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PRINTED: 04/30/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: OCTAVE

ALTERNATE NAMES:

JOKER
BONANZA

YAVAPAI COUNTY MILS NUMBER: 261A

LOCATION: TOWNSHIP 9 N RANGE 4 W SECTION 5 QUARTER SW
LATITUDE: N 34DEG 08MIN 38SEC LONGITUDE: W 112DEG 42MIN 13SEC
TOPO MAP NAME: YARNELL - 7.5 MIN

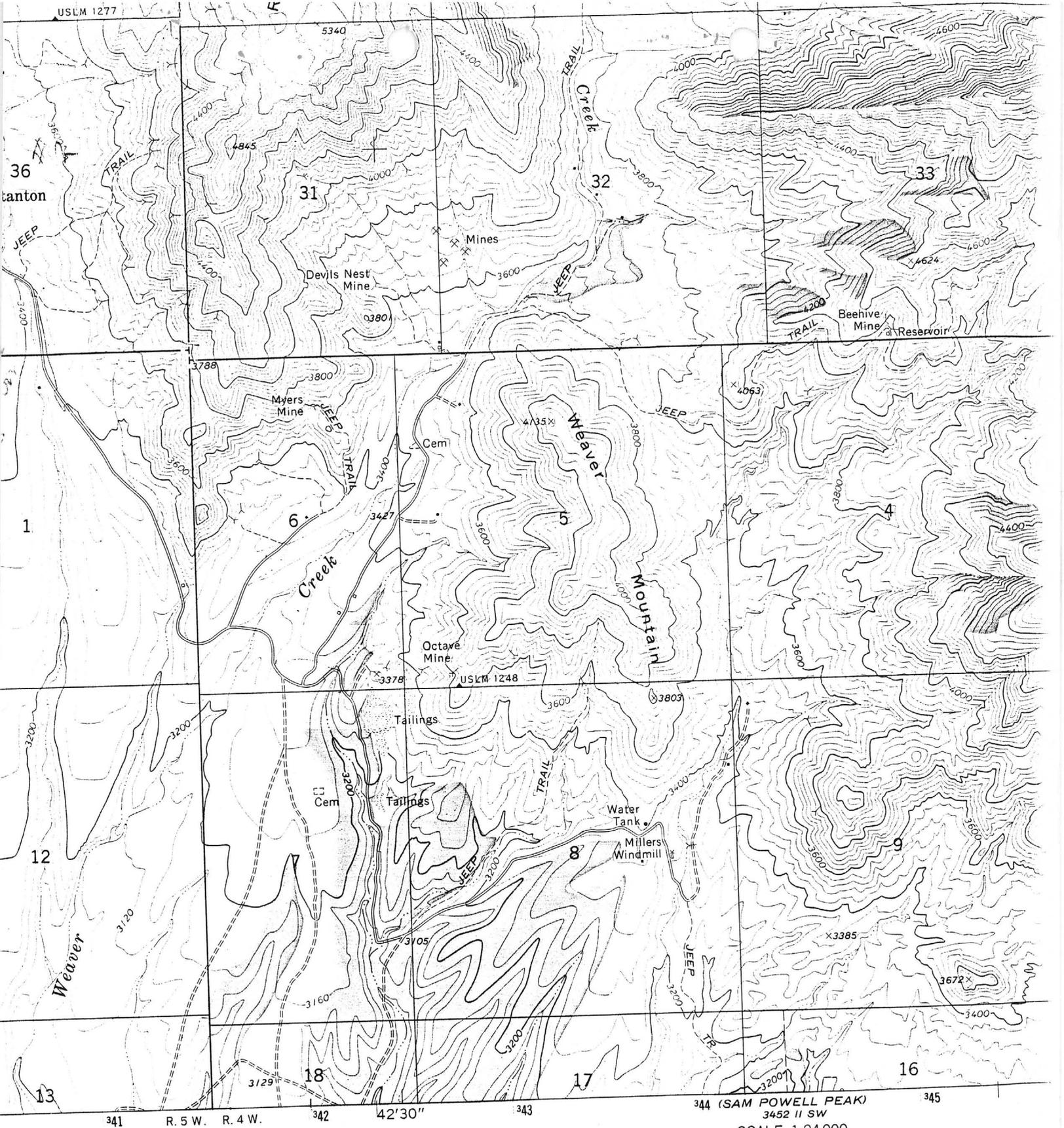
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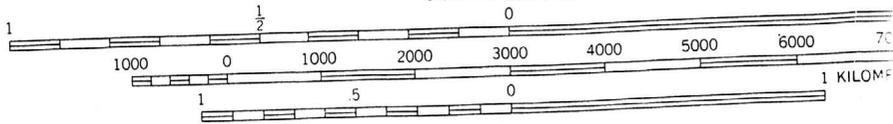
GOLD
SILVER

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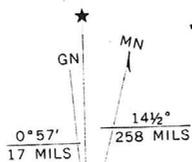
ADMMR OCTAVE FILE
WILSON, E.D. ET.AL. AZ LODE GOLD MINES AZBM
BULL 137 1934 P 66
AZ STATE MINE INSPECTOR OFFICE 1979 MINE
START FILE
ADMMR MAP - UPSTAIRS ROLLED BOXES (PHX OFFCE)
USBM IC 6991 GOLD MINING/MILLING WICKENBURG



SCALE 1:24000



CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL



UTM GRID AND 1969 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR WASHINGTON, D.C. 20508. A DIGITAL VERSION IS AVAILABLE ON THE INTERNET AT <http://www.mtlib.org>

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

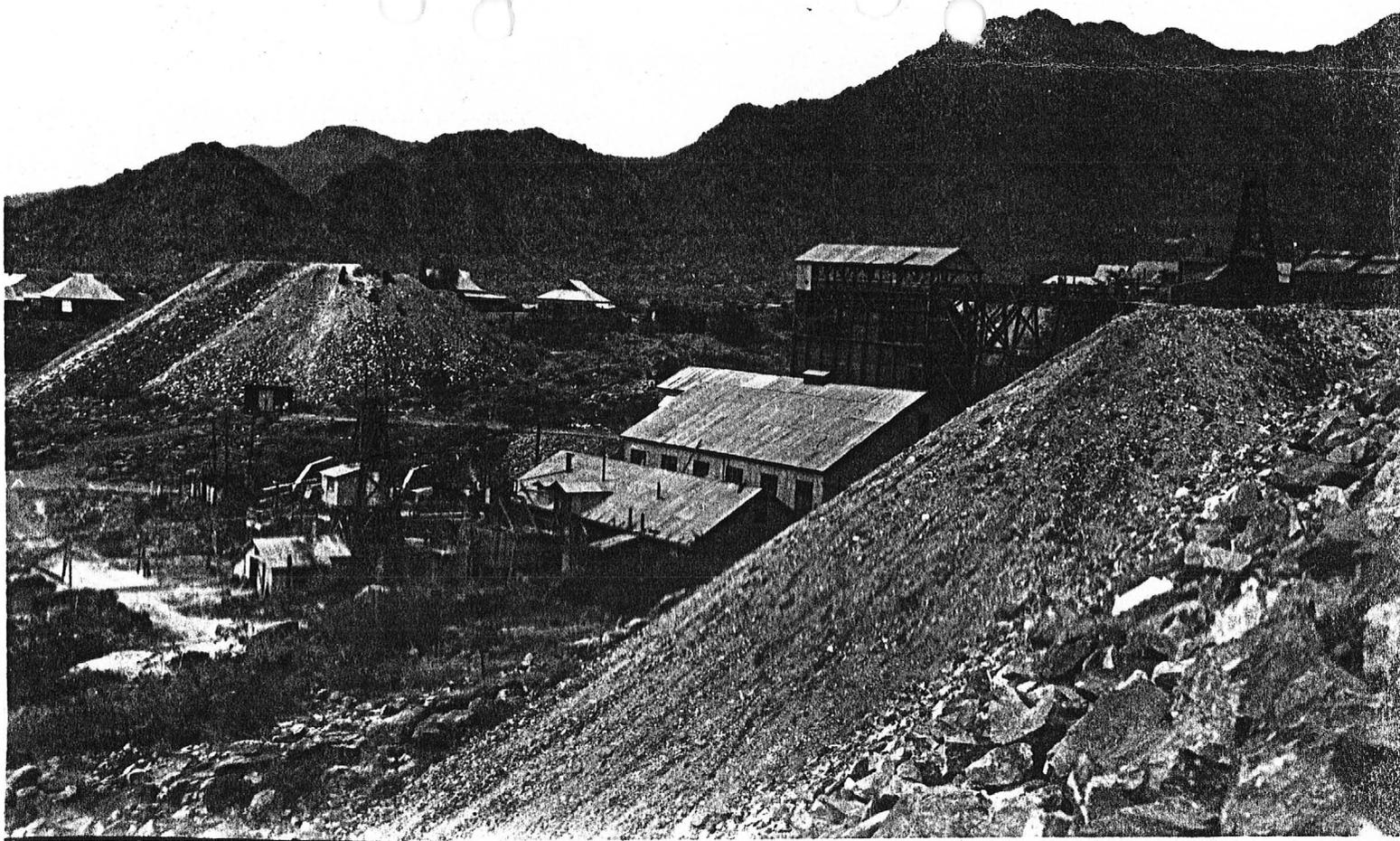
INFORMATION FROM MINE CARDS IN MUSEUM

ARIZONA

MM-K147 Gold Ore

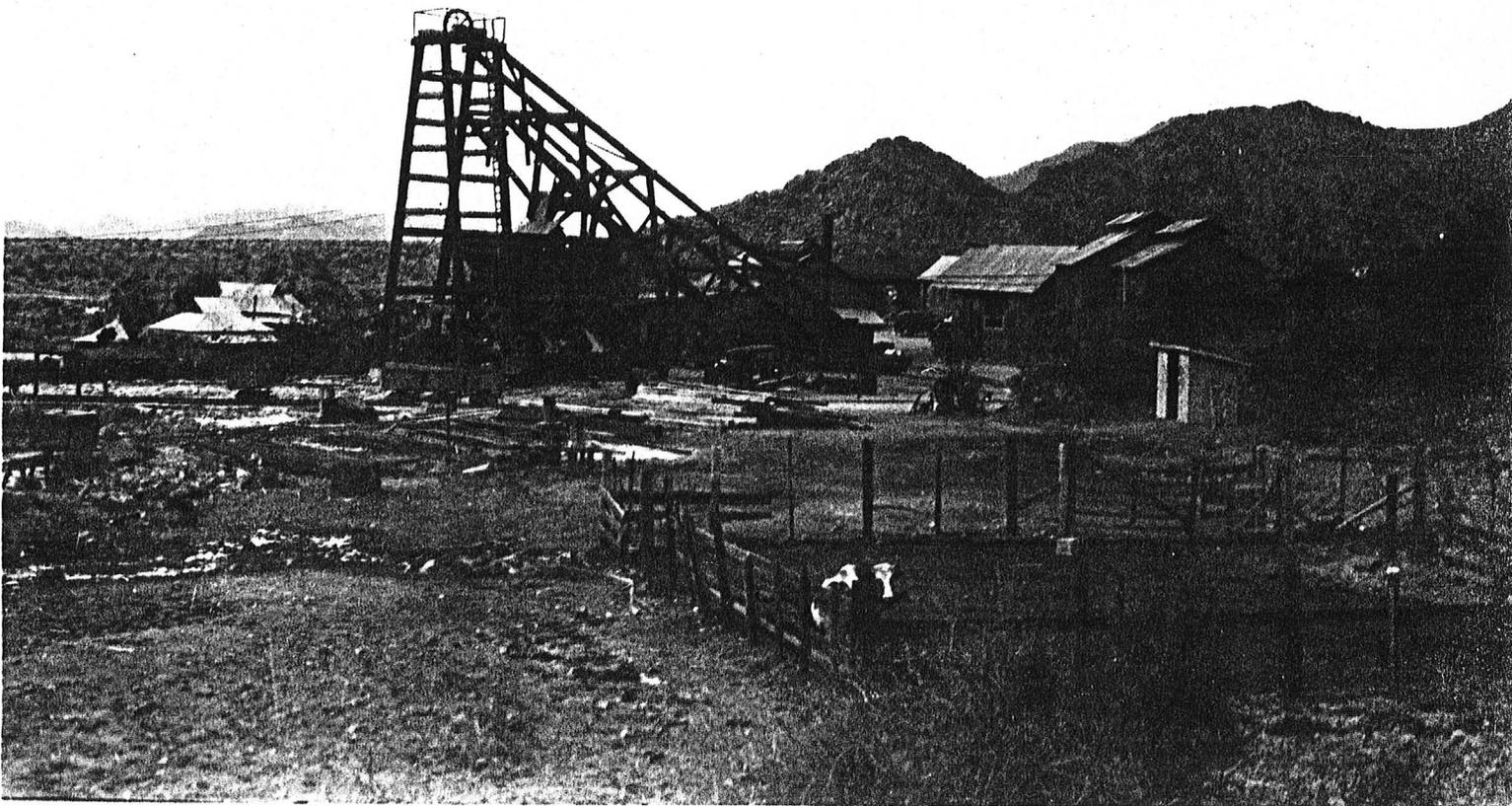
Yavapai Co.
10 mi. E of Congree
Weaver Dist
Octave Mine

MILS # 261A
2-AKA's
Octave (file)



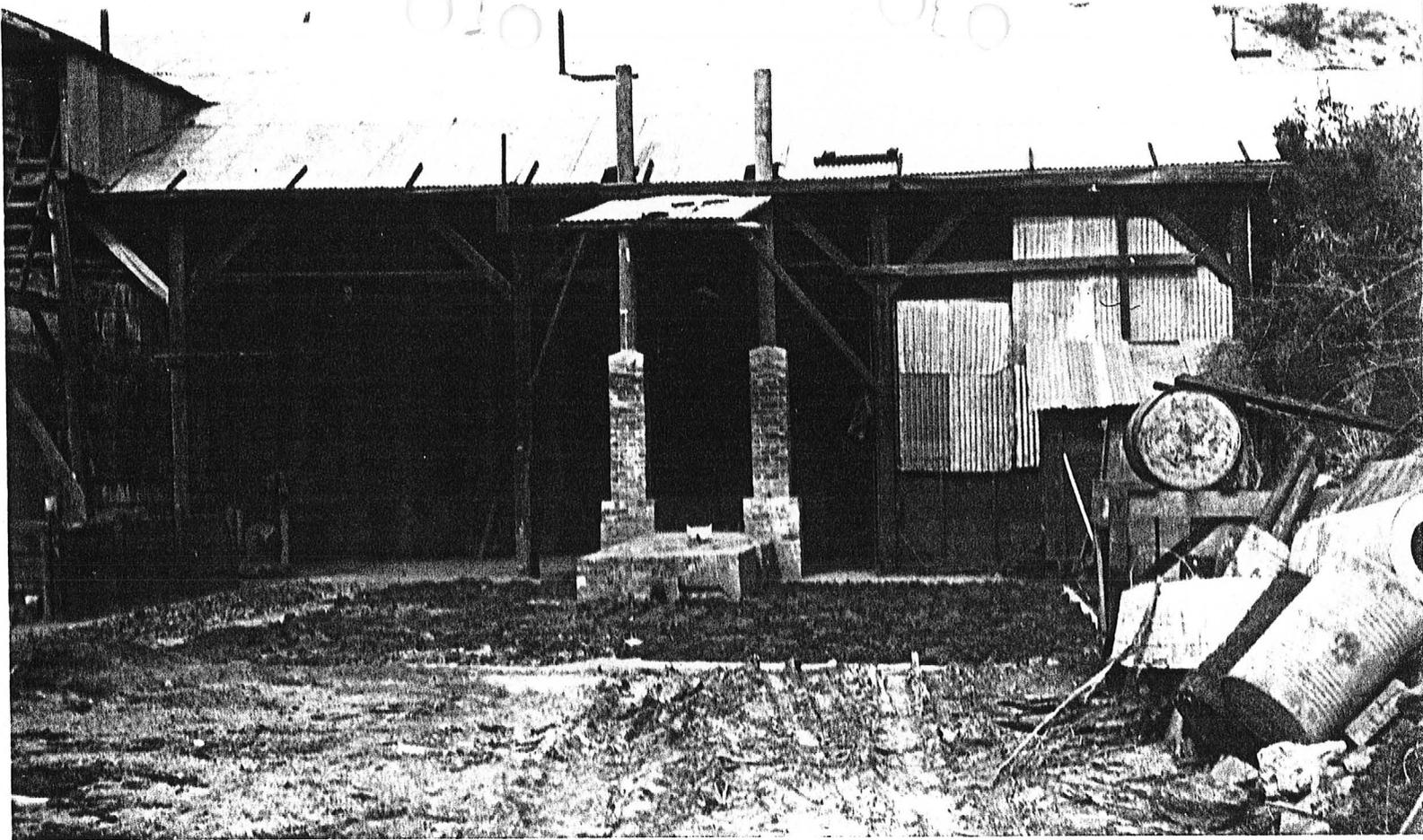
A-140-6

C-1950



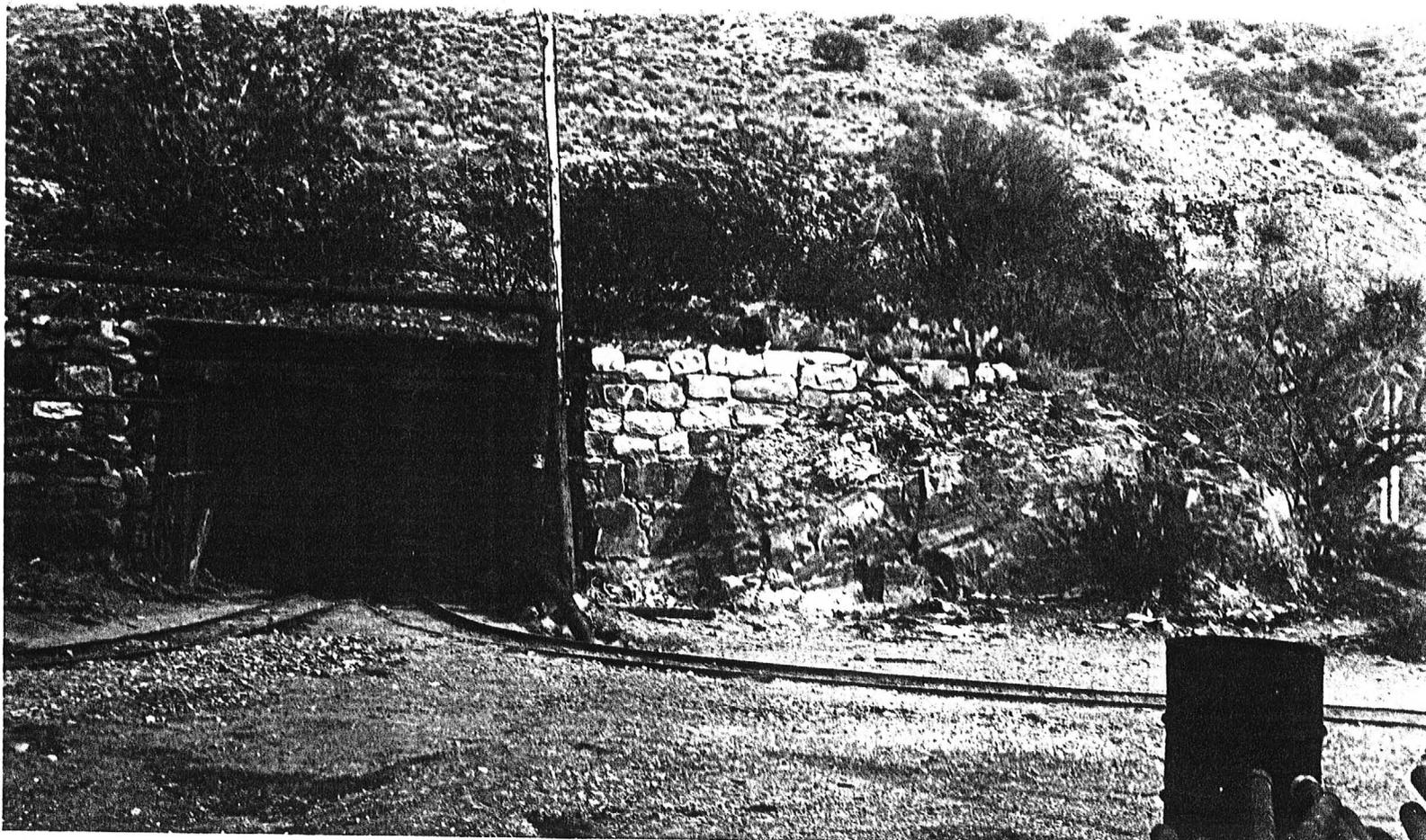
A-140-5

C-1950



A-140-8

C-1950



A-140-7

C-1950

Nyal Niemuth

From: "Erik Melchiorre" <emelch@csusb.edu>
To: "Nyal Neimuth" <njn22r@hotmail.com>
Sent: Tuesday, August 31, 2004 7:06 PM
Subject: Octave Mine Records

Nyal,

Great news! I just got back from a trip to the CA mine achieves in Sacramento and found some great stuff from AZ. They just received a huge collection. What caught my attention was from the Octave Mine... some of J.N. Nevius's notebook pages, a 1928 level map at 1"=50', a company prospectus, photos, and mine level geology/assay maps. I will have them make copies and pass the good stuff on to you. Too bad I could not include this in the book, but maybe I'll put out a special report or "supplement" on just the Octave mine. I also will be sending all those PDF files that I scanned from the Quartzsite Area, but I have to find them first... the office is a tad bit messy right now.

Cheers,

--Erik

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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES

FIELD VISIT REPORT

1. Engineers: Ken A. Phillips and Nyal Niemuth
2. ADMMR Mine File: Octave Mine
3. County: Yavapai
4. Operational Status: Idle
5. Summary of information received:

Briefly visited the site of the Octave Mine heap leaching operation which was shut down a number of years ago. There is no apparent activity at the mine.

A number of winter visitors/campers are at the property.

A black and white photograph was taken of the Octave tailings.

DATE: 1/19/89

ENGINEER: Ken A. Phillips

CJK WR 6/17/83: Visitor: Dave Rabb research the Octave Mine file, Yavapai County. Dave stated that Rhenium Corporation of Florida owns 6-9 patented claims along the out crop of the major vein. Areas to the footwall and hanging wall are held as regular mining claims by a Clare Richardson of either Scottsdale or Cave Creek or Tucson. Dave wasn't sure which. These claims contain the bulk of the mine dump and in certain areas are underlain by placer claims held by an unknown third party. I mentioned that a paper presented by a Reno Mining attorney, which I heard at a gold and silver conference in Reno a few years ago, stated that, in his opinion, mine dumps should be claimed as placers. It is not known if this has been tested in court.

KAP WR 7/12/85: A visit was made to the site of a previous cyanide heap leach operation at the Octave Mine (f) Yavapai County. Everything except the claims themselves looks abandoned, the camp is in shambles and the heaps are overgrown with weeds. There are still extensive dumps which have not been disturbed and should at least be evaluated for possible leaching. The site contains lots of misc. equipment in various states of disrepair.

NJN WR 12/12/86: A staff geologist with Petro Union Inc, 123 Main street, Suite 302, Evansville, Indiana 47708 (812) 424-6745 reported that Rhenium Corp (c) of St. Petersburg, Florida is still owner of the Octave Mine (f) Yavapai County.

KAP WR 12/12/86: Provided copies of a 1921 article on the Octave Mine (file) from Mining and Scientific Press for Josh Stark of Petro Union, 123 Main St, Suite 302, Evansville, Indiana 47708, phone (812) 424-6745. Petro Union is investigating the Octave Mine as a source of water for a nearby placer operation.

OCTAVE MINE

YAVAPAI COUNTY

NJN WR 5/7/82: Production figures were received from Don Gest with BGMT on the following mine:

Octave Mine, Yavapai County 1895-1950 483,350 tons Total Production
140,500 lb. copper; 144,850 oz. silver; 158,500 oz gold; 670,670 lb lead.

Do Not Reproduce

OCTAVE MINE (File)

YAVAPAI

RB/WR 1/3/80 - Cal Schroeder and Gary DeChristina, 931-4917 (Home) 944-3321 (office) are planning to do some work at the Octave Mine. Wanted to know if they could put the filter in the same building with the offices, labs, etc. I could find nothing to say they couldn't but I advised against it. They had already talked to the Mine Inspector's office.

CJH WR 4/8/80: Phone call: Peter Megyesi, phone 956-1537. Represents a group interested in acquiring mine dumps to leach. Was interested in the Octave.

CJH WR 11/7/80: Jerry Irvin reported that the Octave Mine is owned by Winner Gold Co., c/o C.O. Carlson, Box 327, Congress, Arizona 85332.

GWI WR 11/5/80: Telephone call to Yavapai County Assessor for ownership record of Octave Mine. (Winner Gold & C.O. Carlson, Box 327, Congress, Arizona 85332)

RRB WR 6/26/81: Mel Jones reports that Clare Richardson of Consolidated Chemical and Mining said that they are getting 20% recovery at the Octave. The resins are picking up copper instead of gold. C. O. Carlson is also involved with it.

NJN WR 10/16/81: Bill Beckwith with U.S. Richhill of Scottsdale visited. He was seeking a list of agencies to contact prior to operating a mine. His firm is going to vat leach the mill tailings at the Octave Mine, Yavapai County.

KAP WR 12/4/81: A report was received that the cyanide heap leaching operation at the Octave Mine is currently down, but that immediate plans are underway to crush and reheap the material.

OCTAVE MINE

~~CONFIDENTIAL~~

YAVAPAI

WR GW 11-16-77 - Accompanied Messrs. Oliver and Anderson of the Florida Corp. Commission along with Mr. Hall of the Arizona Corporation Commission to the Octave mine. Neither Mr. Oliphant or Mr. Carlson were there and little information was acquired from the Halleluhah Boys or Steve Fornot (Mr. Carlson's watchman). Mr. Oliver and Anderson went on to Yarnell to talk to Mr. Bruce Allen. Mr. Hall and I returned to Phoenix. 11-21-77 bh

WR/KP 1/13/78 - Ted Pomeroy, is interested in promoting development of the Octave Mine, Rich Hill District. He claimed to have heard reports of a 350,000 ton stockpile of economic ore. 2/10/78 a.p.

See: R.W. Merrill (file) 3 claims - Grey Devill, Dun Belly, Coyote 2/26/79 a.p.

GM/WR 12/1/78 - Mr. Cal Schroeder & Mr. Duane Grey were in stating they want to work the dumps at the Octave Mine. I told them about the trouble people had had at the Octave and they read the file, also they know something about the problems associated with this mine. However, they said that a Clare C. Richardson owned the claims where the dumps were at and that they would have no trouble working. They were not too sure of this as they tried to work the area and 9 men told them to get "the hell out of there." I recommended that they talk to a lawyer. 6/6/79 a.p.

CH/WR 9/12/79 - Worked on cyanidation at the Octave Mine for a few months. Is working toward a lease on the Monte Cristo, Constellation Dist., Yav. Co, Rumor has it the Octave operation will shut down. Low recovery or low ore grade -- or both. Mr. Grey has a 1000# charcoal based recovery unit and support equipment for sale.

Mel Jones, Wickenburg, came in to report he and Mr. Richardson, president of Consolidated Chemical and Mining Company were not allowed into C.O. Carlson's camp at the Octave mine. Mr. Richardson claims to have leased a portion of the Octave property and to have staked claims surrounding it. He has retained Mr. Jones to make a geological examination of his properties. He has approached William Kinnon to design and build a mill but, according to Mel, Mr. Kinnon declined the offer saying he was very busy with prior commitments. GW WR 1/30/75

Octave mine testing dumps. FTJ WR 3/13/75

Went to Octave mine but Mr. C.O. Carlson was at the Beehive mine of Multi-Minerals Ltd., Toronto. Found Messrs. Carlson and Colby finishing the portal set of the Beehive. Mr. Pearson and his crew hadn't shown up probably due to the snowfall. Mr. Carlson will build 3 core drill locations and the 2300 ft. drift and 90 ft. incline shaft will be sampled. GW WR 4/17/75

Went to the Octave mine where C.O. Carlson had 2 "angels" who were talking of putting up \$200,000 to get him set up in a placer operation on Weaver Creek. GW WR 7/16/75

Went to Octave mine where C.O. Carlson is testing some placer ground SW of the mine. He says the showings are quite favorable and that his "backers" will move machinery on the ground soon; they expect to get enough water from the Octave mine to operate a profitable placer. GW WR 8/25/75

A Mr. Lanson called to learn of the activity at the Octave Mine SE of Congress. He said the Winter Wining Company had recently sold the mine to the Rhenium Corp. of Clearwater, Florida. He was told there is presently no activity there. He said a Bruce Allen who is both a chemist and geologist will recover Ag, Au and Pt metals from hydrometallurgical treatment at the Octave. GW WR 2/26/76

There is no activity at the Octave mine, although a large camp is maintained. GW WR 6/2/76

Mr. Slaten said C. O. Carlson has the old Octave mine leased and has been trying, without much success, to hire miners. GW WR 3-8-74

Talked to Mel Jones who said Octave mine taken over by Winner Mining Co. of Florida. C. O. L. Carlson is mill superintendent and has been trying to recruit miners without much success. FTJ WR 4-11-74

Mr. Carlson said he was presently opening the Octave mine and had a camp there. GW WR 5-14-74

C.O. Carlson has been trying to get a crew together to start operations at the Octave mine for Winner Mining Company of Florida. Carlson is mill superintendent. FTJ AR 73-74

Mr. D. H. Jackson of Octave Gold Mining Corp., Box 221, Congress Junction, Arizona was in the office and says he is owner of the Octave Mine and plans to put it into operation soon. Memo - Travis P. Lane 7-24-58

Visited the Octave Mine and the site of a placer operation in Antelope Creek above Stanton. These are both owned by the Octave Gold Mining Corp. Both were idle and no one was present at either place. The road entering the Octave property is closed by a locked gate, and stout fencing extends from the gate on each side. A washing plant and some auxiliary equipment were standing fenced in at the placer site. It is said that a dispute between a Mr. Jackson and a group of Alaskans, who joined him in the venture, forced suspension of all activities about 2 years ago. Memo - Travis P. Lane 2-10-59

The Octave mine is now owned by R. P. Robertson and A. R. Nurstheimer both of Fairbanks, Alaska. They were former Pres. and Vice President respectively of Octave Gold Mining Corp. and when the company ran out of funds they obtained a judgement against the Company and by warranty deeds obtained title from D. H. Jackson, promoter, and Mrs. Merrill, owner of water in 1958. Memo- Travis P. Lane 4-24-62 Information from J. M. Shakelford.

No Activity 7-17,64 E. G. Williams (note)

Visited the Octave mand and George Dillard - no activity. FTJ WR 10-25-65

Went to Octave mine - idle. FTJ WR 5-10-73

Mr. Carl Carlson said he was about to make a deal for the old Octave mine and had some Utah people who would open it. GW WR 12/5/73

Resuscitation of the Octave Gold Mine

By J. Nelson Nevius

After a successful period of operation during which it produced \$2,250,000 worth of gold, the Octave mine succumbed to mismanagement and was abandoned. It lay idle for several years, but recently has been re-developed so successfully as to give every promise of a profitable life for many years to come.

Octave is situated ten miles east of Congress Junction station in Yavapai county, Arizona, about half-way between Phoenix and Prescott at an elevation of 3250 ft. The town is on a patented mining claim and the company thus controls the little community. It is ten miles east of the old Congress mine, reputed to have produced \$12,000,000, which was mined to a depth of more than 4000 ft. on a dip of 30°. The geology and type of veins are identical in the two mines, and it is worthy of mention that there are similar veins in the district well worthy of development. The arroyos close to Octave have made a record as producers of placer gold; Rich Hill, Antelope and Weaver gulches being the main sources of supply. Much of the placer gold is coarse; I have seen a \$207 nugget taken from the Octave property, yet gold is rarely seen in the veins.

The name Octave is said to have originated from the fact that in 1897 eight men associated themselves to organize the Octave Gold Mining Co. A 40-stamp mill was erected, with amalgamation plates, concentration tables, and cyanide plant. Oil-fired boilers supplied steam-power for the mill, compressor, and two single-drum hoists. The plant was operated for several years and the vein was mined over a length of 2000 ft. along its strike and for nearly 2000 ft. on the dip.

In 1905 the property was sold to a Chicago stock-broker. At that time the bottom of the mine showed a strong vein but too low-grade to be profitable, and to the east the vein was cut by the Joker fault, as described later. Whether these unfavorable factors influenced the sale is conjectural, but they were never overcome by the new owners. Thus closed the first chapter.

Then began a period of stock-jobbing. The evidence underground, a mill ore-bin a third full of waste, and the correspondence left at the office, tell the tale of the wrecking of a good-mining enterprise. The climax came after the construction of an electric power-plant at Wickenburg, an 11-mile transmission line to Octave, and a complete electric equipment for operating the mine, the mill, and the town. This equipment is said to have cost \$150,000, but it was used less than two weeks. The company had no ore in the mine and neither cash nor stock in the treasury. Thus ended the second chapter.

Several years ago some of the bondholders engaged me to advise them whether the geologic evidence indicated a reasonable probability of successful re-development. My

report was favorable and resulted in the organization of the present Octave Mines Company, in which all former participants of record were invited to join on equal terms. H. C. Gibbs, of Boston, president, and Donald S. Leas, of Philadelphia, secretary-treasurer, have carried the burden of the financing. Before undertaking the heavy expense involved the company wisely engaged Wilbur H. Grant, of San Francisco, and later Mr. Miller, of New York. Both of these engineers reported favorably.

The new development was undertaken under my direction. The vein was recovered beyond the Joker fault by hand-drilling, and after drifting in good ore for several hundred feet a compressor plant, consisting of a Fairbanks-Morse Y engine and Sullivan angular-compound compressor, was erected, the camp was rehabilitated, and ore development was begun in earnest. The vein was recovered on the 850-ft. level of the Joker shaft, which corresponds to the 250-ft. level of the old mine. Reference to the accompanying map will explain the details. The 850-ft. level disclosed a continuous orebody for 730 ft., then encountered another fault, which had not been passed when work was suspended. Although this fault is a nuisance, it is not serious. The vein will be recovered beyond it, and the outcrop indicates that the vein is continuous for 3000 ft. farther within the company's property. Profitable ore has been found beyond the Joker fault also on the 600-ft. and 1000-ft. levels of the Joker shaft, and, with the exception of the 850-ft. level, all the working faces are now in ore, and further development will place more ore in reserve. The face of the 1000-ft. level shows a vein 52 in. wide assaying \$26.50. Within the boundaries shown on the map there is 40,000 tons of ore assaying \$14 per ton, with a gross value of \$560,000. The cost of the actual development of this ore was about \$55,000. There are 800 ft. of backs above the 600-ft. level to be developed, and if this ore goes no deeper than the bottom of the old mine, it gives 1300 ft. on the dip below the 1000-ft. level yet to explore. The map shows the relations of the new ore to the old workings and suggests the long life that may be expected on this one orebody. Then there is 3000 ft. of ground east of this ore, marked by a strong outcrop, yet to be developed.

The old mine has not been unwatered. Many miners have told me that the vein in the bottom is four to five feet wide, but low-grade. As the Congress mine was operated profitably to twice the depth of the Octave, there is sufficient encouragement to unwater the mine and sink deeper, but this is for the future.

Development had gone far enough to justify a new mill when war conditions made it advisable to suspend operations temporarily. Mill-tests made by Hamilton,

July 23, 1921

MINING AND SCIENTIFIC PRESS

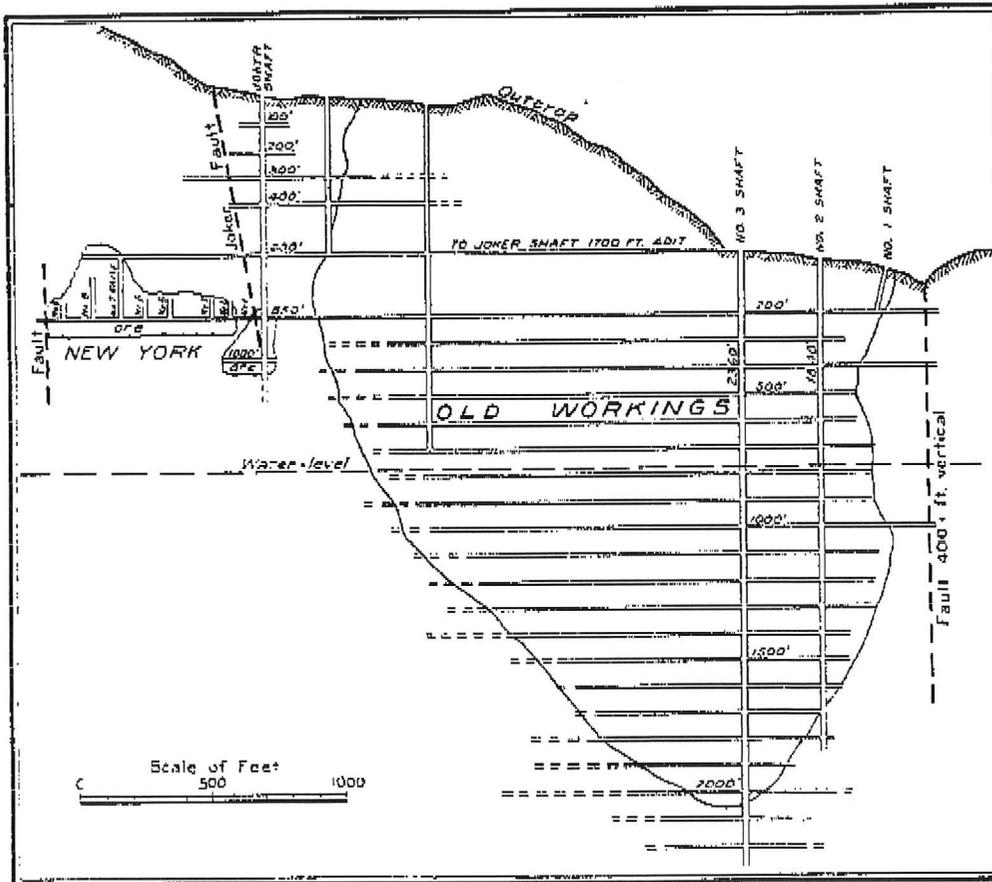
123

Beauchamp & Woodworth indicate that a recovery of 96% can be made by a simple process. With the return to more normal conditions a new plant will be built using the old mill-building. Meanwhile no damage accrues to the mine by waiting until the bankers discover that gold is essential to our financial stability.

The Octave is an object lesson, showing that a mine may be abandoned before it is exhausted. When I first saw it the mine was a discouraging mess, both underground and on surface. The conditions were such that to the east the prospect was hopeless because the vein is cut by a profound fault at the base of the mountain. Some-

tempt, the displacement being 50 ft. to the right. More recent work has given some evidence of the existence at this point of two parallel veins about 50 ft. apart, and the Joker fault ends—like a tear part-way through a sheet of paper—at about this level. As exposed in the Joker shaft, the vein shows a sudden wave just above the 1000-ft. level, but no faulting occurs there, yet in the upper levels and on the surface the fault is unquestionable.

The Octave vein is one of several similar veins along the base of the mountains, which are composed mainly of a coarse-grained granite, such as encloses the Congress



SECTION OF OCTAVE WORKINGS

one had sunk a shaft said to be nearly 400 ft. deep and failed to get below the loose material of the wash. The bottom of the mine was not accessible because the mine was, and still is, filled with water to about the 800-ft. level. The west limit of the old mine was in the Joker fault immediately beyond the Joker shaft, and the work indicated frantic but unintelligent efforts to recover the vein.

A peculiar situation existed in that the evidence on the surface indicated a displacement of about 200 ft. to the left, where a strong vein shows near the top of the ridge, but the evidence underground equally strongly indicated a displacement to the right. As the effects of faulting were diminishing with depth, the 850-ft. level was selected and the vein was recovered at the first at-

tempt, the displacement being 50 ft. to the right. More recent work has given some evidence of the existence at this point of two parallel veins about 50 ft. apart, and the Joker fault ends—like a tear part-way through a sheet of paper—at about this level. As exposed in the Joker shaft, the vein shows a sudden wave just above the 1000-ft. level, but no faulting occurs there, yet in the upper levels and on the surface the fault is unquestionable. The Octave vein is one of several similar veins along the base of the mountains, which are composed mainly of a coarse-grained granite, such as encloses the Congress

vein strikes north-west and dips south-west at about 30°. In width the quartz varies between nothing and five feet. The average width of the new orebody is scant 30 inches. A thin selvage occurs on both walls, so the ore breaks clear of the walls, and both walls are hard and unshattered, timbering being unnecessary except where faulting has occurred.

The vein is composed of white quartz carrying 4 to 5% of sulphides, pyrite predominating, but galena, sphalerite, and chalcopyrite occur sparingly. About 60% of the gold is free and 40% is in the sulphides. It is noticeable that where the galena increases the gold increases. Although certain differences can be noted, the characteristics of this vein are almost identical with those of the veins at Grass Valley, California. One rarely finds conditions so similar in districts so far apart.

About 10% of the value is in silver, and both precious metals are rather uniformly distributed throughout the vein, assays rarely falling below \$5 or reaching as high as \$40. No coarse gold has ever been found in the Octave vein; and this is peculiar because the local washes yield numerous good-sized nuggets. Only rarely may any fine gold be seen in the ore.

As regards the delineation of the old mine on the accompanying map, the ragged line merely outlines the periphery: it does not mean that the entire area was stoped.

The reasons for recommending re-development constitute probably the most important part of this story and the most difficult to put on paper. Reverting to the time of the original examination, the favorable facts were:

1. Duplication of vein-structure and ore-deposition with those at the Congress mine, which was profitable to twice the depth.
2. Similarity of vein-type and ore-deposition with those of the classic veins of Grass Valley.
3. Continuation of vein-outcrop beyond the Joker fault.
4. An indefinite condition that made the Octave look 'right'.

The unfavorable facts were:

1. A successful company had sold the property, probably considering it about worked out; and a second company had spent much money on it and failed.
2. No chance for ore to the east. Bottom of mine inaccessible and further exploration at depth (2000 ft. on an incline of 30°) would involve very heavy expense.
3. To the west the vein was faulted and surface and underground evidence apparently was contradictory as to displacement.
4. Outcrop beyond the fault reasonably continuous, but almost devoid of pay-ore.
5. Old stopes showed the vein to be narrow and flat, with numerous though not large bodies of ore.

Reduced to print, the above brief does not make a strong case in favor of re-development. There are some things that can be recognized but not described, and I take refuge in No. 4 of the above list of favorable conditions.

Cadmium

There are several cadmium minerals, but none of them occur in quantities large enough to be called ores, states a U. S. Geological Survey bulletin. The cadmium of commerce is derived from zinc minerals and ores, in almost all of which it occurs in minute quantity, the ratio being about 1 of cadmium to 200 of zinc. Cadmium behaves metallurgically almost the same as zinc, and hence constitutes a fraction of 1% of almost all metallic zinc. The sources of cadmium that have been utilized are zinc ores treated by fractional distillation, lead-furnace bag-house fumes (the cadmium content of which is derived from the zinc minerals contained in the charge of lead ore), and residues from the purification vats of electrolytic-zinc plants and lithopone plants. The production of cadmium, either as the metal or as the sulphide, has been reported by the companies in the following list, which shows also the nature of the metallurgic plant in connection with which the cadmium plant is operated:

Producers of Cadmium in the United States in 1920

Company	Associated plant
American Smelting & Refining Co., Denver, Colo.	Lead smelter
Grazell Chemical Co., Cleveland, Ohio	Chemical works
Krebs Pigment & Chemical Co., Newport, Del.	Lithopone plant
Midland Chemical Co., Argo, Ill.	Lithopone plant
U. S. Smelting, Refining & Mining Co., Kennett, Cal.	Electrolytic-zinc plant
U. S. Smelting, Refining & Mining Co., Midvale, Utah	Lead smelter

Of these, the plant at Kennett, California, was reported to have made no output in 1920. The lead furnaces at the Globe plant of the American Smelting & Refining Co., at Denver, have been closed for some years, but stocks of cadmiferous residues remain from former operations, and more has been shipped in from other plants of the company. Several other electrolytic-zinc plants and lithopone plants save cadmium-bearing residue and have developed processes for recovering the metal, so that an extension of the uses of cadmium and an increased demand for it would result in additions to the list of producers. Several companies that produce cadmium-bearing residues sell them to the producing companies named above.

A NEW METHOD of determining surface tension is proposed by A. Ferguson in a paper that was read recently before the Faraday Society. Instead of measuring the height to which a column of liquid rises in a capillary-tube, external pressure is applied to force the level of the liquid to the bottom of the tube, this pressure being measured by a delicate manometer. Among the advantages claimed for this method are that it avoids difficulties due to variations in tube diameter and to variations in temperature in the capillary-tube itself; also the capillary-tube may be very short, which facilitates cleaning. The method is rapid in use, and it gives results which are in good agreement with those obtained by the best methods previously known.

According to the U. S. Geological Survey, 1% of the salt in the ocean would cover all the land areas of the globe to a depth of 200 feet.

Sand Stack up Pack
include CN rules

OCTAVE (P) YAVAPAI
FOR OFFICE USE ONLY
START-UP NUMBER 74343178
STATE NUMBER 1014 9900
MSHA NUMBER _____
Hamm

STATE MINE INSPECTOR

NOTICE TO ARIZONA STATE MINE INSPECTOR

SEP 21 1987

In compliance with Arizona Revised Statute Section 27-303, we are submitting this written notice to the Arizona State Mine Inspector of our intent to start ___ stop ___ move ___ (please check one) a mining operation.

If this is a move, please show last location: _____
If you have not operated a mine previously in Arizona, please check here: _____ If you want the Education & Training Division to assist with your mine safety training, please check here: _____ If this operation will use Cyanide for leaching, please check here: _____

COMPANY NAME: MINERAL BASIN CORP

DIVISION: FRACO MINING

MINE OR PLANT NAME: OCTAVE TELEPHONE: 427-3560

CHIEF OFFICER: CARL BAANT

COMPANY ADDRESS: BX 272

CITY: YARWELL STATE: CALIF. ZIP CODE: _____

MINE OR PLANT LOCATION: (Include county and nearest town, as well as directions for locating property by vehicle). _____

PREPARED DEVELOPMENT
WORK

TYPE OF OPERATION: LEACHING PRINCIPAL PRODUCT: Gold Silver

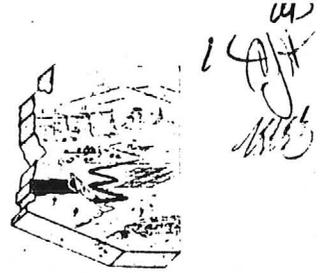
STARTING DATE: 10.1.87 2 WKS CLOSING DATE: UNKNOWN DURATION: _____

PERSON COMPLETING NOTICE: CARL BAANT TITLE: PRES.

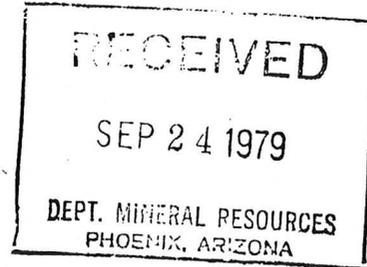
DATE NOTICE MAILED TO STATE MINE INSPECTOR: SENT TO INSPECTOR

State of Arizona
Bureau of Geology and Mineral Technology

Mineral Technology Branch
University of Arizona
Tucson, Arizona 85721
(602) 626-1943



September 19, 1979



File

Mr. Duane Kingsbury
Director, Special Investigations
Sheriff's Office, Yavapai County
Prescott, Arizona 86301

Dear Mr. Kingsbury:

This letter will present comments on a "Report and Evaluation of Octave Mine Ore" March 14, 1975 by Bruce G. Allen, forwarded to this office by the Department of Mineral Resources. See your letter dated August 20, 1979 to Ken Phillips.

After a careful study and consideration, I feel the following comments are pertinent, logical, and based on scientific fact.

1) Page 1. The geological discussion presented does not concur with the existing geology of the area. How can a chemical engineer be so familiar with a complex geology? Further "electrochemical processes" are not involved in the genesis of such ore. Octave ore is quartz veins intruded into schists, not as "colloids". The alluvial gold is only in the weathered pediments of the eroded protore. Also, the existence of any platinum group metals has never been established in that geologic province.

2) Page 2. Gold and platinum group metals are essentially insoluble in water. There is absolutely no basis for the statement "in recoverable amounts".

As for the leaching of gold and platinum group metals with a "spray of acid", this is a highly impractical, dangerous, and economically impossible procedure utterly without commercial procedure.

3) Page 3. Amalgamation will capture only the free clean gold. Most Octave-Congress-Bradshaw lode gold is impractical to amalgamate. The early deposits at Rich Hill and Stanton, yes, but not Octave. I do not believe Mr. Allen is familiar with Octave ore.



4) Page 3. Chemical recovery by acid leaching is impractical on this ore. Distillation is ridiculous from a metallurgical standpoint. I repeat, there is no Pt, Pa, Re, etc. in Octave ore, certainly not 0.5 OPT. The absence of these metals can be easily confirmed by proper assays and comparison with Standards. I cannot believe the statement on page 4 that there is any appreciable platinum in any material from the Octave dump and I can prove that.

5) The Recovery Flow Sheet ("Sheet II") is a fairly credible derivation of procedure from SCOTT's Standard Analysis but is without reasonable scientific basis.

In summary this whole scheme is based on a highly impractical treatment plan and is not economically feasible. Further, the EPA would never allow aqua regia to be used on this scale. I definitely feel the whole scheme is without reasonable scientific basis.

If there are questions or if you wish to discuss this matter further, please let me know.

Sincerely,

David D. Rabb
Metallurgist

/bo

cc: W. H. Dresher
John Jett/Ken Phillips

Rec'd 5-26-77
KAR



OFFICE OF COMPTROLLER
STATE OF FLORIDA

TALLAHASSEE
32304

GERALD A. LEWIS
COMPTROLLER OF FLORIDA

May 24, 1977

Please Reply To:
Office of Comptroller
Suite 118, Executive Square Office Park
402 Reo Street
Tampa, Florida 33609
(813) 272-2665

Mr. Kenneth Phillips, Mineral Resource Engineer
Arizona Department of Mineral Resources
Mineral Building, Fairgrounds
Phoenix, Arizona 85007

Dear Mr. Phillips:

This will acknowledge our telephone conversation today concerning the Rhenium Corporation/Octave Mine.

Attached is a copy of the Report And Evaluation Of Octave Mine Ore submitted by Bruce G. Allen "Chemical Engineer" that has been given to all investors in Rhenium. The notes on the report were made by an investor. Apparently, everyone who has invested in Rhenium takes Allen's report at face value.

As the Division of Securities proceeds with its investigation and should I discover more factual or technical information concerning the Octave Mine, I will forward it to you for your reference and review immediately.

Also attached is a copy of Rhenium's Annual Report for 1975-1976 which I believe you may find interesting.

I look forward to receiving the correspondence you indicated you would be sending this division and, again, thank you for your help and cooperation.

Very truly yours,

E.C. Anderson
Financial Investigation Supervisor
Division of Securities

ECA:sag
Attachments

MOHAVE COUNTY

301 WEST BEALE
KINGMAN, ARIZONA



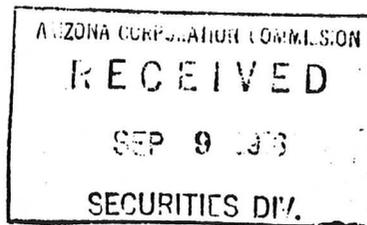
PHIL JORDAN
Sheriff

ROBERT L. SPEAR
Undersheriff

ROBERT D. RATHBONE
Chief Deputy

September 8, 1976

Arizona Corporation Commission
Securities Division
2222 West Encanto Boulevard
Phoenix, Arizona 85009



Attention: Joe KIRK

Dear Joe:

ph 271-4242

This is the portfolio that was presented to me during a traffic stop on September 8, 1976, at approximately 8:30 A.M., by Jack Oliphant.

He described it as the investment portfolio by the Ranch Challenge Hallelujah People, Inc.

The Octave Mine is located just north of Wickenburg in Maricopa County, Arizona, and we would appreciate your forwarding this information to the Maricopa County Officials, if you deem it necessary.

Be assured of our cooperation in any matters of mutual concern.

Sincerely yours,

PHIL JORDAN, SHERIFF

BY:

J. A. Charin
DEPUTY J. A. CHARIN

JAC:ts

Enclosure



ARIZONA CORPORATION COMMISSION
RECEIVED
SEP 9 1976
SECURITIES DIV.

Investor:

We have acquired 200,000 shares of Rhenium Corporation net value at present time of \$100,000 (\$.50 per share) for the purpose of raising funds for Ranch Challenge Hallelujah People, Inc. for the necessary equipment and first year mortgage payments on 1500 acres.

We are offering this to you at \$.50 per share in 1000 share lots secured by a guarantee: if unsatisfactory in one year's date from purchase, we will buy back all shares at \$.50 per share and 10% interest.

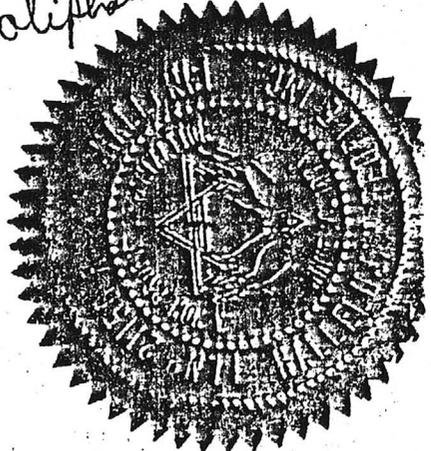
If you will notice in the package we guarantee this by the Hallelujah Fruit Company, a subsidiary of Ranch Challenge Hallelujah People, Inc. and sending a financial statement of Ranch Challenge Hallelujah People, Inc, along with a financial statement of Hallelujah Fruit Company. This is also secured by 1500 acres in Pasco County, Florida. We also enclose a complete corporational financial statement as of April 30, 1976.

Rev. Jack M. Oliphant
Executive Director

Margaret Oliphant

UEEP

Notary Public State of Florida at Large
My Commission Expires Nov. 26, 1976



out of many, one people under God; a Holy people

Character of Business Rehabilitation through Christian Education

Condition at Close of Business March 31, 1926.

For the purpose of obtaining credit with you from time to time, the undersigned makes the following financial statement as of the date above indicated, and hereby agrees to notify you promptly of any change adversely affecting the financial condition herein reflected.

BALANCE SHEET

PROFIT AND LOSS STATEMENT

ASSETS

NET SALES

Cash	\$ 1,883
Notes Receivable - Discounted (A)	
Notes Receivable - Not Discounted (A)	
Accounts Receivable - Current (A)	5,000
Merchandise (Net) - (B)	5,409
U.S. Government Securities	
Barnett Acct. #0177-948-7	2,123
Labor	364,000
TOTAL CURRENT ASSETS	378,415
Real Estate and Buildings (E)	50,000
Machinery, Fixtures and Equipment (E)	554,014
Investments in Affiliates and Subsidiaries (D)	
Other Stocks and Bonds (C)	
Due from Affiliates (D)	
Due from Officers, Employees, Stockholders	
Deferred Receivables (A)	
Cash Value Life Insurance (F)	
Prepaid Expenses and Deferred Charges	
TOTAL ASSETS	\$ 982,429

NET SALES	\$
Less - Cost of Goods Sold:	
Beginning Inventory	
Add - Purchases	
If Manufacturer	
Labor	
Add Mfg. Expense	
Total	
Less - Closing Inventory	
Total Cost of Goods Sold	
GROSS PROFIT	\$
Less - Selling Expense	
General and Administrative	
Reserves (Excl. Fed. Taxes)	
Total Operating Expenses	\$
NET OPERATING PROFIT	\$
Add - Other Income	
Total Other Income	\$
Less - Other Expenses	
Total Other Expenses	\$
Less - Provision for Federal Taxes	
NET PROFIT	\$

LIABILITIES

Notes Payable to Banks	\$
Notes Receivable Discounted	
Other Notes Payable	
Current Mortgages and Bonds	7,005
Accounts Payable for Merchandise	2,010
Due to Affiliates (D)	
Due to Officers, Employees, Stockholders	
Accrued Income Taxes	
Other Current Liabilities	
TOTAL CURRENT LIABILITIES	\$ 9,015
Deferred Liabilities	
TOTAL LIABILITIES	\$ 9,015
Capital Stock - Preferred	
- Common	
TOTAL LIABILITIES & CAPITAL	\$ 9,015

Included Above - Depreciation Charges	
Executive Remuneration	

SURPLUS RECONCILIATION

Beginning Balance	\$
Add - Profit	
Less - Dividends	
Adjustments	
Closing Balance	\$

AMOUNT OF CONTINGENT LIAB. (G)	
AMOUNT OF ASSETS PLEDGED	
AMOUNT OF LIABILITIES SECURED	

Accounts Payable - Past due or maturing within six months		Work in Process	
TOTAL CURRENT	\$ 5,000	Raw Materials	B 325
Deferred: Accounts - Past due	\$	Supplies	C 1,096
Notes - Past due or maturing in over six months		Out on Consignment	
Unclassified notes and accounts		Miscellaneous	
TOTAL	\$ 5,000	GROSS INVENTORY	5,409
Less - Reserve for bad debts		Less - Reserve	
TOTAL DEFERRED-NET	\$	NET INVENTORY	
Charge-offs in period		Purchase Commitments	
Recoveries in period		% of Discounts Earned on Purchases	
		% of Returns & Allow. on Gross Sales	
		Basis of inventory pricing?	
		Was physical count taken?	

(C) STOCKS AND BONDS	Units	Mkt. Val.	Total	(D) AFFL. - SUBSID.	% Owned	Invest.	Due From	Due To
Total				Totals				

(E) FIXED ASSETS	Title in Whose Name	Appraisal Val.	Res. for Dep.	Net Value	Mortgage	Yr. Exp.
607 Horatio-Res.	RCHP, Inc.	35,000			7,005	
2802 Elmora-Rental P.H. & Garage	RCHP, Inc.	15,000				
House & Contents	RCHP, Inc.	318,031				
Totals		235,983			7,005	
		604,014				

(F) LIFE INSURANCE (M indicates thousands of dollars):						TYPE	MOSE.	PLAN
Insured	Company	Face Value	Cash Value	Loan	Beneficiary	Fire		
		M	M	M		Wind	M	
		M	M	M		Burglary	M	
		M	M	M			M	
		M	M	M			M	

(G) CONTINGENT LIABILITIES:

Nature	Amount \$
Nature	Amount \$
Nature	Amount \$

(H) OWNERSHIP OF BUSINESS:

Name	Title	No. Shares or % Owned	Remuneration	Outside Worth

(I) LIST OF SECURED OBLIGATIONS:

Nature of Obligation	How Secured	On What	Rate of Interest	When Due	Retired to Date	Outstanding

Incorporated in..... Date June 14, 1974.....; Shares Authorized.....
 Outstanding..... Par Value \$.....; Last independent audit by.....
 of.....; Income tax payments approved through.....19..... Has this business failed or made a composition settlement with creditors?.....

Under penalty for making false statements or overvaluing property to influence the action of any FDIC-insured bank, the undersigned certifies that the information contained in this statement is true and correct.

Ranch Challenge Hallelujah People, Inc.
 Company Name

October 20, 1975

Dear Stockholder:

Your corporation has received calls from several people stating that they would prefer a summary on Rhenium Corporation and the latest Financial Statements instead of the extensive documents that they have been given to date. May we summarize as follows:

1. Rhenium Corporation was incorporated in Florida on April 9, 1975. On April 10, 1975 Rhenium Corporation purchased the Octave Mine, the 16 to 1 Mine, the equipment on both mines and the ore dumps on the Octave Mine property for \$617,274.93. The mines are located on approximately 265 acres at Octave, Arizona.
2. On October 1, 1975 the total outstanding shares of Rhenium Corporation were increased to a total of 4,000,000 shares with a paid in capital of \$600,000.00 by the private placement of 500,000 shares of the authorized but unissued stock at Fifty (\$.50) Cents a share.
3. The present financial structure of Rhenium Corporation was determined before Mr. Allen's evaluation of the ore dumps was known to management; hence, the low prices of the stock of the corporation to the buyers of the first 3.5 million shares that were sold by the corporation.
4. Bruce G. Allen, chemical engineer, prepared a report dated March 14, 1975 which states that on the average each ton of ore from the Octave Mine ore dumps will produce $\frac{1}{2}$ oz. of gold, 1 oz. of palladium, $\frac{1}{2}$ oz. of platinum and 1 oz. of rhenium by using the leaching method.
5. Utilizing the leaching method to recover the aforesaid metals, it is estimated that it will require six years to process the 500,000 tons.
6. Even at the present low prices for the aforesaid metals, each share of Rhenium Corporation will earn over \$15.00 per share before corporate taxes over the next six years according to Mr. Allen's evaluation.
7. There are extensive values in the Octave and 16 to 1 Mines but no definitive evaluation has been made of the recoverable values.

To complete (1) placing the mines in production, (2) to liquidate all present liabilities and (3) to have sufficient operating funds until income from production is available, it is the intention of management to adopt one or the other of the following two plans for Rhenium Corporation:

1. To merge with a publicly traded corporation that has sufficient funds to accomplish the above, or
2. To file an offering with the Securities and Exchange Commission to sell a total of \$100,000.00 of the authorized but unissued stock of the corporation to the public at \$1.00 a share.

1345 SO. MISSOURI AVENUE, CLEARWATER, FLORIDA 33516 • PHONE 813/441-3301

Management will select the most feasible and advantageous of the above two plans. In either case, all of the stockholders of Rhenium Corporation will soon be stockholders in a publicly traded corporation.

The directors of Rhenium Corporation are M. A. Fernandez, an accountant from St. Petersburg; Clinton M. T. Green, an attorney from Seminole and William F. Muller, a businessman from Largo.

The officers of Rhenium Corporation are William F. Muller--President; Bruce G. Allen--Vice-President; Wallace E. Chaney--Vice-President and M. A. Fernandez--Secretary Treasurer. Bruce G. Allen lives in Yarnell, Arizona and Wallace E. Chaney lives in St. Petersburg.

Enclosed herewith is the Financial Statement of Rhenium Corporation as at October 1, 1975.

1 Incl:

WFM:clu

Respectfully Yours,



William F. Muller
President

P.S. Should anyone want a copy of the "Report and Evaluation of Octave Mine Ore" by Bruce G. Allen or any other information please call or write us.

RECEIVED

SEP 9 1976

SECURITIES DIV.

April 28, 1976

Dear Stockholder:

The annual meeting of the stockholders of Rhenium Corporation will be held on May 25, 1976 at the Ramada Inn of Sarasota at 7:30 P.M. The Ramada Inn of Sarasota is located on U.S. 41 at 6545 N. Tamiami Trail, Sarasota, Fla.

The meeting will consist of (1) a report on the corporation's activities for the last corporate year, (2) plans for the coming corporate year and (3) election of directors to serve until the last Friday of May, 1977.

Present management is neither soliciting proxies nor will they accept proxies.

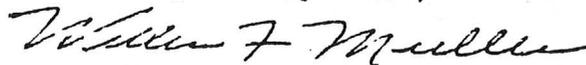
By the time of the stockholders' annual meeting we expect to have received an Effective Date on an offering of 100,000 shares of the common stock of Rhenium Corporation at \$1.50 a share.

For those stockholders who have not received them, we are enclosing the following documents:

1. The October 20, 1975 letter to stockholders.
2. The October 1, 1975 Financial Statements on Rhenium Corporation.
3. Bruce G. Allen's "Report and Evaluation of Octave Mine Ore", dated March 14, 1975. As prices for metals concerned have dropped, a one page summary has been affixed to the front of the report.
4. Financial Statements of Rhenium Corporation as at March 31, 1976.

We feel that the aforesaid documents should give anyone an accurate view of Rhenium Corporation at present and of its future possibilities.

Respectfully Yours,



William F. Muller
President

WFM: clu

4 Encls:

for the period from April 9, 1975
(date of incorporation) to Oct. 1, 1975

Income (Note 4 of June 30, 1975 Fin. Statements)

\$ -0-

Expenses:

Accounting Fees	\$ 2,315.00	
Bank Charges and Fees	29.17	
D.F. Gall--Advances Against Expenses	1,600.00	
Gerald Weisman - Research	25.00	
Interest	13,012.93	
Printing	51.22	
Rent	650.75	
Rental Fees	10.40	
Repairs	18.72	
Subscriptions	29.87	
Telephone	1,940.25	
Travel	3,276.60	
Western Union	<u>64.40</u>	\$ 23,024.31
NET (LOSS)		<u>\$ 23,024.31</u>
(LOSS) per share		(<u>0.00575</u>)

Statement of Loss
 For the period from April 9, 1975
 (date of incorporation) to March 31, 1976

Income: (Note 4 of June 30, 1975 Financial Statement) \$ -0-

Expenses:

Accounting Fees	\$ 2,815.00	
Advances Against Expenses:		
Bruce G. Allen	1,100.00	
Donald F. Gall	7,300.00	
William F. Muller	370.00	
Gerald Weisman	25.00	
Advertising	128.87	
Bank Charges and Fees	93.68	
Filing Fees	50.00	
Freight	35.00	
Interest	15,120.48	
Legal Fees	5,150.00	
Office Supplies	66.96	
Postage	116.12	
Printing	362.62	
Rent	1,316.27	
Rental Fees	10.40	
Repairs	991.84	
Subscriptions	55.74	
Telephones	3,383.13	
Travel	508.43	
Western Union	<u>327.03</u>	\$ 39,326.57
NET (LOSS)		<u>(\$ 39,326.57)</u>
(LOSS) per share		(\$ 0.00983)

NOTES TO MARCH 31, 1976 FINANCIAL STATEMENTS

Note #1

No depreciation has been taken on this equipment for said equipment is alleged to be worth more than book value.

Note #2

The corporation has contracted to purchase approximately 1,500 acres of land more or less in Pasco County, Florida. The corporation must pay \$85,000.00 in cash and a corporate promissory note for \$32,081.25 by May 6, 1976 to secure title to the property with a mortgage of approximately \$937,293.75. The mortgage will be for 20 years with equal semi-annual payments of approximately \$23,432.34 with interest of 8% on the unpaid balance. The corporation has a lease-purchase agreement offer on the said property which will enable the corporation to gross a profit of approximately \$520,675.00 over a period of 75 months.

REPORTS ON THE OCTAVE MINE ORE DUMPS

The Octave Mine first went into production in the latter part of the 19th Century. Subsequently, the mining town of Octave, Arizona grew to a population of several thousand people. Until 1933, gold was approximately \$20.00 an oz., so, low grade ore that was removed from the Octave Mine was not processed. These ore dumps still exist. At the beginning of World War II, President Roosevelt discontinued all gold mining operations. After World War II, it was not profitable to mine gold from the Octave Mine, for the cost of mining the gold was close to or exceeded the official price of \$35.00 an oz. for gold.

Bruce G. Allen, a chemical engineer, has made extensive studies of the Octave Mine ore dumps. Mr. Allen has prepared a 12 page evaluation of the ore dumps. In the appraisal, Mr. Allen states that there are 500,000 tons of ore stockpiled at the Octave Mine from which each ton will produce values of \$220.00 a ton at the present prices of gold, palladium, platinum and rhenium. Mr. Allen has offered to furnish his technology and services in re-covering the aforesaid four metals. Mr. Allen states that we can extract and refine the aforesaid metals from a ton of ore at a cost of \$40.00 per ton. This would be a net of \$180.00 a ton before taxes to Rhenium Corporation.

INCOME ACCORDING TO BRUCE G. ALLEN'S APPRAISAL

1. 500,000 tons x \$220 per ton (Gross Income)	\$110,000,000.00
2. 500,000 tons x \$40 per ton (Recovery Costs)	20,000,000.00
3. Net Income before Royalty Payments	<u>\$ 90,000,000.00</u>
4. \$90,000,000.00 x 12% Royalties	10,800,000.00
5. Net Income to Rhenium Corporation before taxes	<u>\$ 79,200,000.00</u>

The above figures are based on the assumption that the gold, palladium, platinum and rhenium will be sold at an average price of \$130.00, \$45.00, \$150.00 and \$35.00 an oz. respectively. The prices for gold, palladium and platinum can be obtained from any large commodity firm. The price of rhenium can be obtained from Cleveland Refractory Metals.

Attached hereto are (1) Bruce G. Allen's "Report and Evaluation of Octave Mine Ore", (2) a resume of Bruce G. Allen, (3) a page on geology of the Octave Mine, (4) two Assay Reports on Octave Mine Ore, and (5) a map of Arizona showing the location of the extensive metals from the mines themselves.

We have not as yet determined when we will start recovering the extensive metals from the mines themselves.

BALANCE SHEET
As at October 1, 1975

ASSETS

Current Assets:

Cash

\$ 2,898.37

Plant Assets:

Machinery and Equipment

Ore Dumps

Land

\$ 80,000.00

502,274.93

35,000.00

617,274.93

Other Assets:

Unamortized Organization Expense

Deposits

\$ 810.47

290.00

1,100.47

TOTAL ASSETS

\$ 621,273.77

LIABILITIES AND STOCKHOLDERS' EQUITY

Current Liabilities:

Notes Payable to Stockholders, due
April 1, 1976 with interest at 10%,
unsecured:

Clarkston Corporation

Aaron Geneva Corporation

Accounts Payable

\$ 34,637.93

6,550.00

\$ 41,187.93

3,110.15

44,298.08

Stockholders' Equity:

Commitments (Notes 3 and 4 of June 30, 1975
Financial Statements)

Common Stock--\$0.01 Par, 10,000,000 shares
authorized, 4,000,000 issued and out-
standing as at October 1, 1975

Capital in excess of par

Deficit, October 1, 1975

\$ 40,000.00

560,000.00

(23,024.31)

\$ 576,975.69

TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY

\$ 621,273.77

RHENIUM CORPORATION

BALANCE SHEET As at March 31, 1976

ASSETS

Current Assets:

Central Plaza Bank & Trust Company Accounts Receivable		\$ 5,317.50
		6,350.00

Plant Assets:

Machinery and Equipment (Note #1)	\$ 80,000.00	
Ore Dumps	502,274.93	
Land	<u>35,000.00</u>	617,274.93

Other Assets:

Automobile (Note #1)	1,000.00	
Deposits	290.00	
Land (Note #2)	15,000.00	
Unamortized Organization Expense	<u>441.00</u>	16,731.00
TOTAL ASSETS		<u><u>\$ 645,673.43</u></u>

LIABILITIES AND STOCKHOLDERS' EQUITY

Current Liabilities:

Notes Payable to Stockholders, due
May 31, 1976 with interest at 10%,
unsecured:

Clinton M. T. Green	\$ 22,500.00	
R. H. Winger	<u>62,500.00</u>	\$ 85,000.00
Accounts Payable		0.00
Accrued Interest on Notes Payable		<u>0.00</u>
		\$ 85,000.00

Stockholders' Equity:

Commitments (Notes 3 and 4 of June 30, 1975
Financial Statements)

Common Stock--\$0.01 Par, 10,000,000 shares authorized, 4,000,000 issued and outstanding	\$ 40,000.00	
Capital in excess of par	560,000.00	
Deficit, March 31, 1976	<u>(39,326.57)</u>	\$ 560,673.43
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY		<u><u>\$ 645,673.43</u></u>

MELVIN H. JONES

Mining Geologist

MHJ/amj

1 September 1975

RECONNAISSANCE GEOLOGICAL EXAMINATION OF AREA PROXIMATE TO THE OCTAVE MINE, WEAVER MOUNTAIN, CONGRESS, ARIZONA

The undersigned, at the request of Mr. Clare C. Richardson, President of Consolidated Chemical and Mining Corporation, 1125 N. 6th Avenue, Tucson, Arizona 85705, made a reconnaissance survey of the mining claims belonging to said Corporation, on this date. Accompanying the writer was Mr. Richardson and Mr. Edward Eortmas, Cave Creek, Arizona (Operations Director). A previous investigation of the claims was also made on January 21, 1975, when the writer visited the claims with Mr. Richardson and Mr. Milton Smith (Vice President of the Corporation). Most observations outlined in this report are information gleaned from both visits. (See Encl. #1)

It is understood that the above mentioned Corporation owns Twenty (20) mining claims which cover the major portion of the Octave Mine area, including underground workings, the main dump and the tailing pond. The writer was informed that another company (or group) owns the Octave Mine central area, including most of the old Portals and Collars. But there are an estimated 34 miles of old underground shafts, adits, drifts, stopes, etc. and Consolidated Chemical and Mining Corporation owns the claims which encompass most of the mentioned old workings. The main purpose of this examination was to measure and compute tonnages in the principal dump and the tailings pond, and to take samples (this is discussed infra.).

GEOLOGY The claims are in the foothills of the Weaver mountains which are generally composed of the Yavapai Series of Pre-Cambrian quartz monsonites. In the immediate local of the claims are the schists from the mentioned formation, with diorites, rhyolites, feldspars and other felsites. The auriferous and argentiferous veins are mostly quartz. It is noted that old reports mention white variety and blue variety quartz. The former carries the bulk of the gold and silver. The blue in some cases, is a "break even" ore, according to the old reports. These veins were no doubt formed and mineralized during the Larimide revolution (Cretaceous-Tertiary). Some small pegmatites were noted in the area, but most carry no recoverable value, and they generally grade into Aplite. The so called "Octave Vein" strikes North 70 degrees E., and dips 18 to 25 degrees to the North, according to old records.

CONCLUSIONS a. The enclosed assay reports are taken by the former owner and by Consolidated Chemical and Mining Corporation from 1965 to the present. The lower assay figures, ranging from .01 to .04 oz. Au per ton are from the drillings taken from the tailings pond; and the higher values, of .06 to 1.76 oz. Au per ton are from the dump. (See Encl. #2)

1 September 1975

RECONNAISSANCE GEOLOGICAL EXAMINATION OF AREA PROXIMATE TO THE OCTAVE MINE, WEAVER MOUNTAIN, CONGRESS, ARIZONA.

The undersigned, at the request of Mr. Clare C. Richardson, President of Consolidated Chemical and Mining Corporation, 1125 N. 6th Ave., Tucson, Arizona, 85705, made a reconnaissance geological survey of the mining claims belonging to said Corporation, on this date. Accompanying the writer was Mr. Richardson and Mr. Edward Bortmas, Cave Creek, Arizona (stockholder). A previous investigation of the claims was also made on January 21, 1975, when the writer visited the claims with Mr. Richardson and a Mr. Milton Smith (Vice President of the Corporation). Most observations outlined in this report are information gleaned from both visits. (See Incl.#1)

20 Twenty It is understood that the above mentioned Corporation owns ~~sixteen~~ (15) unpatented mining claims which cover the major portion of the Octave Mine area, including underground workings, the main dump, and the tailing pile. The writer was informed that another Company (or group) owns the Octave Mine central area, including most of the old Portals and Collars. But, there are 34 miles of old underground shafts, adits, drifts, stopes, etc.. It is stated that Consolidated Chemical and Mining Company owns the claims which encompass most of the mentioned old workings. This makes a confusing situation as far as mine ownership is involved.

On this last visit, Mr. Richardson pointed to power shovels and bulldozer (belonging to Winner Industries and/or Mr. Carlson ?) that are parked on the Consolidated Chemical and Mining Company claims in an apparent encroachment action (or Tresspassing). A new road has been built to the bottom of the main dump ??? However, the writer has no intention of getting involved in claim ownership legal battles. The main purpose of this examination was to measure and compute tonnages in the principal dump and the tailing pile, and to take samples (this is discussed infra).

GEOLOGY. The claims are in the foothills of the Weaver mountain which are generally composed of the Yavapai Series of Pre-Cambrian quartz monsonites. In the immediate local of the claims are the schists from the mentioned formation, with diorites, rhyolites, feldspars and other felsites. The auriferous and argentiferous veins are mostly quartz. It is noted that old reports mention white variety quartz and blue variety quartz. The former carries the bulk of the gold and silver. The blue in some cases, is a "break even" ore, according to the old reports. These veins were no doubt formed and mineralized during the Larimide revolution (Cretaceous-Tertiary). Some small pegmatites were noted in the area, but most carry no recoverable value, and they generally grade into Aplite. The so called "Octave Vein" strikes North 70 deg. E., and dips 18 to 25 degrees to the North, according to old records.

CONCLUSIONS.

a An old report dated 1965 and accompanied by assay reports, made by Mr. Cox (former owner of the claims) shows the following results, from samples taken by him from the major dump: (See Incl.#2)

Au = .47 oz. (Troy)
Ag = .83 oz. (Troy)

These figures are far too high. When AS&R was operating the mine years ago, they reported their flotation heads at .3 oz. Au per ton, their concentrates at 12.5 oz. Au (and 15. oz. Ag) and the tails were .05 oz. Au. Recoveries were 82.68 % Au, 73.72 % Ag. It is not reasonable to assume that AS&R mill men and miners would allow .47 oz. Au to go to the dump.

b The results of measuring the principal dump and tailing pile are:

Main dump = 390,000 short tons.
Tailing pile = 190,000 short tons.

c A consolidated sample was taken from four (4) locations on the main dump (total weight in excess of 100 pounds). Mr. Richardson will take this sample to Mr. William Kinnon, Mining Engineer (and Metallurgical engineer) for the latter's examination and evaluation. Mr. Kinnon will probably submit a separate report on this to Mr. Richardson.

RECOMMENDATIONS.

a Initiate extensive and systematic sampling of dump and tailings.

b Engage a land surveyer to establish correct boundaries, and repost same.

c Contingent on metallurgical and assaying results, make plans to process dump and tailing pile material, as an initial operation.

MELVIN H. JONES
Mining Geologist.

Box 406
Wickenburg, Az. 85358

Assays

<u>ASSAY #</u>	<u>SILVER</u>	<u>GOLD</u>	<u>COPPER</u>	<u>MERCURY</u>	<u>PRESENT VALUE</u>	<u>PER TON</u>
No. 1	1.7	(.02)	3.40%	.04%	\$ 78.60	
No. 2	2.0	(.04)	3.60%		71.20	
No. 3	.9	(.04)	.20	.024	15.25	
No. 4	.9	.36			64.20	
	.3	(.02)			5.10	
	.4	(.02)			5.20	
	.4	(.01)			3.40	
No. 5	.5	(.04)			9.70	
	.5	(.02)			6.10	
	.7	(.06)			13.95	
	1.0	.82			174.50	
No. 6	.8	.40			75.60	
	.4	.12			23.40	
	.2	(.02)			4.50	
	.5	(.02)			5.85	
	.8	(.02)			7.20	
No. 7	1.3	1.76			324.90	
No. 8	.90	(.08)			18.45	
No. 9	1.44	.178			38.52	
No. 10	.5	(.07)			14.25	

When ASER was operating the mine up to 1942, they reported their flotation heads at .05 oz. Au per ton, their concentrates (25%) at 12.5 oz. Au and 15 oz. ag. and the tails were .05 oz. Au. Recoveries were 82.63 % Au and 73.72 % ag.

b. The results of measuring the principal dump and tailings pond are:

Main dump = 390,000 short tons

Tailings pond = 190,000 short tons

c. A consolidated sample was taken from four (4) locations on the main dump (total weight in excess of 100 pounds). Mr. Richardson will take this sample to Mr. William Kinnon, Mining and Metallurgical Engineer for the latter's examination and evaluation. Mr. Kinnon will probably submit a separate report on this to Mr. Richardson.

RECOMMENDATIONS

a. Initiate extensive and systematic sampling of dump and tailings.

b. Engage a land surveyor to establish correct boundaries, and repost same.

c. Contingent on metallurgical and assaying results, make plans to process dump and tailings pond material as an initial operation.

Amended Report

Melvin H. Jones
MELVIN H. JONES
Mining Geologist

P.O. Box 406
Wickenburg, Az. 85358

RHEMIUM CORPORATION

ANNUAL REPORT

This Annual Report on Rhenium Corporation covers the period from April 9, 1975 to April 30, 1976.

Rhenium Corporation was incorporated in Florida on April 9, 1975 with Ten Million (10,000,000) shares of common stock authorized with a par value of One (\$.01) Cent a share.

On April 10, 1975 Rhenium Corporation purchased all of the outstanding stock of Octave Electrum Inc., a Nevada corporation, from Adams Corporation, a Florida corporation, for \$617,274.93. On the same day the assets of Octave Electrum Inc. were transferred to Rhenium Corporation.

The assets transferred to Rhenium Corporation were (1) the Octave Mine; (2) the 16 to 1 Mine; (3) the equipment owned by Octave Electrum Inc. at these two mines and (4) the ore dumps from the Octave Mine. The total tonnage in the ore dumps is estimated at 500,000 tons.

The Octave and 16 to 1 Mines are contiguous and cover approximately 265 acres. The 265 acres are located at and near Octave, Arizona which is northwest of Phoenix, Arizona and northeast of Wickenburg, Arizona.

Five (5) of the entrances to the Octave Mine are located approximately 3,300 feet above sea level. Maps prepared by American Smelting & Refining indicate that the deepest shaft in the Octave Mine goes down approximately 2,500 feet.

Bruce G. Allen, chemical engineer, prepared a report dated March 14, 1975 on the ore dumps of the Octave Mine. This report states that on the average each ton of ore from the ore dumps of the Octave Mine will produce $\frac{1}{2}$ oz. of gold, 1 oz. of palladium, $\frac{1}{2}$ oz. of platinum and 1 oz. of Rhenium if the leaching method of extracting the metals is used.

The recovery of metals by the leaching method is a tried and proven method with certain types of ore like the ore that exists at and in the Octave Mine.

Maps of the underground tunnels, shafts and winzes in the Octave Mine indicate that there are extensive deposits of recoverable ore. There are no plans to recover these ore deposits for most of the deposits are covered by water. Since it rains only 4 to 6 inches a year in this area, the water in the tunnelized part of the mine is considered to be more valuable than the ore that could be recovered.

Available data indicates that there are extensive values where the Octave and 16 to 1 ore veins cross. The extent of the ore deposits in this virgin area has not been evaluated. At a later date management intends to core drill the cross vein section; then, open pit mining of the profitable areas is planned.

RHENIUM CORPORATION

The financial structure of Rhenium Corporation was determined before Mr. Allen's evaluation of the ore dumps was known to management; hence, the low price of Ten (\$.10) Cents a share to the buyers of the first 3.5 million shares of common stock sold by the corporation. At that time management intended to offer 1.5 million shares to the public at Twenty (\$.20) Cents a share, giving the corporation a paid in capital of \$650,000.00 with five million (5,000,000) shares outstanding.

The aforesaid financial structure of Rhenium Corporation was based on the assumptions (1) that three tenths ($3/10$) of an oz. of gold could be recovered on the average from each ton of the ore dumps; (2) that it would cost \$60.00 an oz., including overhead, to recover the gold and (3) that the gold could be sold on the average at \$150.00 an oz. Given the correctness of the above mentioned assumptions, over a period of time, after paying production costs, overhead and royalties, the corporation would have had a net income before taxes of \$11,880,000.00 from the ore dumps. This would give an earnings per share of approximately \$2.37.

On October 1, 1975 the total outstanding shares of Rhenium Corporation were increased to a total of 4,000,000 shares with a paid in capital of \$600,000.00 by the private placement of 500,000 shares of the authorized but unissued common stock at Fifty (\$.50) Cents a share. This enabled the corporation to reduce its total indebtedness by \$250,000.00.

The management of Rhenium Corporation planned to be in production and to have the stock of the corporation trading on the Over-The-Counter market long before now. These plans were not carried out according to schedule due to (1) lack of money and to (2) a man squatting on the mine property after funds became available.

The squatter is suffering from mercury poisoning and therefore, among other things, we have been advised, is mentally and emotionally unstable. An Arizona attorney, A. Elwyn Larson, has been retained to have the squatter evicted.

We have been advised that the eviction of the squatter will be done in the immediate future. Then, we will go into production, utilizing the leaching method of recovering the metals.

While eviction of the squatter was delaying production at the mines, management attempted to buy and sell 1,500 acres of land in Pasco County, Florida. The sale of the 1,500 acres of land to the Ranch Challenge Hallelujah People, Inc. has been cancelled. There is another potential buyer. Should this sale fail to materialize, arrangements have been made so that the corporation will lose less than \$300.00 in expenses on the land deal.

Management will recommend five (5) persons as candidates for directors of Rhenium Corporation for the coming corporate year and will welcome nominations from the attending stockholders.

RHENIUM CORPORATION

The election of all directors will be determined by the vote of the stockholders of Rhenium Corporation and not by the recommendations of management.

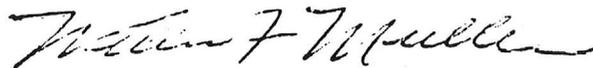
The officers for Rhenium Corporation will be determined by the newly elected directors of the corporation.

All stockholders of the corporation will receive a Supplement to the Annual Report as to the names of the directors and officers of the corporation for the coming corporate year.

The accounting firm for the corporation is JLC Associates of Treasure Island, Florida.

H. Gordon Brown, Esquire, of the legal firm of Baskin, Schwartz, Brown and Libenson of Boca Raton, Florida is handling the filing of a public offering of one hundred thousand (100,000) shares of the authorized but unissued common stock of Rhenium Corporation.

Attached herewith and made a part of the Annual Report is the Financial Statements of Rhenium Corporation as at April 30, 1976. These Financial Statements were prepared by management in accordance with generally accepted accounting principals and are based on the Financial Statements as at June 30, 1975 that were prepared by JLC Associates.



William F. Muller
President

May 12, 1976

RECEIVED

FEB - 4 1975

DEPT. MINERAL RESOURCES
PHOENIX, ARIZONA

21 January 1975

MEMORANDUM FOR THE RECORD.

OCTAVE MINE, WEAVER MOUNTAINS, CONGRESS, ARIZONA.

With Clare C. Richardson and Milton Smith, President and Vice President of Consolidated Chemical and Mining Company, 1530 Del Webb Bldg. (Townhouse) 100 W. Claredon, Phoenix, Az., visited their mining claims that cover part of the Octave Mine at Congress, Az. Their claims also include the major dumps and tailings pile. (has 15 claims).

Mr. Richardson is interested in re-working the dumps and tailings which were made around the turn of the Century when AS&R operated the Octave mine. Some sampling was done in 1965 and again in 1974 showing gold values from .01 oz. to 1.76 oz. per ton; with silver ranging from .2 oz. to 1.8 oz. per ton. Then again, he is interested in the potentialities of working portions of the Octave mine which are under the control of his company.

Now, to complicate this situation, a company called Winner Industries (a Florida company), has seven patented claims covering the central area of the Octave mine. Apparently, this latter company has recently made some effort to mine ore from their portion of the mine. A mill is supposed to be near completion.

This last named company has a watchman (or manager ?) living in a trailer on the property. This individual is a Mr. Carlson, and the latter refused to permit Richardson, Smith, and the writer, to look over the Winner claims and the mill. Even though Richardson had earlier talked on the telephone with the President of Winner Industries in Florida, and the latter verbally authorized this visit.

As a result of this situation, a reconnaissance geology examination of the Octave mine was not fully accomplished, on this visit. Richardson mentioned, that at some future date, he would like the writer, and Wm. C. Kinnon, Mining Engineer (Wickenburg, Az.) to examine the property. It is to be pointed out the the Octave mine is full of water to the 200 foot level, and there are about 34 miles of tunnels in this old mine.

The undersigned informed Richardson, that as far as old records are involved, old data on sampling was not acceptable. A new study would have to be made, and portions of the area re-sampled and assayed.

Box 406,
Wickenburg, Arizona, 85358

H H J

BALANCE SHEET
As at April 30, 1976

ASSETS

Current Assets:

Central Plaza Bank & Trust Company
Accounts Receivable

\$ 1,022.44
7,005.00

Plant Assets:

Machinery and Equipment (Note #1)
Ore Dumps
Land

\$ 80,000.00
502,274.93
35,000.00 617,274.93

Other Assets:

Automobile
Deposits
Land (Note #2)
Unamortized Organization Expense

1,000.00
290.00
15,000.00
441.00 16,731.00

\$ 642,033.37

TOTAL ASSETS

LIABILITIES AND STOCKHOLDERS' EQUITY

Current Liabilities:

Notes Payable to Stockholders, due
May 31, 1976, with interest at 10%,
unsecured:

Clinton M. T. Green \$ 15,000.00
R. H. Winger (Note #3) 71,000.00 \$ 86,000.00
Accounts Payable 550.00
Interest Accrued on Notes Payable 698.63 \$ 87,248.63

Stockholders' Equity:

Commitments (Notes 3 and 4 of June 30, 1975
Financial Statements)

Common Stock--\$0.01 Par, 10,000,000 shares
authorized, 4,000,000 issued and outstanding \$ 40,000.00
Capital in excess of par 560,000.00
Deficit, April 30th 1976 (45,215.26) \$ 554,784.74

TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY

\$ 642,033.37

RHENIUM CORPORATION

Statement of Loss
For the period from April 9, 1975
(date of incorporation) to April 30, 1976

\$

-0-

Income

(Note 4 of June 30, 1975 Financial Statement)

Expenses:

	\$ 2,815.00
Accounting Fees	
Advances Against Expenses:	1,100.00
Bruce G. Allen	8,000.00
Donald F. Gall	405.00
William F. Muller	25.00
Gerald Weisman	290.57
Advertising	124.77
Bank Charges and Fees	50.00
Filing Fees	35.00
Freight	15,819.11
Interest	7,650.00
Legal Fees	94.41
Office Supplies	176.61
Postage	479.27
Printing	1,446.91
Rent	10.40
Rental Fees	1,037.88
Repairs	144.44
Subscriptions	3,640.43
Telephones	1,543.43
Travel	327.03
Western Union	

NET (LOSS)

(LOSS) per share

\$ 45,215.26

(\$ 45,215.26)

(\$ 0.011303)

RHEMIUM CORPORATION

Notes to the April 30, 1976 Financial Statements

Note #1

No depreciation has been taken on this equipment for said equipment is alleged to be worth more than book value.

Note #2

The corporation has contracted to purchase approximately 1,500 acres of land in Pasco County, Fla. On May 6, 1976 the corporation failed to pay \$85,000.00 to the seller of the land; therefore, the corporation defaulted. However, per a verbal agreement with the seller, the corporation has a \$15,000.00 credit if the corporation buys the 1,500 acres before someone else. If necessary, arrangements have been made for another party to assume the corporation's position, leaving the corporation with a loss of less than \$300.00 in expenses.

Note #3

The principal and accrued interest thereon of all the corporate Notes Payable to R. H. Winger were paid in full on May 21, 1976 from the proceeds of a 102 day Note Payable (due on August 31, 1976) to J. F. Gilliam for \$75,000.00.

REPORT AND EVALUATION OF OCTAVE MINE ORE

March 14, 1975

Bruce G. Allen

Bruce G. Allen
Chemical Engineer

Remnants of ancient volcanic activity is noted in the Skull Valley - Kirkland - Peoples Valley area about 15 miles north of Octave. This flow is quite apparent and stretches south to Yarnell and eastward to the Hassayampa River (Wagoner). Opposed to this volcanic activity, the Wickenburg area, approximately 15 miles south of Octave, eastward and northward of Wickenburg, is an area of almost complete Geothermic (Hydrothermic) deposition.

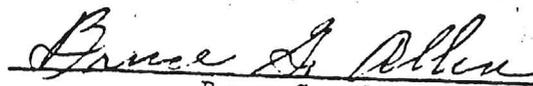
Also to be noted, that lying between the Rich Hill - Octave area and Wickenburg is an ancient seabed composed of strata of alluvial deposits as deep as 400 feet. There is a marked direction of flow southward.

Almost in contrast, the Rich Hill - Octave area is composed of pseudo-pegmatites, schists gneiss and granites, all of igneous origin. Indications are that this particular area was involved in at least three and possibly four major and separate upheavels. It is apparent that these upheavels caused igneous formations to be moved to the surface through the seabed from great depths; probably from as deep as five to six thousand feet into the earth's crust.

In summary of the above, this indicates that the Rich Hill - Octave area is the result of a "squeeze", thus causing a high concentration of high temperature metals and compounds to be formed in this area.

Intermingled with the upheavels was residual Thermogases and Hydrothermal reactions which brought minerals up through faults created by the massive earth movement. Subsequently, these minerals were diffused, compounded and in some cases massively deposited in pure metals. In consideration of the tremendous pressures and temperatures involved many of the compounds were reduced through electrochemical processes to colloidal metals and as such had reached a stability from which they have not changed since formation. On the other hand, subsequent to this period, the vicinity cooled and water diffusion has caused compounds such as gold chloride, platinum chloride, etc., to be distributed throughout the whole area. This accounts for the presence of these compounds and others in the pegmatites, schists and diorites.

As a sidereal feature of the above reactions the seabed no doubt contains precipitated mineral compounds from seawater due to fast cooling and sea pressures, consequently these compounds and some colloids are still retained in the alluvial areas in and around Rich Hill - Octave.


Bruce G. Allen

in summary, it is to be noted that this and surrounding areas are a result of a gigantic natural laboratory where chemical precipitation formed many complex compounds of minerals, metallic colloids and massive seams of some metals such as gold; thus, in order to gain full value of recovering these metals a determination must be made of the exact compositions and the resultant method to break them down into simple compounds, then to prime elements.

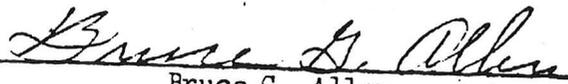
A COMPARISON OF GRAVITATIONAL RECOVERY METHODS
VERSUS
CHEMICAL RECOVERY METHODS USED ON COMPLEX ORES

The Octave ore is a complex ore due to the formation and type of distribution of metals and metal compounds within it. Although this ore does contain free gold which the gravitational method would recover, the major portion of gold is in a gold compound state and metallic colloidal state. Neither of these states can be recovered through gravitational methods because they are dissolved or suspended in water, thus losing them in the mill tails. In addition, other elements contained by the ore are also lost in the water due to their compound and colloidal states. These elements include platinum, palladium, rhenium, iridium, gallium and rare earths (scandium, yttrium, thorium, etc.) in recoverable amounts.

By sizing the ore to one inch minus and putting it into leaching beds and a spray of acid applied to it, the massive gold and all the above named colloids and compounds are put into solution. The elements in this solution can be recovered by various means, such as chemical precipitation, electrowinning, and ion exchange.

Other advantages that the leaching method lends are fewer personnel required, few moving pieces of equipment needing repair and upkeep, and more tonnage processed in the same length of time.

On the following page of this report is a comparative study of recoveries in monetary value using the two methods.


Bruce G. Allen

GRAVITATIONAL GOLD RECOVERY

VERSUS

CHEMICAL RECOVERY

Ore is crushed, pulverized in a ball mill, run through concentrating jig. The jig concentrates are then flowed over a gravitational concentration table. Concentrates from the table are then put over an amalgam (mercury plate) and the gold is thus captured. Normally the remainder of the heavy materials will be discarded; however, they may be chemically treated or smelted to recover more gold.

From the Octave ore it is expected that 1/4 oz. of gold per ton can be recovered by the above method.

Based on a mill capacity of 50 tons of ore processed per day the result of three weeks (20 days) operation would be 1,000 tons.

1/4 oz. gold per ton = 250 oz. @ \$180.00 oz. =
\$45,000.00 gross.

Ore is crushed to inch minus and conveyed to the leach bed of 1,000 ton capacity. The dissolving chemical is applied and the resulting liquid is concentrated by distillation with the distillate being reused for leaching. Residual liquids are then treated with chemicals to precipitate the metals or salts; then, electrowinning or ion exchange processes will be used to recover the gold, platinum, palladium, rhenium and other metals. Recovery of other metals will be effectuated but no evaluation has been made.

Using the equivalent amount of 1,000 tons of processed ore in three weeks the monetary result would be as follows:

Gold .5 oz/ton = 500 oz. @ \$170.00/oz.	= \$ 85,000
Platinum .5 oz/ton = 500 oz. @ \$160.00/oz	= 80,000
Rhenium 1 oz/ton = 1000 oz @ \$35.00 a oz.	= 35,000
Palladium 1 oz/ton = 1000 oz @ \$70.00 a oz	= 70,000
<hr/>	
TOTAL FROM FOUR EXTRACTED METALS	= \$270,000

EVALUATION OF THE STOCKPILED ORE AT THE OCTAVE MINE

Various samples from different areas of each of the ore dumps were taken. A quantitative analysis of the samples indicates that by using the chemical recovery methods outlined in sheet one and sheet two that an average of one (1/2) half ounce of gold and one (1/2) ounce of platinum can be recovered from each ton of ore. Also, using the chemical methods outlined in sheet one and sheet two, the aforementioned quantitative analysis indicates that an average of one ounce of rhenium and one ounce of palladium can also be recovered from each ton of ore.

RECOMMENDATIONS

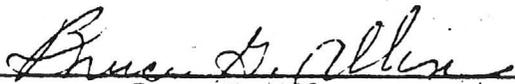
It is recommended that the management of Octave Electrum Inc. discontinue its present plans of putting in a gravitational gold recovery system for the following economic reasons:

1. Present plans will require at least another \$25,000.00.
2. Present plans will not produce the values that chemical recovery methods will produce - (Please see page 3). Therefore, it is recommended that \$25,000.00 be expended as set forth in "Estimated Costs of Processing Initial 1,000 Tons of Stockpiled Ore".


Bruce G. Allen

ESTIMATED COSTS OF PROCESSING INITIAL 1,000 TONS
OF OCTAVE ORE BY CHEMICAL METHODS

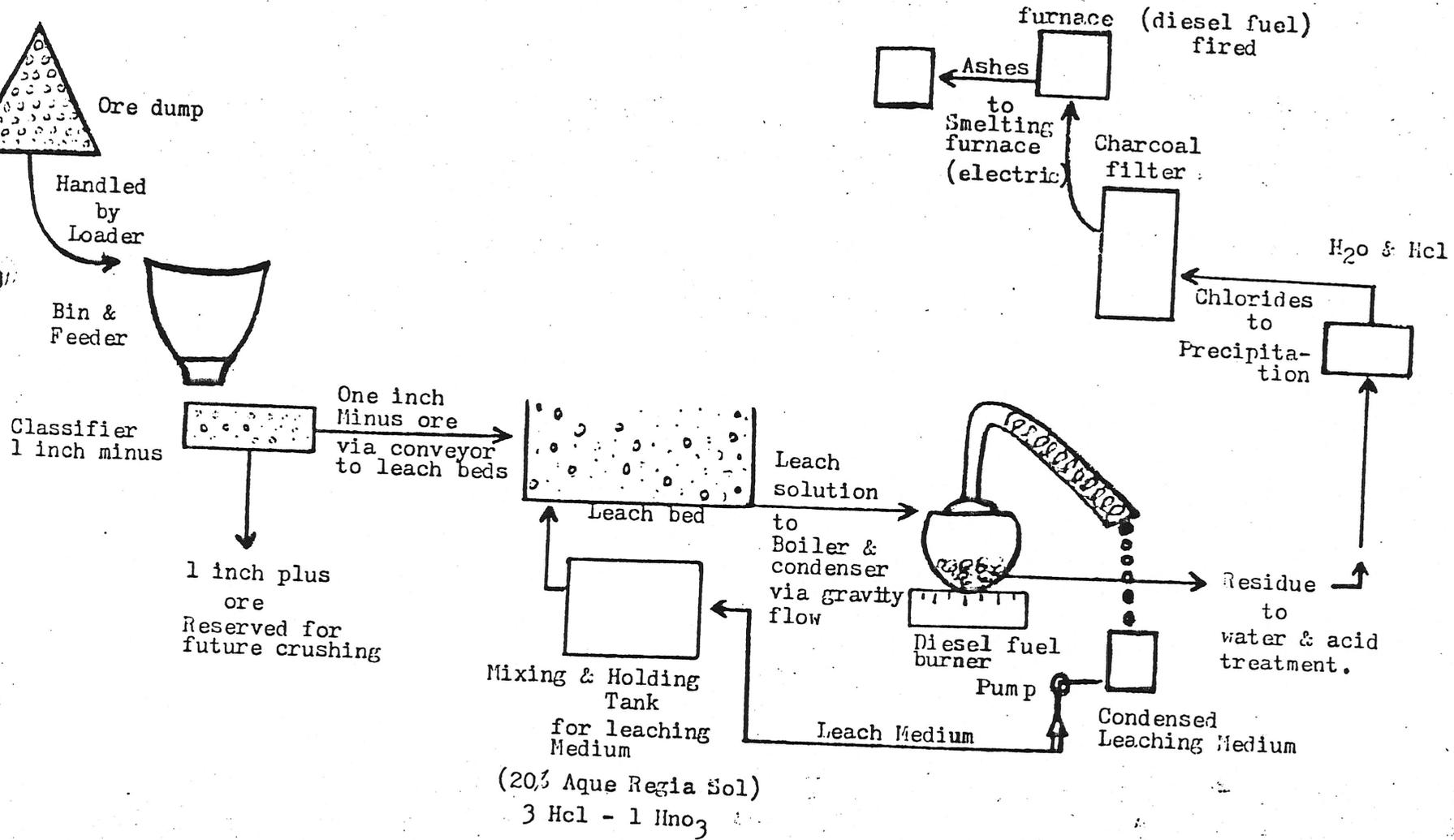
Loading equipment (Lease Purchase), estimated	\$ 1,000.00
Generator	3,000.00
Classifier	500.00
Conveyors	1,000.00
2 pumps (recirculating)	1,000.00
Leach bed (Cunited and Asphalted)	2,000.00
Condenser system	1,500.00
HCl and Hydrochloric & Nitric Acids	2,500.00
Piping and spray system	500.00
2 furnaces	3,000.00
Chemicals, glassware, etc. (Lab equipment)	2,000.00
Fuel	1,500.00
Labor and incidental costs	5,500.00
	<hr/>
	\$25,000.00



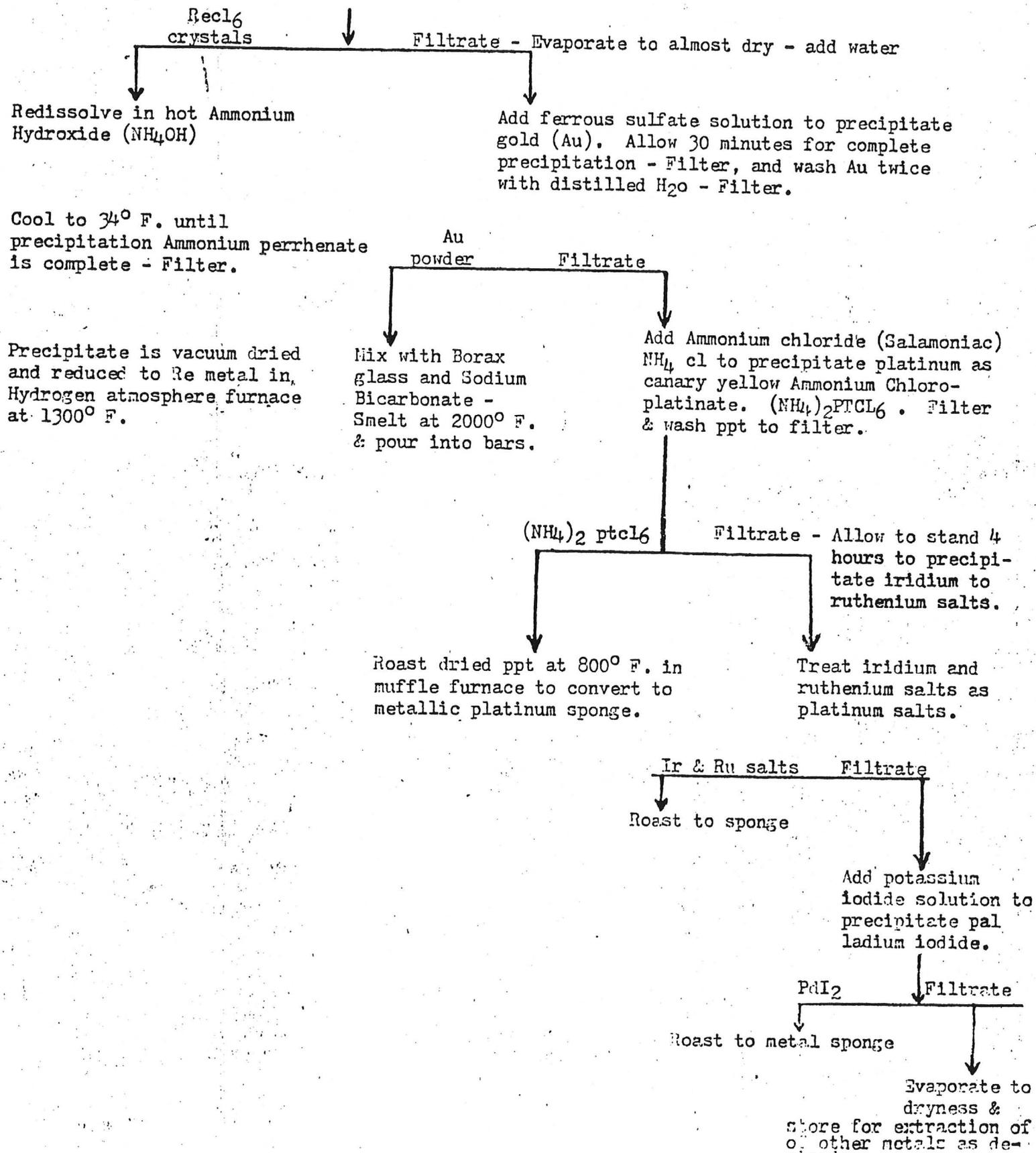
Bruce G. Allen

SUGGESTED FLOW SHEET SCHEMATIC FOR RECOVERY
OF METALS AT THE OCTAVE MINE

" SHEET - "



Residual liquids from boiler will be further evaporated until yellowish needle-like crystals begin to float on surface of liquid. These crystals are a rhenium compound, believed to be a rhenium chloride (Re_2Cl_6). Liquid is then cooled to $40^{\circ}F$ for 2 hours then filtered. The following schematic flow diagram displays extractions of other metals step by step.



DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine OCTAVE
District Weaver
Former name Same
Owner ARIZ. EASTERN GOLD MINES, INC.
Operator Amer. Smelting & Refining Co.
(Mining Division)
President
Mine Supt. L. Mont West
Principal Metals Gold-silver
Production Rate 80 tons
Power: Amt. & Type Purchased electric 350 HP
Operations: Present Mining & Milling

Date October 10, 1939
Engineer
Location Octave, Arizona
10 miles east of Congress
Address 76 State St., Boston, Mass.
Address Tucson, Arizona
Gen. Mgr. Burl Hatcher, Tucson
Mill Supt. George Gemmill
Men Employed 75
Mill: Type & Cap. Flotation & Cyanidation
continuous decontation
80-90 tons

Operations Planned

Number Claims, Title, etc. 7 patented along vein
15 unpatented - 2 millsite

Description: Topog. & Geog. Foothills of the Weaver Mts.

Mine Workings: Amt. & Condition 3 shafts 2100' - 1800' - 1400' in depth
several thousand feet drifts.

Geology & Mineralization Quartz Diorite - of Crooks complex Thrust fault - quartz vein - strike ~~N~~
N 65°-70°E Dip 20°-30°N. Quartz - Galena, Pyrite, Chalcopyrite.

Ore: Positive & Probable, Ore Dumps, Tailings

Mine, Mill Equipment & Flow Sheet Sullivan Angle Compound - Chicago Pneumatic Air Cooled Crusher,
6x6 Ball Mill, Classifier, Fahrenwald Cells. Filter - Cyanide Tails - Thickeners &
Agitators Merrill Crowe precipitation.

Road Conditions, Route 10 miles east of Congress on S. Fe R. R. good dirt road.

Water Supply Springs - 7 miles north on Antelope Creek & Old Mine

Brief History Located in sixties - operated by Octave Gold Mining Co. 40 stamp mill &
Cyanide Plant - succeeded by Octave Mining & Milling Co. Again 1918 Octave Mines Co.
1927-39 Ariz. Eastern Gold Mines, Inc. Leased to A. S. & R. CO. 1934. Prod. estimated
\$4,000,000.

Special Problems, Reports Filed

Remarks

If property for sale: Price, terms and address to negotiate.

Signed.....CARL G. BARTH, Jr.

Use additional sheets if necessary. Separate sheets on each problem.