



CONTACT INFORMATION
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Arizona Geological Survey
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Tucson, Arizona 85701
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INTEROFFICE MEMO

To: R.D. Alley
From: H. Matson
Re: Activity Report February 1993
Date: March 8, 1993
cc: J. Shipes, A. Matthews

Zonia Project

Written notice was received from ADEQ that a temporary Aquifer Protection permit would be issued for the remediation/construction project at Zonia, pending receipt and approval of additional plans and data. One stipulation of the permit is that application be made for the long term permit within six months. A meeting to discuss future plans and permits is to be scheduled within 30 days of the temporary permit issuance.

An activity report describing project progress for the month of January 1993 was written and submitted to both ADEQ and the US EPA. E. Sabastiani, US EPA, was also appraised by phone of the work and weather related problems.

Notice was received from the Arizona Department of Water Resources, Dam Safety Division that an existing dam at Zonia does not meet safety requirements. The owner of the property must also obtain a license to operate the structure. The notice follows an inspection by the DWR, accompanied by Ray Hill in mid November 1992. The structure in non-compliance is the dam creating the large discard solution pond on the SW end of the property. In order to obtain a license to operate, a full engineering report must be submitted to DWR. An alternate solution would be to lower the dam height to conform with the requirements for non-regulated containment structures.

A near site source of low permeability clay was identified for possible use in construction of the containment dam below LB#3. Arrangements were made with the land owner to purchase enough clay for the structure at a price of two thousand dollars. Arimetco construction crews will remove and haul the clay. Recontouring of the site after mining will be necessary.

The owner of clay, P. Whitehead, is also the owner of the former main production water well. The well and pipeline were inspected. The pipeline needs only a few lengths replaced while the well needs a new pump motor and reinstallation of the turbine pump. Sustained production of +300 gpm could reportedly be achieved.

Mr. Whitehead has been a vocal and persuasive opponent of the Zonia landfill project, but does not object to a mining operation if the local water quality can be protected. A tour of the mine site showing our remediation work and a review of the planned environmental controls for the new facility were provided.

Emerald Isle

An inspection by ADEQ is planned for sometime in March.

Van Dyke

A planning meeting at the Van Dyke mine site was attended.

Greaterville

A day was spent in the field with Dick Bean, Consulting Geochemist, to review the potential target areas at Greaterville. Dr. Beane was contracted to review the project and to write a report, which could be used to attract third parties for possible joint venture.

Subsequent to initiation of that review, Sunshine mining notified us that the Arimetco/Sunshine JV would be terminated and the Sunshine property returned to the lessor, Dugan productions of Farmington, New Mexico. Recommendations for action on the project are pending review of Dr. Beane's report.

Sugarloaf Peak Project

Cyprus Exploration was contacted to determine interest in a possible joint venture on the project. Cyprus was actively but slowly, attempting to lease the ground when Arimetco acquired the lease position. Cyprus has since changed management and apparently now does not have an interest in this type of project. Other exploration companies will be contacted to ascertain interest.

Target Generation

Minnesota:

A contract was delivered to the Longyear Mesaba Company in accordance with terms of our earlier letter agreement for lease of the Minnamax copper-nickel deposit in St. Louis County Minnesota. The contract is still being reviewed by longyear Mesaba. A two week delay is due to their attorney's vacation.

The State of Minnesota, Department Natural Resources requested that a second meeting be held to discuss lease of the State lands at Minnamax. A meeting was held on Feb. 11 and was attended by the Director of the Division of Minerals, Bill Brice. Also in attendance were Marty Vadis Assistant Director, Arlo Knoll manager of Mine Land Reclamation and Kath Lewis attorney and Mineral leasing Manager. A review of Arimetco was presented to assure the Division of our technical and financial capability. Terms of the

proposed lease agreement with the State were then discussed. The Division appears to be somewhat flexible in the statement of some contract provisions which should allow reasonable terms to be negotiated.

Environmental considerations and permits for the project were outlined. The most onerous, perhaps, is a requirement that all wetlands drained be replaced at a 2:1 acreage ratio. The Division offered that since the State held thousands of acres of former wetlands in western Minnesota, an arrangement might be struck in which these lands could be restored to replace the wetland at Minnamax. Restoration in this case could simply mean removal or destruction of drain tile in the retired cropland, allowing for natural flooding.

In general, the meeting reflected the Divisions favorability toward the project and willingness to work with Arimetco. The economic benefit to the State is well recognized within the DNR.

Time Distribution

Zonia	10
Van Dyke	1
Greaterville	1
Target Generation	6
Sick	<u>3</u>
Total	21 days

ZONIA MINE

PO BOX 649
YARNELL, AZ 85362
PHONE # 1-928-427-0443 FAX # 1-928-427-0443

To: *Martin Nicoletti & Joe Sawyer* From: *Steve Keehaer*

Fax: _____ Number of pages including cover: *3*

Phone: _____ Date: *3/23/05*

Re: _____ CC: _____

Urgent

For Review

Please Comment

Please Reply

There are records and information on this site in the office dating from the 1920's. This information is very valuable and I don't know what price should be put on the forms for its replacement.

Also There are 350 Boxes of core in the Shop and 40,000' of R.C. samples and pulps.

Please put the value of the records and samples in "Others" on the forms.

Any Questions
Please Call
Steve

Shop ~~LOCATION INFORMATION SHEET~~

NAME OF INSURED :

1. Complete address: Box 649 Yarnell Az. 85362

6 miles East of Kickland Jet. at End of Zonia Mine Road

2. Building construction detail: (walls, floors, roof)
(i.e.: wood, concrete, steel, etc...) Concrete Block & Wood
Walls, concrete floor, Metal Roof

3. Age of building: 1967 38 years

4. Square footage: 2800 sq. ft

5. Heating? (electric, oil, gas or other) None

6. Please describe the extent of your operations at this location:
(i.e.: offices, storage, manufacturing, etc...) Maintenance on Trucks
& pumps on mine site

7. Other tenants/occupancies in the building?
If yes, please specify their operations: Yes No

8. Is the building exposed/adjacent to another building?
If yes, please provide construction details and occupancy. Yes No

9. Are the premises provided with automatic sprinklers?
If yes, are these connected to a central station alarm? Yes No
Yes No

10. Are the premises provided with smoke or heat detectors?
Fire alarm? Yes No
If yes, is it connected to a central station alarm? Yes No
Yes No

11. Are there fire extinguishers on the premises? Yes No

12. Are the premises provided with a burglar alarm?
If yes, is it connected to a central station alarm? Yes No
Yes No

13. Is there a watchman/guard service on the premises? Yes No

14. Property values: Computer equipment: N/A Office equipment: N/A
Telephone system: N/A Restrooms: _____
Building & Equipment: 80,000.00 Others: _____

Office
 1000N INDEPENDENCE STREET

NAME OF INSURED :

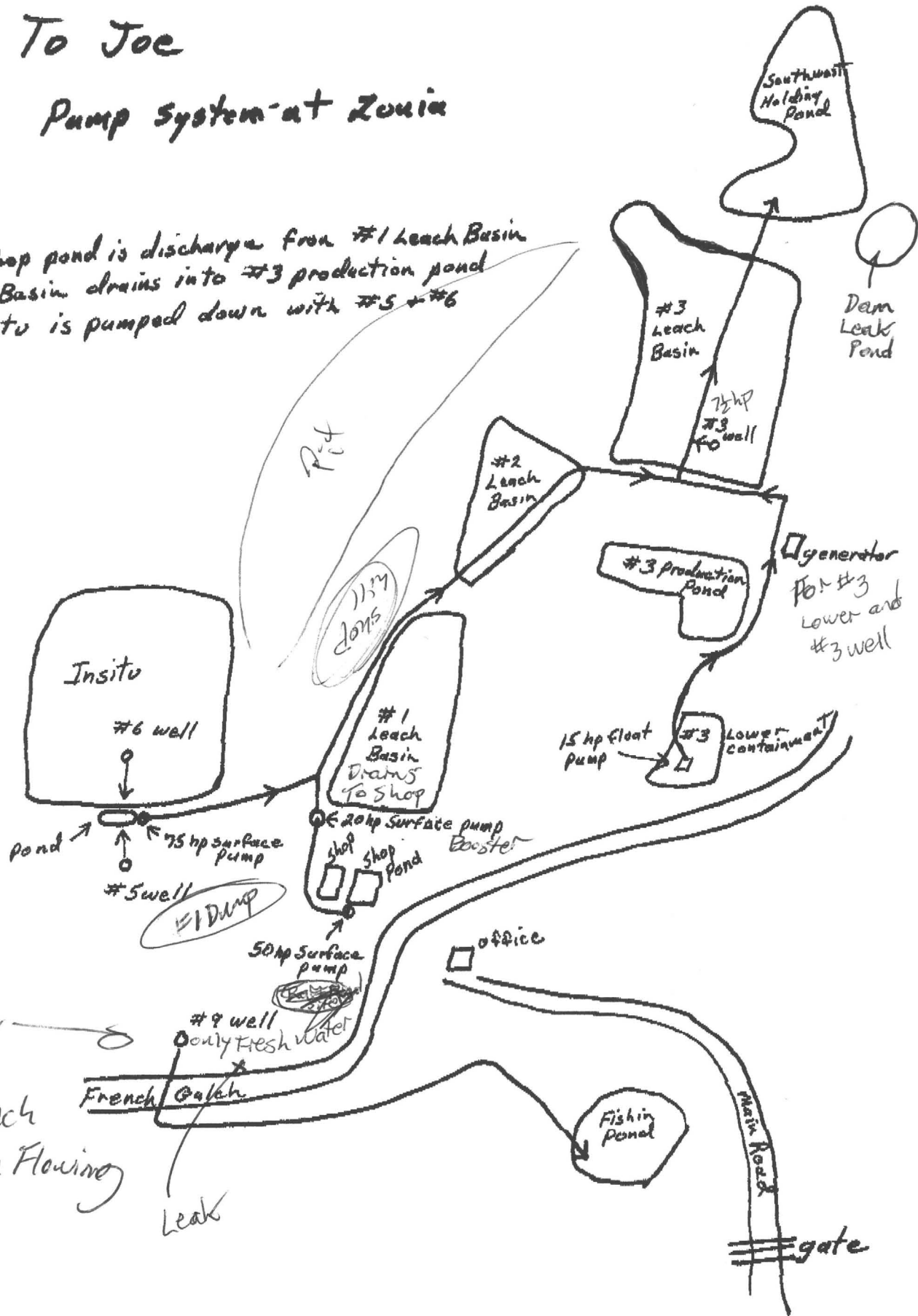
1. Complete address: Box 649 Harnell Av. 85362
End of Ziona Mine Road
5 miles East of Kirkland Jct. of the
2. Building construction details: (walls, floor, roof)
 (i.e.: wood, concrete, steel, etc...)
Concrete Block walls.
Concrete floor, Wood Roof
1967 38 Years
1200 sq ft
3. Age of building: Electric
4. Square footage: Office + Records Storage
5. Heating? (electric, oil, gas or other)
Office + Records Storage
6. Please describe the extent of your operations at this location:
 (i.e.: offices, storage, manufacturing, etc...)

7. Other tenants/occupancies in the building?
 If yes, please specify their operations:
 Yes No
8. Is the building exposed/djacent to another building?
 If yes, please provide construction details and occupancy.
 Yes No
9. Are the premises provided with automatic sprinklers?
 If yes, are these connected to a central station alarm?
 Yes No
 Yes No
10. Are the premises provided with smoke or heat detectors?
 Fire alarm?
 If yes, is it connected to a central station alarm?
 Yes No
 Yes No
 Yes No
11. Are there fire extinguishers on the premises?
 Yes No
 Yes No
12. Are the premises provided with a burglar alarm?
 If yes, is it connected to a central station alarm?
 Yes No
 Yes No
13. Is there a watchman/guard service on the premises?
 Yes No
14. Property values: **Computer equipment:** NA **Office equipment:** 2000.00
Telephone systems: 250.00 **Restaurants:** _____
Building & Equipment: 75000.00 **Others:** _____

To Joe

Pump system at Zonia

The shop pond is discharge from #1 Leach Basin
 #2 Leach Basin drains into #3 production pond
 The In situ is pumped down with #5 + #6



#9 is supposed
 to stop French
 Gully From Flowing
 Leak

#9 well
 only fresh water
 French Gully

gate

Joe Sawyer SGV

From: "Stephen Keehner" <sgkeehner@hotmail.com>
To: <jsawyer@sgv.ca>
Sent: Saturday, May 14, 2005 10:17 AM
Subject: Claims

Joe, here is the list that the realtor says they own.

The ones I already had as theirs

The new ones

CONTACT#2
HILLSIDE
MASSACHUSETTS
BIG WHITE
BLACK BIRD
BLUE BIRD
HORN SPOON
HARRISON
MORNING LIGHT
SENTINEL
MORNING STAR
SUNSHINE

NAVY #1
NAVY #2
NAVY #3
NAVY #4
NUGGET
SHIPPER
GROWLER
CONTACT #1 this one he is not sure of

Steve

I checked these claims
with the patented and unpatented
claims I have for Zoria.
None of the show up on our
lists.

JOE

INTEROFFICE MEMO

To: *H. Bradley*
Distribution & File

From: A. F. Matthews

Date: March 8, 1993

Re: Notes on Zonia Coordination Meeting 3-3-93

Metallurgical

Trenched samples have been taken from the pit toward its northern extent and column tests are currently under way. Petersen's report regarding the trench samples and drilling is appended to the file copy of this report. Column tests on the pit ore indicate around a 50% recovery rate in 28 days from two tests with head grades of 0.32% TCu/0.3% Oxide Cu and 0.25% TCu/0.24 Oxide Cu.

Higher grade material still remains in the insitu basins that anticipated and leaching appears to be confined to the original blast hole depth.

Two 55 gallon drum samples are to be taken from each of the leach pads, conveyed to Johnson Camp and column tests run on each sample. One sample will be tested with Johnson raffinate and one with acidified raffinate.

Ore Reserves

Extensive sampling has indicated that the old leach pads/dumps contain an average of 0.16% Cu. There is no immediately apparent size/grade distribution.

Current calculations of reserves are cutting ore grades in the insitu area to 25% of their original values. This may be reviewed in the future. The 25% value should only be applied to 150 ft. below the original surface.

Calculations indicate the pit to contain approximately 35-38 million tons of ore grading 0.34% Copper. This figure will be refined in the near future incorporating design for ramps and isolated blocks of ore. A starter pit has been identified of 3.5 million tons at 0.5% Copper with no stripping, a further 1 million tons of ore at 0.5% is also available at a minimal strip ratio. Using a \$1.00 cut off the final pit design only marginally encroaches on leach pad No.1.

The mine model will be further refined using a higher cut off (0.2% Cu) and reducing the mining block/bench size to 40 ft.x40 ft.

Further drilling will be required to fully evaluate the property and to expand the current ore reserve. Ore reserves of some 3.5 million tons exist in the land fill area. The reserve is currently limited by information to depth rather than by a lack of grade.

Urgent considerations must be given to the positioning of future leach pads and waste dumps as their distance from the mining area will affect cut off grades and mining economics.

During the recent drill campaigns mineable ore grades were identified beneath the current waste dump. Consideration will need to be given to moving the waste dump and drilling further holes in this area to prove this resource.

Environmental and Site Conditions

The projects most recent objectives have been to comply with an E.P.A. directive in such a manner as to enable the company to return the property to the lessor without future obligation whilst assessing the property's potential.

This objective has to all intents and purposes been achieved. During the recent drill campaign several ground water monitor wells were completed as part of an extended hydrogeological study which will set out to show that no contaminated fluids are entering the groundwater from the existing pads. To date limited results show this to be the case. It is the company's objective to build a sufficient data base to show that the leach pad/dumps are competent. The majority of the E.P.A.'s requirements have been met by installation of pumps in the insitu wells, capture of errant fluids from Leach pad 3, clean up of redundant piping system in French Gulch and captures of over flows from Leach pad 1. The installation of V-Notch weirs and the building of a catchment dam below Leach pad 3 are in progress.

The design of the catchment "dam" below Leach Basin 3 was submitted to Western States who declined to provide written recommendations as to its effectiveness. Western States did offer verbal advice on its construction.

A source of clay has been identified for use in the dams construction which is due to commence March 9.

Our objective should be to bring this property to production within the next 12 months. This will require a combined effort from all staff, of paramount importance is the production of an operating plan for submission and approval by ADEQ. This will depend primarily on the following factors:

- 1) Plant Location
- 2) Waste Dump Location
- 3) Life of Project Leach Pad Areas
- 4) Completion of the Hydrogeological Study
- 5) Final Compliance with E.P.A. requests
- 6) Condemnation and ore reserve drilling.

You are requested by copy of this letter to address those areas specific to your expertise regarding the above and submit brief written proposals to me for discussions at the next coordination meeting. This will be held Friday April 2 at 10:00 a.m. in Tucson.

Costs

Identifiable and entered costs on this project are for the year to date \$102,992.

M HAYWOOD ASSOCIATES, INC.

115 East Goodwin St.
P.O. Box 1001
PRESCOTT, ARIZONA 86302

LETTER OF TRANSMITTAL

(602) 778-5101

TO

KEN BRADLEY
ARIMETCO

DATE <u>11-12-92</u>	JOB NO. <u>—</u>
ATTENTION <u>—</u>	
RE: <u>—</u>	
<u>ZONIA MINE</u>	
<u>TOPO</u>	

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order 1.44MB DISKETTE

COPIES	DATE	NO.	DESCRIPTION
<u>1</u>	<u>-</u>		<u>READ THE "README" FILE</u>

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ 19 _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

COPY TO FILE: 89-135 ZONIA

SIGNED: MIKE HAYWOOD

THE ZONIA COMPANY

ZONIA MINE
ROUTE 1
KIRKLAND, ARIZONA

GENERAL OFFICE
212 S. MARINA ST.
PRESCOTT ARIZONA 86303
(602) 778-2100

November 4, 1992

Mr. Ken Bradley
Arimetco International, Inc.
6179 E. Broadway, Suite 350
Tucson, AZ 87511

RE: Zonia

Dear Mr. Bradley:

Enclosed please find a copy of the letter sent to you October 1. Also enclosed is another copy of the photo. I understand that most of our correspondence has been going to the wrong address and I do apologize for that.

If you have any questions, please call.

Sincerely,

THE ZONIA COMPANY



Shelley DeLoera

SD/bms
Enclosures

THE ZONIA COMPANY

ZONIA MINE
ROUTE 1
KIRKLAND, ARIZONA

GENERAL OFFICE
212 S. MARINA ST.
PRESCOTT ARIZONA 86303
(602) 778-2100

October 1, 1992

COPY

Mr. Ken Bradley
Arimetco International, Inc.
6245 E. Broadway, Suite 350
Tucson, Arizona 85711

RE: Zonia

Dear Ken:

Enclosed please find a couple of maps relating to the leach basin base construction and a topo. I found these tucked away and thought it would be of help to you in your evaluation of the liners, etc.

Also the photo we spoke of Monday is being reproduced locally and will be forwarded to you when complete.

Very truly yours,

THE ZONIA COMPANY

W. Ray Hill

WRH/spd
Enclosures

**ZONIA PROPERTY
YAPAVI COUNTY
ARIZONA**

Summary

Mineral exploration and development has been conducted on the property since the 1890's resulting in the location and exploitation of copper oxide and gold ore zones.

The McAlester Fuel Company acquired the property in 1964 and began an oxide copper heap leaching operation in 1966. This was augmented toward the end of the life of the mine by a quasi insitu operation that was run until the mine closed in 1975.

McAlester produced 33,000,000 pounds of copper from the operation during the life of the mine using precipitation recovery methods.

Current Status

During the mining operations some 7.1 million tons of ore were placed on three separate leach pads. The average grade of copper placed on these heaps was 0.6% Cu. There remains some 55 million pounds of copper in these heaps. Past workers have estimated that 32 million pounds of this reserve is recoverable.

The ore sits on pads which are variously lined with a clay/cement base or an asphalt base. Leach basin number one is piped and delivers solution to the current plant site through 4x4" plastic pipes. Solutions, as a result of rainfall run at a grade of around 1.5 g/l Copper. Solutions from pads two and three report to an open gulch which flows back to the plant site. Various amounts of pipe are apparent in this gulch, the results of efforts to minimize the escape of high copper bearing solutions.

The "In-situ" basins five and six consist of two distinct heaps, unlined, through which solutions were percolated and recovered by pumps situated in wells within the heaps.

Excessive rainfall has allowed copper bearing solutions to escape from both the "in-situ" and leach basins and efforts to mitigate this are under way by the property owner.

Plan of Action

Arimetco now leases the property and as such does not wish to see copper bearing solutions being lost.

Efforts should be made to:

1. Install sufficient pump capacity to recirculate fluids on to the heaps through rainbird sprinklers to evaporate

excess solutions. Power is available at site.

2. Take representative samples of the ore on the heaps to determine:
 - a.) The leachable copper content
 - b.) The size distribution of material on the heap.
 - c.) Acid consumption of material on the heap.

It is suggested that these tests are carried out on large samples at our Johnson Camp.

From the above we will determine if crushing is required to achieve economic recovery. Initially samples would be collected using a back hoe and truck. R.C. Drill samples would be advisable to confirm grades on the heaps at a later stage.

3. A visit to Zonias headquarters in Prescott should be made to access and copy or carry away the following:
 - a.) Production records
 - b.) Geologic logs of all holes drilled on the property and all trenches dug and sampled.
 - c.) Records relating to the manner in which the pads were lined.
 - d.) Mine planning records
- 4.) There are many unsightly pipe runs remains of past operations that need to be cleaned up to improve the visual impact of the site.

An initial study by John Petersen has indicated that some 14 million tons of around 0.4% Cu remain for mining.

There are known zones of sulphide mineralization which also contain gold values. These zones will need to be examined for their mineral content.

It must be stressed that the Zonia Company still believes that it will receive a permit from ADEQ to conduct a land fill operation on the barren upper portion of the pit. Please bear this in mind when dealing with their representative Ray Hill.

Permitting

I would suggest that we do not make any approaches to ADEQ until we have a body of evidence to show the integrity of the pads in place, a production plan and a solid monitor well proposal.

In the past the operation drew its water from a well some 5 miles away. Records indicate that an old shaft on the property makes around 500 gpm. To establish a successful operation water wells need to be drilled on the property.

INTEROFFICE MEMO

To: Distribution

From: A. Matthews

Date: October 22, 1992

Re: Zonia Mine, Meeting of 13 October 1992

The following points were discussed:

1. Samples taken by Peterson were to be taken to Johnson Camp for column testing
Action - J. Peterson
2. A.F.E.'s are to be prepared for
 - a) Environmental Mitigation of the site. This will include rental of a pump, cleanup of debris and recirculation of fluids. The objective is to reduce the volume of fluid circulating in the heaps to prevent solution escape to natural drainage. Action - J. Smith, H. Matson
 - b) Metallurgical testing - This will include rental of machinery to take samples, cost of assaying, cost of crushing and cost of establishing test pad at Johnson. Action - J. Smith
3. Discussion took place on the appropriateness of where to sample. It was proposed as we did not know the order in which the heaps were built and leached it would be wise to sample as deep into the heap as possible. It was also noted that the top of the heaps may have undergone the least amount of leaching as they may have been built immediately prior to closure.
4. Immediate investigation should begin on the availability of water. It was noted that the Cuprite shaft had an inflow of some 500 gpm. A water lease held with a nearby rancher expired in 1985. Action - H. Matson
5. Potential exists for expansion of the orebody which could be proven by drilling. Peterson has identified several sites to:
 - a) condemn areas for pad expansion and
 - b) possibly increase reserveAction - Memo from Peterson attached
6. Consideration should be given to the production of Copper Sulphate.
7. A First Pass Run on the economics should be started. Action - D. Gulley

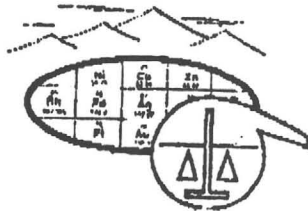
8. Reports, drill logs and plans are yet to be sourced to aid in the assessment. Ore; an evaluation by Nerco, has been sourced and will be discussed at the next meeting. Action - K. Bradley, J. Smith, J. Peterson
9. State lease payments for the reservoir have been paid. The lease should be adopted to the main agreement. Action - A. Matthews, H. Matson
10. A memorandum of the agreement should be filed at Yavapai County Court House. Action - H. Matson

Results of composite samples taken by Peterson et al. have been received and are encouraging, 0.22% Cu, 0.17 Ocu and 0.42% Cu, 0.38% Ocu.

A meeting is scheduled for Tuesday, 27 October at 3:00 pm in the Engineering office conference room. Please familiarize yourselves with the attached documents for discussion. Please also marshall your thoughts for the 1993 budget for this project.

Distribution:

D. Gulley	H. Matson
K. Bradley	J. Peterson
J. Smith	R.D. Alley
L. Brumbaugh	J. Shipes
K. McDonald	



SKYLINE LABS, INC.
1775 W. Sahuaro Dr. • P.O. Box 50106
Tucson, Arizona 85703
(602) 622-4838

REPORT OF ANALYSIS

JOB NO. VOB 213
October 20, 1992
PROJECT: ZONIA
Z9A AND Z9B
PAGE 1 OF 1

ARIMETCO, INC.
Attn: Mr. John Petersen
6245 E. Broadway #350
Tucson, AZ 85711

Analysis of 2 Rock Chip Samples

ITEM	SAMPLE NO.	Cu (%)	oxCu* (%)	
1	Z9A	.22	.17	Δ .05
2	Z9B	.42	.38	Δ .04

*NOTE: oxCu denotes non sulfide Copper.

cc: Johnson Camp (by fax)

REGISTERED ASSAYER
CERTIFICATE NO.
9426
WILLIAM L. LEHMBECK
Manager
10/20/92

Charles E. Thompson
Arizona Registered Assayer No. 9427

William L. Lehmbeck
Arizona Registered Assayer No. 8426

James A. Martin
Arizona Registered Assayer No. 11122

DRILLING PROPOSAL - ZONIA

There are a substantial number of un-answered questions regarding ore distribution on the Zonia property. In part, these questions arise from missing drill hole information, but there are also areas of apparent ore potential which have not been tested. These questions are addressed in order of priority.

- I. A possible ore trend has been identified extending from the vicinity of Red Hill Northeastward toward the existing plant facility. It is defined by GT mapping in the pit. Since this area contains a portion of Leach Basin No. 1, the Principal Mine access road, and the proposed SX-EW site, it is important to condemn or prove up ore early on. Toward this end a 15 hole program is proposed (Figure 1). Average hole depth may be about 500 feet.

- II. Of the approximately 300 holes for which Arimetco has information more than 110 holes bottomed in greater than ten feet of ore grade material. This presents a significant problem for ore projection at depth and for reserve evaluation. A substantial portion of the existing pit area cannot be fully evaluated and neither of the so called in situ areas may be properly evaluated beyond approximately 100 ft to 150 ft below surface. Mine planning and leach dump siting could be substantially affected by the discovery of additional ore at lower levels. Specific drill proposals should be designed in conjunction with mine planning. A full evaluation of all inadequately explored areas would require a very large drill commitment (ie 50 + holes).

- III. There exists a real possibility that the main ore trend at Zonia may extend beyond well explored ground in a Northeasterly direction. Additional ore in this area would add to the reserves indicated in the in situ areas. Since ore grade mineralization has been found 3,000 feet to the Northeast it is at least a possibility that total Zonia reserves could be doubled. Drilling in this area along fences 1,000 feet apart and on 100 or 200 foot centers should begin as soon as the Zonia operation starts to produce income. A phase I 33 hole program is proposed. (Average depth 300 ft).

IV. A separate, apparently much thinner ore zone lies parallel to and Southeast of the main ore body. Limited drilling in this area has established the existence of an ore grade mineral zone with significant depth extent. This zone may extend southwestward to connect with mineralization in the proposed landfill area. A phase I, 7 hole program (300 ft hole depth) is proposed to define length and width and grade of the mineralized area.

V. Gold

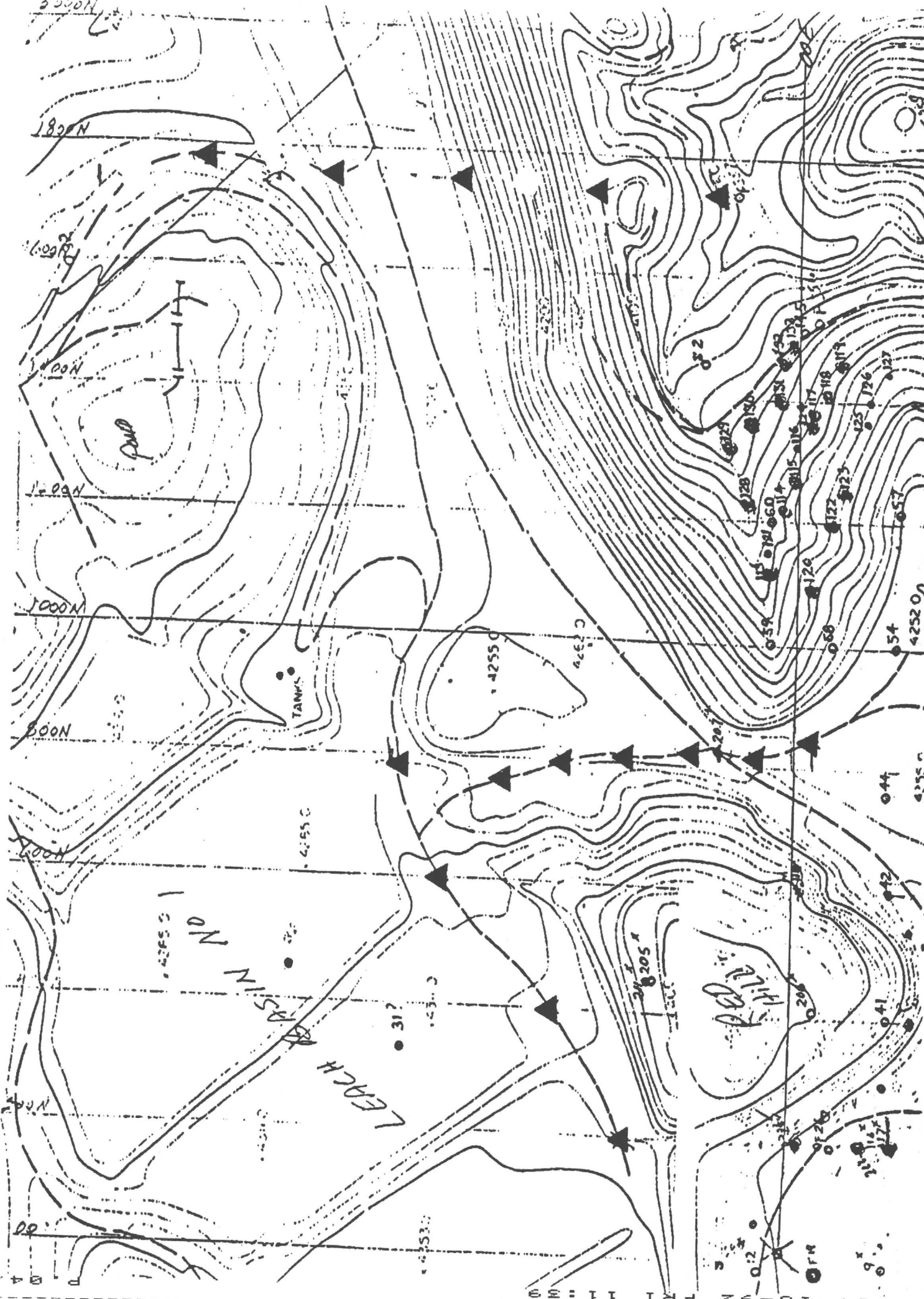
Numerous significant gold anomalies have been reported on and near the property. The full evaluation of Zonia gold potential will require data compilation, field evaluation of anomalies and target definition. All of this must be accomplished prior to proposing a drill program. However, the Zonia budget should include funding for gold exploration (approximately 300 assays, 3 to 4 geologist months, etc.).

Prior to the inception of the drill programs listed above it will be necessary to evaluate the geologic setting of the drilling areas to insure that target areas have been properly defined.

FIGURE 1 ZONIA DRILL PROPOSAL

1" = 200'

▲ proposed drill hole



Memo

10/9/92

To: A. Matthews, J. Smith, H. Matson, & Bradley
From: J. Petersen
Subject: Zonia Leach Dumps

On 8 October 1992 I examined the dozer trench cut into Zonia dump No. 8 (~~8~~ or 7?), the smallest of the three dumps. The trench cut the dump in a SE-NW direction across its width, and ranged from 9 ft ^{deep} on the SE to about 9 ft deep on the NW. The trench was not deep enough to expose the liner. I have asked Ray Hill to ~~deepen~~ it on the SE where the heap overlaps the topographic slope.

The amount of Copper observed in the cut was quite frankly disappointing. The dump material appears to be substantially leached, ~~with~~ However, numerous larger pieces (approx. + 6") are incompletely leached with pockets of copper roughly in the center of the rock surrounded by a 1" \pm ~~shell of~~ Cu-poor, FeOx-rich reaction shell and an outer leached zone. In these pieces leaching has progressed 1/2" to 1 1/2" into the rock. This observation ~~suggests~~ indicates that pieces smaller than about 3" will have been completely leached.

The face of the cut gives a clear representation of the upper half of the dump. The character of the material is consistent throughout the trench. The upper 2-3 feet

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ARIMETCO, JOHNSON CAMP MINE
Exit 322 off I-10
Johnson Road
Across from "The Thing"
Telephone: (602) 586-2241
Fax: (602) 586-7020

FACSIMILE TRANSMISSION

Total Pages: 2 incl. Cover Date: 10/21/92

To: TUCSON

Receiver's Name: Joe Smith, R. Alley, A Matthews
K. Brackley

Location: _____

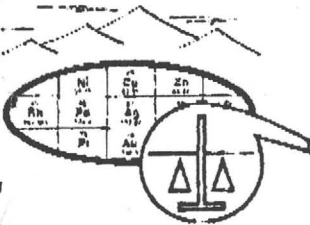
Telephone: _____ Fax: _____

Sender: J. Petersen

If there is any problem with this transmission, please call the number shown above.

Remarks:

These samples were composites of
material in the faces of two 8-foot
deep pits in Zonia Heap #9
(At SW end)



SKYLINE LABS, INC.
 1775 W. Sahuaro Dr. • P.O. Box 50106
 Tucson, Arizona 85703
 (602) 622-4836

REPORT OF ANALYSIS

JOB NO. VOB 213
 October 20, 1992
 PROJECT: ZONIA
 Z9A AND Z9B
 PAGE 1 OF 1

ARIMETCO, INC.
 Attn: Mr. John Petersen
 6245 E. Broadway #350
 Tucson, AZ 85711

Analysis of 2 Rock Chip Samples

ITEM	SAMPLE NO.	Cu (%)	oxCu* (%)
1	Z9A	.22	.17
2	Z9B	.42	.38

*NOTE: oxCu denotes non sulfide Copper.

cc: Johnson Camp (by fax)

REGISTERED ASSAYER
 CERTIFICATE NO.
 9425
 WILLIAM L. LEHMBECK
 Manager
 10/20/92

Charles E. Thompson
 Arizona Registered Assayer No. 9427

William L. Lehbeck
 Arizona Registered Assayer No. 9425

James A. Martin
 Arizona Registered Assayer No. 11122

Les Entreprises de Richard Atkinson Ltée.

1105 - 700 West Pender Street, Vancouver, B.C. V6C 1G8 Tel. (604) 684-0431 Fax (604) 684-6334

October 23, 1992

Mr. Ken Bradley
Chief Mine Engineer
Arimetco International Inc.
6245 East Broadway
Tucson, AZ 85711
U.S.A.

Dear Ken,

Re: Zonia Copper Mine

Further to our discussions, please find enclosed the following documents:

1. Except from the Antioch file index - note particularly section 5104 - "Reports". It is my belief that all of these reports were turned over to Ray Hill by Antioch's President, Gregory Lipsker.
2. Zonia Copper Mine Report dated May 23, 1979.
3. Letter dated April 29, 1986 to the United States Environmental Protection Agency.
4. Final Report by Homestake Mining Company on the Zonia Copper Deposit, dated April 22, 1975.

Good luck with your endeavours at Zonia.

Yours very truly,



R.C. Atkinson
per [signature]

Richard C. Atkinson

c.c.: Queenstake Resources Ltd.

Gregory B. Lipsker
West 513 Parkade Plaza
Spokane, Washington 99201
Telephone: (509) 456-8710

Drill logs
Information on foundation of dumps
Mine drill hole plans
Report on progress and future plans

Major ~~Command~~ General Murray
685-5254

Dick Robinsons office 684-0431

9912.

C. J. Vasilius
MINE PLANT ENGINEERING

FEASIBILITY STUDIES
CAPITAL COST ESTIMATES
DETAILED DESIGN

P. O. BOX 2015
PRESCOTT, ARIZONA 86301
PHONE: 445-6158

January 17, 1968

Mr. Tom E. Garrard, President
McAlester Fuel Company
Box 907
McAlester, Oklahoma 74501

Dear Tom,

The following points will constitute the design criteria for the Zonia Crushing and screening plant:

1. Equipment will be sized as per screen analysis attached.
2. Ore production will be 5,600 TPD on an 8 hour shift for an average rate of 700 TPH.
3. Design capacity to be 800 TPH providing 14% surge capacity.
4. Crushing plant to be fed by rear dump trucks.
5. Existing 3642 Pioneer jaw crusher to be used at a 4" setting.
6. Since capacity of this crusher is approximately 200 TPH, 600TPH will be removed ahead of the crusher by a vibrating grizzly feeder with grizzly bars set at 4".
7. The type of grizzly available from manufacturer's varies considerably in shape. Consequently detailed design will be held in this area pending a final decision to proceed with purchasing.
8. Crusher and grizzly product will be combined on a slow speed feeder belt. Feed from grizzly undersize hopper will be controlled by a finger gate. Crusher product will discharge directly on the belt.
9. Crushing and screening plant will be located out of the pit just south of the Mercer shops in the saddle south and east of leach heap #7 at an Elevation of 4340'.
10. Trucks will dump at an Elevation of 4375' in an area leveled from the hill south of the saddle.
11. In pit crushing and conveying out of the pit to the screening plant will be considered for future development. Consequently the structures should be designed as semi-portable.
12. Concrete foundations will be used for all structures.
13. Screening plant will be fed by a 30" conveyor approx. 140' long.
14. Feed will be split to two 6x16 double deck screens with a 1-3/8" top deck and a 3/8" bottom deck.

14. Screen oversize of 560 TPH will discharge directly into a 90 T truck bin.
15. Provision will be made to bypass the 380 TPH of plus 1-3/8" ore to a secondary crusher as a future possible addition.
16. Future secondary crushing will be open circuit.
17. 240 TPH of minus 3/8" screen undersize will be fed to four extra large coarse hi-probe sizers for a 20 mesh separation.
18. Minus 3/8", plus 20 mesh sands will be fed by a conveyor into a 60T truck bin.
19. This sands bin will be located adjacent to or incorporated with the coarse ore bin to provide for the possibility of recombining both products.
20. The 120 TPH of minus 20 mesh fines will be pulped to 50% solids, agitated for 3 1/2 minutes, and sluiced to a leaching pond.

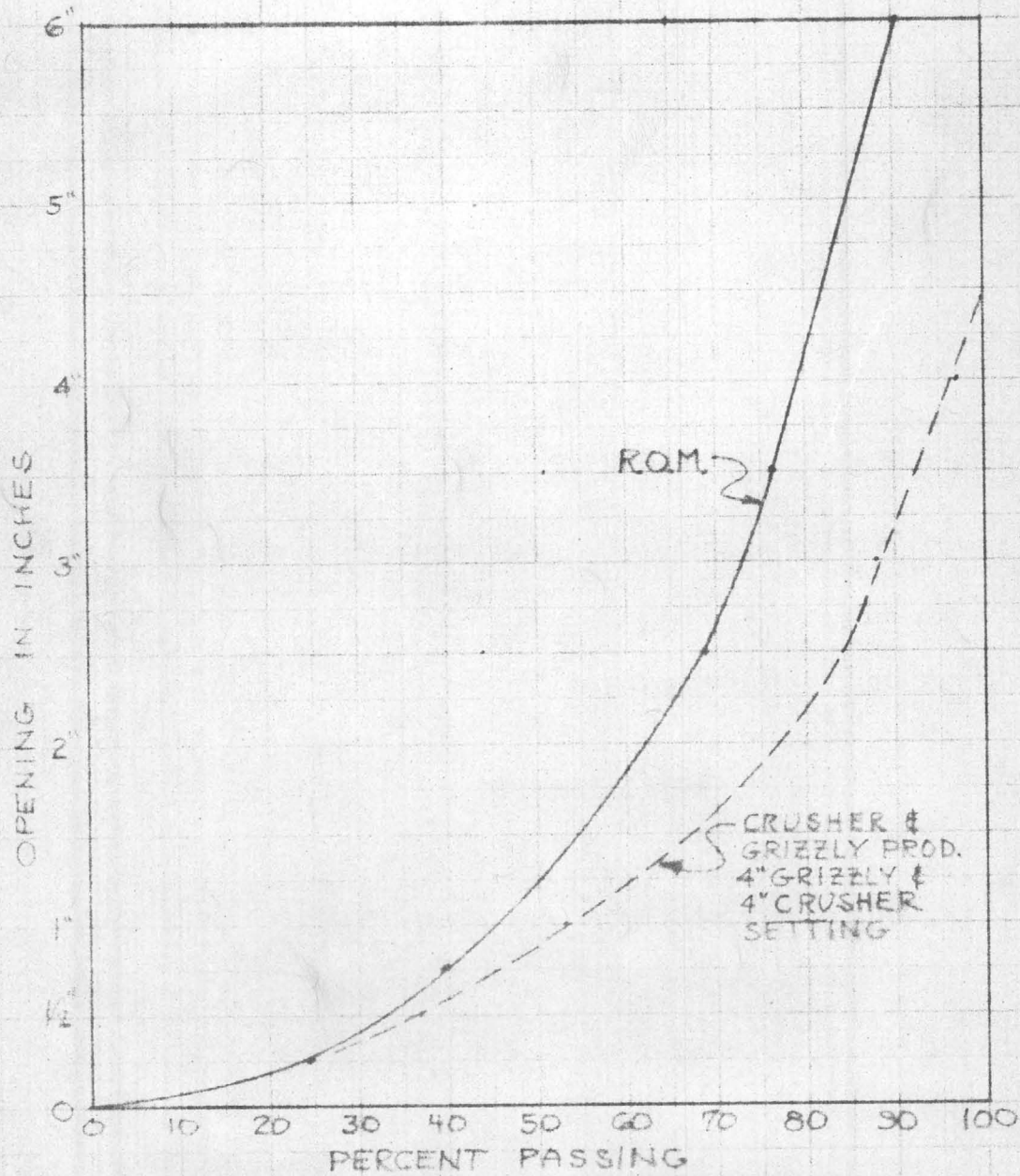
I believe this covers our concept of the plant. Please let me know if there are any additions or corrections.

Sincerely,

cc:
Ford
Mine

C.T. Vasilus

ZONIA MINE
SCREEN ANALYSIS
FEB 17, 1967



10/9/92

Memo

TO: A. Matthews, J. Smith, H. Matson, & Bradley

From: J. Petersen

Subject: Zonia Leach Dumps

On 8 October 1992 I examined the dozer trench cut into Zonia dump No. 8 (~~8~~ or 7?), the smallest of the three dumps. The trench cut the dump in a SE-NW direction across its width, and ranged from 9 ft ^{deep} on the SE to about 9 ft deep on the NW.

The trench was not deep enough to expose the liner. I have asked Ray Hill to ~~deepen~~ it on the SE where the heap overlaps the topographic slope.

The amount of Copper observed in the cut was quite frankly disappointing. The dump material appears to be substantially leached, ~~with~~ However, numerous larger pieces (approx. + 6") are incompletely leached with pockets of copper roughly in the center of the rock surrounded by a 1" \pm ~~shell of~~ Cu-poor, FeOx-rich reaction shell and an outer leached zone. In these pieces leaching has progressed 1/2" to 1 1/2" into the rock. This observation ~~suggests~~ indicates that pieces smaller than about 3" will have been completely leached.

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MEMO

To: Distribution
From: Russell Ailey
Date: October 13, 1992
Re: Zonia Project

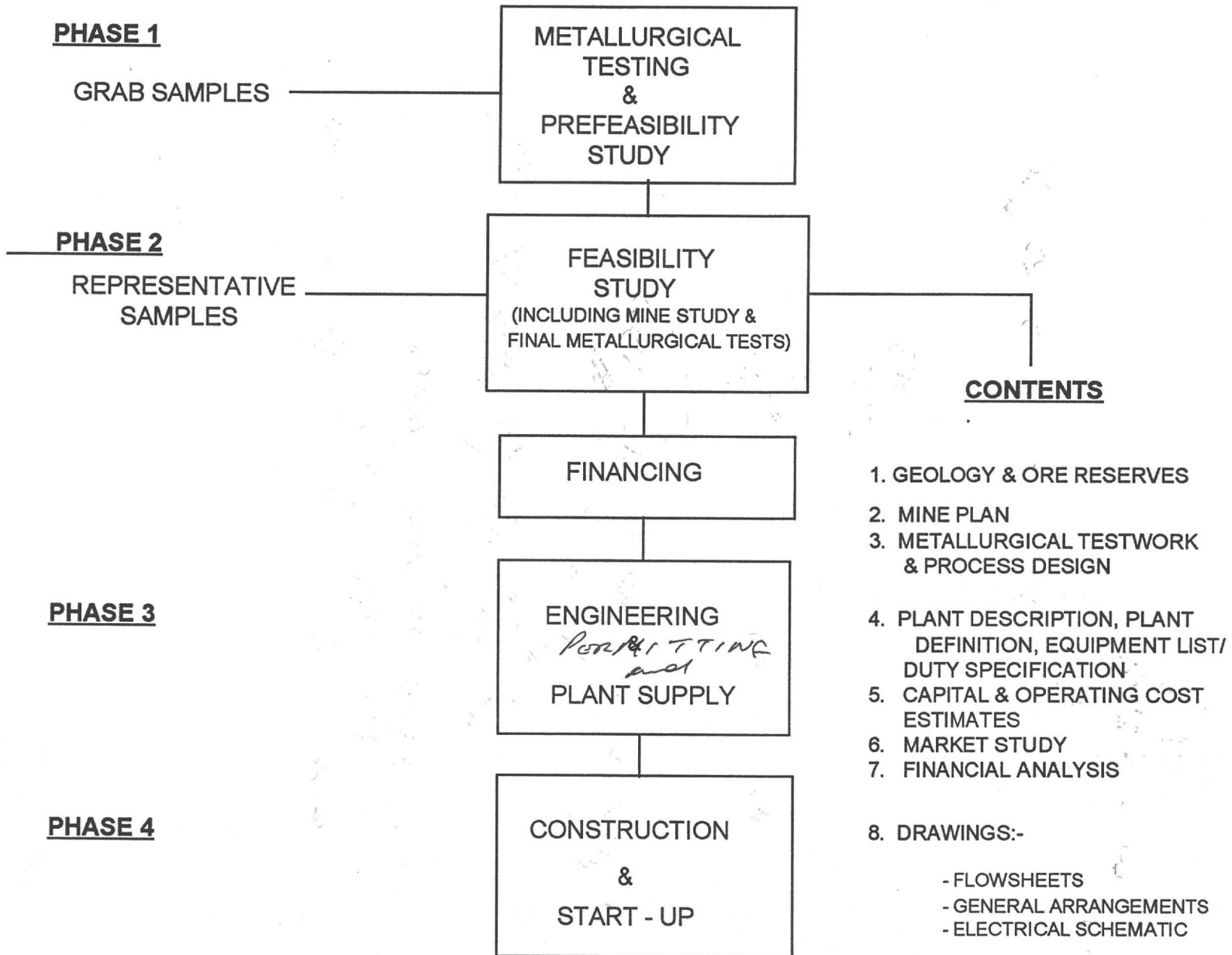
The following personnel are assigned to the Zonia project in the capacities designated:

Project Coordinator Alan Matthews
Mine Planning Ken Bradley
Geology John Peterson
Environmental Permitting/Property . Harrison Matson
Metallurgy & Process Testing A.J. Smith
Supervisor of Construction R. Schreider
Engineering Support . . . Western States Engineering

Please direct your inquiries relating to this project to Mr. Alan Matthews.

cc: H.R. Shipes
J. McKinney
K. McDonald
L. Heuberger
J. Lee
R. Moon

PROJECT DEVELOPMENT MINING PROJECT



10/5/92
A.J. SMITH

ZONIA PROPERTY
Idle Property Water Maintenance Recommendations

The E.P.A. has sited two areas of the property as problem areas requiring correction and maintenance. These problems are copper solutions not being contained within the #9 leach dump and the #5 and #6 in-situ leach dumps because of the high water levels under the dumps caused by heavy Aug./Sept. rains.

The #9 dump spillage is currently being worked by the property owner, Ray Hill, with an old, borrowed generator and a centrifical pump with a 10 H.P. motor pumping to sprinklers on the dump surface. This was a short term emergency solution which is adequate only as long as no further rainfall occurs. My recommendation is to lease a 50 amp generator and supply a 15 H.P. motor which is compatible with the centrifical pump. This will allow the borrowed generator to be returned before it burns up, and a much larger volume of liquid to be pumped for evaporation.

Long term we should investigate tying into the nearby public power line on site for a permanent power source. This will require transformers, poles, line, and a switch box and should only be considered when a permanent pump site is selected.

The #5 and #6 in-situ dumps have wells with submersible pumps and electric cable available which require installation to depths of 160 and 40 feet, respectively. Power is available , but pipe will have to be purchased.

Estimated costs for the tasks noted above are itemized on the attached sheet.

COST ESTIMATES

#9 Leach Dump Pumping

Generator, 80 K.W. (NEW)		
	Purchase	\$20,100.00
monthly rental (24hr./day; 80% applied to purchase)		2,340.00/mo.
Electric Motor, 15 H.P./480 V.		630.00
Shaft Pulleys (2) @ \$100 ea.		200.00
V-Belts (3) @ \$10 ea.		30.00

Total: \$3200 first mo.
\$2340 next 11 mo.

\$860.00 parts plus 2340.00/mo. lease purchase.

IN-SITU PUMP INSTALLATION

Pump Contractor Services 8hrs. @ \$50/hr.	400.00
Pipe-250 ft. of 4" Drisco @ 1.25/ft.	312.00
Molded 90 Elbows (2) @ \$50/ea.	100.00
Flange Adapters (2) @ \$30/ea.	60.00
Stainless Steel Cable 250' @ 2.69/ft. 3/8 diam.	675.00
Transition Fittings (2) @ \$100/ea.	200.00

\$1747.00