock.
11. The quartz veins in the shear zones usually are badly fractured. Fractures usually run roughly parallel to the vein walls. Veins outside the shear zones often are massive and non-fractured.
12. The shear zone veins are very persistent and the main one can be followed in workings for some 300 feet and projected to other out crops for an additional 500 feet and possibly more.

A vertical distance of probably close to 150 feet is exposed by raises or workings at different elevations on what is considered the same vein.

13. Not all shear zones and fault zones are mineralized by quartz veins. Some of the quartz veins are cut off by these barren post-quartz-vein shears.
14. A diabase dike cuts off the main vein and is some 10 - 12 feet thick and dips gently to moderately steeply to the south. It cuts off the veins which overlie it in the alaskite, but the dike is underlain by the same type of alaskite containing similar quartz veins. In some places the quartz veins appear to be somewhat off-set and to have different dips and strikes on opposite sides of the dike. This may suggest that the dike was intruded along a shear zone on which there was some later movement.
15. Where the dike is exposed in the lower tunnel (Number 1 Addit) a quartz vein several inches thick occurs between the dike and the alaskite; the lower contact of the dike is not exposed.
16. The quartz in the veins is usually white to milky but in places, often associated with mineralization, it is gray to dark gray and greasy in appearance.

17. In the areas where mineralization is best developed and there has been ground water circulation, the quartz is usually stained bright yellows, oranges, reds and deep red-browns; if copper is present, there may be greenish tints also.
18. In the mineralized weathered zones, silica box-works, which may or may not be filled with limonite, hematite and related oxides, may be quite abundant along the edges of the veins.
19. The veins are of a fracture filling of the shears and fault zones through which the mineralizing solutions moved; the result is the the development of three principal features:
 - (a) Massive vein-filling by quartz and associated minerals,
 - (b) Massive or open-filling of space between the breccia fragments of alaskite derived from the enclosing wall-rock and which may partly or largely fill the fault or shear zone, and
 - (c) Open spaces in the quartz vein into which cavities well developed hexagonal quartz crystals may have grown; sometimes crystals of the associated ore minerals may also be found in the cavities.

20. No crustiform, banded or related mineral depositional structures were noted.
21. No massive alteration of the alaskite has taken place. However, along the margins or contacts of the major quartz veins and the alaskite a thin zone of seritization and bleaching of the alaskite at times may be found; minor alteration is likewise found adjacent to the diabase dike.
22. The veins are a high temperature epithermal or low temperature mesothermal type.

Mineralization

Several fundamental factors relating to mineralization and which will apply to this deposit will be briefly summarized.

1. The presence of faults, shear zones and other fracturing of the host-rock is usually essential if a well developed mineralized locality is to be found. The fractures form the channel-ways through which the mineralizing solutions can move into the host-rock area. The more and better the channel-ways, usually the better is the mineralization.
2. The intersection of fractures usually produces the best areas of mineralization since the intersection of fractures usually results in the development of a large area of brecciation and breaking of the host-rock.

3. Temperature and pressure relationships in most cases are the controlling factors in the formation and deposition of the various minerals from the mineralizing solutions. Three zones characteristic of vein formation will be mentioned:

- (a) Epithermal or low temperature and low pressure
- (b) Mesothermal or moderate temperature and moderate pressure
- (c) Hypothermal or high temperature and high pressure

Epithermal gold deposits are notoriously spotty as to their mineralization. A vein may have only small amounts or even traces of gold but a few inches away may assay tens or hundreds of ounces per ton. Epithermal deposits frequently have cavities ranging from fractions of an inch to tens of feet in size in which the gold may be deposited. These epithermal deposits are the "Bonanza" deposits which are frequently found in the southwestern United States. In these, if a mine working along a quartz vein does not intersect a gold pocket, it will usually fail; if it intersects a pocket of enough size or value or frequent enough pockets, they will carry the operation often very profitably.

In contrast, the hypothermal deposits of gold are usually very uniform in distribution of values along the vein, and the gold distri-

bution in the quartz is usually very fine and often microscopic.

As temperature and pressure increase from the epithermal towards the hypothermal deposits, other factors controlling deposition become increasingly important such as changes in chemical composition of wall rock or solutions, changes in attitude (dip and strike) of the vein or vein walls, changes in widths and so forth.

Therefore, the highly irregular, randomly distributed, mainly cavity filling high-grade bonanza types of epithermal deposits give way to the more regular, somewhat more predictable, geologically, ore chutes. These carry in the mesothermal and hypothermal types of deposits the zones of greater mineralized values.

The prediction of the location of the spotty bonanza ore pockets of the epithermal deposits and the ore chutes and less spectacular ore pockets of the mesothermal and hypothermal deposits is almost impossible either by geological or geophysical means. If sufficient detailed geological information for a mine or district is available, the position of a possible ore chute may be pre-

dicted, but only drilling and mining will prove its actual presence.

Unless unlimited funds are available for drilling and other exploration, for the bonanza or epithermal types of deposits, about the only way to locate the high-grade pockets is to "get on the vein and mine the vein". Once a pocket is found, it must be mined to its limits. As has been stated earlier, in this type of vein deposit, the values in the pockets must usually largely carry the balance of the mining of the vein.

The mesothermal conditions are the environment for the deposition of silver, copper, lead, zinc, fluorite and related minerals.

Mineralization is associated with the quartz veins and consists primarily of native gold with lesser concentrations of silver bearing minerals and occasional pockets or zones of veins rich in copper, lead and iron sulfides and fluorite. Zinc may be present and a number of assays made for molybdenum have shown its presence. The oxidized products of all minerals except gold, which does not oxidize, are found in these near-surface exposures of the mineralization.

Further specific details are

1. The native gold occurs as wires, flakes and blebs which at times may be over a 1/4 inch

across and range downward in size to very fine and possibly microscopic. The matrix for the gold and associated sulfides is quartz. The gold is free-milling and can be readily separated from the quartz. Pyrite, the iron sulfide, is usually associated with the gold.

2. The iron sulfide, pyrite, may be scattered through the quartz vein or more often it occurs in concentrations up to an inch across. It carries some gold and probably some silver. It is relatively pale in color.
3. Areas where box-works are present or other cavities which may now be filled with the residual oxidized products of pyrite and possibly other iron bearing sulfides, may carry considerable residual gold in the red and yellow hematite, limonite and the other iron oxides. This gold is usually in the form of flakes but may be so heavily stained by the iron oxides that it needs to be cleaned to reveal its gold character.
4. The assays show that gold and silver are present, even if in small amounts in all samples taken in the gold bearing vein areas. In some samples the gold content is very high, reaching up to 23 ounces per ton in one assay. The highest silver assay noted was over 6 ounces

- per ton, but is usually nearer one ounce.
5. Some of the best gold mineralization is associated with the diabase dike, especially under the dike both at its contact with the cut-off quartz vein and extending along the dike-alaskite contact.
 6. The lead sulfide, galena, and some of its oxides are present on the property but would only be recovered as a by-product. The galena in all probability will carry silver since it is customary for galena to be argentiferous in the area.
 7. Although most of the gold values appear to be confined to the vein systems, to a limited extent there is some mineralization, usually of the base-metal sulfides and their oxidized products, of the adjacent wall-rock.
 8. The main copper sulfide noted was chalcopyrite. It is usually oxidized in these surficial exposures of the veins into malachite, a green copper carbonate. The malachite stain and chalcopyrite remnants are found on all the claims.

Other factors related to the mineralization are discussed under the headings on geology, development, production and assays.

In regard to specific mineralization on the in-

dividual claims, the following are the more important aspects. It should be born in mind that all of the claims carry mineralization. The variation is in intensity and concentration of the various types of minerals.

1. Rackensack #1 Claim. Abundant development of quartz veins occurs along one or more major shear zones together with a network of lesser veins. The main vein upon which most of the workings occur crosses from Rackensack #2 claim to the #1 claim. This vein carries strong gold mineralization with assays on it up to 11 ounces of gold per ton and over 3 ounces of silver per ton. Pyrite, with its possible gold and silver content, is common. Copper and other sulfides are minor.
2. Rackensack #2 Claim. The main quartz vein with its high gold values crosses from claim #1 onto claim #2. On this claim near the intersection of the vein and diabase dike some of the better gold values have been found with gold assaying up to 23 ounces per ton and silver over 6 ounces. Pyrite and copper and lead bearing minerals are also present in the quartz veins.
3. Rackensack #3 Claim. Gold and silver mineralization is definitely present in the quartz

veins on the claim as shown by assays of over 7 ounces per ton for gold and almost 4 ounces of silver. Copper oxides were also noted but details of copper and other mineralization were not studied since these claims should probably reflect much of the mineralization of Rackensack #1 and #2 claims adjacent to the west.

4. Cerro de Oro #1. The most important mineralization on this claim contains substantial amounts of copper both as sulfides and oxides. A shipment from this area of mineralization assayed at the smelter 1.5% copper together with 0.16 ounces of gold per ton and 1.28 ounces of silver. A quartz vein carrying considerable galena is also present in the area but may be slightly off the claim.

Past Exploration and Development

The claims lie in a general area in which there have been many old adits, tunnels, cuts and pits dug in search for gold and other mineralization. On the property is one large cut, 5 tunnels or adits and several shallow shafts with minor pits, cuts and trenches. These are located mainly along the gold bearing veins or cross-cutting them. Within the underground workings are cross-cuts, raises and stopes. Over 1000 feet of underground workings are present in the main mined area.

The present lessees have done some drilling on the property to determine mineralization. It is reported that gold and silver mineralization was found in one or more of the holes drilled, but the writer has seen none of the results other than the collars of two of the holes. At least one of them was over 100 feet deep.

It is reported that the present lessees had a pilot plant on the property to test the ore for its free-milling gold characteristics. The results of these tests are unknown to the writer.

No count was made of the specific number of workings on any particular claim but in general:

1. Rackensack #1 Claim: Numerous pits, shafts, cuts, tunnels, adits and other workings are present on the claim within its boundaries.

The most significant working is the southeastward drift from the Number 1 Adit which was started on claim #2 and continues into claim #1.

2. Rackensack #2 Claim. This claim, like the #1 claim, has extensive workings on it. The more important ones are the Toothpick Adit, Number 1 Adit, and Rattlesnake Adit. The latter two have had extensive drifting, cross-cutting, raises connecting them stopes, and other development work as well as actual

production mining. A large cut some 40 feet deep and approximately 100 feet across has been developed on the claim. The recent drilling by the present lessees has also been on this claim. The pilot plant probably used ore from this claim for testing.

3. Rackensack #3 Claim. Exploration and development work has been much less extensive on this claim than on the other Rackensack claims since the mining and development work on those claims would lead naturally onto the #3 claim. However, there has been a shaft sunk to a depth of some 40 feet and some cuts, pits and other testing.
4. Cerro de Oro #1 Claim. As with the Rackensack claims exploratory cuts, pits and other workings are present within the claim boundaries. The most significant work on the property is the cut and minor underground work in connection with the copper mineralization from which ore was taken and sent to the smelter.

Past Production

Old records indicate that substantial amounts of commercial ore were shipped from the "upper tunnel" from the quartz vein which ranges from a foot to 4 feet

wide. At that time the price of gold ranged from \$22 to \$35 per ounce in contrast to the price of approximately \$135 per ounce today. This production came from the Rackensack #1 and #2 claims.

The above is the only record of productive shipments that have been found, but the relative size of dumps and old workings strongly suggests that substantially more rock went through the mill but there is no known record of mineral values recovered.

The owners of the claims shipped one car load of ore which came from the large cut on Rackensack #2 claim and one car load from the copper vein on the Cerro de Oro Claim #1. These shipments are discussed later, but both were profitable.

Assays

Attached to this report are certificates of assays and tabulations of assays which have been made from samples taken from the veins and mineralized areas over a period of years.

In 1971, with the price of gold at \$35 per ounce, the U. S. Forestry Service, in contesting the validity of the claims, found gold values ranging from 6.2 to 23 ounces per ton and silver from 0.65 to 3.9 ounces. On the Cerro de Oro claim copper is reported at 2.96% with 0.02 ounces of gold and 1.80 ounces of silver.

It has been reported that other sampling by the

Forestry Service at the same contest sampled across 10 feet of the main cut and assays ran \$110 per ton gold at \$35 per ounce, and their sampling of the vein in the "lower tunnel" yielded \$90 per ton gold at the \$35 per ounce price. These two assays have not been found in the records submitted to the writer:

Conclusions

1. The property consists of 4 unpatented lode mining claims.
2. The claims cover well developed gold, silver and copper bearing vein systems.
3. Each claim is mineralized and has had sufficient exploration and testing to indicate its value and its contribution to the total production from the property.
4. The veins are of high temperature epithermal or low temperature mesothermal types.
5. At various points along the gold and silver mineralized veins occur high-grade gold and silver bearing pockets which may be cavity fillings or ore chute types of mineral concentrations.
6. There are numerous fractures and shear zones which have been filled with quartz and other vein material; in many fracture-filling types of veins throughout the world such intersections are the loci of some of the best mineralization and metal values; this is a potential which must be

kept in mind as mining and development progress.

7. No mineral property regardless of the fact that it may be of high-grade, has had all the desirable exploration work done upon it; at some point exploration activities must give way to development and/or production mining. It is believed that the subject property now has had sufficient examination, exploration and development to warrant the undertaking of development mining of the high-grade gold and silver pockets and ore chutes as well as those portions of the veins which may contain lower values of mineralization but which assay work and costs may indicate are feasible to mine.
8. Development work and blocking out of the ore body should be continued in conjunction with mining operations.
9. It is understood that as a result of pilot plant testing and various evaluation studies, the lessees have sufficient ore of such a character in sight and of sufficient value to warrant the initiation of mining and that this can be done at such a determined cost for mining and milling that a profit can be realized from production from the property.
10. That this could be a profitable operation is indicated by the results of two car loads of ore that were shipped from the property to the smelter of

Inspiration Copper Company, the settlement sheets of which shipments are attached.

The shipper of the ore has stated to the writer that the ore car taken from the Rackensack #2 claim was bulk loaded from material knocked down by dozer from the pit area of claim #2. There was no selective mining or sorting. It carried vein material, alaskite and overburden all mixed together. The ore car taken from the Cerro de Oro #1 claim was likewise stripped off from the material that overlay the copper bearing vein with no selectivity of mining or sorting other than the position above the vein from which the material was taken. The results of these bulk "sample" shipments were:

	Rackensack	Cerro do Oro
Net Dry Weight	19,610 lbs.	73,641 lbs.
Gold	.641 oz/ton	.160 oz/ton
Silver	.94 " "	1.28 " "
Copper	.62 %	1.50 %
Silica	85.5 %	82.8 %

(Both shipments carried high enough silica content to receive credit for it at the smelter.)

Even with high shipping cost, a profit was returned to the shipper. A mill and concentration would greatly improve the profit picture.

Recommendations

It is recognized that financial strength, size of contemplated operation and character of the given

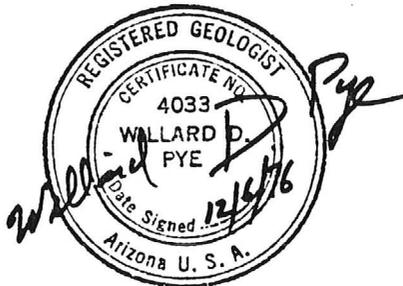
mineral deposit play a substantial role in determining when operations must shift from exploration to development and production. In general, for a small mining operation without unlimited capital, a property must be put into production at the earliest moment so that development and production mining can be partly or totally covered by production income. Further, because of limited capital, acquisition of certain mining equipment, ultimate desired capacity of the mill on the property, and so forth may have to be postponed to a later date. Within this frame work of a small mine operation with limited capital it is recommended that

1. Development and production be initiated immediately using the high grade spots located by past exploration as a starting point, and
2. Within the limitations of the available budget a sound program of development and production be determined and engineered to fit available ore in sight, reasonable mining and milling capacities, and other factors including economic controls and situations.

A final caution rather than a recommendation is: Do not to be carried away by plans that are not realistic. Too many mines have had to close down because of the dissipation of capital resources such as may occur as the result of the construction of a mill of capacity far in excess of what could be efficiently operated

to service mine production, or far too large for available water supplies and so forth. Such unrealistic actions may dissipate resources and/or capital needed to meet some economic change or unexpected mining contingencies. A mining operation can always grow; it is difficult to reduce and retrieve resources and capital once it has been expended in over capacities of mills and equipment.

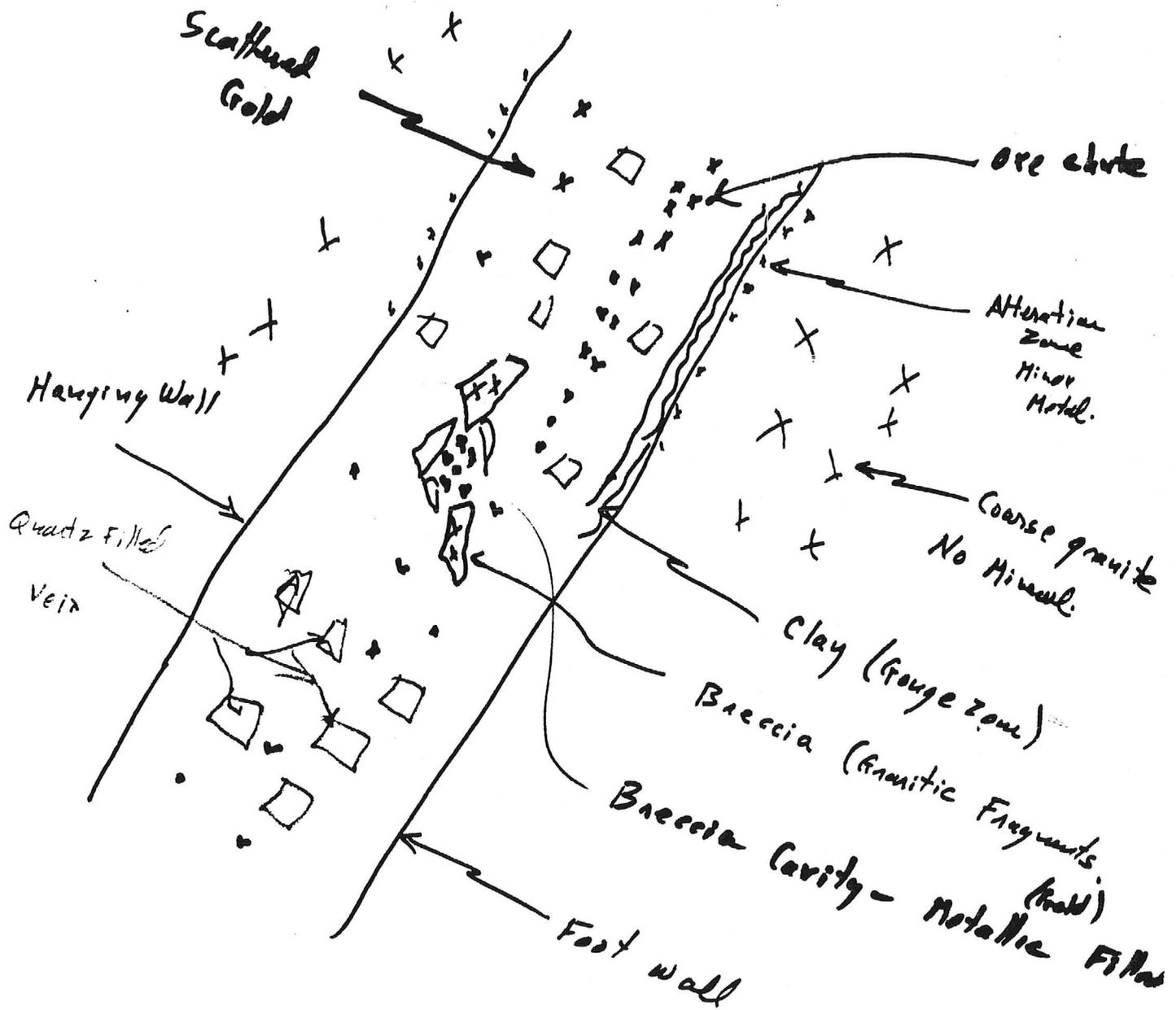
Willard D. Pye

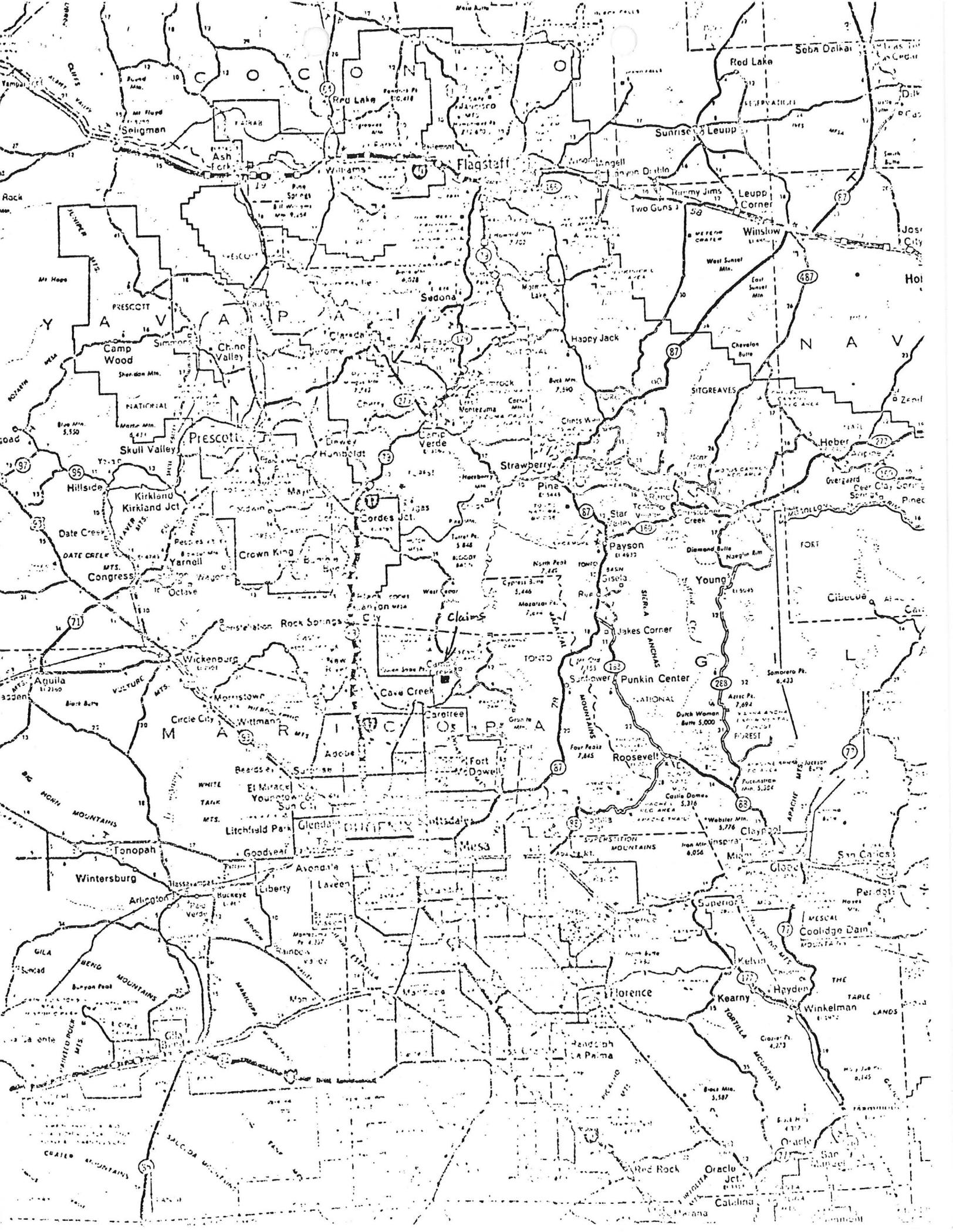


Willard D. Pye
Consulting Geologist
Arizona State Board of
Technical Registration #4033

Sampling - Gold Distribution
Across Vein

(5)





RACKENSACK SAMPLE LOCATIONS

Rackensack #1	Discovery of Rackensack #3 Claim. E-W Shear zone 38 inches wide, dipping 80°S.
Rackensack #1A	Rackensack #3 discovery. 30 inches of interbedded schist and quartz vein. Strike N75°W, dip N50°.
Rackensack #2	Composite sample of quartz vein 2-3 ft. thick covering 30 ft. of length in vicinity of shaft and caved stope. Rackensack 1 and 2 Claims.
3-13-4	Composite sample of quartz vein 1-2 ft. thick representing 40 ft. of vein. Dozer cut, Rackensack #2 claim.
3-13-5	#3 adit West side. Quartz vein 2½ ft. thick, sample represents 30 ft. of vein. Rackensack #2 claim.
3-15-6	#3 adit, East side. Quartz vein 2½ ft. thick. Sample represents 20 ft. of vein. Rackensack #2 claim.
3-14-7,8,9,10	Granite wall rock adjacent to vein.
3-15-11	Rattler adit. Composite of 40 ft. of quartz vein 12 to 14 inches thick. Rackensack #1 claim.
Serro De Oro #1	Location of Serro De Oro #1. 10 ft. wide cut.
Serro De Oro #2	Location of Serro De Oro #2. 4 ft. quartz vein.
Serro De Oro #3 and #3A	Location of Serro De Oro #3. 5 ft. vein of quartz and Fluorite.
R3-2-1	4 ft. cut across shear zone at end of toothpick adit.
R3-3-2	Altered wall rock, toothpick adit.

355 ft. length x 2.5 ft. width x 200 ft. avr. slope depth of vein =
12 cu. ft. per ton

14,700 tons

The grade has been determined as follows:

Sample	Width in Ft.	Length of Outcrop Represented	Grade oz. Au
Rac #2	3	30	1.20
3-13-4	2	40	2.90
3-13-5	2.5	30	0.61
3-15-6	2.5	20	0.66
3-15-11	2.2	40	0.41
	Av. 2.5	Length 160	Weighted Av. 1.25

[Lack of information precludes making any estimates of tonnage on the Cerro De Oro claims but it is safe to say that at least a few thousand tons of open pit copper ore exists on the Cerro De Oro #1 and a substantial tonnage of mill grade fluorspar ore could be present on the Cerro De Oro #3.]

MINING COSTS

The following mining costs are derived basically from Tonto Mining and Milling Company's experience with similar type of deposits at their Bluebird mine and mill at Tonto Basin, Arizona.

Results of Assays from Samples Collected by F. Holcapek, P. Eng.,
 Agilis Engineering Ltd., Consulting Engineers & Geologists,
 Vancouver, B. C., August 30, 1973

Cat Trench (Rackensack #2)

<u>Sample No.</u>	<u>Width Feet</u>	<u>Au/oz</u>	<u>Ag/oz</u>	<u>Description</u>
16701A	5	0.015	0.06	Weathered grey alaskite
16702A	5	0.25	0.24	Weathered grey alaskite
16703A	10	0.021	0.27	Weathered grey alaskite
16704A	8	0.015	0.08	Weathered grey alaskite
16705A	8"	0.133	0.19	Quartz veinlets no sulphides
16706A	5	0.27	0.14	Alaskite, red feldspar & sericite
16707A	grab	0.005	0.17	Alaskite, red feldspar & sericite
16708A	grab	6.40	9.40	Quartz vein material not selected
16709A	grab	0.008	0.09	Alaskite grey poorly exposed
16710A	grab	0.005	0.10	Quartz vein material not selected

Toothpick Adit (Rackensack #2)

Chip sample of the sheared schist through which adit was
 driven for 180 feet. No quartz veins or veinlets.

<u>Sample No.</u>	<u>Width</u>	<u>Au</u>	<u>Ag</u>
16711A	25 feet	0.007 oz	0.03 oz

Market Value Au in \$

100

90

80

70

60

40

30

Grade needed to produce 820/ton



Grade in oz/ton Au

EUGENE DIETZGEN CO.
MADE IN U. S. A.

ND. 340-20 DIETZGEN GRAPH PAPER
20 X 20 PER INCH

RACKENSACK COSTS

	\$ per ton	
Mining	\$12.00	*
Milling	3.50	**
Amortization	.57	+
Transportation	<u>4.00</u>	‡
Total	\$20.07	

At the current price of \$83.05, the break-even point would be 0.242 oz/ton. See Graph page 7.

SERRO DE ORO COSTS

[No real costs have been determined for the Serro De Oro Claims although it is readily apparent that even with the excessive transportation charges that the lot shipped November 20, 1968, made several dollars per ton profit) as the ore was mined open pit and mining costs under the worst conditions should not have exceeded \$4.00 per ton. See enclosed settlement sheet.

[Tonto Mining and Milling Company has made no assessment of the fluorspar potential other than to conclude that 54.9% CaF₂ is economic mill feed providing the ore is compatible with their ores.

- * Actual costs, similar type of vein at Tonto Basin, Az.
- ** Material to be processed at existing mill now operating.
- + Adding tables to present idle circuit \$8000 over 14000 tons.
- ‡ 80 miles @ \$.05 per ton mile.

F. Halcapek Assays, cont.

Rattlesnake Adit (Rackensack #2)

<u>Sample No.</u>	<u>Width Feet</u>	<u>Au/oz</u>	<u>Ag/oz</u>	<u>Description</u>
16724A	1.0	0.063	0.73	Quartz with pyrite
16725A	4.0	0.015	0.05	Sheared Alaskite
16726A	1.25	0.029	0.20	Quartz vein
No. 1	grab	9.70	3.90	Quartz vein material - pyrite
No. 2	grab	0.78	0.37	Quartz vein material - pyrite

Shaft No. 1 (Rackensack #2)

<u>Sample No.</u>	<u>Width Feet</u>	<u>Au/oz</u>	<u>Ag/oz</u>	<u>Description</u>
16727A	grab	0.18	0.33	Vein material

**VALLEY ASSAY OFFICE
AND ORE TESTING LABORATORY**

MEMORANDUM OF ASSAY

Packensack Mine

Made for Ponto Mining & Milling Co.

Tempe, Arizona..... March 3, 1973.

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 OUNCE			AT	PER OUNCE			AT	PER LB.		AT	PER LB.		AT	PER LB.		\$	Cts.
OZS.	100's	\$	Cts.	OZS.	100's	\$	Cts.	%	\$	Cts.	%	\$	Cts.	%	\$	Cts.	\$	Cts.	
Packensack By Jewell Rigbee &																			
Howe, # 1	0.	92			11.	80													
# 1	10.	54																	
By Brooks # 2	37.	42																	
Ponto MIN																			
By Brooks-	56.	44																	
I-M- 2	51.	58			0.	80			.15										
REMARKS:																			



BY _____ Registered Assayer.

NO. _____
CHARGE \$ 24.50 P.I.

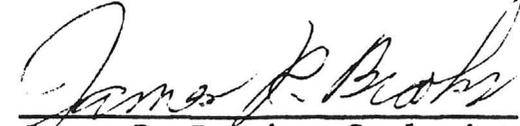
CONCLUSIONS

The Rackensack-Serro De Oro Claims lie in an exceptionally interesting geologic area. Numerous exposures of copper, gold, lead, and molybdenum metalization, together with large areas of silicification and other alteration, give this area the potential for a large disseminated copper deposit. Mineralization of this type, if it exists, would probably be quite deep. The Fluorspar which has apparently not been recognized on this property before should be of extreme interest to Tonto Mining and Milling as it is only 80 miles from their processing plant.

A limited tonnage of silicious copper ore exists on the Cerro De Oro which could no doubt be stripped and sent at a profit to the Inspiration Smelter at Miami, Arizona, in conjunction with other mining on the property.

The Rackensack vein proper should return a profit in excess of \$1,000,000 on material above the present working adit at the current price of gold. No allowance has been made here for silver or lead but quite likely most if not all of these values will be recovered in the concentrates.

March 17, 1973
Date


James R. Brooks, Geologist

F. Holcapek Assays, cont.

Number 1 Adit (Rackensack #1 and #2 Claims)

<u>Sample No.</u>	<u>Width Feet</u>	<u>Au/oz</u>	<u>Ag/oz</u>	<u>Description</u>
16712A	1.6	0.042	0.15	Quartz vein with pyrite
16713A	1.5	0.021	0.16	Quartz vein with pyrite
16714A	1.6	0.018	0.42	Quartz vein with pyrite
16715A	1.25	0.003	0.08	Quartz vein with pyrite
16716A	2.0	0.775	7.60	Quartz vein with pyrite sheared
16718A	6.0	0.23	0.11	Shear along hanging wall
16719A	2.0	0.385	0.17	Compound vein
16720A	2.0	11.50	3.10	Quartz vein before junction with shear
16721A	5.0	0.15	0.20	Gouge
16722A	3.0	0.018	0.04	Quartz vein and gouge
16723A	3"	0.500	0.46	Quartz vein - cross cut

Grab Samples from Mineralized Vein Material

P 2A	grab	0.094	0.77	Quartz vein with limonite
P 2B	grab	2.08	0.72	Quartz vein with limonite
P 2C	grab	1.79	1.21	Quartz vein with limonite
D 1	grab	0.032	0.05	Diabase dyke

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. S. Lewis²²⁵
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rich gold ore several years ago. In May, 1934, it was being ex-
plored by a tunnel below the old 50-foot shaft.

The A. B. Bell property, at the head of Blue Wash, 12 miles
northeast of Cave Creek, is reported to have yielded about \$2,000
worth of gold during the early days. It was operated for a few
months during 1933 and produced a few hundred dollars worth of
concentrates and amalgam with a 5-ton mill.²²⁶

The Rackensack mine, owned by L. E. Hewins, is in Racken-
sack Gulch, about 4 miles upstream from the Camp Creek high-
way bridge. In May, 1934, this mine was being worked through
a tunnel by A. Verkroost. During the past three years, it has
yielded more than \$1,000 worth of ore.²²⁶ This ore was packed
for about 2 miles to the Dallas-Ft. Worth mill.

The Dallas-Ft. Worth property, now under option to Charles
Diehl and Crismon Bros., is in Rackensack Gulch, about 2
miles upstream from the highway bridge. This property is said
to have produced a few thousand dollars' worth of gold during
the nineties. It is equipped with a small stamp mill.

The Gold Reef property, held by Dan Steele, is a few miles
northeast of Cave Creek and 38 miles by road from Phoenix.
In May, 1934, the Stuart Gold Reef Mines, Inc., was working the
property and operating a 5-stamp unit of an old 10-stamp mill.
The ore was being obtained from open cuts on a gently dipping
vein near the top of the mountain, some 1,500 feet above the mill.
Nine men were employed. This vein occurs in schist, east of a
large stock of reddish granite. The ore is cellular, milky-white
quartz with some black hematite. The gold, which is fine grained,
occurs mainly in the cavities.

WINIFRED DISTRICT

JACK WHITE MINE

The Jack White mine is in the northern foothills of the Phoe-
nix Mountains, about 18 miles by road from the railway at
Phoenix.

This deposit was located during the eighties. In 1913, J.
White and associates organized the Eyrich Gold Mining Com-
pany which sank the shaft to a depth of 300 feet and ran some
drifts. C. K. Barnes erected a 10-stamp mill on the property in
1928 and produced several thousand dollars' worth of bullion.
In 1931, the Hartman Gold Mining and Milling Company sank
the shaft to the 500-foot level, did considerable drifting, and
shipped several car loads of ore that contained from \$12 to \$16
worth of gold per ton.²²⁷ A new mill, equipped for flotation and
concentration, was built in 1932, but operations were suspended
in October, 1933. When visited in May, 1934, the mine was being
worked on a small scale by Mr. White.

²²⁶ Oral communication from A. S. Lewis.

²²⁷ Oral communication from J. White.

Arizona Bureau of Mines

Bull. 137

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

July 11, 1958

To the Owner or Operator of the Arizona Mining Property named below:

Rackensack (Maricopa County)

gold

(Property)

(ore)

SOURCES

ds

which we would like to have

report form with as complete detail
aps, assay returns, shipment returns
before and which might interest a
ty.

Mr. Leo L. Farrington

26 West Broadway

Phoenix, Arizona

Frank P. Knight

FRANK P. KNIGHT,
Director.

NO SUCH NUMBER 601 J.S.
ARIZONA PHOENIX
JUL 12 3 30 PM '58

Enc: Mine Owner's Report