



CONTACT INFORMATION

Mining Records Curator
Arizona Geological Survey
1520 West Adams St.
Phoenix, AZ 85007
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

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Gold Standard Mines Corp.
P.O. Box 9006-KS
Bullhead City, Az 86430
(602) 754-2608

To: Las Vegas - Main Office

January 6, 1984

From: William Vanderwall
Tyro Project Manager

Subject: Production Projections, 1984.

Gentlemen:

While there is an ongoing need for production improvements at the Tyro Mine, enough data has been accumulated to tentatively project production for 1984.

Major improvements in water supply, mining methods and waste disposal along with general improvements in crushing, grinding and solution chemistry in 1983 has enabled continous production over sufficient time to develop relationships between hours of operation and recovered product. In this case ball mill operation time and precious metal produced. Under present conditions, of 300 TPD ball mill feed, 46.7 ounces of dore is produced per 24 hours of ball mill operation. Past experience indicates that, without unpredictable shutdowns, twenty - five days per month of ball mill operation can be expected. Therefore, monthly production in 1984 should average 1167.5 ounces of dore. Tyro dore is typically 22% gold and 77% silver with usually less than 1% impurities. The amount of gold produced per month is then 257 troy ounces; silver is 899 troy ounces. Or, in gross income per month (using \$375/oz Au and \$8.00/oz Ag) some \$103,567.00 is received.

Cost permonth, at the Tyro Mine, will not exceed \$100,000, including royalty and refinery charges, and a 5% contingency. Therefore, barring an unforeseen calamity, Tyro can be expected to operate at a small profit throughout the year.

Since monthly production depends on ore grade, recovery and number of tons processed, it is possible to increase production by raising the ore grade or increasing the number of tons processed, recovery being optimum at its present 84%. However, serious problems are encountered in either case.

Exploration and development data indicates that enough surface ore remains at the Tyro to provide ample tonnage to the mill throughout 1984 provided ore is selectively mined to produce an average grade of .07 ozs. Au/ton (current mill feed) and no more than 300 tons per day are mined. To increase grade would decrease tons remaining that are amenable to surface mining methods. Obviously, to increase tons processed would require additional tons mined and accomplish the same reduction in surface mine life.

Enough exploration data is available to indicate a substantial orebody exist underground at the Tyro which is not accessible by surface mining. The data indicates the ore amenable to underground methods contains values double that of currently mined surface ore and that considerably more ore is present underground than at the surface. It has been the intention of Gold Standard Mines to develop and mine this underground ore. Clearly, from the above discussion, during 1984, while we deplete the remaining surface ore, the underground orebody must be fully delineated, a long term mine plan must be established, equipment acquired and all preliminary mine development work accomplished. Coincidentally, it must be ascertained whether increasing mill capacity is economically sound and, if so, when this conversion should take place. A detailed evaluation - development proposal will follow this report.

UNDERGROUND EVALUATION PROPOSAL
TYRO MINE

Ongoing surface mining at the Tyro Mine has thoroughly delineated the surface extent and structural character of main Tyro orebody. Furthermore, data generated by the Equitable Corporation during the economic feasibility study conducted prior to reopening the mine, consisting of core drilling and detailed sampling of the underground workings, has proved the extension of the Tyro orebody from the surface to the 240' level.

As concluded in the Report on Production Projections, 1984, dated January 6, 1984, sufficient ore remains amenable to surface mining to satisfy mill requirements throughout the year. However, it will be necessary to evaluate and develop underground reserves with the intention to begin mining ore underground at year end. This will entail: 1. Establishing the underground extent of the Tyro orebody by additional core drilling. 2. Preparing a long term mine plan based on drill data. 3. Providing access to underground ore.

I. Establishing the underground extent of the Tyro orebody.

All available geologic data: surface mapping and sampling, shallow air-trac drilling, core drilling, underground mapping and sampling and geologic reports compiled by Camozzi (1979) and Blair (1979), have been critically evaluated and determined to verify the existence of 150,000 tons of ore amenable to surface mining methods and 175,000 tons amenable to underground mining methods. Of the surface ore approximately 70,000 tons were mined and processed during 1983 leaving 80,000 tons which will be sufficient for operations during 1984.

While the 1979 exploration and evaluation program confirmed the existence of reserves from the surface to the 240 level, no concerted attempt has been made to establish producible limits of the Tyro orebody. Mineralization at the 240 level is sufficiently strong to indicate the orebody extends beyond this horizon and faced with the prospect of developing an underground mine in 1984 it is necessary to determine the geometric configuration of the ore body. Toward this end, five core holes will need to be drilled. These holes will be so located to extend proven ore to the 540 level and increase reserves to one million tons.

Location of drill holes: Structural considerations.

Evident from the geological map (Illustration A) major, high-angle faults which displace the Tyro orebody are northwest trending and exhibit minor displacement (14'-23') and slight rotation (85° SE to 85° NW). Two major high angle faults are expressed in the existing pit area and break the orebody into large blocks southwest of the shaft and one low angle fault (30° SW) shears off the southwestern most block and effectively limits extension of the pit in that direction. It is possible that additional ore can be discovered down-dip of this fault but shallow, air track, drilling did not indicate mineralization. Considering this structural evidence it appears likely that any displacement of the ore zone below the 240 level would be northwesterly.

Therefore, holes Nos. 1 and 2 will be collared in the maintenance yard and drilled in a southwesterly direction inclined 45°. These holes should intersect ore at the 500 level and neither should exceed 600 feet in length.

The extension of ore northeast of the shaft as evidenced by surface expression and underground exposures appear not to be offset by post mineral faulting. The mineralization extends 750' in continuous outcrop feathering out toward the distal end. Two drill holes are recommended to delineate the orebody in this direction. Provided Hole No. 2 intersects ore at the 500 level, Hole No. 3 will test the northeast extension of ore at the 500 level. If Hole No. 3 is successful, Hole No. 4 will test the extension further northeast. If Hole No. 3 is unsuccessful, Hole No. 4 will attempt to ascertain the northeast limit of the ore by drilling closer to the shaft and at a shallower (300') level. Hole No. 3 should not exceed 750' and Hole No. 4 will be either 750' or 500' depending on its location. A fifth hole will be drilled southeast of Hole No. 1 to explore this area for a possible extension of ore, the location of the missing displaced block and the route of the proposed decline which is proposed to provide access to underground ore encountered by this drilling program. Hole No. 5 should not exceed 500 feet.

Total cost, including move in and set up charges, will be approximately \$50,000 plus assays.

The preparation of a mine plan and determining the most economical approach to underground mining at the Tyro cannot be accomplished without the information these drill holes will afford. However, the following mine plan is submitted for illustrative purposes.

Mine Design, Feasibility and Costs on the 240 Level - Tyro Mine

The drawing below shows the layout of the Tyro. Two mining areas exist and will henceforth be called the North Block which comprises 50 to 150 thousand tons of - 0.10 oz./ton gold ore located north of the Tyro shaft from the north pit wall to the top of the mountain and the 240 Block which comprises 125 to 200 thousand tons of - .13 oz./ton gold ore located south of the Tyro shaft between the 240 level and the existing pit ffoot.

It is anticipated that additional ore will be found north of the shaft below the north block and south of the shaft below the 240 Block.

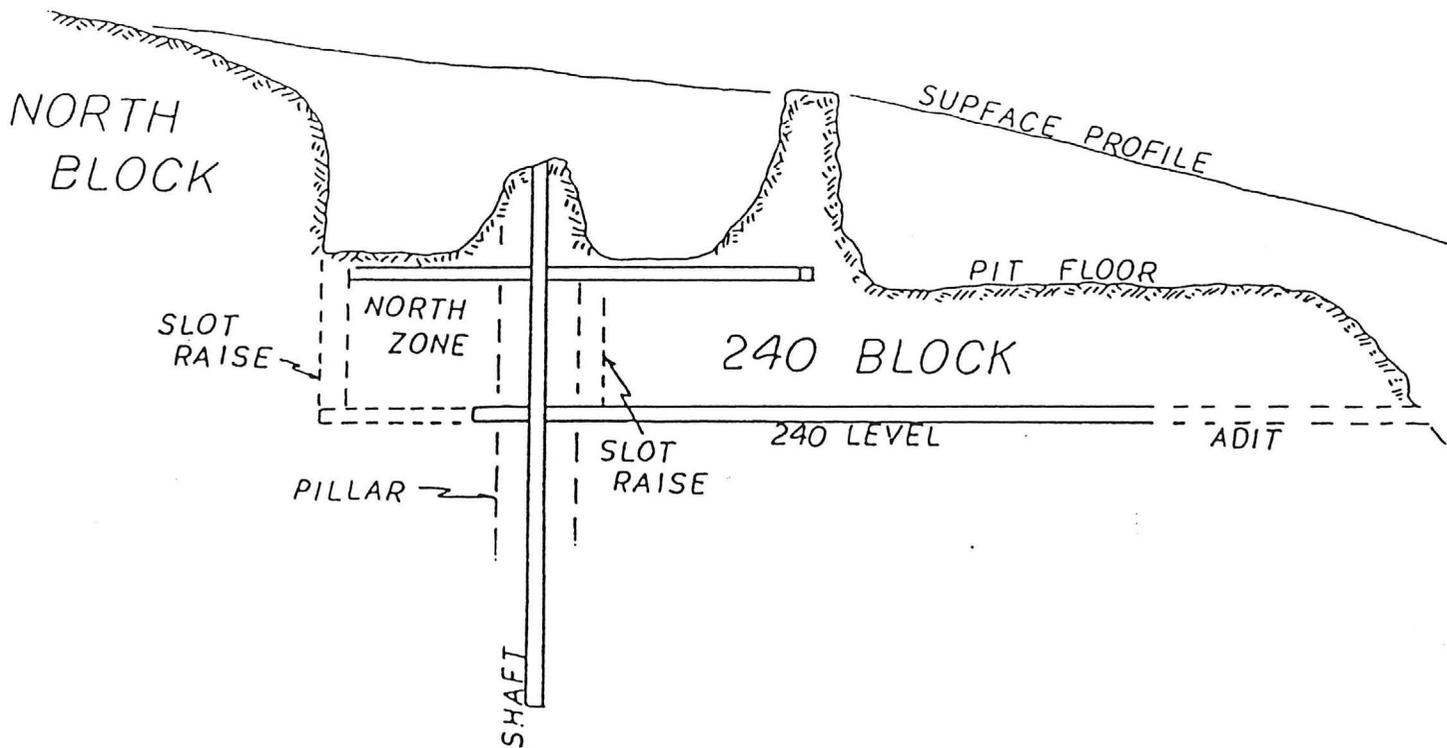


FIGURE 1
FACING EAST

Mine Design

Phase 1: Access and Development: North Block

This phase consists of access to existing 240 level as previously discussed via a 500' adit. Most of the material will be waste.

In addition, the existing 240 level will be widened to accomodate mechanized equipment and rail haulage. This will involve slashing about 10,000 tons of ore in the 240 block and extending the 240 level north for 120 feet to undercut the 240 north zone as shown on the preceding drawing.(fig 1)

A train loading area will then be excavated north of the shaft and a slot raise driven at the north end of the 240 level - see drawing below:

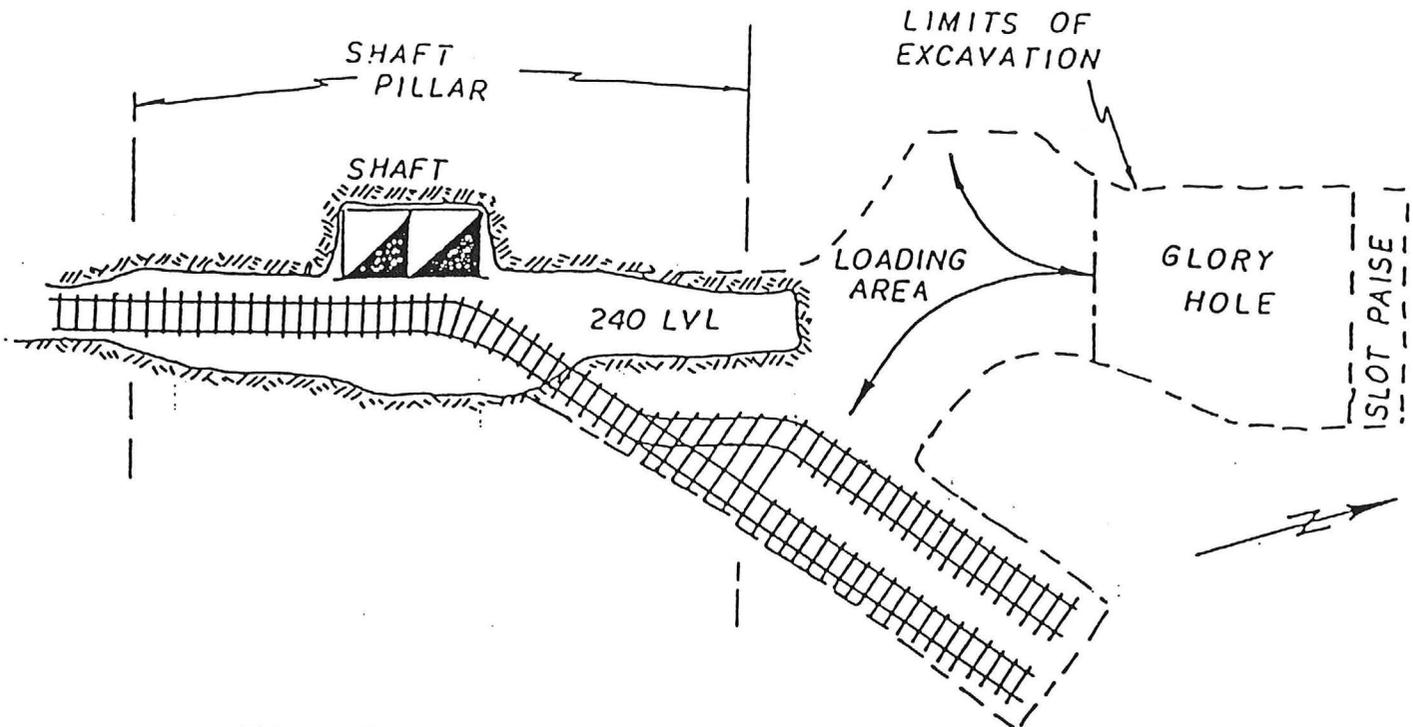


FIGURE 2
240 LEVEL - NORTH

From the slot raise in the north pit on the 150 level, approximately 30,000 tons of unclassified material (geology indicates ore) will be drilled from the pit floor and the resulting excavation will form a glory hole which will be used to provide feed from the North Block to the 240 level, assuming that the 130 level plan is not executed independently. The 30,000 tons is defined as the 240 North Zone on figure 1.

The North Block can then be drilled, blasted and dropped into the glory hole from which it will be loaded into ore trains on the 240 level and hauled to the Tyro Mill.

While the North Block is being mined the 240 block can be developed.

Phase 2: Development of the 240 Block

Phase 1 provides immediate access to the North Block - which assuming 100,000 tons available will provide for 100,000 divided by 500 = 200 mining days = 40 weeks of mill feed @ 500 tons per day, mining 5 days per week.

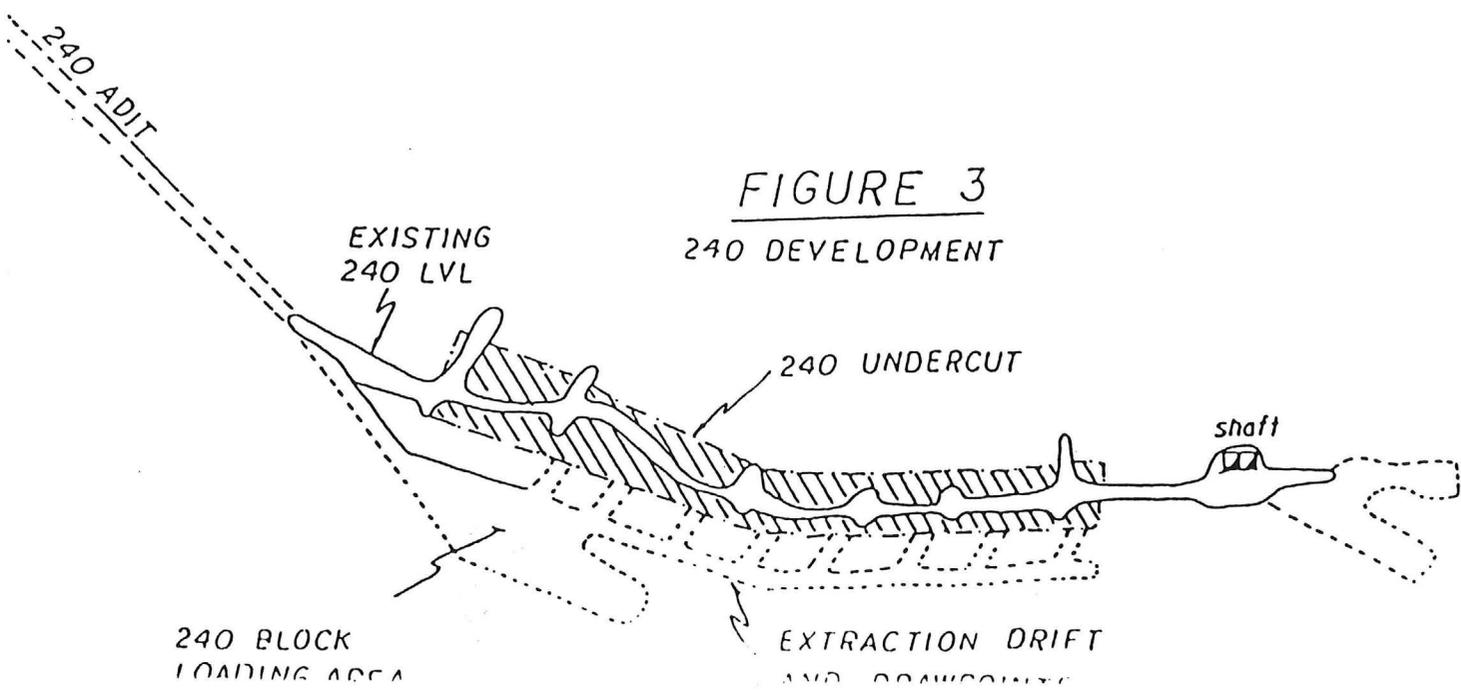
This ± 40 weeks will provide more than sufficient time to develop the 240 Block.

The only logical method available to mine the 240 Block is to drill it out from the pit floor, breaking from a slot raise (see figure 1) and mining from this raise in a southerly direction.

Again, the broken material will be pulled from the 240 Block utilizing a load haul dump (LHD) into ore trains, which will dump ore at the Tyro Mill.

In order to provide efficient and available draw from the 240 Block, an extraction drift will have to be driven - parallel to the 240 level.

This extraction drift and corresponding draw points will comprise approximately 5000 tons of low grade ore in order to draw ± 200,000 tons of ore grade material - see drawing below (figure 3).



The 240 Block development work will comprise approximately 1000' of drifting equivilient.

While this development work is being done, the North Block ore can be mined and hauled without interruption.

When the North Block is exhausted, the 240 Block will be mined simply by driving a slot raise contiguous to the south shaft pillar and commencing blasthole drilling.

Figure 4 shows the type of drilling that will be used for the 240 & the 240 North Zone.

Using a down the hole drill, approximately 675 tons per shift can be drilled out. Depending on mill requirements, drilling can be done throughout any predetermined time to provide tonnage needed.

Conclusion

Phase 1 & 2 will provide 500 ± tons/day to the Tyro Mill within 90 days of commencement.

Following this design layout - will be a breakdown of costs:

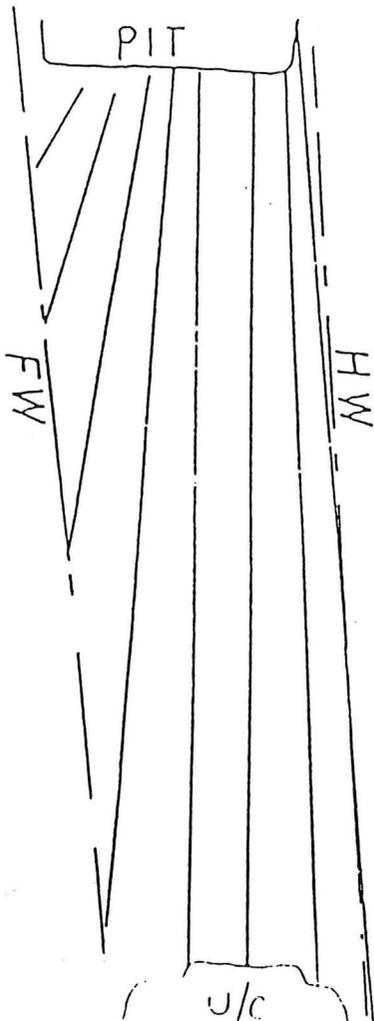


FIGURE 4

Phase 1 North Block Development

240 Adit Evcavation

Assumptions

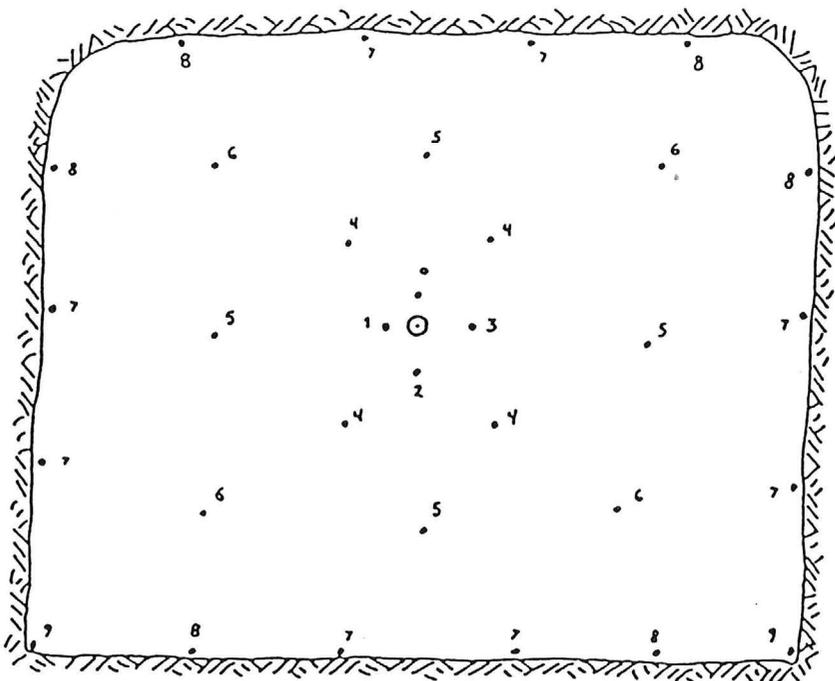
- (1) Drive will be at $\frac{1}{2}\%$ upgrade to accomodate rail.
- (2) Minimum section is 8' x 8' and should be 10' wide x 8' high.
- (3) Drive will be with 2 cubic yard LHD and 2 boom pneumatic jumbo.
- (4) 500' assumed to reach ore zone.
- (5) Development equipment will be used for mining purposes later.

Assuming the adit is driven 8' x 10', the 500 feet of excavation will produce
(500) (8') (10') (1.4 swell) = 56,000 cubic feet of broken material = 3333 tons.

Advance Cycle

After the highwall is finished and the portal opened up and timbered, daily advance will be subject to the following cycle:

Drilling: 33 holes - 10' deep - should break - 9' round.



Each round consists fo 1 or 2 nominal 3" diameter drill holes surrounded by a pattern of 32 - 1 3/4 diameter holes as shown in the drawing.

Drilling time: (a) 2-3" diameter holes @ .3 hour (b) 32 - 1 3/4' diameter holes drilled @ 90' /drilled/hour = 1.78 hours each hole requires $\frac{1}{2}$ minute to collar and blow = .27 hour. Set - up time = .33 hour. Total drillout = (.3) ± (1.78) + (.27) + (.33) = 2.68 hours.

While Blasting and Ventilation will require 1.5 hour.

Haulage

An 8' x 10' heading will produce 80 cubic feet of rock per foot of drift, if a 10' round breaks 9', then each round will produce 720 cubic feet which will swell about 40% and produce 1008 cubic feet of broken muck, or 37.3 cubic yards.

A 2½ cubic yard capacity mucker will take (37.3) divided by (2.25) = 16.78 or 17 loads to clean out a blasted round.

Average haul distance will be 300' one way or 600' round trip. Assuming 20 seconds to load and 10 seconds to unload and a tramping speed of 6 mph gives a mucking cycle of (600') divided by mph (5280 ft.) + .5 min. = 1.64 minute per round trip.

Full clean up or 17 loads will be (1.64 (17) = 27.8 min. or .46 hours.

Then theoretically an average round of 9' will take 2.68 hours drilling + 1.5 hour blasting and ventilating + .46 hour to muck out = 4.64 hours.

In a 8 hour shift of 5 useable hours, then a 9' advance is capable.

The 500' of heading will require:

(500) divided by (9) = 55.56 or 56 shifts. By running 6 days/week - 2 shifts/day the 500' could be completed in 5 weeks.

All other activities, i.e. installing pipeline and ventilation ducting; pumping; maintenance and servicing should take place while mucking, drilling or blasting cycle are taking place.

A single heading crew should consist of 2 miners and 1 mechanic. The mechanic should service and maintain equipment while not in use and one miner will drill or muck while the other is moving utility lines.

It is important to remember that this rate depends on good organization and motivation and 100% availability of equipment and materials.

Typically an average crew at an average mine will produce half that rate or less - due to the lack of any or all the necessary condition listed.

Development of Costs (500' Adit)

Labor : At 9' per round with a 3 man crew per round per shift.

Labor cost= (\$12) (3) (8) = \$288 divided by 9 = \$32/ft. for labor

Explosives: For a 9' round, drilled 10' deep with 32 - 1 3/4" diameter holes -

calculated for each round: (a) Priming: 32 sticks - 1¼" x 8" 75% gelatin

dynamite @ 210 sticks/cwt = 0.15 cwt @ \$91.00/cwt = \$13.65

(b) Detonators: 32 each lp nonels with 12' legs

@ \$130/00 = 32/100 (\$130) = \$41.60

50' of E cord @ \$64.10/ 1000' = 3.21

10' of safety fuse 1.75

2 each # 6 fuse caps @ \$24.00/100 = .48

Total for Detonators

\$47.04

(c) Primary explosive: Bottom 6 holes will use 40% dynamite.

6 holes x 8' = 48' hole. Using 1¼" sticks, each foot will take 1.56 lb. =

74.88 lb. @ \$91.00/cwt =

\$68.14

Remaining 26 holes will use ANFO @ \$1.04 lb/ft = (26) (8) (1.04) = \$216.32 lb +
10% waste = 238 lb @ \$13.00/cwt = \$30.93

Total explosives cost for a 9' round drilled 10', 10' wide &
8' high=

impost averages 3½% =	\$159.76
± 5% State tax =	5.60
Total/round =	8.00
	&173.36

Cost/foot for explosives = \$19.26

Utilities

(a) Water - to be pumped from the bottom of the shaft to a tank uphill from
the adit and gravity fed to the face through a 2" line.

Assumed: Pipe, tank and pump available.

Costs: Labor - 15 manshifts for installation = (\$12) (8) (15) = \$1440.00 =
\$2.88/ft. deferred against 500'.

Pumping costs will be diesel fuel and maintenance used for running the
generator: \$5.00/ operating hour. Each hour will pump 30 gallons and usage
will be 150 gallon/shift or 3 hours = \$15.00 per 9' round = \$1.67/ft. for water.

(b) Compressed Air: Assuming the use of a nominal 1500 CFM portable compressor
located near the portal and running 4 hours/shift. Cost per operating hour=
\$30.00 = \$120 for a 9' round = \$13.33/ft.

(c) Ventilating Air: 16,000 CFM running 8 hour/shift. Primary cost is for
electrical power. Fan will draw 20,000 watt or consume 20 kw/hr = 160 kwh
@ 8¢/kwh = \$12.80/shift or \$1.42/ft.

(d) Pumping: Other than for providing water for drilling which has already
been covered, no groundwater pumping is anticipated since the adit will be
driven @ ½ % upgrade, which will allow for water drainage.

(d) Electrical: For the initial 500' no primary electrical power will be
required, pumping & ventilation can be handled using one 25 to 30 kw portable
generator - assuming the pump and fan are operated at different times.
The water tank should be provided with a manual start and a high water automatic
shut off.

Total utilities = \$16.42/ft.

Materials

(a) Pipe: Needed - 500' of 4" compressed air pipe @ \$3.80/ft. = \$1900.
500' of 2" pipe @ \$1.29/ft. = \$465. 4" couplings and fittings = \$750.00.
2" couplings, fittings, etc. = \$417.00.

Total: \$3712.00 = \$7.42/ft.

(b) Hose and Fittings: 1" and 2" bullhose, clamps, stems, wing nuts, air and water
spuds, whipchecks @ \$3500 = \$7.00/ft.

(c) Ventilation Materials: 24" axivane fan @ \$3500, 500' of 24" vent tube
@ \$165/100' = \$825.00, adapters and fittings - \$ 250.00 Total \$4575 = \$9.15/ft.

(d) Drill Steel & Bits: 12 each - 7/8 x 10' steel @ \$80.00 each = \$960.50 each -
1 3/4" bits @ \$12.50 each = \$625. 5 each - 1 3/8" bits @ \$11.25 each = \$56.25.

Total = \$1641.25 = \$3.28/ft.

(e) Timber: For portal and miscellaneous usage: 8000 board feet @ \$415/1000' =
\$3320 = \$6.64/ft.

(f) Miscellaneous: Includes - messenger cable for hanging utilities; miners
lamps, self resuers, belts, hats, glasses, earplugs; wire mesh for ground support,
scaling bars; tools - such as chain saw, hammers, spud wrenches - Assumed
@ \$5000.00 = \$10/ft.

Total materials: \$43.49 ft.

Equipment Operating Costs

(a) Nominal 2.5 cubic yards LHD: Rated same as a 4 cubic yard surface loader for
maintenance costs = \$28.00 per operating hour. The machine will be used approximately
4 hours per shift = \$60/shift @ 9'/shift = \$6.67/ft.

The forgoing costs include all anticipated expenses to be incurred on a 500'
drive excepting portal prep which I assume @ manshifts = \$960.00 + equipment
operating costs of \$ 2400.00 and explosives = \$350 or a total of: \$3710 = \$7.42 ft.

Total expenses for 500' drive are summerized at -

Labor:	\$ 32/ft.
Explosives:	\$19.26/ft.
Utilities:	\$16.42/ft.
Materials:	\$43.49/ft.
LHD Operating Costs:	\$12.44/ft.
Jumbo Operating Costs:	\$ 6.67/ft.
Portal Prep:	\$ 7.42/ft.
Total cost/ft. =	<u>\$137.70/ft.</u>

or total expenses of (137.70) x (500)' = \$68,850.00.

These are direct expenses and include no capital items. Equipment to drive the
heading includes:

- (1) 1-2.5 cubic yard LHD
- (2) 1-2 boom pneumatic jumbo
- (3) 1-1500 CFM compressor
- (4) 1-air receiver tank

Once the equipment and materials are available, the entire project will take:

- | | |
|-------------------------------|----------------|
| (1) Mobilization and training | 2 weeks |
| (2) Portal prep: | 1 week |
| (3) 500' drive @ 18' day | <u>5 weeks</u> |
| Total | <u>8 weeks</u> |

These figures can be used for additional drifting \pm 20% depending on the
exact nature of the activity.

North Block Development

After the 240 adit has been opened up to the existing 240 level, a portion of the 240 Block should be excavated and a railroad grade cut from the portal to the mill. Track can then be laid and all subsequent excavated materials shipped to the mill via ore train. Figure 5 shows the general layout underground for this plan.

Once the track is laid, the 240 Block can be undercut and the 240 widened and extended to below the 240 North Zone (Figure 2) and a train loading area excavated adjacent to the 240 North Zone.

Lastly, a slot raise will be cut and the North Zone drilled and blasted to from a glory hole from which and LHD will load the ore trains.

North Block Development - Cost Breakdown

(1) Slashing on the 240 and temporary loading area: 7050 cubic feet of excavation @ \$10.46 cubic feet = \$3243.

(2) Surface railroad grade: Using a cat, drill and grader - the 1500' of cut and fill work will take 20 manshifts and 10 equipment shifts or:

Labor-	(20)	(8)	(\$12)	=	\$1920
Equip-	(10)	(8)	(\$40)	=	3200
			Total		\$5120

Rail Installation

To the 240 South - 2150' of 40'lb rail with ties on 36" centers laid with ties on 300'/day = (2150) divided by (300) = 7 days x 4 = 28 manshifts = (28) (8) (\$12) = \$2688.

Materials for dump area assumed at \$3000 (timber/steel/hardware)

Labor at 12 manshifts = (12) (8) (\$12) = \$1152

Equipment Operation (front end loader)

10 equipment, shifts = (10) (8) (\$22) = \$1760

Total expenses for rail installation @ \$8600.00

240 Undercut

10,000 tons (120,000 cubic ft.) slashed at \$0.69/ cubic ft. = \$82,800 (includes haulage to the mill.)

240 Extension and loading area for drifting and slashing: \$39,984*

Total development expenses for 240 North Block excluding slot raising and glory hole @ \$139,747.

* Costs based on calculations for 240 adit and a factor of 2/3 applied.

North Zone Development

Initially a raise must be driven from the 240 level to the north pit a distance of 110'. This raise can be drilled out from the pit area and drop blasted using longhole or vertical crater techniques to preclude the hazardous method of bald head raising and the use of timbered supports that are needed to do that.

Drop blasting a nominal 8'x8' raise will cost about \$80.00/ft. or \$8800.

Once the raise is completed it can be widened using a surface drill into a slot raise. The slot can then be widened into a glory hole.

Total tonnage to be drilled is 35,000. The drill can produce 400 tons per machine shift at an operating cost of \$30/hour = \$240/shift = \$0.60/ton - labor at (8) (\$12) = \$96 = \$ 0.24/ton.

Total cost/ton drilling = \$0.84.

Blasting at .5lb/ton for explosives @ \$0.25/lb = \$0.13/ton

Labor for blasting @ \$0.15/ton

240 North Zone Rail Installation

After the north slot raise is completed rail can be extended through the 240 undercut to the train loading area at the 240 North Zone. This will require an additional 800 feet of 40lb rail plus a switch. Installation will cost - \$4.00/feet = \$3200.

North Zone Development costs less haulage, capital, maintenance and supervision:
\$51,200 = \$1.46/ton

Haulage Costs for North Block

For quick efficient haulage from the bottom of the glory hole, the 2.5 cubic yard loader can be used to alternately load 2-6 car ore trains.

The haul distance for the LHD will be less than 200' round trip. Each car holds 2 buckets or each train 12 buckets requiring 12 trips.

At 5 mph = 440 ft./min./each trip takes - .5 minute and at .5 minute to scoop material and .5 to dump = 1.5 min/trip or 18 minutes per train load.

With an 8 ton loco, the train must travel 3000 feet one way at 440 ft./min.= 6.8 min. x 2 = 13.6 ± 1 = 14.6 minutes round trip ± .5 minute each to dump cars= 3 min. or a total of 17.6 minutes per trip.

This allows one train to haul every 18 minutes after the first train is loaded out.

Assuming a useable haul time of 5 hours = 300 minutes - 18 for the first load gives total possible trips of 282 min. divided by 18 = 15 per shift of 5 useable hours.

15 x 6 = 90 cars/shift of 8 ton capacity each = 720 tons/shift possible. But only 550 will be available.

Cost Less Capital Items

- (1) Locomotive and car operating costs assumed @ \$15.00/hour for 8 hours = \$120/shift.
- (2) Labor \$288/shift (3 men)
- (3) LHD operating cost @ \$25.00/hour = (\$25) (8) = \$200

Total = \$608.00 = \$1.11/ton

Maintenance and Supervision

For either production or development this is a fixed cost @ \$2285/wk.

Summary - North Block Development

Excavation

240 South (590 tons)	\$ 3,243
240 Undercut (10,000 tons)	82,800
240 Extension (3000 tons)	39,984
North Raise	8,800
Slot & Glory Hole (35,000 tons)	39,200
48,590 tons @	\$174,027

Surface Grade & Track

Surface Grade	\$5,120
Rail to 240 South	2,688
Dump Area	8,600
Rail to 240 North	3,200
Sub Total	\$193,635

Maintenance and Supervision @ \$0.97/ton.....	47,132
Haulage @ \$1.11/ton.....	53,934
	\$294,701

or \$6.06/ton less capital costs

North Block Mining

Production	\$1.14/ton
Maintenance & Supervision	0.97/ton
Track Haulage	1.11/ton
Total	\$3.22/ton

Less capital expenditures

240 Block Development

While mining is taking place in the North Block and ore taken from the glory hole and hauled to the mill via the 240 undercut, the 240 block can be prepared and developed.

This will consist of driving an extraction drift in low grade ore parallel to the 240 undercut and cutting drawpoints periodically. It will also require a train loading area at the south end of the 240 level (see figure 3).

A raise will be required south of the shaft pillar which will later be enlarged when the ore in the North Block is exhausted at which time the 800 feet of rail will be pulled from the North Zone and the south loading area finished.

240 Block Development Costs

Extraction drift & drawpoints - 550' of drifting @ \$137.70/ft. = \$75,735.
Train loading area 80' of drifting @ \$137.70/ft. = \$11,016 = 8000 cubic feet of slashing @ \$0.46/ cubic feet = \$3680.

110' of 8' x 8' raise @ \$80.00/ft. = \$8800
Rail removal and installation in the 240 South = \$3200
Total: \$102,431

Ore and low grade removed in this stage will be:

Extraction Drift (400) (10) (8) divided by 12 =	2667
Drawpoints + (150) 910) (8) divided by 12 =....	1000
Train loading + (80) (20) (8) divided by 12 =..	1067
Raising = (8) (8) (11) divided by 12 =	587
Total	<u>5321</u> tons

Development costs will be \$19.25/ton

240 Block Mining

Production\$1.14/ton
Maintenance & Supervision . 0.97/ton
Track Haulage1.11/ton
Total \$3.22/ton

Less capital expenditures

Capital Expenditures

1 each DTH drill or equivalent
2 each 2.5 cubic yard loaders
1 each 2 boom pneumatic jumbos
1 each 8-10 ton locomotive
12 each - 5 cubic yard granby cars
40 tons - 40 lb. rail + accessories
20,000 board feet - ties
1 each 1500 CFM compressor
1 each receiver tank
2 each - 20,000 CFM fans
Electrical substation

Modification and Expansion
of Tyro Mill, Katherine District,
Bullhead City, Arizona

PREPARED FOR

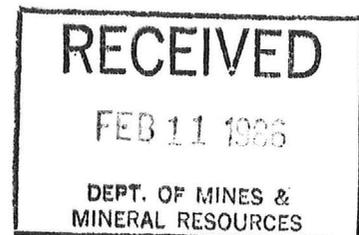
TYRO MINE



Moos/Miller Engineering, Inc.

Tucson, Arizona

August, 1983



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Introduction:

In accord with a request by G.L. Miller of Miller Sales and Engineering, Consultant visited the Tyro Mine on 15 August 1983. Purpose of the visit was to examine the milling plant with particular emphasis on the crushing and grinding sections and make recommendations for:

1. Plant modifications necessary to increase throughput to 500 SDTPD with a potential for going to 600 SDTPD.
2. Modifications to improve operating efficiency of existing equipment.

The major constraint issued by Client to Consultant for preparation of these recommendations is budgetary. Consultant was asked to try to work within the parameter of \$115,000.00 total available funding. You will note in the cost summary that the tonnage increase cannot be achieved within this limitation without seriously compromising the recommended flowsheet.

Appreciation is expressed to Bill Vanderwall, Dan Crackel and other personnel involved for their courtesy and hospitality in showing us the mine and mill facilities and otherwise assisting in providing data necessary for this report.

Summary:

Obviously, maximum tonnage throughput is the key to maximizing production and minimizing unit costs in order to realize maximum return on investment. However, with only about 2.5 years reserves at a cut-off grade of 0.07 oz. gold this increases amortization costs accruing to capital investment for equipment necessary to expanding mine and mill tonnage.

It would appear to Consultant that concurrently with the expansion program, a drilling program be initiated to develop additional reserves. Although a reasonable profit can be obtained by operating at 500-600 TPD, the overall picture could be significantly improved by ensuring a longer life of the operation.

Generally speaking, the existent mill equipment provides a satisfactory base on which to build an adequate 500-600 TPD operation.

A. Crushing Plant:

1. The ideal crushing circuit would involve the addition of a 3' Symons Cone Shorthead as a tertiary crusher operating in closed circuit with a finishing screen to provide an 80% $-\frac{1}{2}$ " product to the fine ore bin at a rate of 500T/8 Hours. At 80% $-\frac{3}{8}$ " product this rate could be increased to 600T/8 Hours. See Dwg. MM-01-102 for this dashed-in option. However, a good used, reconditioned 3' Shorthead would cost about \$35,000.00 plus freight and installation. This cannot be considered within the budgetary limitation.
2. As a compromise, it is recommended that the crushing rolls be eliminated and the 36FC Gyrasphere operate in closed circuit with a $\frac{1}{2}$ " finishing screen to produce 500T/8H.

B. Grinding Section:

Three options were considered to achieve the throughput desired under the design criteria.

1. A rod mill-ball mill circuit which requires acquisition of a rod mill plus existent ball mill.
See Dwg. MM-01-103.

2. Single-stage grinding, adding (2) mills to existent mill. See Dwg. MM-01-101.
 3. Two-stage grinding using an additional (2) mills for primary grinding and existent mill for finishing.
1. A rod mill-ball mill circuit provides lower operation and maintenance costs than single-stage ball mills. Only one set of ancillary equipment such as belt ore feeder, cyclones, cyclone feed pump, weigh feeder and lime and cyanide feeders would be required - in contrast to (3) sets of this equipment for (3) ball mills. On the negative side, the entire grinding circuit would go out of production when either mill was down for maintenance. Only a part of the production is lost when one of three ball mills is down - proportionate to power draw on the mills. Capital cost saving on the RM-BM ancillary equipment does not fully offset the difference in cost between the rod mill and the (2) Hardinge ball mills.
 2. Excess power is available from the (3) BM circuit, giving you several advantages. At 500 TPD, the mills can operate @ 78% FL capacity, providing benefits through reduced operating and maintenance costs. Additionally, the options are available to increase tonnage throughput while maintaining grind; or main-

taining tonnage and grinding to a finer product if this would provide metallurgical cost benefits downstream.

3. Two-stage grinding with (3) ball mills offers no advantages. The 7' BM with rubber liners could only be used for finishing because a coarser feed to increase tonnage could cause problems with the rubber liners.

I. Crushing Plant Details

ROM: minus 24"

Feed to jaw crusher: minus 20"

Jaw crusher product: minus 3"

Gyrasphere product: minus $\frac{1}{2}$ "

Rate of feed: 500T/8 Hour

Stockpile capacity: 300T (100T live load)

A. Coarse Ore Bin: .

It is recommended that this bin be constructed with approximately 40T capacity of -20" material. ROM @ -24" would discharge to a top-mounted grizzly with 20" spacings (use 60-90# rail) +20" material would be broken between truck loads. The use of a 50T truck does not appear justified in a plant of this size. Multiple 20T units would

provide more flexibility. With (3) units only 1/3 of the tonnage would have to be made up when a unit was down for emergency maintenance. A good used 20T dump truck could be acquired for about \$25,000 vs. about \$75,000 minimum for a 50T unit.

This bin should be moved to the southeast as shown on Dwg. MM-01-101 to line it up with the Gyrasphere center line. The discharge opening should be approximately 24" sq. to avoid plugging by slabs.

Bin discharge should be over a vibrating grizzly feeder to screen out the -3" materials, reduce the load on the jaw crusher and provide a constant rate of feed to optimize crushing plant operation.

B. Jaw Crusher

Replacement of this unit cannot be justified with your limited budget. I understand that the fabricator of your existent crusher has quoted approximately \$19,000 for rehabilitation of this unit.

A good used 24"x36" crusher would cost approximately \$45,000. This unit can be rated at about 80 TPH on your hard ore with a 3" min. discharge setting which will handle up to +600T/8H.

C. Secondary Crusher

The 36FC Gyrasphere will handle about 62 TPH with a 5/8" discharge setting. Operating this unit with one of your vibrating screens in front of it to screen out -5/8" material will provide 59 TPH feed to the crusher based on 600T/8H through the crushing plant. Discharge from this unit would feed a finishing screen with ½" sq. openings with +½" returning in closed circuit to the unit.

See Dwg. MM-01-101

D. Crushing Rolls

This unit is inadequate in the crushing plant flowsheet for a 5-600 TPD throughput. It will not handle the tonnage and will continually cause spills from overloading. The fine product that can be produced depends on a limited feed tonnage (250-300 TPD). Additionally, with this hard rock the rolls will continually wear and open up. Consultant recommends that they be removed and replaced by the closed-circuit Gyrasphere-finishing screen which will produce an adequate product (-½") to the fine ore bin at the projected tonnages.

E. 4'x8' Vibrating Screens

These units should have adequate capacity for $\frac{1}{2}$ " screening before and after the secondary Gyra-sphere. Both screens should be installed inclined at approximately 20° .

F. Stockpile

As shown on Dwg. MM-01-102, Sections B & C, final $\frac{1}{2}$ " product from the finishing screen will discharge directly to the existent stacking conveyor boot for discharge to the stockpile. A 300T stockpile with a 100T live load should be maintained. This will serve as backup tonnage to the fine ore bin and provide a total of approximately 800T total tonnage for grinding section feed (approx. 36 Hours operating tonnage).

G. Modifications to Transfer and MainBelt

These modifications to stockpile transfer belt and main belt to fine ore bin will avoid spillage in transfer belt tunnel and main conveyor boot.

Spill and jamming of the belt in the tunnel will be reduced by eliminating the feeder and replacing it with a gate and chute direct to the conveyor. A rotation switch on the tail pulley (cost about

\$450) of the conveyor would stop the feeder if the conveyor jammed. However, this feeder is not needed if a fine ore bin is added.

Spill at the discharge end of the tunnel conveyor can be improved by extending the tunnel conveyor head pulley north about one foot. A retaining wall should be built to form a deeper pit and protect from storm runoff. A drain or sump for use with a small pump or air ejector should be provided.

H. Feed to fine ore bin

In order to gain elevation for feeding the fine ore bin, the main belt should be extended to the east and an additional scissors conveyor receive discharge from the main belt at a transfer point to feed the bin. See Dwg. MM-01-102, Section A. A weigh scale should be installed on main belt for accurate recording of crusher plant throughput.

II Grinding Section Details

The existent 7'x18' AC, 400 HP BM plus (2) 10'x48" Hardinge BM's each w/225 HP would be erected in parallel as shown on Dwg. MM-01-101.

Design Criteria:

Feed 80% - $\frac{1}{2}$ "

Product 80% -200m

Wi -20

Total HP available 850

Calculated Kwh/T - 21.5

Option 1: With max. ball loads and FL power draw, these mills will produce 644 SDTPD (708 TPD corrected by inefficiency factor of 1.1) with an 80% -200m product.

Option 2: At 500 TPD operation, producing an 80% -200m product, these mills can operate at 78% FL power draw with a reduced ball load.

Option 3: At 500 TPD, operating at FL power draw w/max. ball load the mills can produce an 80% -235m product.

A. Fine Ore Bin: A 28' dia. x 24' H steel ore bin with 1/8" steel plate shell and flange rings at top and bottom should be field erected on a concrete pad bottom to provide 500T live load storage capacity. This unit can be contracted with a steel fabricator for erection at site.

B. Belt Ore Feeders: (3) 24" feeders should be provided to receive $-\frac{1}{2}$ " material from the fine ore bin and individually feed the (3) ball mills. Access to these feeders will be obtained by concrete tunnels below the bin. Variable speed drives should be used in order to maintain throughput by increasing tonnage to the remaining (2) mills in the event of a shutdown of one of the mills for maintenance. Under these circumstances, tonnage might have to be sacrificed to maintain grind or vice versa.

C. Weigh Scales:

For accurately determining grinding section throughput, a scale should be attached to each belt feeder

D. Ball Mills:

Each mill would discharge to a cyclone feed sump. Access to each mill for mobile crane or forklift for ball charging or other maintenance is ensured as shown on Dwg. with reference to existent ball mill.

Scoop bottom is wearing out. Rubber lining and a bolt on bottom section would cut maintenance.

The discharge sump is much too large, containing a couple of tons of mud which can collapse and plug the discharge. The size should be reduced or the dead area baffled off.

E. Lime Feed:

Ideally, your lime should be slaked and fed as milk of lime on a metered basis. To reduce capital investment at this time, individual, disc-type lime feeders can meter powdered lime to each mill similar to existent arrangement, feeding the hoppers with belt feeders which can be constructed on site from existent materials.

F. Cyanide Feed:

This material can be metered in a liquid form to the individual mills with disc-type wet reagent feeders; or pellets can be fed with belt feeders similar to the lime as above.

Liming up of the cyanide solution feed piping might be eliminated with flexible hose or by "pigging" on a regular schedule with a rubber ball and compressed air.

G. Cyclone Feed Pumps:

One 3"x3", 7½ HP slurry pump and one standby should be connected to each of the ball mill sumps for pumping to the individual mill cyclones. When a pump is down for maintenance the standby would immediately be placed in operation with no loss of production.

H. Each mill will operate in closed circuit with a D6B cyclone and each cyclone installation will have a standby for uninterrupted operation. Cyclone underflow will discharge by gravity to its ball mill feed box and cyclone overflows will join for feed to the agitator slurry pump sump.

I. A rod charger would be required if the rod mill option was used (see Dwg. MM-01-103) but no provision was made in the costing as this unit can be fabricated on site from available materials; also a "boat" for ball feed using your available crane.

III Detail Drawings:

Upon approval of this program, consultant firm will be able to provide necessary detail drawings for installation and erection of equipment and support facilities.

A. Piping:

P&ID's can be supplied for take-offs in order to schedule procurement and installation of necessary piping, valves, instrumentation, etc. Instrumentation in this plant can be held at an absolute minimum to reduce capital costs and provide basic flow and density control.

B. Electrical:

One-line drawings can be furnished for take-offs in order to schedule procurement and installation of necessary controls, wiring, switch-gear etc.

C. Concrete:

Foundation drawings for planning of excavation, re-bars, forms and pouring can be furnished for large foundations for mills and crusher as well as pads for pumps, sumps etc.

D. Steel:

Drawings to assist in fabrication on site of platforms, ladder and stairways, chutes, supports for ancillary equipment, etc. can be furnished for take-offs and procurement.

CAPITAL COSTSI Crushing Plant

A. Coarse Ore Bin, 15x12x12 40T capacity	11,200 (1)
B. Vibrating Grizzly Feeder	12,500 (2)
C. Jaw Crusher - rehabilitation	19,000 (3)
D. Relocation Jaw Crusher, modification & relocation of various conveyors	5,000 (4)

II Grinding Section

A. Fine Ore Bin 28' Dia x 24' H 500T capacity	11,300 (1)
B. (3) Belt Ore Feeders	15,000 (2)
C. (2) 10'x48" Hardinge Ball Mills	50,000 (3)
D. (2) Lime Feeders, dry	5,000 (2)
E. (2) Cyanide Feeders, wet	5,000 (2)
F. (4) Cyclone Feed Pumps 3"x3" w/7½ HP motors	15,300 (5)
G. (4) D6B Cyclones	8,000 (5)
H. (4) Belt Scales	30,000 (5)

III Auxiliary WorkA. Concrete

- | | |
|--|------------|
| 1. All excavation, forms
and re-bar | 28,800 (6) |
| 2. All concrete, poured in place | 10,600 (6) |

B. Electrical: conduit, cable, controls,
switchgear etc.C. Piping & Instrumentation: Pipe,
valves, instruments etc.D. Mechanical: Chutes, platforms,
stairways & walkways etc.

Total B, C, D,	10,000 (4)
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IV Engineering Drawings

One-line electrical, P&ID, concrete foundations & pads, mechanical details	<u>9,600</u>
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Total	<u><u>\$246,300</u></u>
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Notes

- (1) Based on new steel installed by steel contractor
- (2) Based on dealer estimates for used, reconditioned equipment received by phone
- (3) Based on prices given by Client
- (4) Estimate based on using Client labor and equipment
- (5) Based on new prices. Savings on used items negligible vs. reconditioning costs.
- (6) Based on client pricing on concrete subcontracted and Client equipment and labor for excavation, forms and re-bar.

POWER REQUIREMENTSCrushing Plant:Option A

<u>Item No.</u>		<u>Motor Sizes Basic</u>	<u>w/Tertiary Crushing</u>
2	Vibrating Grizzly, 36"x14'	15.0	15.0
4	Jaw Crusher, 24"x36"	100.0	100.0
5	Conveyor #1	3.0	3.0
6	Vibrating Screen, 4'x8'	7.5	7.5
8	Gyrasphere Crusher, 36FC	100.0	100.0
9	Conveyor #9	3.0	3.0
10	Vibrating Screen, 4'x8'	7.5	7.5
13	Conveyor #13	3.0	3.0
15	Stacker Conveyor #15	3.0	3.0
19	Conveyor #19	1.0	1.0

Option B

	Symons Cone Shorthead, 3'	<u> </u>	<u>75.0</u>
	Basic Subtotal	243.0	
	Subtotal w/3-stage crushing		318.0

Grinding Section:Option C

20	Conveyor #20	7.5
21	Conveyor #21	2.0
23,24,25	(3) Belt Ore Feeders @ 1½ HP	4.5
26	7'x18' AC Ball Mill	400.0
27,28	(2) 10'x48' Hardinge Ball Mills	
	@225	450.0
32	6"x4" Slurry Pump	40.0
33,34	(2) 3"x3" Slurry Pumps @ 7½	15.0
	(3) Lime Feeders, disc type @ ½ HP	1.5
	(3) Cyanide Feeders, wet type @ ½ HP	1.5
	Slurry Pump, cyclone overflow	<u>10.0</u>
	Total	932.0

Option D

Total from Option C	932.0
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<u>Add</u>	<u>Substract</u>	<u>Add</u>
7'x14' Rod Mill @ 250 HP		250.0

Delete

(2) Belt Ore Feeders @ 1½ HP	(3.0)
(2) 10'x48" Hardinge Ball Mills @ 225	(450.0)
(2) 3"x3" Slurry pumps @ 7½ HP	(15.0)
(2) Lime Feeders @ ½ HP	(1.0)
(2) Cyanide Feeders @ ½ HP	(1.0)

Net difference	(220.0)
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Net Total	712.0
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SummaryI At 500 SDTPD:

- a. Using Crushing Plant Option A and
Grinding Section Option C

Total Connected HP 1,175.0

- b. Using Options A and D 955.0

II At 500 SDTPD w/mill product of 80% -200m
HP draw would be case:

- a. A & C mills operating @ 78% FL approx. 988.0

- b. A & D w/Rod Mill 955.0

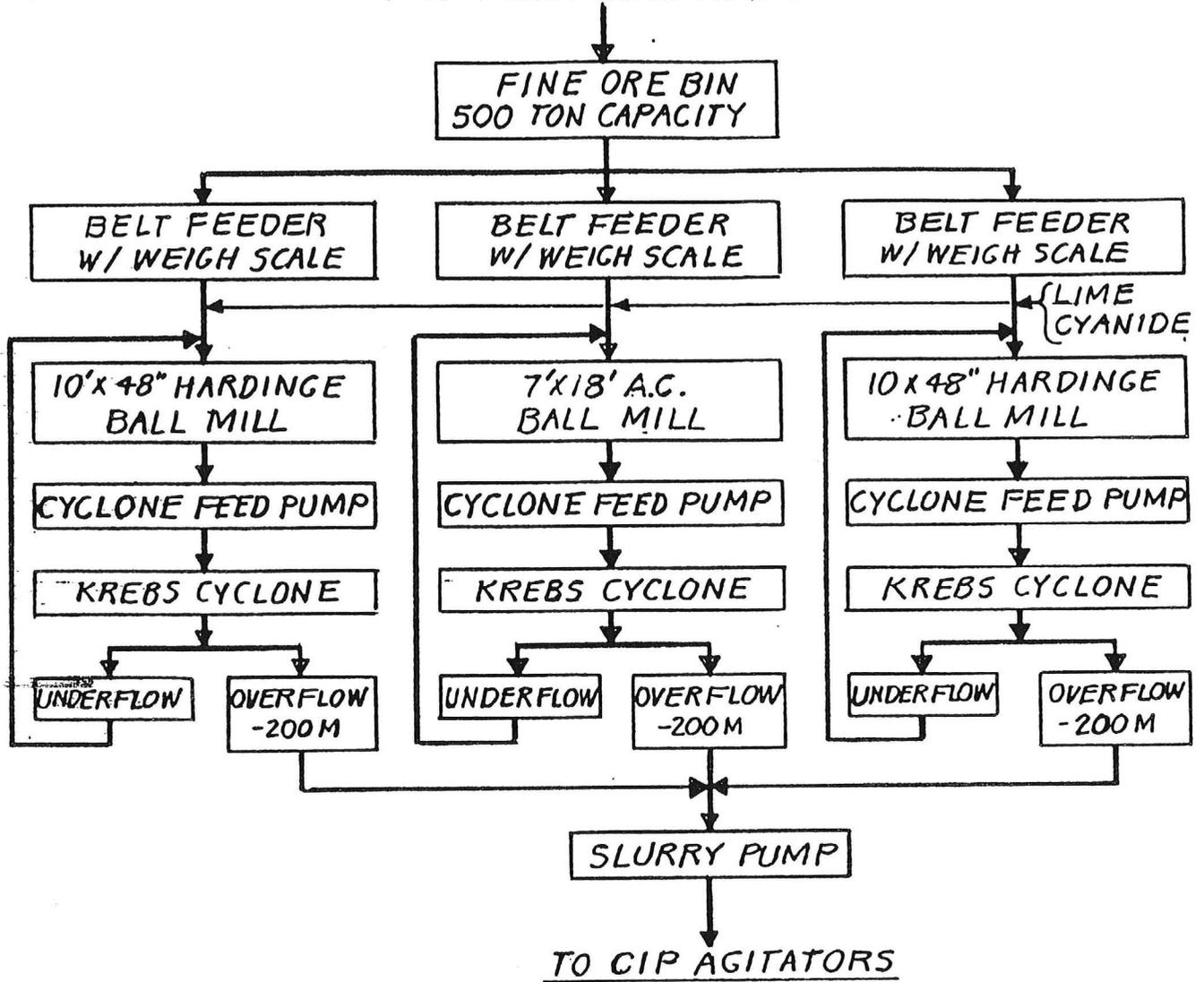
At 600 SDTPD w/mill product of 80% -200m
HP draw would be in

- a. A & C mills operating @ 100% FL 1,175.0

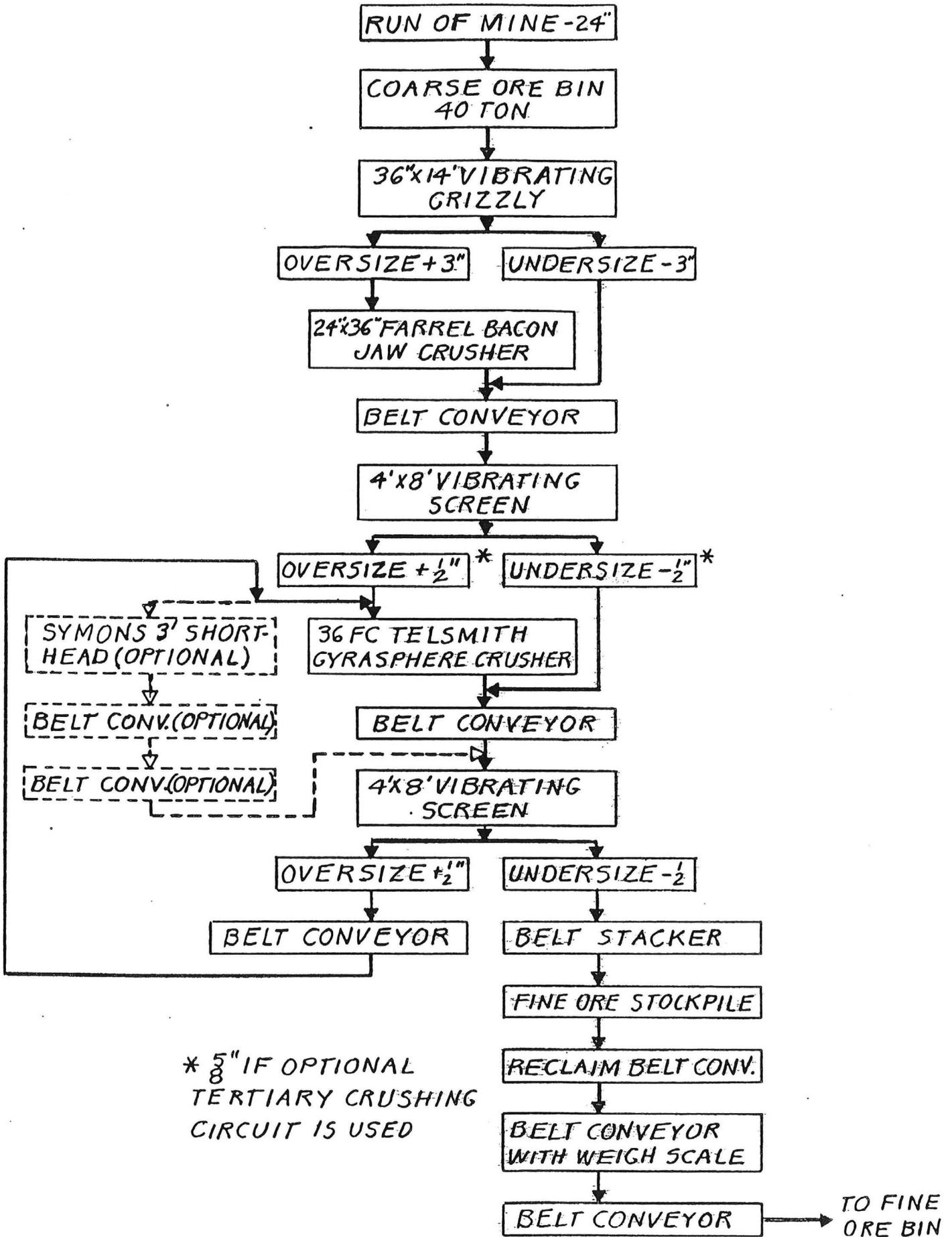
- b. B & D mills operating @ 100% FL 1,030.0

FLWSHEET
TYRO MILL GRINDING

BELT CONVEYOR
FROM CRUSHING PLANT



FLWSHEET
TYRO MILL CRUSHING PLANT



* $\frac{5}{8}$ " IF OPTIONAL
TERTIARY CRUSHING
CIRCUIT IS USED

UNDERGROUND MINING AND DEVELOPMENT AT TYRO

For all practical purposes, surface mining methods cannot be used below the current pit level.

We have proven ore from the pit level to the 240 level south of the shaft for approximately 600 feet. We can reasonably assume indicated ore for another 200 feet or so down dip. This block with slight additional exploration is ready to develop.

North of the shaft we have an inferred block which will require more time to prove out. Ideally, access should be centered around the shaft so that development and mining can proceed south while additional sampling and drilling are being carried on to the north. However, in order to do this some 2500 feet of down ramp would be required (Figure 1), all in waste and all before development in ore could take place. The other possibilities are the shaft or a lower decline which will be discussed later.

MINING METHOD

The Tyro orebody is amenable to a sublevel type underground stoping method. The only other type of low cost method would be some type of caving system. Since the ore and country rock are competent, any effort to cave, I believe, would end in failure.

The sublevel system requires relatively strong ore, competent hanging and footwalls and a steep dip on the ore zone -

all of which the Tyro deposit has.

The major considerations are: (1) Sublevel interval and development (2) Access and (3) mining sequence.

I. Sublevel Interval and Development

Any sublevel system requires development of a series of drifts (sublevels) driven at predetermined vertical intervals. The lowest level is usually cut full width of the ore to allow room for the broken ore which is drilled and blasted from above. The lowest level is called the undercut. Parallel to the undercut an extraction drift is driven in waste usually in the footwall. Periodically, extraction crosscuts are driven from the extraction drift into the undercut to allow removal of the blasted ore with front end loaders without endangering the operators from falling rock. (Figure 2)

The extraction drift will be utilized for removal of all the ore located above it, therefore, it is imperative that it be located at the lowest known level of mineralization, otherwise any ore found below will require another undercut and extraction drift.

A tentative layout for an undercut and extraction drift are shown in idealized 3-dimension on figure 2.

When the lateral limits of the ore have been developed by an undercut and at least a portion of the extraction drift and the sublevel immediately above the undercut is finished then mining can commence. For Example: Assume the ore zone extends 500 feet to the north of the shaft on the 540 level. Then the 540 level must be undercut for 1100'; (600' south and 500' north) then the extraction drift can be started at the north end. The sublevel above the 540 must also be driven 1100'. A raise is

then driven between the undercut and the first sublevel and production drilling and blasting can then begin.

The extraction drift and crosscuts can be driven as mining retreats south.

In the last half century, sublevel stoping has replaced almost all other types when the criteria of strong rock and steep dip are met. Originally, diamond drills were used for drilling between sublevels. Later, more efficient percussion drills were invented and diamond drills fell in disfavor. For years, sublevel intervals were on the order of 25 to 60 feet and if percussion drills are used, 60 feet is still the limit. Of course, the farther that sublevels are spaced apart, the cheaper that ore can be mined since the total number of development feet is reduced. In the last decade, low profile Down The Hole (DTH) drills have been used underground. These drills using a booster compressor to maintain air to the machine at about 250 PSI are capable of drilling 300' down holes, although 150' is about optimum for accurate drilling.

Assuming that the 540 level at Tyro will be our lowest mineable horizon, it gives us about 400 vertical feet of ore to work with.

Using a percussion drill will require sublevels spaced 60 feet apart which means the required development of 6 separate drifts above the 540 level. Assuming as in the previous example 1100' of lineal mineralization would result in 6000' of development drifting, and that discounts the 240 level which already exists. Using a ballpark figure of \$150.00 per foot of drifting means $(150 \times 6000) = \$900,000$ to drive the sublevels.

This isn't bad since we are developing three quarters of a million tons, however, it can be reduced significantly if DTH drilling is utilized.

Using a DTH drill capable of drilling 5" diameter holes and accurately drilling 150' will require one sublevel on the 390 level and extension and widening of the 240 level. This amounts to about 1600 feet of drifting. Using \$200/foot to allow for a larger drift gives: \$320,000 for sublevels.

Of course the hitch is the cost of the drill which will be on the order of \$150,000 for one capable of doing the job and lasting long enough to finish.

For the depth we anticipate, the DTH machine is ideal. For shallow deposits it wouldn't pay, but for deep, fairly wide and consistent ones it is the best way to go.

Also, with 60' sublevels a ramp type access would be necessary in order to gain entrance to the various levels.

II. Access

Initially, the major question is whether to use the existing shaft or to reach the ore zone via declines or ramps.

A. Shaft Usage

Assuming that enough ore could theoretically be hoisted up the existing shaft to supply the Tyro Mill @ 300 tons/day or more, there are two advantages for its utilization: 1. Obviously, if the shaft is used, no declines are necessary. The savings here is immediate and apparent. 2. Using the shaft would center our work in the ore and allow us to work north and south independently, giving us more flexibility.

SHAFT REHABILITATION

To bring the shaft into shape for production would require at the very minimum: Purchase of a hoist, cable, skip/cage and head sheave assembly and their installation. That would require revamping the present 130 level - widening and heightening and installation of a conveyor or track and cars. A dump system will also be required - scrolls, ore bin and chute with associated ancillary equipment - collar doors, blast doors, air cylinders, etc.

The shaft timbering will have to be inspected for competence, and if minimum standards are met - could be retained, however, all guides will need replacement as well as hangers, bolts or any other metal parts. Ladders will need replacement and landings must be screened off. Each set must be checked for alignment and reblocked, for to use a production skip, velocities of 500 ft/min on up are required and the sets and guides must be

perfectly aligned and maintained. If one guide comes loose, the skip will hang up and could cause disastrous results. This type of accident is not uncommon in shafts; in fact it is almost certain that at some time during the life of the mine a serious accident will occur in the shaft. For example at Anaconda's Carr Fork Mine, a skip was accidentally filled with too much ore and the extra weight caused the hoist to fail and pulled the empty skip in the adjacent compartment through the headsheave, cut the cable and the skip plummeted 3000' to the bottom of the shaft. The result was nine months of downtime and a repair bill of five million dollars. At the Homestake Mine in South Dakota, a jumbo was being lowered from one level to another when something broke and it fell down the shaft. It cost them two million to repair and months of downtime. There are no allowances for mistakes in shaft work.

After the necessary shaft timbering has been repaired, inspected and tested, stations must be cut on the 390 and 500 levels. Work on any station, when men are in the shaft will stop hoisting activity on the levels above. That is, as long as men are active on the 390, no ore can be hoisted from the 240. Once a station is completed and ore measuring pockets have been installed along with safety doors and all auxilliary equipment, then the shaft can be used again for ore hoisting. Each station will also require bearing sets, preferably set in concrete. Then to drive the levels all equipment and materials must be lowered to the appropriate station. Large pieces of equipment,

jumbos, muckers, trucks, production drills etc. must be dismantled at the collar and lowered piece by piece to the desired level. Useable shaft dimensions are about 3.5' x 3.5' and in some cases equipment will almost have to be completely stripped in order for it to pass. It is difficult to estimate, but I would hazard a guess at 6 weeks minimum to station off, supply equipment and materials and start drifting on a given level, after the shaft is restored to workable condition.

If tests show that the shaft timber is incompetent, then the entire shaft must be stripped and retimbered.

If the existing timber is useable, I would estimate around \$400 per foot of shaft to rehabilitate the shaft; the 130 level; station off on the 390 and 500 levels; install all hoisting, measuring and dumping equipment; pumps; signal systems; sumps; etc. This is $\$400 \times 500' = \$200,000$.

If the timber requires replacement the figure could well be double that or \$400,000.

In addition, using an ore skip with as small an inside dimension as $3 \frac{1}{2} \times 3 \frac{1}{2}$ feet makes crushing before loading an almost inescapable necessity. The crusher would be needed on the 500 level or lower and would require a grizzly, feeder, conveyor and fine ore bin which would feed the measuring pocket at the shaft. Whether using a shaft or ramp, an underground crusher is very desirable, especially if a conveyor is used to feed the mill. However, having to cut and install a crusher station utilizing the shaft will be three times as difficult and time consuming as doing it from a decline. While the hoist may be

sized for a 7 ton skip, will it be able to handle the 20 ton mainframe of a jaw crusher and I doubt that the frame could even fit through the sets.

Other difficulties will arise if the shaft is used for all access.

Anytime a man is working in the shaft, inspecting the timber or working on utilities, hoisting of ore should be suspended.

Every activity in the mine will depend on the shaft - when it is down - so is the rest of the mine.

As mentioned before, the potential for accidents is very high and I would estimate the chances for a serious or fatal personal injury are five times more likely in shaft work than in most others.

The Tyro shaft is really too small to accommodate all of the activities needed to bring the underground mine into operation. Besides the problems listed, another will be ventilation. To properly aerate the mine, on the order of 50,000 cubic feet per minute of air will be needed. In a 4'x4' shaft (16 ft²) that means an air velocity of $(50,000 \text{ ft}^3/\text{M} \div 16 \text{ ft}^2) = 3125 \text{ ft}/\text{M} = 36 \text{ miles}/\text{hour}$. That is there will be a 36 mile per hour wind in the shaft at full utilization. After completion of the shaft rehabilitation, another shaft or raise will be needed somewhere in the mine to facilitate ventilation (provide exhaust) and to provide a second means of escape in the event of emergency as required by Federal law.

DECLINE SYSTEM

B. For the foregoing, reasons it is not unreasonable to plan a decline system for the Tyro. As shown on the plan and section drawings (Figures 3 & 4), a decline can be driven from down-canyon for 1300' at a reasonable slope to intersect the 540 level at the southern limits of the orebody. A 400' incline driven off can tap the 390, and a separate 400' decline can access the 240 level.

These figures are conservative and I estimate total development to reach the ore will be about 2000 feet. At \$200/ft this is \$400,000.

The type of equipment needed for this work will be rubber tired muckers, jumbos, underground trucks possibly or conveyors.

The type and size of equipment needed, the exact lengths to be driven etc. are all tentative at present. There are still too many unknowns. A surface survey will be necessary to pinpoint the exact decline lengths and additional work on the 240 and below will determine the ultimate depth and extent of development.

Advantages of the decline system include;

1. Development of several levels in the most efficient and safe manner.
2. Providing an opening to the extraction level which can feed the mill via conveyor without hoisting costs.
3. Multiple working areas which are independent and won't interfere with one another.
4. Positive ventilation once the shaft is reached.

5. Secondary escape once the shaft is reached.
6. Flexibility in ore removal (conveyors, trucks, rail)

The major disadvantages are:

1. Initial cost to reach the desired levels.
2. Necessity of driving to the north limit of the ore before mining.

I believe that the advantages far outweigh the disadvantages and the decline proposal be utilized. The shaft can still be used for utilities and ventilation, secondary access and escape as well as pumping.

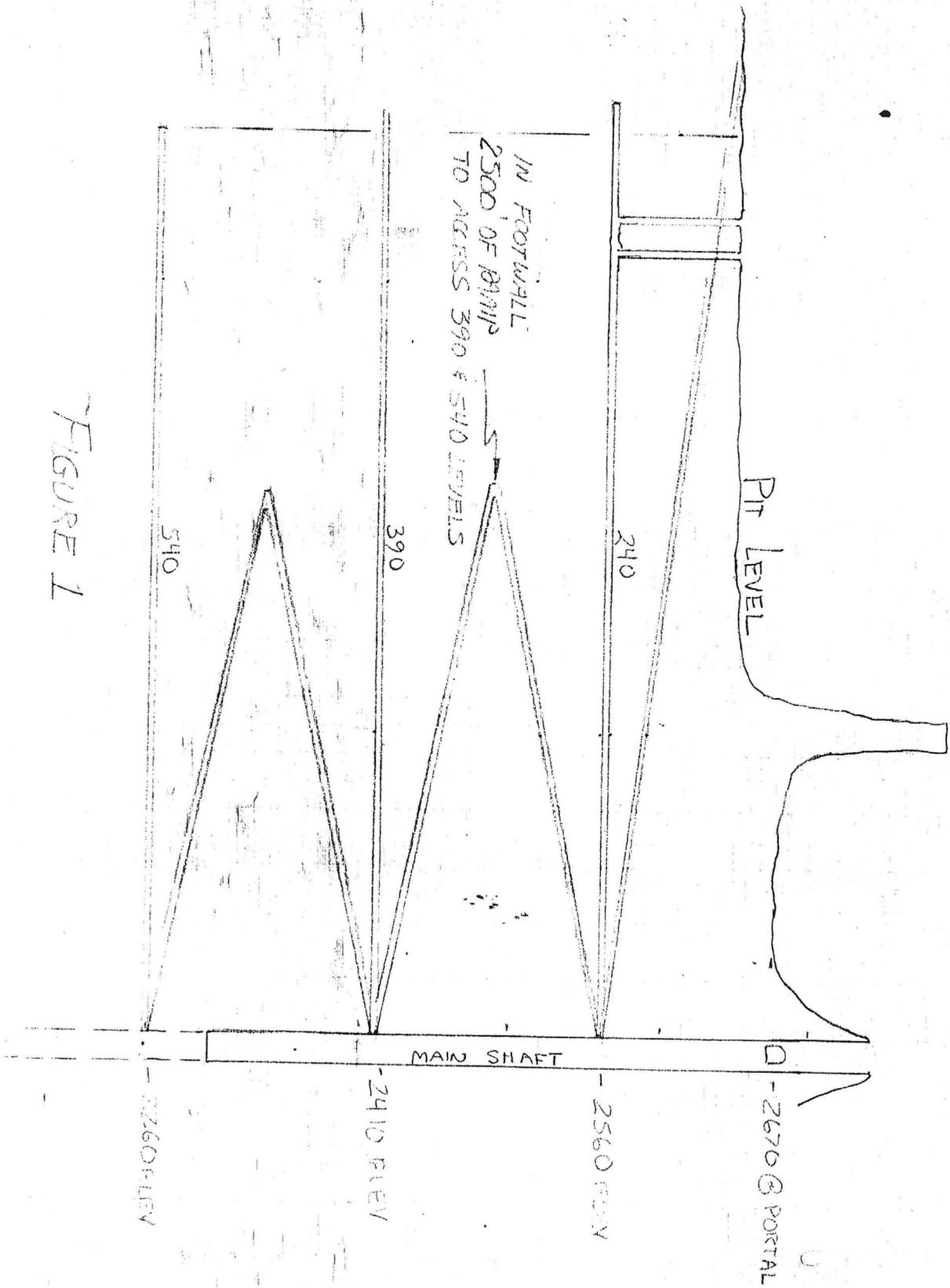
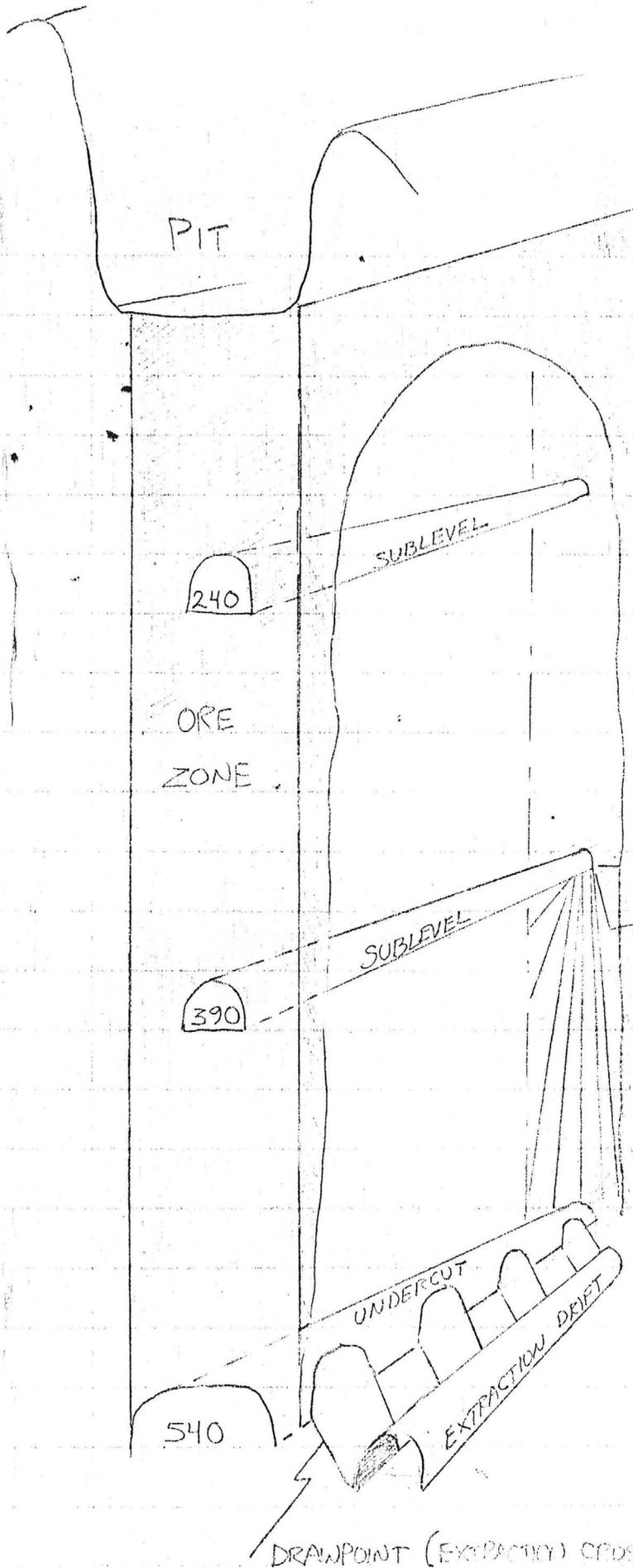


FIGURE 1



IDEALIZED ISOMETRIC VIEW
OF SUBLEVEL STOPPING SYSTEM
AT TYRO

INITIALLY,
DRILLING IS CARRIED OUT FROM
SUBLEVEL TO UNDERCUT.
THE BUSTED ORE DROPS TO THE
UNDERCUT AND IS TAKEN OUT
BY LOADER THROUGH THE
DRAWPOINTS THEN OUT THE
EXTRACTION DRIFT TO THE
HAUGE DEQUE.

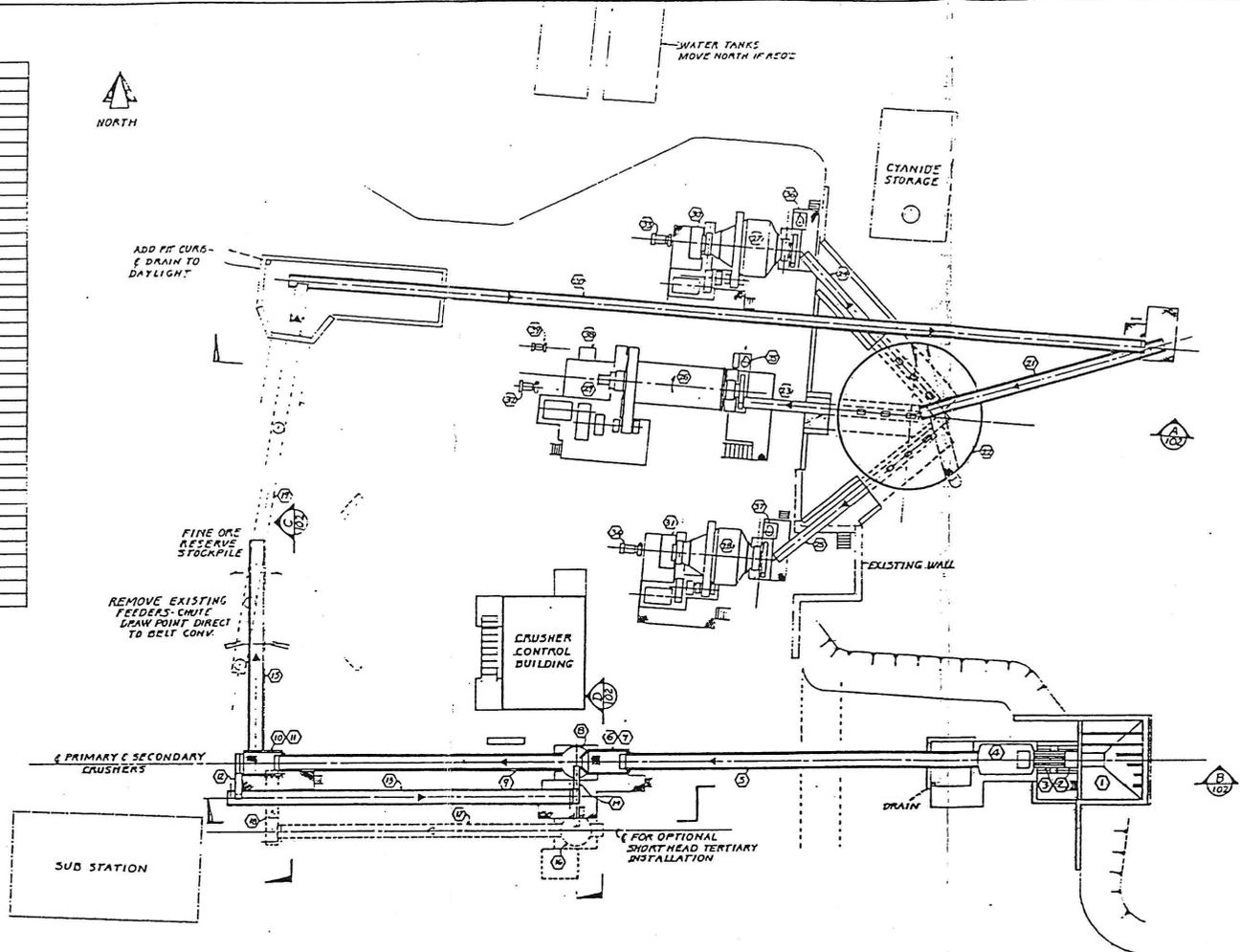
DRAWPOINT (EXTRACTION) CROSSCUT

FIGURE 2

EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	MOTOR	REMARKS
1	COARSE ORE BIN 40 TONS 15'X12'X11'		
2	VIBRATING GRIZZLY 36"X14" WITH STOPNGS	15 HP	
3	UNDERSIZE CHUTE		
4	JAW CRUSHER 24"X36" FARRER-BACON	100 HP	RELOCATEE
5	BELT CONVEYOR 30'X 84' 75 TPH 23'6" LIFT	3 HP	
6	VIBRATING SCREEN 4'X8' 1" DRNG	7 1/2 HP	RELOCATES
7	UNDERSIZE CHUTE		
8	GYRASPHERE CRUSHER-TELSMITH 36" FC	1100 HP	EXISTING
9	BELT CONVEYOR 30'X 64' 17'6" LIFT	3 HP	EXTENDED
10	VIBRATING SCREEN 4'X8' 1" DRNG	7 1/2 HP	RELOCATES
11	UNDERSIZE CHUTE		
12	OVERSIZE CHUTE		
13	BELT CONVEYOR 30'X 67'6" 18'7" LIFT	3 HP	
14	CHUTE-OVER SIZE		
15	STACKING CONVEYOR	3 HP	RELOCATEE
16	SHORT HEAD CRUSHER-3'5"XMONS	100 HP	OPTIONAL
17	BELT CONVEYOR 30'X 64' 17'6" LIFT	3 HP	OPTIONAL
18	BELT CONVEYOR 30'X 15' 3'6" LIFT	1 HP	OPTIONAL
19	RECLAIM BELT CONVEYOR 18'X 75'	1 HP	EXISTING
20	BELT CONVEYOR 18'X 170' 47'6" LIFT	7 1/2 HP	
21	BELT CONVEYOR 18'X 50' 14'0" LIFT	2 HP	
22	FINE ORE BIN 28'X4'24" SIDE 300 TON LIVE CAPACITY	1 1/2 HP	
23	BELT FEEDER 24'X38"	1 1/2 HP	
24	BELT FEEDER 24'X38"	1 1/2 HP	
25	BELT FEEDER 24'X38"	1 1/2 HP	
26	BALL MILL 7'X18' A.C.	1400 HP	EXISTING
27	BALL MILL 10'X18' HARDINGE CONICAL	1225 HP	
28	BALL MILL 10'X18' HARDINGE CONICAL	1225 HP	EXISTING
29	BALL MILL DISCHARGE & CYCLONE FEED SUMP		
30	BALL MILL DISCHARGE & CYCLONE FEED SUMP		
31	BALL MILL DISCHARGE & CYCLONE FEED SUMP	40 HP	
32	CYCLONE FEED PUMP GALICHER 4"X4"	40 HP	EXISTING
33	CYCLONE FEED PUMP 3x3	7 1/2 HP	
34	CYCLONE FEED PUMP 3x3	7 1/2 HP	
35	CYCLONE - KRIBS D&B		RELOCATED
36	CYCLONE - KRIBS D&B		
37	CYCLONE - KRIBS D&B		
38	CYCLONE OVERFLOW SUMP		EXISTING
39	PUMP-CYCLONE O'FLOW TO LEACHING	10 HP	EXISTING

* EXISTING 40 HP MOTOR COULD BE REPLACED WITH 7 1/2 HP

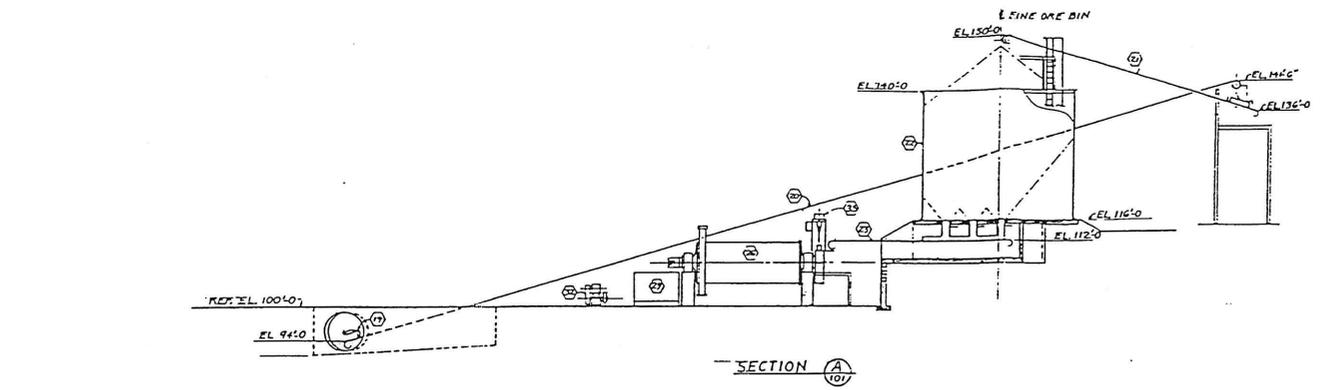


MOOS/MILLER ENGINEERING, INC.
 TUCSON, ARIZONA

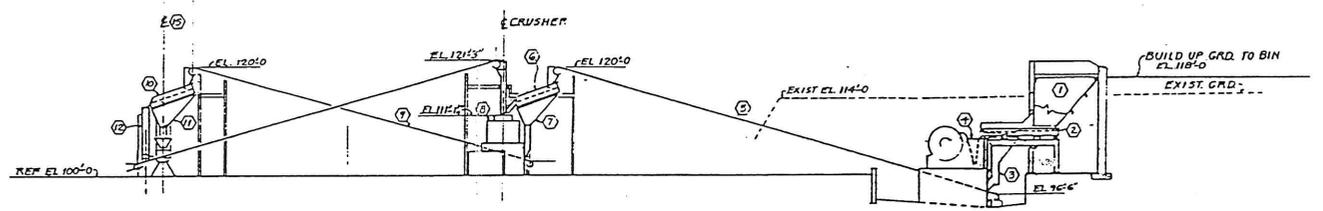
Scale: 1"=10'
 Date: 8-23-83

TYRO MILL BULLHEAD CITY, ARIZONA

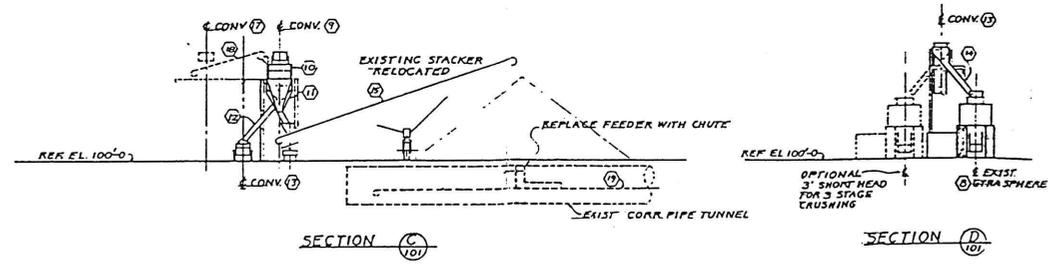
PLAN: CRUSHING & GRINDING MM-01-01



SECTION A (101)



SECTION B (101)



SECTION C (101)

SECTION D (101)

REF. DWG. MM-01-101 PLAN

MOOS/MILLER ENGINEERING, INC.		TUCSON ARIZONA	
1" = 10'			NSPE
8-23-23			
TYRO MILL	BULLHEAD, CITY ARIZONA		
SECTIONS: CRUSHING & GRINDING			MM-01-102



SPONSOR OF

THE EQUITABLE PLAN

MAIL: 421 East Carson Street • Box 23 • Las Vegas, Nevada 89101
OFFICE: 3198 Camel Back Drive • Las Vegas, Nevada 89109
TELEPHONE: (702) 731-3951
SALES: (702) 733-5860

TAX SHELTER:

SILVER and GOLD
OIL and GAS
COAL
INVESTMENTS
LEASING
FINANCING

March 19, 1980

THE EQUITABLE PLAN FOR 1980

TYRO GOLD MINE

In 1979 the Equitable Corporation sponsored two silver programs allowing participants to share in the development and subsequent mining of silver in Austin, Nevada, plus enjoying a 4 to 1 tax write-off.

The first silver program, introduced publicly on July 1, 1979, was fully subscribed in October and officially closed on October 15, 1979. The second silver program was offered on December 1 and sold out during the month of December, officially closing on January 2, 1980.

Development of the silver mines is progressing satisfactorily and silver ore is being stockpiled at this time, awaiting the completion of the concentration mill scheduled for June 1, 1980. Delivery of silver bars to participants will commence as soon thereafter as the concentrate can be refined into .999 silver. Refineries, due to the resurgence of mining activity, are backlogged at this time.

Our current program is the development of a proven gold mine, the Tyro, near Kingman, Arizona. The gold program, like our silver programs of 1979, is limited as to participants by the size of the commercial ore body delineated and projected by professional geologists. At this time approximately one half of the required development capital has been received and additional amounts have been promised, so our expectation is that this offering will be available for a very limited time.

The status of the Tyro project as of this date is as follows:

The mining equipment, caterpillars, crane, ore carriers, etc. have been purchased. Some equipment is already at the mine site. The balance of the equipment should be on site by the end of April.

The mill components have also been purchased and are in the process of delivery. The mill parts should be on site by late May.

Site preparation, road improvements, and security fencing are scheduled for completion by late April.

Mill completion is scheduled for September, 1980.

Ore milling and casting into "miner's bars" (.90 pure gold) is scheduled to commence in October.

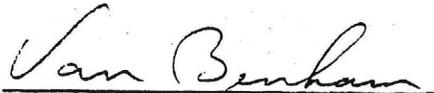
Delivery of gold to participants will commence as soon thereafter as refining into .999 pure gold bars can be accomplished. (As with the silver bars, delivery can be delayed due to a shortage of refineries).

Participants in the Equitable gold program will be kept informed by frequent progress reports - at least every quarter.

If you have not received your Tyro brochure, desire an extra copy, or have any questions, please write or phone me collect (702) 733-5860 and ask for Van.

Yours truly,

THE EQUITABLE CORPORATION



Van Benham
Sales Manager

VB: jl

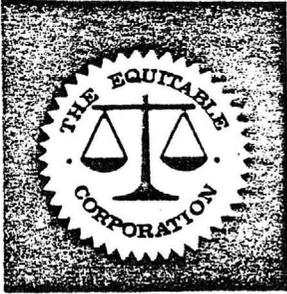


THE EQUITABLE GOLD PROGRAM

1980

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THE EQUITABLE PLAN

MAIL: 421 EAST CARSON STREET • SUITE 23 • LAS VEGAS, NEVADA 89101
OFFICE: 3198 Camel Back St., Las Vegas, Nevada 89109
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SECTION I

INTRODUCTION

WHY GOLD

Gold is Unique. Of all the world's precious metals, only gold combines lustrous beauty, easy workability, rarity, and virtual indestructibility. Not even diamonds combine these four characteristics.

Gold is so soft and malleable one ounce can be stretched into a wire an incredible 50 miles long, or hammered into a sheet so thin, it covers 100 square feet.

It is so rare that only an estimated 88,000 tons have been taken from the earth during all of recorded history, as much as could be contained in a cube with 18-yard sides. More steel is poured in one hour than gold has been poured since the beginning of time. Since it does not rust, tarnish or corrode, gold virtually lasts forever. The coins found in sunken galleons centuries old are as bright and shiny as the day they were cast.

THE GOLD AROUND US. Seen or unseen, gold is everywhere around us. It exists in the earth's crust, in our seas, rivers and plants. It exists, in minute quantities, in our bodies. About 10 billion tons of gold (100 thousand times more than man has managed to mine from the earth) are estimated to be held in suspension in the oceans of the world. It is tantalizing to consider this potential wealth of gold, but the practicality and expense of actually obtaining gold from these diverse sources makes its recovery unlikely. The search for gold remains an exciting, dramatically speculative adventure of high stakes, high risks and high rewards. New gold mines represent a capital investment of between 100 and 300 million dollars, with costs rising yearly. Where gold does exist, it is difficult and expensive to mine, with 2½ to 3 tons of ore required to extract just one ounce! Small wonder that gold remains so rare, and therefore so valuable.

GOLD STATISTIC A GLANCE

(1 metric ton = 1.1023 American Tons)

Gold Production Since 1500 (Metric Tons of Fine Gold)*

16th century	..	..	..	..	..	..	..	..	36t
17th century	..	..	..	..	..	..	..	..	45t
18th century	..	..	..	..	..	..	..	..	90t
19th century	..	..	..	..	..	..	..	..	4,864t
20th century	..	..	..	..	..	..	..	..	<u>77,393t</u>
Total since 1500	..	..	..	..	..	..	..	..	82,428t

* Sources: Consolidated Gold Fields Limited and Brockhaus
Lexikon, 14th edition, 1898

1977 Production (Metric Tons of Fine gold)**

1. South Africa	..	..	..	..	..	..	..	..	700t
2. Soviet Union (estimate)	..	..	..	..	..	..	..	..	444t
3. Canada	..	..	..	..	..	..	..	..	54t
4. United States	..	..	..	..	..	..	..	..	33t
5. Papua/New Guinea	..	..	..	..	..	..	..	..	22t
All Others	..	..	..	..	..	..	..	..	<u>176t</u>
Total World Production	..	..	..	..	..	..	..	..	1,429t

1977 Private Absorption (Metric Tons of Fine Gold)**

Karat Jewelry	..	..	..	..	..	..	..	..	979t
Dentistry	..	..	..	..	..	..	..	..	81t
Electronics	..	..	..	..	..	..	..	..	73t
Other industrial and decorative uses	..	..	..	..	..	..	..	..	68t
Official coins	..	..	..	..	..	..	..	..	136t
Medals, medallions and fake coins	..	..	..	..	..	..	..	..	<u>50t</u>
Total Fabrication	..	..	..	..	..	..	..	..	1,387t
Net Private Bullion Purchases	..	..	..	..	..	..	..	..	220t
Total private absorption	..	..	..	..	..	..	..	..	1,607t

THE EQUITABLE GOLD PROGRAM

The Equitable Gold Program entails the development of commercial gold property and the placing of that property into production. Gold bearing ore will be concentrated at a mill to be erected adjacent to the mine, then refined into .999 fine gold bars of various weights.

** Source: Consolidated Gold Fields Limited

The Tyro mine is located near Kingman, Arizona, about 2 1/2 hours driving time from Las Vegas, Nevada. (See Section VI for the history, production records, and assays). Capital is required for the development of the mine property prior to placing it into production, offering an investment and tax advantage to sublessee-miners able and willing to assume the inherent risks.

Prior to making this offering, the Equitable Corporation has conducted a thorough investigation of the property, its gold potential, and the persons involved in the ownership and mining operations. Independent surveys and assays have been conducted by reputable mining geologists to ascertain as accurately as possible the quantity and quality of gold-bearing ore present in the mining property. The results are reported in this brochure, Section VI. Complete records and documentation is available for perusal by interested parties.

HOW THE EQUITABLE PLAN WORKS

A sublessee-miner becomes a direct participant in the development and subsequent production of gold. Each participant leases a portion of the mine and contracts for a minimum quantity of gold-bearing ore to be mined after development of the mine is completed, the amount depending upon the sum invested. The gold extracted from this ore, less certain royalties and costs (see projections), becomes the property of the participating sublessee-miner.

The sublessee-miner, through the appointment of THE EQUITABLE CORPORATION as his agent, or otherwise, provides for the development work and subsequent production mining of his sublease.

The participant may, to gain a tax advantage for 1980, leverage his cash investment by use of a promissory note for as much as three times his cash investment. The note bears 8% simple interest and is payable in approximately three years (December 15, 1983).

Initial development work is expected to be completed in nine months, with production mining commencing in the last quarter of 1980, along with continued development.

Participants will be assigned mine tracts in the TYRO MINE on a first come, first served basis. Mining will commence in those areas, after development work is completed, as the mine superintendent shall determine, to insure the greatest recovery of gold in compliance with the prime lease.

The portion of gold represented by the note will be delivered only when the note is paid by the participating sublessee-miner, either in cash or by a portion of the gold produced from his gold tract.

SECTION II

TAX ADVANTAGES OF GOLD MINE DEVELOPMENT

Currently, those participating on a direct basis in the development of a commercial deposit of a mineral, such as gold, by engaging in a mine development program receive certain tax benefits by using development expense incurred to offset income from other sources. The tax saving lowers the out-of-pocket investment cost and to that extent reduces the dollars at risk.

1. According to current tax laws (I.R.C. § 616, §617), you, as a sublessee-miner may deduct from taxable income this year your entire development cost (cash and notes) that you have committed to your mine development.

2. No tax is paid on gold produced until you sell (I.R.C. § 451).

3. At the time you out sell your gold you will be entitled to a depletion allowance of 15% of the value of your gold at the time of sale. (I.R.C. § 611 et. seq.).

4. The usual deductible expenses of engaging in a business are available to you - such as accounting fees, legal fees, travel expenses to inspect your mine property and to check progress, etc.

SECTION III

INVESTMENTS BENEFIT PROJECTIONS

In addition to current year tax savings which enable you to have the use of monies that would otherwise be paid out in federal taxes, the following projections demonstrate substantial business benefits:

Assumptions:

1. Ore mined will average at least .10 ounces of gold per ton of ore. (Production records and assays show average gold content from ore produced at the Tyro Mine to be .135 ounces per ton.)
2. Since investment benefit projections are dependent upon the market value of gold at the time of delivery, and the price of gold has been escalating rapidly, our examples are illustrative only.

Conditions and Charges:

1. Each \$20,000.00 (\$5,000.00 in cash and \$15,000.00 in notes) entitles the participating sublessee-miner to all the gold in 2,500 tons of ore, with a minimum of 200 ounces of .999 fine gold.
2. The mining company for its services will be compensated by thirty-five percent (35%) of the gold it produces.
3. The mine lessor will be paid a royalty of ten percent (10%) of the value of gold produced.
4. THE EQUITABLE CORPORATION, acting as your agent, will receive a commission of two percent (2%) of the value of gold produced.
5. Eight percent (8%) simple interest is payable on notes.
6. The number of sublessee-miner participants is limited. The program herein described will be withdrawn when development capital sufficient to place the mine in full production has been contracted. Development and mining of participants' mining property will, as nearly as possible, be in chronological order.

The following examples are based on conservative estimates of the gold production from 5000 tons of ore and different market values of fine gold. The examples are predicated on a \$10,000 cash and \$30,000 note (\$40,000) participation:

	EXAMPLE #1	EXAMPLE #2	EXAMPLE #3
Assumed: Market Value of gold - 400 ounces	\$ 700. per oz.	\$ 500. per oz.	\$ 205. per oz.
	\$ 280,000.	\$ 200,000.	\$ 82,000.
Less 35% to Mining Co.	<u>- 98,000.</u>	<u>- 70,000.</u>	<u>- 28,700.</u>
Balance	\$ 182,000.	\$ 130,000.	\$ 53,300.
Less Royalties (12%) (10% to Lessor - 2% to Agent)	<u>- 33,600.</u>	<u>- 24,000.</u>	<u>- 9,840.</u>
Balance	\$ 148,400.	\$ 106,000.	\$ 43,460.
Less Interest on Note (8% x 30,000 x 3 yrs.)	<u>- 7,200.</u>	<u>- 7,200.</u>	<u>- 7,200.</u>
Gross Profit	\$ 141,200.	\$ 98,800.	\$ 36,260.
Less return of investment (Cash and Note)	<u>40,000.</u>	<u>40,000.</u>	<u>40,000.</u>
Net Investment Profit (Loss)	\$ 101,200.	\$ 58,800.	(\$ 3,740)
Plus tax saving on interest paid (assuming 50% tax bracket)	<u>\$ 3,600.</u>	<u>\$ 3,600.</u>	<u>\$ 3,600.</u>
Total Benefit	\$ 104,800.	\$ 62,400.	(\$ 140.)

SECTION IV

INSTRUCTIONS

The minimum capital requirement is \$5,000 which can result in a \$20,000 tax write-off or four times the cash you invest. The capital requirement can be increased in increments of \$2,500 such as \$5,000 plus \$2,500 times 4 equals a \$30,000 tax write-off and so on up.

The following chart correlates cash requirements to tax write-off (deductible expenses) to the tons of gold-bearing ore and gold estimated to be mined under your Mining Claim Sublease Agreement.

Capital Required			Tax Write-Off	Tons of	Ounces of
Cash	Notes		(Deductible)	Ore	Gold (Min.)
\$ 5,000	15,000	=	\$ 20,000	2,500	200
7,500	22,500	=	30,000	3,750	300
10,000	30,000	=	40,000	5,000	400
12,500	37,500	=	50,000	6,250	500
15,000	45,000	=	60,000	7,500	600
17,500	52,500	=	70,000	8,750	700
20,000	60,000	=	80,000	10,000	800
22,500	66,500	=	90,000	11,250	900
25,000	75,000	=	100,000	12,500	1,000

After you have determined your cash capital requirement, fill in the forms and proceed as follows:

1. Sign the "APPOINTMENT OF AGENT AND AUTHORIZATION TO NEGOTIATE" Agreement (Exhibit #1). Indicate number of tons to be developed under Paragraph #1.
2. Sign the "Mineral Claim Lease and Mine Contract" (Exhibit #2 and Exhibit #3 respectively) and attach to "APPOINTMENT OF AGENT AND AUTHORIZATION TO NEGOTIATE."
3. Enclose your check for the amount of the "Cash Development Capital" indicated above to correspond with tax shelter you desire, payable to THE EQUITABLE CORPORATION and attach to Exhibit #1 along with your promissory note (Exhibit #4).
4. Your records will include Mineral Claim Lease and cancelled checks all executed on or before December 31, 1980, and a contract for the performance of development work for the year ending December 31, 1980. Upon receipt of the above Exhibits by THE EQUITABLE CORPORATION, you will receive back an executed copy of all documents, namely; Mineral Claim Lease, Mine Contract, and notice of acceptance by Equitable to act as your agent and evidence of development work on the mine has been negotiated.

APPOINTMENT OF AGENT AND AUTHORIZATION TO NEGOTIATE

TO: THE EQUITABLE CORPORATION
421 East Carson Street, Box #23
Las Vegas, Nevada 89101

FOR VALUE RECEIVED, receipt of which is hereby acknowledged, the undersigned hereby appoints THE EQUITABLE CORPORATION agent to negotiate for gold recovery rights and to engage a mine operator to develop the leased mine property of the undersigned under the following circumstances:

1. Obtain a mineral sublease permitting developing and mining on Tract _____ for _____ tons of gold bearing ore above the 2,573 foot level of the Tyro Gold Mine as described per the attached Mineral Claim Lease, Exhibit 2.
2. Arrange for an independent mining company to initially develop the subject mine property ready for mining the gold-bearing ore and to contract with said independent mining company to thereafter mine, mill, and refine the amount of gold provided in the Mineral Claim Lease, and deliver my cash and/or notes for development work for my leased mine property to contract mining company in the sum of \$ _____ (cash and notes).
3. Obtain my share of gold bullion produced from the independent mining company as produced and remit same to me in kind or cash as I direct, once you advise me of gold production, for a management fee of 2% of the value of gold produced.
4. Endorse and cash checks made out to the undersigned received from the proceeds of a loan or the sale of gold ordered by the undersigned to satisfy and comply with the terms of my Mineral Claim Lease, notes or loans.
5. Acknowledge in writing that the above conditions can be met upon receipt of "Cash Development Capital."
6. Return my check if you cannot comply with or arrange the above conditions.

SUBSCRIBED AND SWORN TO BEFORE ME,
A NOTARY PUBLIC OF _____
(State) County of _____,
this _____ day of _____,
19 _____.

Notary Public

Signature

Print Above Name

Street Address

City, State, Zip

Tele: () _____

Accepted this _____ day of _____, 19_____
(Agent's use only) THE EQUITABLE CORPORATION BY _____
Its President

EXHIBIT #2

MINERAL CLAIM LEASE

SUBLESSOR AND SUBLESSEE agree as follows:

1. Leased Premises. Sublessor, in consideration of the covenants and agreements hereinafter expressed, and mutuality hereof, hereby demises, leases and lets unto Sublessee hereinafter referred to as Miner, for the purposes hereinafter set forth, the real estate described and hereinafter called Leased Premises, to-wit: Tract No. _____, a portion of the Tyro Mining Claim, Survey No. 2862 in the San Francisco Mining District, Mohave County, Arizona.

2. Leasing Clause. For One Dollar and other valuable consideration, receipt of which is hereby acknowledged, Sublessor hereby demises, leases, and lets all the gold unto Miner in Tract No. _____ containing not less than _____ oz. of gold, as demonstrated in Plate 7, attached hereto and by reference made a part hereof. All other minerals remain the property of the Sublessor.

3. Right to Merchantable Gold. Miner shall have unrestricted right to enter upon surface of said leased premises and develop all ore-producing soil and rock to produce the gold above described and to conduct his mining operation with due regard to the mining activities of other sublessees utilizing good mining methods, and for such purposes shall have the right to free ingress and egress to and from said leased Premises with such persons and tools necessary for the purpose of testing for gold at any time. Miner's right to develop said premises commences as soon as it is practicable following the date of execution of this Lease.

4. General Duties and Rights.

(a) All operations shall comply with all local, state, and federal laws of the country that are or will be applicable to the subject matter of this Lease.

(b) Miner will furnish upon demand copies of reports pertaining to production and operation of the Leased Premises.

(c) Except as may be otherwise provided herein, Miner has a right-of-way into, over, under, across, and upon said Leased Premises.

(d) Miner has the right (to extent of the Sublessor's power to grant the same) to change, increase, diminish or destroy both surface and underground waters, whether percolating waters or subterranean streams; and to discharge upon said lands waters found therein, and to construct, maintain and operate such drains and drainage ways as may be necessary or convenient to the operation, production and marketing of gold. A copy of Sublessor's lease is on file with the County Recorder of Mohave County, Kingman, Arizona.

(e) It is especially provided and agreed that Miner shall have the right to construct, maintain and operate roads, tipples, buildings, tanks, pipelines, picking tables, telephone lines, power lines, washing and other machinery, tools, necessary or convenient to the operation, production, and marketing of gold.

(f) Miner has the right to use, free of charge, so much of the water from springs, rivers, percolating waters or subterranean streams found upon premises as may be necessary or convenient to operations hereunder.

5. Term of Sublease. The Sublessor agrees to have and to hold the leased premises unto the Miner for a term of ten (10) years and so long thereafter as gold is or may be produced on the subject property and as provided in Sublessor's lease. Miner will be allowed possession of the leased premises on the date of execution of this lease. This lease shall terminate upon Sublessee receiving the gold in _____ tons of ore with a minimum of _____ ounces of .999 fine gold.

6. Royalties. Miner shall pay Denys Poyner, Sublessor, his heirs and assigns, ten percent (10%) of the net smelter returns of gold recovered less haul costs.

7. Inspection of Premises. Miner shall permit the Sublessor, or its authorized representatives, to enter upon the leased premises for the purpose of determining whether the provisions of this lease are being observed by the Miner.

8. Payment of Taxes. Miner shall pay, or cause to be paid his share of all taxes.

9. Sublessor's Right to Terminate Lease. In the event of the breach of any covenants in this sublease on the part of Miner, or for discontinuance or abandonment of operations under the terms and conditions of this sublease by the Miner, and if such default or breach shall continue after ten (10) days' notice in writing specifying the nature of such default or breach, then the Sublessor may at its option terminate this sublease and thereupon enter and take possession of said demised premises without process of law.

10. Non-Waiver Clause. The failure of either the Sublessor or the Miner to exercise any of their respective rights hereunder upon the non-performance of the other party, of any condition, covenant or promise herein contained, shall not be construed as a waiver thereof.

11. Definitions. Wherever in this Agreement and Lease the word "Sublessor" or the word "Sublessee" or "Miner" appear, they shall be taken respectively to include heirs, executors, successors and assigns, in whole or in part, wherever the context so requires or admits of such interpretation.

IN WITNESS WHEREOF the parties have set their hands and seals
this _____ day of _____, 19_____.

SUBLESSOR
THE EQUITABLE CORPORATION

By: _____

Its _____

SUBLESSEE/MINER:

Name

Address

City State Zip

Telephone () _____

EXHIBIT #3

MINING CONTRACT

THIS AGREEMENT made and entered into this _____ day of _____, 1979, by and between Gold Standard Mines, Inc., a corporation organized and existing under the laws of the State of Arizona, hereafter referred to as "Mining Co." and an owner of a divided interest in certain gold deposits and the mining rights and privileges apurtenant thereto which are more particularly hereinafter described as hereinafter referred to as "Sublessee" (see Exhibit 2, attached).

W I T N E S S E T H:

WHEREAS, the Sublessee desires to mine the gold contained in, on and underlying the property (the "Property") covered by his Sublease; and

WHEREAS, the Sublessee desires certain development work to be performed on its Property; and

WHEREAS, the Mining Co. desires to furnish the mining services in connection with the removal of the gold from the Property and perform the development work directed by Sublessee.

NOW THEREFORE, in consideration of the covenants and promises herein contained and for other good and valuable consideration and intending to be legally bound hereby, the parties hereto respectively agree as follows:

1. Sublessee exclusively authorizes the Mining Co. to mine and remove the gold contained in the Property during the term of this Agreement. The Mining Co. shall have full, complete and exclusive right and authority to mine, develop and work the Property and the gold in and underlying the Property and process for market such gold, by any method or machinery now or hereafter employed, subject to and as set forth in the Lease of Sublessee.

2. (a) The Mining Co. shall apply for and obtain all necessary permits, approvals, and authorizations to conduct mining operations in, on and under-lying the Property and shall provide all mining maps required. All costs incurred in connection with such permits and authorizations and maps shall be paid for and borne by the Mining Co.
- (b) The Mining Co. shall be responsible for and shall control, charge and supervision of all exploration, development, construction, mining, extracting, handling and other operations conducted in connection with the gold ("Mining Operations"), either furnishing its own employees or contracting with third parties for the performance of all or a portion of such work.
- (c) The Mining Co. shall perform all Mining Operations in compliance with all applicable Federal, state and local laws, rules and regulations and in such a manner as to insure that the Lease is not breached, forfeited or terminated. The Mining Co. shall have full authority to establish policies with regard to all activities relating to all Mining Operations including but not limited to all activities concerning industry associations, governmental relations and proposed legislation and in regard to compliance with existing legislation, labor practices and similar activities.
- (d) The Mining Co. shall use its best efforts to mine gold pursuant to Exhibit #2.
- (e) Mining Co. shall mine and remove the gold in the Property so as to recover the greatest recoverable percentage of gold in place, consistent with economic and practical methods and inherent mining conditions.
- (f) Mining Co. shall keep and maintain the Property and all workings in safe condition at all times.
3. (a) Mining Co. acknowledges receipt of \$ _____ (total cash and notes) and shall perform the development work directed by Sublessee and to account for such work to Sublessee when completed.
- (b) All costs and expenses accruing or resulting from the exploration, development, mining and removal of the mineable and merchantable gold contained in the Property and the transportation of such gold to a collection or storage point adjacent to the Property shall be borne by the Mining Co.

(c) The ownership of Sublessee's gold mined or produced from the Property shall be retained by the Sublessee. All contracts for the sale of the gold shall be entered into by the Sublessee or his Agent and the Purchaser.

(d) The Sublessee shall permit the Mining Co. to mine all gold-bearing material from his mine Property to produce all gold on the property. The Mining Co. will receive for its mine services thirty-five percent (35%) of the gold, or its value, mined and produced.

4. Sublessee and his duly authorized agents shall have the during normal business hours to inspect the Mining Operations (assuming the risk of danger incident to such visits) and the books, records and invoices of the Mining Co. regarding the mining of the Property.

5. The Mining Co. assumes all liability for all losses, damages, injuries, and deaths (including losses or damage to property) on the Property or under its control or in the proximity of the Property including injuries, deaths, and/or damage to the Mining Co.'s employees or to any workman, servant, agent of Mining Co. or subcontractor of Mining Co. and Mining Co. agrees to indemnify and hold harmless the Sublessee against all claims, demands, suits, actions, causes of action, judgments, or decrees in connection with such loss, damage, injury, and/or death whether caused in whole or part by any act or omissions or negligence of the Mining Co. or otherwise. The foregoing indemnity shall also include any and all attorneys' fees and litigation expenses incurred by the Sublessee in connection therewith. The Mining Co. shall maintain full coverage under any applicable statutory Workmen's Compensation or Employer's Liability Laws. The Mining Co. shall also carry fire and extended coverage insurance covering property damage losses and comprehensive general liability insurance, including comprehensive automobile liability insurance, and insurance for errors and omissions, with limits of not less than \$1,000,000 naming the Sublessee, under appropriate endorsement as loss payee or additional insureds as their interests may appear and the Mining Co. shall provide evidence satisfactory to the Sublessee that such policies are in effect and that the Sublessee is insured thereunder.

Mining Co. acknowledges that it will have sole and exclusive operation and control of the mining activities and operations on the Property on a day-to-day basis. Accordingly Mining Co. specifically agrees that for all purposes which might give rise to any liability (but for no other purpose) as between the parties the Mining Co. shall be deemed to be the "Operator" of the mine as that term is defined in the various applicable laws, statutes, rules and regulations of all governmental bodies having jurisdiction.

6. The Mining Co. shall be excused from performance hereunder, including the carrying on of Mining Operations, if it shall be prevented or prohibited by law, ordinance, or other governmental regulation, by inability for reasons beyond its control to obtain equipment, power, or fuel, by failure of carriers to transport or furnish facilities for transportation, by operation of force majeure (including, without limitation, lightning, earthquake, fire, storm, flood and washout), or by any cause beyond the Mining Co.'s control from mining hereunder (provided that the Mining Co. shall exercise all due diligence to resume any Mining Operations required to be performed hereunder).

7. This Agreement shall be terminable by either party as hereinafter set forth. The Sublessee and the Mining Co. shall each have the right to surrender and terminate this Agreement, with or without cause, at any time upon thirty (30) days written notice. If this Agreement is terminated and Mining Co. by itself, or with any affiliated entity, has control over any facilities including, but not limited to, tipples, crushers, or railroad sidings, or any rights of egress or ingress to or from the Property, Sublessee will have the opportunity to use, and to have access to, such facilities or rights so long as Sublessee pays a competitive price therefor, no greater than standard rates for the area, and Mining Co. (and any affiliated entity) shall be entitled to make a reasonable profit therefrom.

8. The Mining Co. is aware of the fact that there are other Sublessees who own leases of gold adjacent or near Sublessee's Property herein, and that it will mine all gold for respective Sublessees as fairly as possible, and in this regard Mining Co. accepts the appointment as Agent for Sublessee to accomplish the mining and sale of gold as efficiently and expeditiously as possible for all Sublessees.

9. All notices, orders, reports or other correspondence required or made necessary by the terms of this Agreement shall be in writing and shall be considered as having been given to each party if mailed by certified mail, return receipt requested, postage prepaid, to the respective addresses as follows:

(a) The Mining Co.
Gold Standard Mines, Inc.
P.O. Box 4416
Kingman, Arizona 86401

(b) Sublessee's Agent
The Equitable Corporation
421 East Carson Street Box #23
Las Vegas, Nevada 89101

Each party shall have the right to change its address at any time, and from time to time, by giving written notice thereof to the other party.

10. It is not the purpose or intention of this Agreement to create a joint venture, mining partnership, commercial partnership or other partnership relation between the parties, and nothing herein shall create or be construed to create such a joint venture or partnership.

11. It is not the purpose or intention of this Agreement to create an economic interest in the Property, nor in the gold in place, in the Mining Co. It is understood and agreed that Sublessee will be entitled to a depletion allowance, and that the Mining Co. will in no way share, nor make any claims for deduction for depletion on its income tax returns or any other document.

12. The Mining Co. shall not be liable or obligated for any taxes or assessments levied against the gold in or underlying the Property or the production therefrom, and Sublessee will pay all taxes assessed, if any, on his tract.

13. Mining Co. shall look solely to earnings derived from gold produced as given by Sublessee to the Mining Co. in the Property and assets of the Sublessee for the payments and the performance of the Sublessee. In no event shall Sublessee be personally liable for the payments or the Performance of the Mining Co. other than from proceeds derived from the production and sale of gold and in the event of any default, no deficiency or other personal judgment will be requested or entered against Sublessee with respect to the obligations contained herein.

14. This Agreement may be executed in counterparts and all of the counterparts, when taken together, shall constitute the entire Agreement of the parties.

15. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

16. This Agreement contains the entire agreement of the parties with respect to its subject matter and no amendment, modification or waiver of any provisions hereof shall be valid unless signed by all of the parties hereto.

17. The terms, conditions and provisions of this Agreement shall be governed by, and construed in accordance with the laws of the State of Nevada.

WITNESS the due execution hereof as of the day and year first above written.

GOLD STANDARD GOLD MINES, INC.
(Mining Co.)

SUBLESSEE

By: _____

(Name)

Its _____

Print name

EXHIBIT #4

PROMISSORY NOTE

\$ _____

The undersigned, for value received, receipt of which is hereby acknowledged, promises to pay to the order of THE EQUITABLE CORPORATION of Nevada, the sum of _____ Dollars (\$ _____) together with interest at eight per cent (8%) on December 15, 1983 at 421 East Carson Street, Las Vegas, Nevada 89101, or at such other place as may be designated by Payee.

All payments shall be applied to the payment of interest first, and the balance, if any, shall be applied to the reduction of principal. No penalty shall be assessed in the event of prepayment by maker.

DATED this _____ day of _____, 19_____.

Name of Maker

Address

City State Zip

SECTION V

ROBERT W. HUGHES

ATTORNEY AT LAW
820 JUDGE BUILDING
SALT LAKE CITY, UTAH 84111
TELEPHONE: 534-1074

FILE NO.

November 27, 1979

The Equitable Corporation of Nevada
421 East Carson Street, Box #23
Las Vegas, Nevada 89101

Subject: Proposed Mining Venture and the
Income Tax Effect on Development Costs
Pursuant to Your "Equitable Gold Plan"

Gentlemen:

You have submitted for my review a portfolio of documents and maps containing the following information pertaining to your proposed Equitable Gold Plan which contemplates you acting as agent for a Sublessee-Miner who enters into a Mineral Claim Lease with you, to develop their mine and remove gold ore from said Sublessee-Miner's mine property.

Further, you have authority to engage an independent mining company who will perform development work on the Sublessee-Miner's lease with you.

The Portfolio contains the following, namely:

1. A letter addressed to "Dear Taxpayer"
2. Exhibit #1, Your Appointment as Agent and Authorization to Negotiate
3. Exhibit #2, Mineral Claim Lease
4. Exhibit #3, Mining Contract
5. Exhibit #4, Promissory Note
6. A geologic report, assay reports, etc., pertaining to the mine property generally.

The above documents demonstrate that a typical proposed transaction is as follows:

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A participant determining to engage in the gold mining business appoints your company as agent to assist in negotiating a mine development and mining contract for his mine property with known gold deposits and for the independent mining company to conduct development work on said property and to thereafter mine the property for its gold pursuant to said contract.

The Lessee reserves the right to control the mining and selling of gold after development work contracted for is completed.

TAXATION IMPLICATIONS:

You have requested the undersigned address the federal taxation implication arising out of the above assumed factual situation and referred to documents.

Development Expenses

Each lessee investor may deduct the entire amount of development expenses from his income this year, even though three-fourths of the total development expenses are to be financed.

Internal Revenue Code Section 616 allows a taxpayer to deduct all expenditures paid or incurred during the taxable year for the development of a mine or other natural deposit (other than a gas or oil well) if paid or incurred after the existence of ores or minerals in commercially marketable quantities have been disclosed. Income Tax Regulation Section 1.616-1(a) provides in part:

"Development expenditures under Section 616 are those which are made after such time when, in consideration of all facts and circumstances (including actions of the taxpayer), deposits of ore or other minerals are shown to exist in sufficient quantity to reasonably justify commercial exploitation by the taxpayer. Under Section 616(a), a taxpayer is allowed a deduction for development expenditures whether or not such expenditures are made in the development or production stage of the mine or other natural deposit. . . . It is not necessary that the taxpayer incur the development expense directly. He may engage a contractor to make the expenditures on his behalf."

The Sixth Circuit Court has defined "development expense" to mean "that activity necessary to make a deposit accessible for mining." (Geoghegan & Mathis, Inc., v. Commissioner of Internal Revenue, 1972 453 F. 2d 1324, 1327).

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The United States Court of Claims cites with approval an Opinion by the Office of the General Council of the Treasury (known and cited as G.C.M. 13954), to the effect that: "The term 'development' is a term which is widely used to apply to substantially all mining operations, whether in the making of preparatory openings or later additional openings of any character for extracting the mineral," and further states: "This observation was made in the course of distinguishing the 'development' stage from the 'producing' stage," and was followed by the further observation that the distinction "would appear to apply to all systems of mining, whether by underground methods or by open pit or open cut methods." (Kennecott Copper Corporation v. United States, 1965 347 F 2d 275, 292)

It therefore follows that if gold can be shown to exist in sufficient quantity and quality to reasonably justify commercial exploitation by the Sublessee-Miner with respect to his property, then he may deduct all "development expenditures" in the year in which he paid or incurred them under Section 616. Other expenditures which may not qualify as "development expenditures" but which do qualify as ordinary and necessary expenses of the business of operating the mine are correctly deductible as trade or business expenses under Internal Revenue Code Section 616; "capital expenditures", however, such as building, improvements, or costs incurred to secure benefits which have a life of more than one year, cannot be deducted currently but must be amortized over the useful life of the asset created or improved. (Internal Revenue Code Section 162; United States Gypsum Co. v. United States, N.D. Ill. 1962, 206 F., Supp. 744)

The fact that the Sublessee-Miner will be operating using one-fourth cash and three-fourths recourse notes for capital does not bar him from taking his proper deductions.

Profits Received in Kind

As a "cash basis" taxpayer (meaning the Sublessee-Miner has elected the cash receipts and disbursements method of accounting) the Sublessee-Miner is generally required to report income in the year it is actually or constructively received. See Internal Revenue Code Section 451; Income Tax Regulation Section 1.451-1(a). However, he will not receive any income until he sells the gold produced because prior to that time, the constitutional requirement of a "realization" has not yet been met. (Eisner v. Macomber, 252 U.S. 189) Therefore, tax is properly paid on the profits in the year the gold is sold.

A distinction must be drawn in the case of the transfer of the gold to the landowner. See Internal Revenue Code Section 61, Income Tax Regulation Section 1.61-8(a). Consequently, the Service may argue that, in effect, the Sublessee-Miner has made a "sale of

the gold to the landowner and realized income himself in the same amount. But if the Service treats the royalty payment in this fashion, then a reciprocal rule must apply: The Sublessee-Miner will be entitled to a deduction equal to the amount the Service deems "realized income": quite simply, royalties paid or incurred are allowable deductions from gross income. See Internal Revenue Code Section 162; Burton-Sutton Oil Co., v. Commissioner, 328 U.S. 25; Webb Press Co., Ltd., 3BTA 247 (A); Kentucky Electric Lamp Co. 14 BTA 603 (A). The same is true for taxes due the State of Arizona and the management fee the subscription form provides.

"Distortion of Income"

"Distortion of Income" results when the method of accounting used by the taxpayer to compute his taxable income does not, in the opinion of the Commissioner, clearly reflect income. (Internal Revenue Code Section 446; Income Tax Regulation Section 1.446-1)

"A method of accounting which reflects the consistent application of generally accepted accounting principles in a particular trade or business in accordance with accepted conditions or practices in that trade or business will ordinarily be regarded as clearly reflecting income, provided all items of gross income and expense are treated consistently from year to year. . . . Generally, under the cash receipts and disbursements method in the computation of taxable income, all items, which constitute gross income (whether in the form of cash, property or services) are to be included for the taxable year in which they are actually or constructively received. Expenditures are to be deducted for the year in which actually made." (Income Tax Regulation Section 1.446-1, et seq)

In this regard the Tax Court has recognized the fact that the cash basis method rarely reflects true income. But it holds that so long as the taxpayer fairly reports income on a cash basis, he may use that method although the accrual method would give a more accurate income picture. (White, Tax Court Memo 8-31-53; National Builder, Inc., 12 Tax Court 852(a).

Internal Revenue Code Section 162 allows the taxpayer to deduct all the ordinary and necessary expenses paid or incurred during the taxable year in carrying on any trade or business. Moreover, "the full amount of the allowable deduction for ordinary and necessary expenses in carrying on a business is deductible, even though such expenses exceed the gross income derived during the taxable year from such business." (Income Tax Regulation Section 1.62-1 (a) Most importantly, with respect to development expenditures made in the development or producing stage of a mine, Internal Revenue Code 616 and the regulations promulgated thereunder specifically provide

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the taxable year in which they are paid or incurred, or treat such expenditures as deferred expenses to be deducted ratably as the units of the produced ore or minerals are sold. (Internal Revenue Code Section 616; Income Tax Regulations Section 1.616 et seq)

Based on the foregoing, should a Sublessee-Miner, as a "cash basis" taxpayer, incur all properly deductible expenditures in 1980, and not realize any income until 1981, he would be entitled to deduct said expenditures from his taxable income in 1980, and to report and pay tax on his income realized in the following year. The Tax Court commented in a recent case: "(T)hat object a taxpayer has a legal right to conduct his business transactions so as to minimize the incidence of taxation." (Charles B. Schniers, 1977, 69 Tax Court 40)

Discharge of Promissory Notes or Loans

Under your plan a Sublessee-miner may, at his election, sell forward, similar to a future transaction, sufficient gold to the independent mining company to discharge his delivered recourse notes and/or discharge loans.

The Internal Revenue Code includes in its definition of gross income, "income from discharge of indebtedness" (IRC Section 61(A) (12)). However, Internal Revenue Code Section 108 provides that an individual taxpayer may exclude income realized from a discharge of indebtedness, provided the indebtedness was incurred or assumed in connection with property used in the individual's trade or business (IRC Section 108). To take advantage of this exclusion from gross income provided by Section 108, the taxpayer must file with his return for the taxable year a consent to have the basis of his property adjusted in accordance with the regulations prescribed under Section 1017 (IRC Section 1017; Regulation Sections 1.108 (a) under Section 1017 (IRC Section 1017; Regulation Sections 1.108 (a)-1, 1.108 (a)-2, 1.1017-1; IRS Form 982).

Sublessee's Taxable Status

The Sublessee-Miner, for the purpose of mining gold has leased a mineral claim; the terms of his lease permit him free access to the claim, and permit him to develop the claim and extract the gold therein, how and when he deems fit. He has hired you as an agent, who in turn has regulated an agreement with contractor to develop his claim. He may fire you or the contractor at will; and the Sublessee-Miner may mine his property with whatever personnel he pleases. You have leased other claim properties to other parties; these parties have also hired you as agent and utilize the same contractor. No agreements have been entered into or between any adjacent claim holders, or any other third parties to cooperate or participate in any way in the mutual development of the others' claim, the extraction of gold and/or the subsequent sale of gold.

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It appears that individual Sublessee-Miners have complied with the "at risk" limitations rules applicable for they have executed full recourse notes.

The standards for determining who is a partner, or what is a partnership, for federal tax purposes, must be made under federal as opposed to state or local tax law (Rev. Rul. 77-332, 1977-37 I.R.B. 13, at 14).

The Income tax regulations reveal that "A joint undertaking merely to share expenses is not a partnership. For example, if two or more persons jointly construct a ditch merely to drain surface water from their properties, they are not partners." (Regulation Section 1.761-1(a))

The key definition, however, is provided by the United States Supreme Court. In Commissioner of Internal Revenue v. Culbertson, (1948) 337 U.S. 733, 740, the Court stated that a partnership is created for federal income tax purposes, "when persons join together their money, goods, labor or skill for the purpose of carrying on a trade, profession or business and when there is community of interest in the profits and losses." The Sublessee-Miners do not share profits or losses with other Sublessee-Miners and they are not partners.

The opinions expressed herein are founded solely on those factual circumstances as they have been communicated expressly to me. Since I have been asked to analyze this situation with a focus only on federal income taxation, my research and study was confined by definition to the Internal Revenue Code relevant thereto as amended to the date hereof, and to current administrative and judicial interpretations thereof as they are now in existence. I, thus, have not treated this matter with reference to state and/or local income tax laws, federal and/or state securities laws; nor, to any extent, with an eye turned toward any other federal, state, municipal or local governmental tax or other regulatory scheme. Also, please note that my observations may (but not necessarily) vary in their relative impact depending upon the details and subtleties of any particular Sublessee-Miner.

This opinion is not intended to be, and is not, a representation on my part as to future events, legislation, Internal Revenue Service action or judicial decision over which I have absolutely no control and which may materially alter the tax conclusions and opinions expressed herein. Accordingly, there can be no assurance that the presently contemplated Income Tax treatment of the venture may not be altered at any time.

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CONCLUSION:

A Sublessee-Miner, under your Gold Plan, coming within the assumptions above could deduct the cost or amount of his development work from his 1980 federal tax liability as mine development costs and enjoy a tax savings accordingly. He would have a "Tax Profit" and could anticipate a total "Business Benefit", exclusive of royalties, taxes and commissions as demonstrated in your literature, assuming he mines all the gold his mineral lease permits.

The Sublessee-Miner electing to receive gold bullion from the operation of his mine, rather than cash, could hold the same and refrain from paying taxes on said bullion until he sells or otherwise disposes of said gold bullion. He further would then be entitled to the depletion allowance of fifteen percent (15%) for the value of his mined gold at the time, i.e., within the year sold. (IRC Section 622, et seq)

Very truly yours,

Robert Wallace Hughes
Attorney-at-Law

RWH/bn

SECTION VI

F.H. BLAIR & ASSOCIATES

Mineral Exploration Consultants
N. 1103 Mamer Road
Spokane, Washington 99216
(509) 924-8283

November 19, 1979

TYRO MINE

DESCRIPTION

Three patented claims comprise the Tyro Property. Located in Sections 6 & 7, T.21N., R.20W., the claims cover the entire 4000 feet of the Tyro vein outcrop. The property is located about 22 miles west of Kingman. Access to the Tyro is along the road to the Black Dyke Property. At the old Roadside Mine there is a right fork in the road. From here it is about 1-1/2 miles east to the property. The Tyro is two miles east of the Black Dyke and two miles west of the OK Group. Access is by county maintained, improved dirt road to the 2680 portal. The Tyro Mine is on a northeast trending ridge that is in an area of steep, rough topography that ranges from 2500 to 2900 feet. Figure 1 is an aerial view of the Tyro open cut.

HISTORY

The Tyro was located many times, probably the earliest work was in the late 1860's. However, the first major work was done in 1902 when a 50 foot shaft and 135 feet of crosscutting was completed. At this time high-grade pockets containing 11 ounces gold and 53 ounces silver were reported. There is no mention of the size of the pockets. A reference in a 1902 publication mentions that due to the general low grade of ore, only large scale mining efforts would be feasible.

A location found during the recent examination was dated 1906 and is presumed to be a relocation notice of the Decimal, which along with the White Spar and Tyro were patented in 1911. The most recent mining was done in 1939 and 1941 when the mine was shut down by Public Law 208. The Gold Standard Mines Corporation received a six month extension to ship stock-piled ore, but since then the mine has been idle.

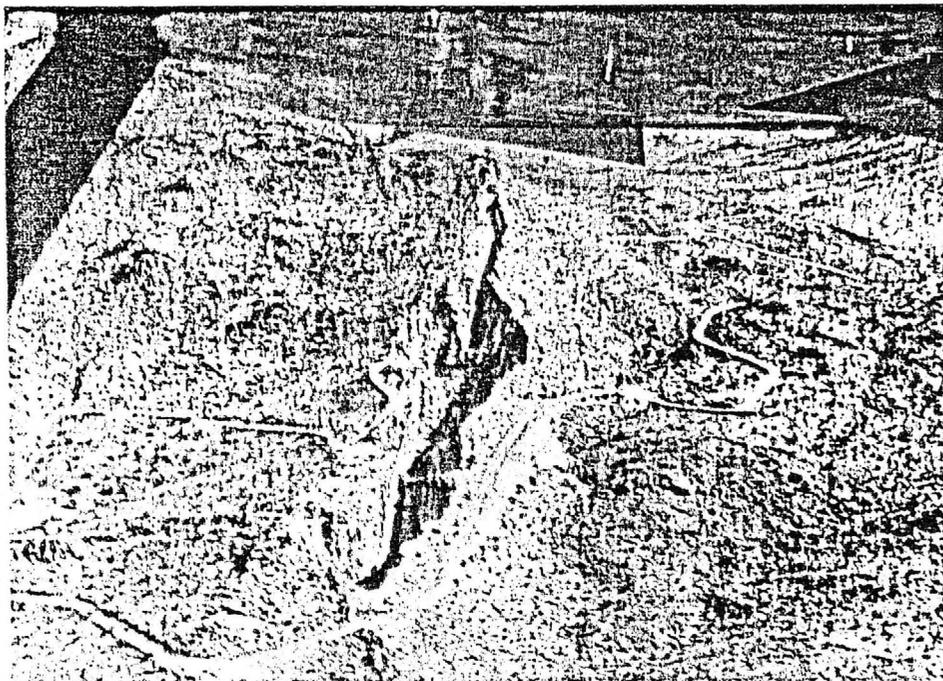


Figure 1. Aerial view of the Tyro Mine Open Cut.

During the recent examination over 3500 feet of underground workings were mapped. One of the most striking features of the mine is the conspicuous lack of dumps. Apparently when Gold Standard Mines Corporation worked the mine they shipped almost everything to the Katherine Mill.

GEOLOGY

The major rock type in the area is a porphyritic andesite (?) cut by minor rhyolite and fine grained andesite dikes. Early writers called the major rock type a biotite-microcline gneissoid granite and assigned it to the Precambrian; however, during the recent visit, some features were noted that seem to indicate the

rock is similar to the Oatman andesite located about 15 miles south of the mine. The rock may, in fact, belong to the Precambrian crystalline complex, but for the present, the rock's age is not as critical as the fact that it was structurally prepared prior to mineralization. A number of rhyolite and andesite dikes are present in the area. A pre-mineral rhyolite dike can be traced for over a half mile along its strike. Plate 7 shows a plan map and longitudinal perspective section of the Tyro Mine. Plate 8 contains cross-sections of the Tyro Mine. Geology of the underground levels is on Plate 9. Shown on these plates is an unit called a hybrid, which is a mixture of andesite (?) and rhyolite along a fault zone in the andesite (?). The mineralization cuts the rhyolite dike at an oblique angle. Note that the mineralization is narrower on the south side of the dike.

Structural features within the Tyro Mine are best exposed in the workings. Only the major structures were noted on the surface during the recent examination. In general the Tyro deposit occurs along a northeast trending zone 15 to 100 feet wide, that dips steeply to the southeast, and can be traced on the surface for over 4000 feet. Approximately 1400 feet of this structure is exposed in the underground and surface workings. Most of the movement along this major structure has been pre-mineral or intra-mineral. South of the rhyolite dike in the 2658 and 2612 levels (Plate 9) there appears to be some post-mineral movement. The only place this movement can be measured is at 9250 N + 9540 E on the 2612 level. Here, a vein has been offset eight feet horizontally. On the surface, the rhyolite dike has a number of offset segments. These may be surface manifestations of the fractures and faults shown between 9430 N + 9540 N + 9715 E. Another post-mineral offset is shown in the open cut at 9700 N and 9860 E; Plate 8. Here, the entire mineralized zone has been offset by a high angle normal fault dipping 66 southwestward. Vertical offset is estimated at 20 feet and horizontal offset is estimated at 16 feet. The presence of a horse of Tarb on the 2612 level at 9300 N + 9610 E (Plate 9) also seems to reflect the post-mineral faulting. Cross-section A-A', Plate 8, shows an inferred displacement of the mineralized zone on the 2573 level. As further detail work is completed other post-mineral structures will undoubtedly be found.

Mineralization in the Tyro Mine can best be described as imbricating stringers and veins within and along the walls of a massive, linear trending brecciated zone. The zone is comprised of three general rock units, all of which are andesite (?). For purposes of this report the units are classified primarily on their textural characteristics and variations in the amount of mineralization present. On the plates, the units are shown as Ta, Tab, and Tarb.

Ta

The host rock for the Tyro deposits is probably a Tertiary andesite. This is a gray-green chloritic andesite which adjacent to the veins contains minor amounts of pyrite. The pyrite is presumed to have been formed during mineralization as a contact feature and was not introduced during the deposition of the quartz, calcite, and fluorite. No sulfides were observed in the main deposit. The pyrite probably formed during the mineralization by the addition of sulphur to the iron from the mafic minerals in the andesite. The contacts between the Ta and other units is usually very sharp and easily mapped. These contacts often contain small stringers or veins of calcite or fluorite. There is often a number of tight, narrow veins near the contact of this unit, as at 9610 N + 9820 E on the 2573 level and at 9970 N + 10040 E on the 2680 level.

Tab

This unit is a breccia that contains fragments of andesite (?) ranging from 3 inches to 2 feet in diameter surrounded by "2nd" and "3rd" stage mineralization. The Tab shows very little rotation of the fragments and more of a shattered appearance, Figure 3. Massive calcite and fluorite veins crosscut this unit usually parallel to the axis of the main Tyro deposit. The fragments contain minor to moderate amounts of limonite and moderate silicification. The ratio of fragments to mineralization ranges from 1:0.5 to 1:3.

Tarb

Rotation and actual milling of some of the andesite (?) fragments is prevalent in this unit. The unit is characterized by rounded to sub-rounded fragments ranging from 1 inch to 4 feet in diameter set in "2nd", "3rd" and "4th" (?) stage mineralization. The fragments are extremely limonite stained.

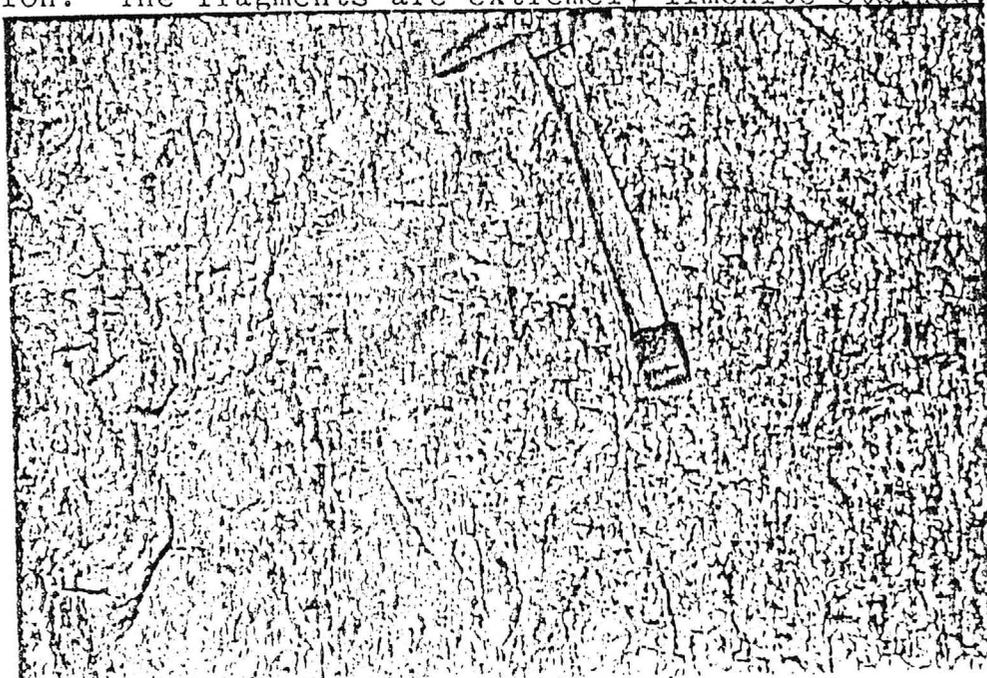


Figure 3. Mineralized Tab unit showing shattered texture.

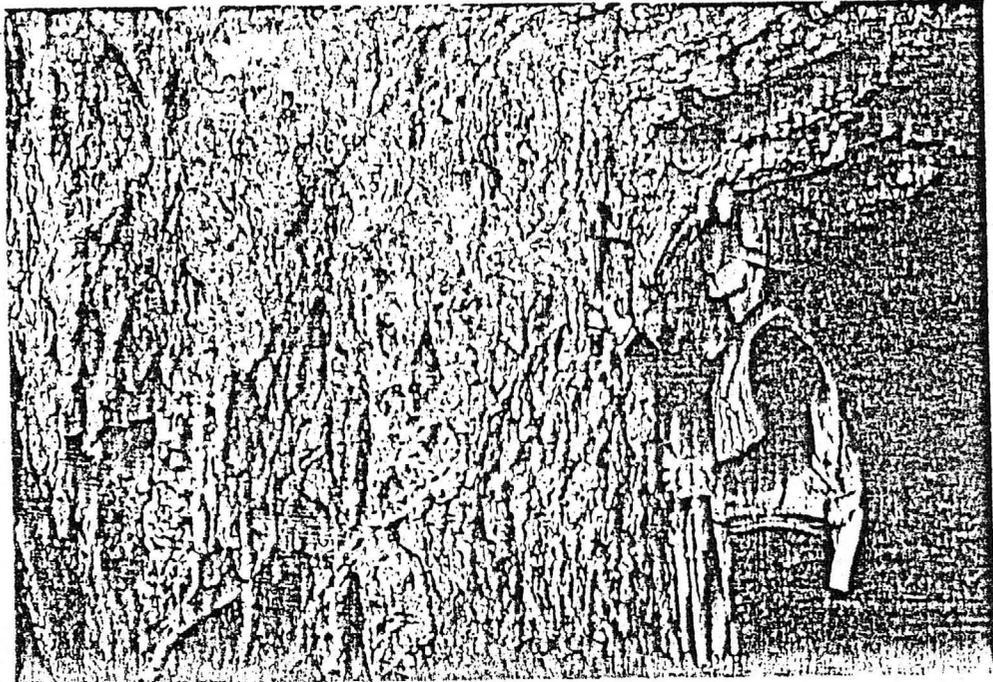


Figure 4. Rotated and milled texture in Tarb unit on the 2573 Level.

Figure 4. is a picture taken on the 2573 level at 9625 N + 9840 E. Some are intensely silicified, others are easily pulverized with a hammer. The more intense silicification was noted adjacent to quartz veins. A number of rotated fragments have been fractured and crosscut by "3rd" stage quartz. The Tarb unit appears to represent intramineral movement of the rock mass during mineralization. The ratio of fragments to mineralization ranges from 1:1 to 1:6.

Veins

The imbricating volcanic-veins in the Tyro deposit range from $\frac{1}{4}$ inch to 4 feet wide, with an average of about 4 inches. Figure 5 is a picture looking east along the trend of the Tyro deposit. Textures vary from massive monominerallic to comb structure and symmetrical banding. Some drusy cavities contain cubes and octahedrons of fluorite. The level maps do not show all of the smaller veins exposed in the workings. In some areas the width of the veins had to be exaggerated to show on the 1"=20' scale map. 4

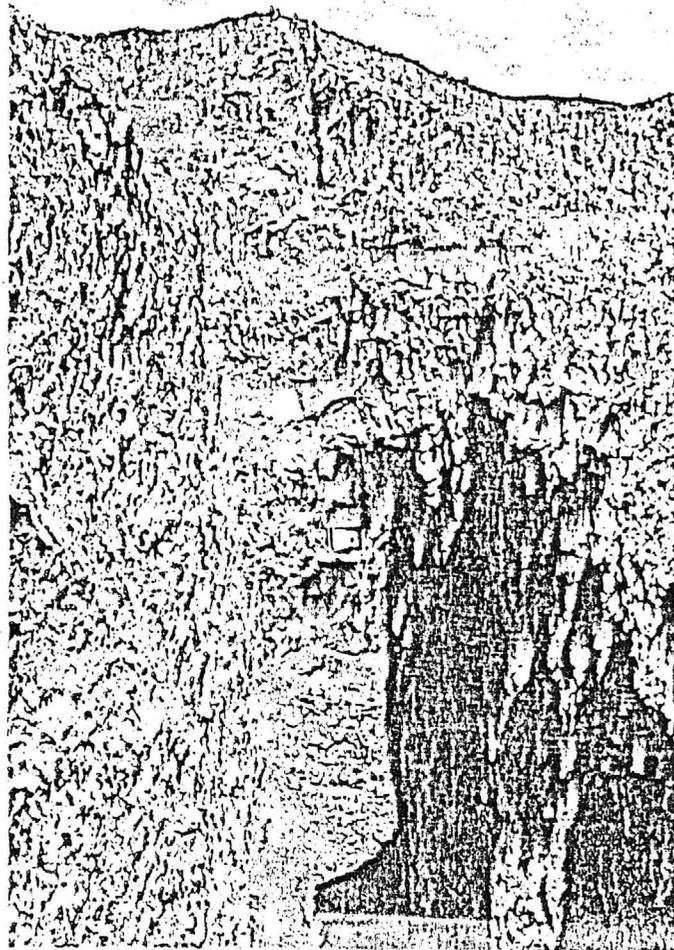


Figure 5. Tyro Open Cut, looking east Note imbricating veins in walls.

The veins tend to follow the general northeast trend of the deposit. A good example of the imbricating nature of the veins is shown on the 2680 level (Plate 9) between 10200 N + 10125 E and 10300 N + 10200 E. Figure 6 is a picture of the open cut showing the veins in the unmined footwall. Also shown on the 2680 level are good examples of the occurrence of veins on the footwall (west side) and hanging wall (east side) of the zone. The 3 to 4 foot, massive fluorite vein shown in the footwall is one of the mono-minerallic veins.

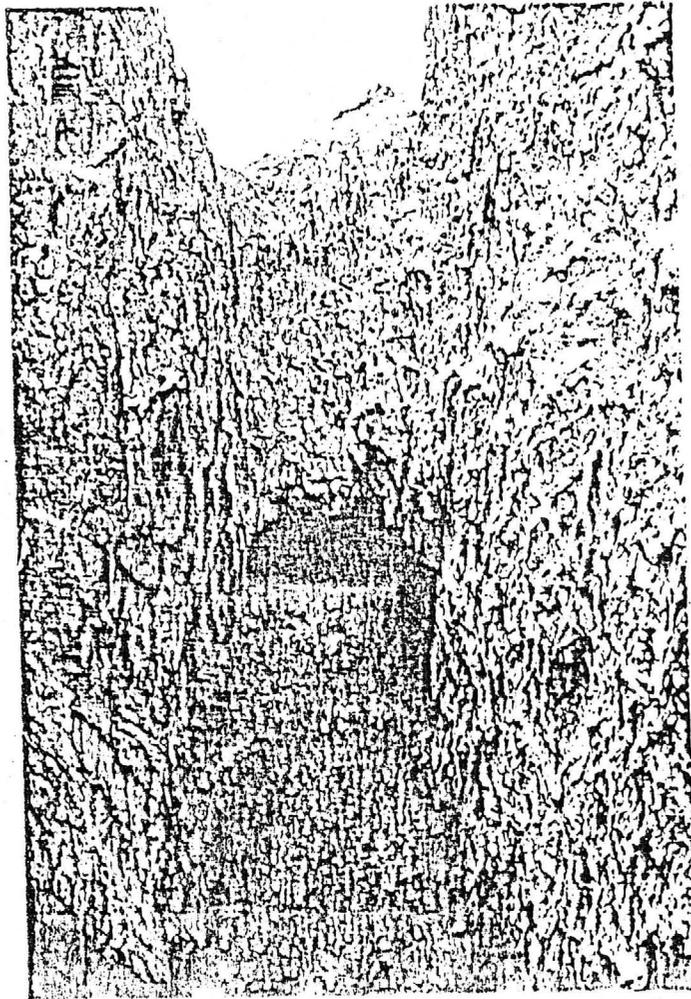


Figure 6. Unmined footwall in the South end of Tyro Mine.

Assays

Perhaps the best test of the Tyro mineralization is the data from the mill results of the shipments from the open cuts shown on Plate 7 and the development rock on the 2573 level between the south end of the pit and the shaft. Between 1939 and 1941 over 300,000 tons of ore averaging 0.135 ounces gold and 0.40 ounces silver were produced. A comprehensive sampling program at the Tyro during the recent program would probably have taken most of the budget allocated for the Goldelta project. Samples T-1 through T-11 were taken as preliminary samples of the various rock types and vein occurrences. The results of these samples are shown on Table 2 and Plates 7, 8, and 9. All of the samples contain significant gold and silver values.

CONCLUSIONS AND RECOMMENDATIONS

It is my opinion that there are over 600,000 tons of ore that will contain 0.128 ounces gold and 0.314 ounces silver per ton. I am recommending a budget of \$914,500 be allocated to develop and mine the ore from the Tyro. See Table III. An additional allocation of \$1,000,000 should be considered for the purchase and installation of a 300 - 500 ton per day mill.

Classification of the calculated tonnages is based upon definitions used by the U.S. Geological Survey and U.S. Bureau of Mines. These classifications are "Measured", "Indicated" and "Inferred". See attached definitions. Using these three classifications of ore allows some subjective adjustment of grade and dimensions based upon my knowledge of the Tyro Mine and gold occurrences in the Black Mountains, Mohave County, Arizona.

Tonnage and assay value calculations used in this report are shown on the enclosed Tables 1 and 2, and Plates 1 and 2. These calculations are for eight tonnage blocks. Seven of the blocks can be developed and mined by driving a 300 - 400 foot decline into the present underground workings (See Plate 1). Block No. 8 will require separate access.

Measured ore in Blocks 1 and 2 totals 31,600 tons containing 0.12 ounces gold and 0.39 ounces silver per ton.

Indicated ore in Blocks 4, 6, and 8 totals 403,333 tons containing 0.14 ounces gold and 0.36 ounces silver per ton.

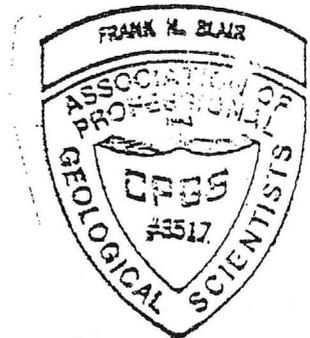
Inferred ore in Blocks 3, 5, and 7 totals 166,333 tons containing 0.10 ounces gold and 0.20 ounces silver per ton.

Sincerely yours,



Frank H. Blair, C.P.G.S.

Enclosure



NOTE: ✓ The plats referred to above, prepared by F. H. Blair & Associates, are not attached due to their size; however, copies are available, at minimal cost, upon request.

The complete mill records for the Tyro Mine 1939 through 1942 are available, since they comprise of voluminous records, a representative sample is attached. Likewise, copies are available upon request and payment of copying costs.

THE EQUITABLE CORPORATION

GOLDELTA PROJECT ASSAYS

TYRO

<u>Sample No.</u>	<u>Width Ft.</u>	<u>Type</u>	<u>Description</u>	<u>Oz. Gold</u>	<u>Oz. Silver</u>
T-1	12	Rep. Chip	Breccia on 2573 level 130 feet from internal shaft	0.02	0.10
T-2	40	Rep. Chip	Breast high sample on west wall of 2612 level	0.12	0.20
T-3	25	Ran. Chip	Across north end of middle pit near shaft	0.14	0.20
T-4	30	Ran. Chip	Across north end of north pit	0.08	0.20
T-5	5	Rep. Chip	Vein about 5 feet from discovery monument for Decimal claim	0.07	0.40
T-6	30	Ran. Chip	Along trench about 30 feet north of T-5	0.02	0.10
T-7			No sample taken with this number		
T-8	10	Rep. Chip	Along trench near station 9	0.14	0.70
T-9	15	Rep. Chip	Along trench near station 7	0.12	1.20
T-10	8	Rep. Chip	Head of open stope near station 32	0.28	0.60
T-11	6	Rep. Chip	Vein near station 33	0.10	0.30

TABLE I

Tonnage & Grade Calculations

TYRO MINE

Block #	Classification *	Length	Width	Depth	Cubic Feet	cu.ft/12	Grade +	
							Oz. Gold	Oz. Silver
1	Measured	20'	30'	72'	43200	3600	0.134	0.381
2	Measured	140'	30'	80'	336000	28000	0.119	0.391
3	Indicated	60'	30'	80'	144000	12000	0.10	0.20
4	Indicated	140'	35'	200'	980000	81600	0.10	0.30
5	Inferred	110'	30'	120'	396000	33000	0.10	0.20
6	Inferred	230'	50'	140'	1610000	134167	0.08	0.20
7	Indicated	260'	20'	280'	1456000	121300	0.10	0.20
8	Indicated	500'	30'	150'	2250000	187000	0.20	0.50
9	?	400'	?	?		50000	?	?

* See Mining Geology by McKinstry, June 1963 edition, page 472 for definition of terms.

+ Azcon-1976 & F.H. Blair 1975 assays used in determining grade for Blocks
All values weighted.

TABLE II

Total Tonnage & Grade

TYRO MINE

Block #	Classification	Tons	Grade Gold	Tons x Grade	Grade Silver	Tons x Grade
1	Measured	3600	0.134	482.40	0.381	1371.60
2	Measured	28000	0.119	3332.00	0.391	10948.00
3	Indicated	12000	0.10	1200.00	0.20	2400.00
4	Indicated	81666	0.10	8166.60	0.30	24499.80
5	Inferred	33000	0.10	3300.00	0.20	6600.00
6	Inferred	134167	0.08	10733.36	0.20	26833.40
7	Indicated	181333	0.10	12133.30	0.20	24266.60
8	Indicated	187500	0.20	37500.00	0.50	93750.00
TOTAL		601266		76847.66		190669.40
Average			0.128		0.314	
1	Measured	3600	0.134	482.40	0.381	1371.60
2	Measured	28000	0.119	3332.00	0.391	10948.00
TOTAL		31600		3812.40		12319.60
Average			0.12		0.39	
4	Indicated	81666	0.10	8166.60	0.30	24499.80
6	Indicated	134167	0.08	10733.36	0.20	26833.40
8	Indicated	187500	0.20	37500.00	0.50	93750.00
TOTAL		403333		56399.96		145083.20
Average			0.14		0.36	
3	Inferred	12000	0.10	1200.00	0.20	2400.00
5	Inferred	33000	0.10	3300.00	0.20	6600.00
7	Inferred	121333	0.10	12133.30	0.20	24266.60
TOTAL		166333		16633.30		33266.60
Average			0.10		0.20	

GOLD STANDARD MINES CORPORATION

KINGMAN, ARIZONA

TREATED FOR I. M. George
MINE Stockpile

PERIOD November 16 to 30, 1942

GOLD LESS. 8 % @ \$34.60
SILVER LESS 70 % @ .7111

DATE	MINE LOT	ASSAY		TONS			VALUE PER TON	TOTAL VALUE	ROYALTY	
		GOLD	SILVER	WET	H ₂ O %	DRY			RATE %	AMOUNT
November 16	1319	.11 <i>3.50</i>	.39 <i>98</i>	231	1.5 <i>3.48</i>	227.54	\$ 3.58	814.17 815.49	5	\$ 40.73
17	none									
18	1320	.105 <i>3.34</i>	.42 <i>99</i>	151	2.27	148.73	3.51	522.04		26.10
19	1321	.08 <i>2.53</i>	.28 <i>96</i>	240	3.60	236.40	2.61	617.00		30.85
20	1322	.10 <i>3.18</i>	.40 <i>99</i>	210	3.15	206.85	3.27	676.40		33.32
21	1323	.102 <i>3.25</i>	.42 <i>99</i>	239	3.58	235.42	3.34	786.30		39.32
22	1324	.11 <i>3.50</i>	.41 <i>99</i>	218	3.27	214.73	3.59	770.98		38.54
23	1325	.09 <i>2.86</i>	.37 <i>98</i>	227	3.41	223.59	2.94	657.35		32.87
24	1326	.115 <i>3.66</i>	.49 <i>10</i>	231	3.46	227.54	3.76	855.55		42.78
25	1327	.14 <i>4.46</i>	.48 <i>10</i>	231	3.47	227.53	4.56	1037.54		51.88
26	1328	.11 <i>3.50</i>	.39 <i>98</i>	243	3.64	239.36	3.58	856.91		42.85
27	1329	.115 <i>3.66</i>	.41 <i>99</i>	244	3.66	240.34	3.75	901.28		45.06
28	1330	.12 <i>3.82</i>	.38 <i>98</i>	249	3.74	245.26	3.90	956.51		47.83
29	1331	.115 <i>3.66</i>	.39 <i>98</i>	160	7.40	157.60	3.74	589.42		29.47
30	1332	.10 <i>3.18</i>	.40 <i>99</i>	245	3.67	241.53	3.27	789.14		39.46
		<i>14</i> ✓	<i>3.44</i> ✓	3119 ✓	<i>46.78</i> ✓	3072.22 ✓	<i>44.40</i> ✓	10830.91 ✓		
		✓	✓	✓	✓	✓	<i>3.53</i> ✓	10844.93		
							✓	Royalty		\$ 541.56
							✓	<i>0.54</i>		542.75
							✓			<i>.69</i>

TYPICAL MILL RUNS OF TYRO ORE

GOLD STANDARD MINES CORPORATION

KINGMAN, ARIZONA

TREATED FOR MINE

I. M. George
Tyro Stockpile

PERIOD

March 1 to 15, 1943

GOLD LESS.

8

% @ \$34.60

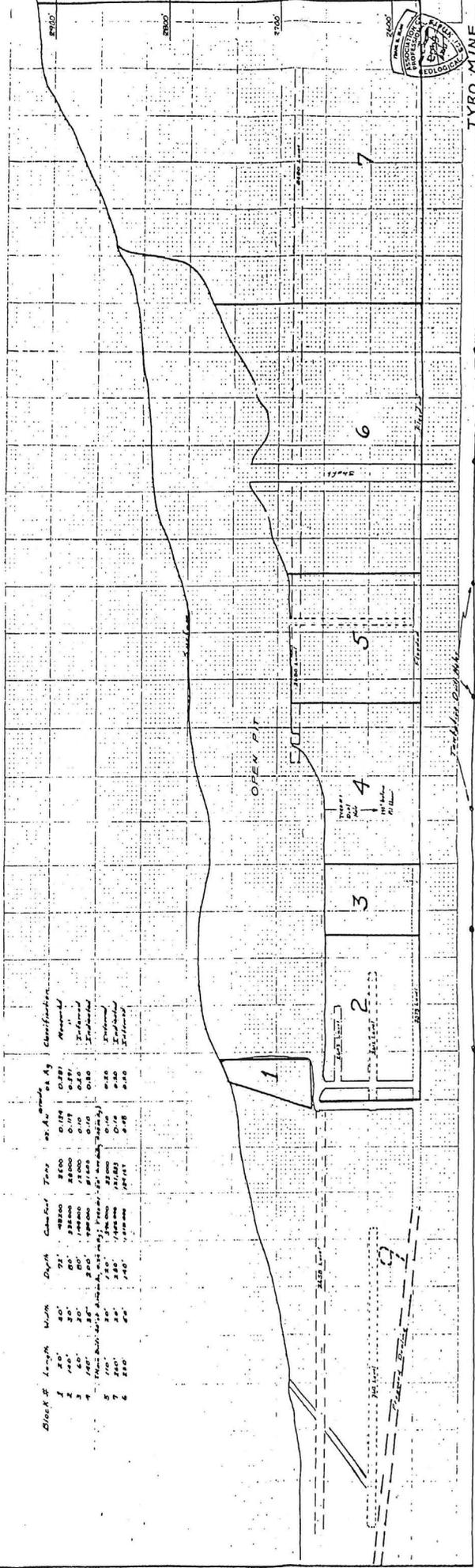
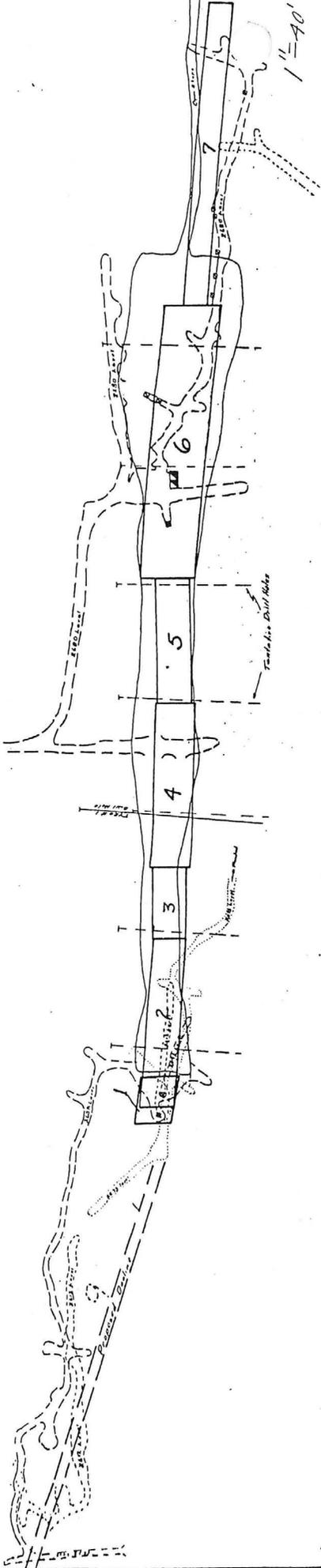
SILVER, LESS

70

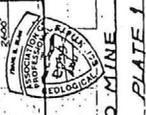
% @ .7111

DATE	MINE LOT	ASSAY		TONS			VALUE PER TON	TOTAL VALUE	ROYALTY	
		GOLD	SILVER	WET	H ₂ O %	DRY			RATE %	AMOUNT
March										
1	1422	.125 3.78	.38 .08	194	2.91 1.5	191.09	\$4.06 ✓	\$ 775.83 ✓	5	\$ 38.79 ✓
2	1423	.13 4.14	.41 .09	239	3.57	235.43	4.23 ✓	995.83 ✓		49.79 ✓
3	1424	.107 3.41	.46 .10	247	3.70	243.30	3.51 ✓	853.98 ✓		42.70 ✓
4	1425	.097 3.09	.37 .08	262	3.93	258.07	3.17 ✓	818.08 ✓		40.90 ✓
5	1426	.11 3.50	.39 .08	252	3.78	248.22	3.58 ✓	888.63 ✓		44.43 ✓
6	1427	.10 3.18	.38 .08	258	3.87	254.13	3.26 ✓	828.46 ✓		41.42 ✓
7	1428	.115 3.66	.41 .09	261	3.91	257.09	3.75 ✓	964.09 ✓		48.20 ✓
8	1429	.115 3.76	.43 .09	227	3.41	223.59	3.75 ✓	838.46 ✓		41.92 ✓
9	1430	.105 3.34	.42 .09	254	3.81	250.19	3.43 ✓	858.15 ✓		42.91 ✓
10	1431	.13 4.14	.45 .10	262	3.93	258.07	4.24 ✓	1094.22 ✓		54.71 ✓
11	1432	.12 3.82	.40 .09	257	3.35	253.15	3.91 ✓	989.82 ✓		49.49 ✓
12	1433	.115 3.66	.45 .10	218	3.27	214.73	3.76 ✓	807.38 ✓		40.37 ✓
13	1434	.12 3.82	.42 .09	265	3.97	261.03	3.91 ✓	1020.63 ✓		51.03 ✓
14	1435	.107 3.41	.39 .08	245	3.67	241.33	3.49 ✓	842.24 ✓		42.11 ✓
15	1436	.115 3.66	.40 .09	257	3.85	253.15	3.75 ✓	949.31 ✓		47.47 ✓
		17.11 1.14 Av	6.16 Av .41	3698 ✓	(55.43) @ 1.5 55.47	3642.53 ✓	5530 3.73 Av	\$13525.11 ✓ 13550.71	@ 5%	\$ 876.24 ✓ 676.26 677.51 1.57

TYPICAL MILL RUNS OF TYRO ORE



Block #	Length	Width	Depth	Content	Tons	at 40'	at 40'	Classification
1	140'	30'	80'	280,000	28,000	0.17	0.27	Medium
2	140'	30'	80'	280,000	28,000	0.17	0.27	Medium
3	140'	30'	80'	280,000	28,000	0.17	0.27	Medium
4	140'	30'	80'	280,000	28,000	0.17	0.27	Medium
5	140'	30'	80'	280,000	28,000	0.17	0.27	Medium
6	140'	30'	80'	280,000	28,000	0.17	0.27	Medium
7	140'	30'	80'	280,000	28,000	0.17	0.27	Medium
8	140'	30'	80'	280,000	28,000	0.17	0.27	Medium



TYRO MINE

PLATE 1

PLAN

Scale: 1" = 40'

PROFILE

Scale: 1" = 40'

SECTION VII

REFERENCES

BANKS:

Mr. Don Sorrel,
Vice President
Kentucky Farmers Bank
Ashland, KY 41101

(606) 928-9577

Mr. G. C. Eggers -
Ass't. Vice President
Nevada National Bank
1140 E. Desert Inn Road
Las Vegas, NV 89109

(702) 386-3686

MINING COMPANIES & CONSULTANTS:

Argus Resources, Inc.
P.O. Box 56
Austin, Nevada 89310
Mr. William R. Noack
President and Mine Engineer
(702) 964-2311

F. H. Blair
F. H. Blair & Associates
Mineral Exploration Consultants
N. 1103 Mamer Road
Spokane, Washington 99216
(509) 924-8283

C.P. Keegel, Geologist &
Chemical Engineer
Keegel Engineering Inc.
7249 Franklin Avenue
Los Angeles, CA 90046
(213) 876-8175
(702) 735-8526

Mr. Anthony Selig
Manhattan Milling Company
Manhattan, Nevada 89022
(702) 361-3646

Alan Brown, Metallurgist
340 West 100 North
Volparaiso, Indiana 46383
(219) 462-4105

Mr. Don Morris, Geologist
Bullion Monorch Mining Co.
P.O. Box 712
Elko, Nevada 89801
(702) 738-6260

R. O. (Rocky) Camozzi
Consulting Mining Engineer
(Development & Production Specialist)
6148 Cromwell Avenue
Las Vegas, Nevada 89107
(702) 870-2753

SCHEDULE C
(Form 1040)
Department of the Treasury
Internal Revenue Service

Profit or (Loss) From Business or Profession
(Sole Proprietorship)

1980

Partnerships, Joint Ventures, etc., Must File Form 1065.

▶ Attach to Form 1040. ▶ See Instructions for Schedule C (Form 1040).

Name of proprietor _____ Social security number of proprietor _____

- A Main business activity (see Instructions) ▶ Mining; product ▶ Gold
- B Business name ▶ Your name or business name or your trust
- C Employer identification number ▶ social security number
- D Business address (number and street) ▶ _____
City, State and ZIP code ▶ _____
- E Accounting method: (1) Cash (2) Accrual (3) Other (specify) ▶ _____
- F Method(s) used to value closing inventory:
(1) Cost (2) Lower of cost or market (3) Other (if other, attach explanation)
- G Was there any major change in determining quantities, costs, or valuations between opening and closing inventory? . . .
If "Yes," attach explanation.

Yes	No
	X
- H Does this business activity involve oil or gas, movies or video tapes, or leasing personal (section 1245) property to others? (See page 25 of the Instructions.)
- I Did you deduct expenses for an office in your home? . . .

Part I Income

1 a Gross receipts or sales	1a	-0-		
b Returns and allowances	1b			
c Balance (subtract line 1b from line 1a)	1c	-0-		
2 Cost of goods sold and/or operations (Schedule C-1, line 3)	2	\$20,000		
3 Gross profit (subtract line 2 from line 1c)	3	(\$20,000)		
4 Other income (attach schedule)	4			
5 Total income (add lines 3 and 4)	5	(\$20,000)		

Part II Deductions

<p>6 Advertising</p> <p>7 Amortization</p> <p>8 Bad debts from sales or services</p> <p>9 Bank charges</p> <p>10 Car and truck expenses</p> <p>11 Commissions</p> <p>12 Depletion</p> <p>13 Depreciation (explain in Schedule C-2)</p> <p>14 Dues and publications</p> <p>15 Employee benefit programs</p> <p>16 Freight (not included on Schedule C-1)</p> <p>17 Insurance</p> <p>18 Interest on business indebtedness</p> <p>19 Laundry and cleaning</p> <p>20 Legal and professional services</p> <p>21 Office supplies</p> <p>22 Pension and profit-sharing plans</p> <p>23 Postage</p> <p>24 Rent on business property</p> <p>25 Repairs</p> <p>26 Supplies (not included on Schedule C-1)</p> <p>27 Taxes</p>			<p>28 Telephone</p> <p>29 Travel and entertainment</p> <p>30 Utilities</p> <p>31 a Wages</p> <p>b New Jobs Credit</p> <p>c Subtract line 31b from 31a</p> <p>32 Other expenses (specify):</p> <p>a _____</p> <p>b _____</p> <p>c <u>Add legal & Account-</u></p> <p>d <u>ing or other fees</u></p> <p>e <u>you may incur; how-</u></p> <p>f <u>ever for this illustrat-</u></p> <p>g <u>ion, these fees are</u></p> <p>h <u>not included.</u></p> <p>i _____</p> <p>j _____</p> <p>k _____</p> <p>l _____</p> <p>m _____</p> <p>n _____</p> <p>o _____</p> <p>p _____</p> <p>q _____</p> <p>r _____</p>			
33 Total deductions (add amounts in columns for lines 6 through 32r)			33	0		
34 Net profit or (loss) (subtract line 33 from line 5). Enter here and on Form 1040, line 13. ALSO enter on Schedule SE (Form 1040), line 5a. (For "at risk" provisions, see page 25 of Instructions.)			34	(\$20,000)		

Tyro(f)

**IF YOU HAVE EVER WANTED
TO OWN GOLD**

YOU SHOULD READ THIS BROCHURE



Prepared by:

**TYRO MINES, INC.
P.O. BOX 2633
Laughlin, Nevada 89029
(702) 382-7556**

Came with letter dated 2/13/88 to Nyai J. Niemoth

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THE GOLDEN SUN OF THE ANCIENTS	
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Man and His Gold



GOLD. THE PURSUIT AND THE PASSION

The history of gold is a history of man. It has been the accurate measure and mirror of man's aspirations and motivations, faithfully revealing in its gleaming surfaces, so remarkably impervious to time, those instincts both noble and base that have shaped, enhanced and occasionally destroyed civilizations.

Something in the nature of gold is exclusive. Unique. Like nothing else seen by man under sun, sky or sea. Its qualities are both overwhelmingly practical, and soul-stirringly mystical. It has always been so, ever since stone age man first laid eyes on this stuff of dreams. And when gold became the basis of economic life, it channeled the world into paths that changed forever the destiny of men and nations.

FROM STONE AGE TO SPACE AGE: In the beginning, the glory of gold was in its fascination as adornment, as early man carefully hammered out the amulets and bracelets to which he often gave religious significance. Over centuries of growing sophistication and technology, gold has assumed many additional roles. Not only is it still prized for jewelry, it now has many additional applications in contemporary life. Gold soared into space with the astronauts, its reflective ability used on the heat shields that are critical to life. This same ability to reflect the sun increases the aesthetic and practical beauty of today's glass skyscrapers, as gold in tinted windows makes the difference between obstructive glare and glamorous gleam. In medicine and dentistry, in industry, in a hundred applications from TV sets to telephones, computers to calculators, this eternal metal has proven a contemporary boon.

Valued by individuals and governments, gold has become an increasingly accepted and viable medium of investment in the United States, as it traditionally has been in Europe. The high esteem in which gold is held is evidenced by the billions of dollars of gold held on reserve throughout the world. Eighty feet below Nassau Street in New York City, more than 25 percent of all the monetary gold of non-communist nations is stored in the vaults of the Federal Reserve Bank of New York - a hoard of close to 400 million ounces of gold. Another 100 million ounces is held at the U. S. Assay Office in New York. That means that New York sits on more than half of the gold of the free world. Fabled Fort Knox is the repository of nearly 150 million ounces of gold - about half the U. S. gold stock.

WHY GOLD IS UNIQUE. Of all the world's precious metals, only gold combines lustrous beauty, easy workability, rarity, and virtual indestructibility. Not even diamonds combine these four characteristics.

Gold is so soft and malleable, one ounce can be stretched into a wire an incredible 50 miles long, or hammered into a sheet so thin, it covers 100 square feet. It is so rare that only an estimated 90,000 tons have been taken from the earth during all of recorded history, as much as could be contained in a cube with 19 yard sides. More steel is poured in one hour than gold has been poured since the beginning of time. Since it does not rust, tarnish or corrode, gold virtually lasts forever. The coins found in sunken galleons centuries old are as bright and shiny as the day they were cast.

THE GOLD AROUND US. Seen or unseen, gold is everywhere around us. It exists in the earth's crust, in our seas, rivers and plants. It exists, in minute quantities, in our bodies. About 10 billion tons of gold (100 thousand times more than man has managed to mine from the earth) are estimated to be held in suspension in the oceans of the world. It is tantalizing to consider this potential wealth of gold, but the practicality and expense of actually obtaining gold from these diverse sources makes its recovery unlikely. The search for gold remains an exciting, dramatically speculative adventure of high stakes, high risks and high rewards. New gold mines represent a capital investment of between 100 and 300 million dollars, with costs rising yearly. Where gold does exist, it is difficult and expensive to mine, with 2½ to 50 tons of ore required to extract just one ounce, depending on the mine. Small wonder that gold remains so rare, and therefore so valuable.

THE GOLDEN SUN OF THE ANCIENTS. The place of gold has been extraordinary in every society. In earliest times, it assumed magical importance. All of the great empires of the ancient world used golden objects, mainly in their religious rituals. The Egyptians were by far the largest producers of gold. Because of its brightness and glow, they linked gold to the sun, the giver of life, and created golden objects to reflect the rays of Ra, god of the golden sun. All of Egypt's gold was designated as royal property by the Pharaohs. For these powerful rulers, objects of golden splendor were created by goldsmiths, craftsmen skilled in the arts and techniques of transmuting native gold into exquisite treasures. A wealth of those stunning treasures was uncovered in King Tutankhamun's tomb in 1922.

THE TREASURES OF TUTANKHAMUN. To the ancient Egyptians, death was not an ending, but the beginning of a journey to another world. When the boy King Tutankhamun died in 1350 B.C., everything he might need for comfort in the next world was buried with him. Chariots, chests, a throne, crowns, bracelets, anklets, rings, collars, amulets and charms - even the walls of the coffin were in gleaming, exquisitely worked gold. To provide such vast quantities of gold for tombs and palaces, 4,000 Egyptian slaves were sent to dig mines and extract gold from the hills, while couriers ranged the ancient world seeking still more.

Today, more than 3,000 years later, nearly seven million viewers have marveled at King Tut's treasures shown on a tour of U. S. Museums. It is a breathtaking golden array, as gleaming and lustrous today as on the day it was buried with the young king.

WHY GOLD.

Since December 31, 1974, U.S. citizens have been allowed to own gold - for the first time since 1933. Following this long period of unfamiliarity, American interest has been developing steadily. The futures market in the U.S. has emerged by far as the leading bullion market in the world, with a trading volume exceeding that in the three traditional centers of London, Zurich and Frankfurt combined.

Why this resurgence of interest in gold on the part of U. S. investors?

Gold is the noblest, most beautiful and most enduring of all metals. But that hardly accounts for its investment attraction. The reasons are much more basic. To quote one analyst, "There exists in all men an instinct towards preservation of the fruits of one's labor, a reward for saving, a return on one's investment. Therefore, men have always gravitated towards gold to preserve capital. At least with a portion of their assets, they have viewed gold as insurance against erosion of purchasing power wrought by inflation, rising taxes, currency fluctuations, and other uncertainties.

Why gold rather than any other medium? Again for eminently practical reasons; it is the only medium which combines a number of attributes: difficult and very expensive to find, mine and bring to market, therefore subject to only small annual incremental supply; compact; universally recognized and accepted; homogeneous; anonymous; infinitely malleable; and virtually indestructible." It is thus for very good cause that men have used gold as the pre-eminent store of value for thousands of years.

FOR WHOM, WHEN, AND HOW.

These are critical questions all potential investors in gold must ask themselves at the outset. They should clearly recognize that ultimately only they can provide the answers. Each investor must determine how he or she subjectively feels about the economic outlook and the prospects and risks for generating returns, after taxes and inflation, on alternative investment media - such as stocks, bonds, Treasury Bills, real estate, savings accounts and other investments. In many countries in the world, people have for centuries placed varying proportions of their assets in gold related investments as a hedge against uncertainty, hoping they never have to need that insurance. That proportion may be quite small - 2 or 3 percent, or substantially larger, depending on an individual's perception of events and the circumstances of the times and country in which he lives. It should be recognized that timing can be very important when investing in gold related assets. From a long term standpoint, the quantity of newly-mined gold can only decline. This is because supplies are being relentlessly eroded by the progressive exhaustion of gold mines on the one hand, and ongoing cost increases on the other. It is therefore clear that over many years, barring major new discoveries, fresh supplies will decline and prices rise.

WHAT INVESTORS SHOULD KNOW ABOUT THE METAL.

The purity of gold is measured in karats. Pure gold is 24 karats. Since this is too soft for frequent handling, it is usually alloyed with other metals, for use in jewelry. Thus 24 karats is 1,000 fine, 18 karat .750 fine, 14 karat .583-1/3 fine, and so forth. Gold bullion is gold refined to a purity of .995 or better, and is the medium most typically employed by investors. Gold of a purity of .995 or better is proportionally more expensive because it requires a costly electrolytic refining process. It is not necessary for investment purposes, although it is valuable for specialized uses, such as jewelry.

Bullion comes in various sizes, but for investment purposes only the following are of relevance (all measures refer to troy ounces): 400 ounce "delivery bars", which are used primarily in international transactions between governments; 100 ounce bars, typically used in domestic transactions; smaller bars of 50 ounces; 1 kilo (32.15 ounces); 25 ounces; 1/2 kilo (16.075 ounces); 10 ounces; and wafers of 5 ounces, 1 ounce, and 1/2 ounce.

All gold bullion must be marked with a registered number, the degree of purity, and the name of a prescribed refinery or assay office responsible for certifying its purity.

Twice a day, five days a week in London, the representatives of five venerable precious metals dealers* gather to "fix" the local gold price. It is an exercise which serves to establish an equilibrium price at which supply and demand are balanced. The London "fix" serves as the benchmark for most commercial and investment transactions in the industrialized world. These prices are reflected in the business sections of newspapers, by the wire services, by most brokerage houses, or simply by dialing certain toll-free numbers provided by several precious metals dealers in the United States.

GOLD: 7 THINGS YOU NEED TO KNOW.

1. HAVE YOU ALREADY MISSED THE MARKET?

After all, during the past 18 months, the price of gold has increased, steadily. Currently, it is up 34% - rising from a January, 1986 price of \$236.30 an ounce to a recent high of \$497.00.

Some may conclude that gold has peaked. But probably not those who understand gold's historic patterns of movement and are sensitive to the economic climate of our times.

Gold has almost always increased in value during uncertain economic and political periods. Look at today. Many financial experts are predicting inflation. But interest rates have come plummeting down. Surges and corrections in the stock market have made investors cautious. There's a new tax bill. Confusion about the price of oil. And suddenly there's an '86 "gold rush" - which has also helped to push the price of gold up.

**The members of the London Gold Market are: Mocatta and Goldsmid Limited (founded in 1684); Sharps, Pixley Limited (c.1750); N.M.Rothschild & Sons Limited (1804); Johnson Matthey Bankers (1817) and Samuel Montagu & Co. Limited (1853).*

2.OR IS GOLD ABOUT TO MAKE ANOTHER MAJOR MOVE?

No one can say for certain. But indicators as well as many financial experts do agree the market looks good. They base their optimism on the old chicken-and-egg economics of supply and demand. A demand that even current increased supplies may not be able to meet.

You see, gold is a finite resource. There is only so much to be mined. And the newly mined gold supply grows only a bit more than 1% a year. Of that, jewelry manufacturers use 70%. Not much left for new investors. And these days, there are lots of eager investors. Why? For one thing, gold is priced in American dollars.

As the dollar goes down (as it has been doing), the attractiveness of gold to foreign investors goes up, and in fact, they have been buying at a rapid rate. For another, Central Banks have recently been adding gold to their reserves. Japan, Peru, and Brazil are a few nations which have recently made large purchases.

3. THE BEST TIME TO BUY GOLD?

Is now a good time to buy? Yes. Was a year ago a good time to buy? Yes. In short, any time is the best time because of the nature of gold. When gold is moving up in value, you can realize quick gains in your real wealth. When the price is low, you can buy more for less.

Gold always has value, holds its value over the long run, and has time after time outperformed any other investment option.

4. HE WHO HAS THE GOLD MAKES THE RULES!

Since 560 B.C., when King Croesus of Lydia decreed gold to be the medium of exchange, heads of state have understood the connection between power and gold. Today, that is also true. In fact, along with Japan, Mexico, China, Canada, the U.K., and others, the U. S. is now minting gold coins. Our government has come a long way in the four decades from 1933 to 1974 when Americans weren't permitted to own gold. Today's U. S. citizen is as zealous about buying gold as anybody. The initial minting of The American Eagle, offered on October 22, 1986 sold out in 2 days. The government decision to offer this coin....its record sales....these events are solid testimony to the importance and soundness of gold.

5. CAN 10 MILLION JAPANESE BE WRONG?

For the forthcoming Japanese Hirohito coin, minted in honor of the 60th anniversary of their emperor, Japan bought some 223 tons of gold - enough to mint 10 million coins. Despite the fact that these commemorative coins will sell in Japan at a 150% premium over value, the entire issue has already been pre-sold. And now their government plans on minting 5,000,000 more coins in the Hirohito issue.

6. YOU DON'T HAVE TO BE RICH TO BUY GOLD.

Gold is available in many forms - coins, wafers, bullion, bars or certificates - and many different amounts - from 1/20th of an ounce and up. Many people think gold is a rich man's investment. Nothing can be further from the truth. Gold is an investment anyone can make, and would be justified in making to diversify an investment portfolio, to save for tomorrow, to own a tangible asset that's liquid any time, any place in the world.

7. HOW TO GET RICH SLOWLY.....AND STAY RICH SAFELY.

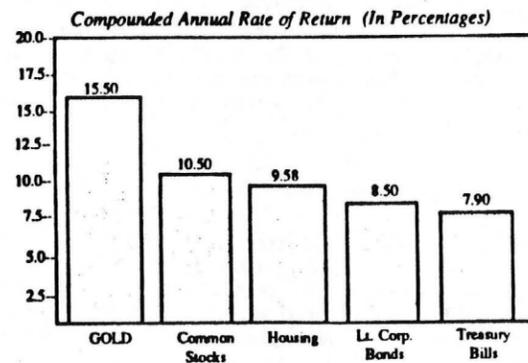
Gold has a unique combination of 4 attributes that no other investment tool can match. Taken together they make gold the only investment you can use for both profit and security. First, consistent growth over the long run. Over time, gold has outstripped all other major investments including stocks, bonds and real estate. Between 1971 and 1985 gold outdistanced stocks by more than 50%, on a compounded rate-of-return basis. (See chart below...).

Second, gold holds over time. Regardless of economic instabilities like depressions, inflationary periods and recessions. Two hundred years ago a one-ounce gold coin bought a gentleman a fine suit of clothes. And it still will today.

Third, gold is the classic hedge against inflation. Gold keeps its worth, while other investments tend to decline when the value of money goes down. Moreover, gold's performance is often in opposition to that of paper equities. So gold acts like portfolio insurance - protecting your other investments from fluctuations.

Fourth, gold is a tangible asset, with intrinsic value, world wide acceptance, a consistent market. And unlike other tangible assets (real estate for example), it's totally liquid, instantly saleable.

THE INVESTMENT PERFORMANCE OF GOLD
1971-1985



Source: © Gold Information Center - Investment Service 1986

WHO SHOULD PURCHASE BULLION?

Traditionally, the family home, real estate and blue chip stocks have been the foundation of the average American citizens investment portfolio. The recent plunge in stock prices, the continuing erosion of the U.S.dollar against world currencies, the decline in demand for real estate and the difficulty experienced when attempting to sell either stocks or real estate at will and at a profit, have combined to give one pause to examine other investment opportunities.

It is interesting to note that the gold bullion inventories maintained by the central banks in the U.S. and around the world have not changed dramatically since 1971; 264 million ounces are held by banks in the U.S.; banks in the central European countries are holding some 500 million ounces; the International Monetary Fund holds another 250 million ounces. These Central Banks do not and have not engaged in any significant sales of, or transfers of, gold bullion since before the U.S. Government modified its laws to provide for the uncontrolled ownership and investment in gold bullion by its citizens in 1974. Since that date, the price of gold in the U.S. has been allowed to float internationally with the prices quoted daily in Zurich, London and New York.

Ironically, the gold inventories maintained by the large banks represent an approximate 15% of capitalization. If that practice is considered solid enough by the professionals that manage the world currencies and banks, then it certainly should be considered by the ordinary investor as a basis for the makeup of their business portfolio. World economists report that the U.S. owes its high standard of living to its successful borrowing from foreign countries through the huge trade deficits (1986 totaled more than \$150 billion). Recently, the strength of the dollar has eroded and many investors have abandoned the dollar as an investment in favor of gold bullion. Gold, in its traditional role as a safe harbor of purchasing power continues to progress towards a dominant position of power for international and domestic investment.

Historically, gold provides a stronger, more stable investment block than real estate, stocks or bonds and if we follow the lead of the above banks, it should command at least 10% or 15% of the assets in an investment portfolio.

GOLD DOES NOT ERODE.

IT IS EASILY IDENTIFIABLE.

IT IS STORED AND EXCHANGED DOMESTICALLY AND INTERNATIONALLY WITH EASE.

The Gold Bullion presented for sale herein is for delivery as described. It is not registered with a state or federal agency because Tyro Mines believes the sale of either bullion or dore' is exempt from registration and is offered to individuals who wish to take advantage of the discounted price. Delivery will be completed as described. The nature of gold mining and the purchase of bullion involves substantial risk and should be considered only by persons who can afford the loss of their entire investment. (See "Glossary of Terms" for definitions or terms and classifications pertaining to the gold industry.)

INTRODUCTION

Tyro Mine, Inc. (hereafter "Tyro" or "Company") is a Nevada Corporation organized on the Fifth day of January, 1984 with its registered office located at 612 E. Carson Avenue, Las Vegas, Nevada, 89101 with its mine office located at the Tyro Mine Property approximately 1 1/2 miles East of the Roadside Mine Road (gravel) that connects Katherine's Landing, U.S. Park Service on Lake Mohave to Highway 68 in Mohave County, Arizona, (See "Location Map, Plat 1"). The telephone number for the Company and Mine & milling Accounting Services, Inc. is (702) 382-7556.

The business of the Company is to mine, mill and extract precious metals from the Tyro Mine property (See "Property").

PROPERTY

The Tyro Mine property consists of six (6) mine claims which are located in Sections 6 & 7, T.21 N., R.20 W. Mohave County, Arizona and the easterly portion of the Tyro vein outcrops is on the Tyro claim. Access is by county maintained, improved dirt road to the westerly entrance and by unmaintained dirt road from Highway 68 (See "Location Map on Back Cover").

HISTORY

The Tyro was located many times, probably the earliest work was in the late 1860's. However, the first major work was done in 1902 when a 50 foot shaft and 135 feet of crosscutting was completed. At this time high-grade pockets containing 11 ounces gold and 53 ounces silver were reported. There is no mention of the size of the pockets. The mine operated between 1939 and 1941 when the mine was shut down by Public Law 208. Approximately 300,000 tons of ore was mined and milled at the Katherine Mill during this period that averaged .1357 ounces of gold per ton. See a typical mill report of Gold Standard Mines Corporation, Exhibit L for the period November 16 to 30, 1942 for ore mined and milled from the Tyro Mine.

GEOLOGY

The major rock type in the area is a porphyritic andesite cut by minor rhyolite and fine grained andesite dikes. Early writers called the major rock type a biotite-microcline gneissoid granite and assigned it to the Precambrian; however, during the recent visit, some features were noted that seem to indicate the rock is similar to the Oatman andesite located about 15 miles south of the mine. The rock may, in fact, belong to the Precambrian crystalline complex, but for the present, the rock's age is not as critical as the fact that it was structurally prepared prior to mineralization. A number of rhyolite and andesite dikes are present in the area. A pre-mineral rhyolite dike can be traced for over a half mile along its strike. The mineralization cuts the rhyolite dike at an oblique angle.

Mineralization in the Tyro Mine can best be described as imbricating stringers and veins within and along the walls of a massive, linear trending brecciated zone.

Textures vary from massive monominerallic to comb structure and symmetrical banding with some drusy couities containing cubes and octahedrons of fluorite.

The imbricating volcanic-veins in the Tyro deposit range for 1/4 inch to 4 feet wide, with an average of about 4 inches.

THE GRADE OF ORE

Harrison Mining Company completed an evaluation of the claim in July, 1987 and determined at least 700,000 tons of .13 gold ore is in place on said claim and that another 350,000 tons of ore.13+ can be inferred for a total of 1,000,000 tons of ore of said grade on the property. This ore has a present value of \$62.50 per ton.

R. O. Camozzi, P.E. in his 1979 report, concluded 1,000,000 tons of ore was in place which would have a present day value of \$45.83 per ton to \$50.65 per ton. Mr. Camozzi reported that diamond drill hole #3 cut across the Tyro vein at 300 feet in depth shows two-5 ft. segments of ore with gold values of .5 ounces per ton.

PRESENT PROCESSING PLANT

Gold Standard Mines Corporation controls the mill water from Lake Mohave and the mill that will process Buyers ore for Tyro Mines, Inc.

The mill is a modern, 300 ton per day, carbon 'n' pulp mill with complete crushing, grinding and gold recovery through the use of cyanide and activated charcoal. Final refining of ore or gold concentrates will take place at refiners located in southern California, Salt Lake City, Utah or Phoenix, Arizona.

The back cover has an overview of the mill that will process ore mine, and it located 1 block easterly of the Company's office located on mine property.

M A N A G E M E N T

PRESIDENT AND DIRECTOR:

ROBERT E. JOBES. Age 60. Bachelor of Science Degree in Civil Engineering, Iowa State University, 1950; self-employed for more than the past ten years, consulting engineer, 1973 to date; 30 years experience engineering/construction; licensed civil engineer in Iowa, Kansas, Nevada, Arizona and California. He owns interests in several mine properties and companies in said states. He is not salaried or full-time with the Company, and he will continue to engage in his consulting service business in the future. The Company will pay Mr. Jobes for his services as rendered commensurate with his usual billings for services rendered.

VICE-PRESIDENT AND DIRECTOR:

H.J. SEIDEMANN, JR. Vice-President, Director and on-site superintendent of San Lazarus Mine, New Mexico. Graduate of Montana State College, B.S. chemistry, 1942. Post-grad studies: Montana School of Mines, 1952-53/College de Bathurst, 1969. Chronology of major experience:

1942 to 1944: Analytical chemist, Anaconda Co., Anaconda, MT.

1944 to 1949: U.S. Army, Pvt. Inf., OCS, 2nd LT, 1st LT, CPT., INF, U.S., Germany (3 1/2 years). Present, CPT. INF, U.S.A.R., Ret.

1949 to 1956: Anaconda Co., Anaconda, MT. Analytical chemist, Sample mill supt., Technical Supervisor of Analytical Lab.

1956 to 1966: Bunker Hill Co., Kellogg, ID. Analytical chemist, Research metallurgist, Roaster foreman, Chem. Chemist for Electrolytic Zinc Plant, Supervising Chem. Chemist, all Bunker Hill Co. Labs.

1966 to 1972: Brunswick Min. & Smelt. Co. Ltd., Belledune, N.B., Canada. Chem. Chemist and Dir. of Research and Environmental Control for the Belledune ISF Smelter and Refineries.

1972 to 1975: CO. School of Mines Research Foundation, Golden, CO., Manager, Analytical and Geochemical Labs.

1975 to Present: Private Consultant and Entrepreneur. Clients: Phillip Bros., Behre-Dolbear, St. Patricks, Gibraltar-Pacific and other small companies and private parties. Vice-Pres. and Operations Mgr. San Lazarus Sand & Gravel Co., Vice-Pres. and Director, American Int. Minerals.

SECRETARY/TREASURER AND DIRECTOR:

MARY C. BOBBETT. Owner and Broker of Mary Bobbett Realty, Inc., 2700 State Street, Suite 14, Las Vegas, Nevada 89109. She established her business in June, 1979 after working in the real estate field since 1972. Permanent resident of Las Vegas since 1969. Graduate of Maryville College, St. Louis, MO; 1971 with a Bachelor of Arts degree.

PROFORMA
ON
1,000 TONS OF ORE (TWO UNITS)
To Be Processed From Tyro Mine

Assume:	That only the minimum warranted value per ton of ore purchased is recovered during processing.	
Income:	\$50.00 warranted value per ton x 1,000 tons	<u>\$50,000.00</u>
	TOTAL INCOME:	<u>\$50,000.00</u>
Expenses:	Commissions and Fees	\$ 2,520.00
	Royalty	(included in cost of ore)
	Ore Processing Costs	(included in cost of ore)
	Refining	(included in cost of ore)
	Cost of tonnage @ \$25/ton x 1,000 =	<u>\$25,000.00</u>
Total Expenses (assumed):	-	<u>\$27,520.00</u>
	NET PROFIT:	<u>\$22,480.00</u>

NOTE 1: The profit actually obtained from this ore will be determined by the market price of gold and silver at the time the ore is processed. However, under the terms of the "Limited Warranty", the Seller warrants to the ore Owner that the net smelter values of the ore shall be a minimum of \$50.00 per ton. At \$50.00 per ton, the return on 1,000 tons of ore will be \$22,480.00, less the amount of interest paid on the promissory note, and the cost incurred by Mine and Milling Accounting Services, Inc. in handling and mailing Buyer's gold.

HOW DOES IT WORK?

1. Buyer executes a non-recourse note for the full purchase price.
2. Buyer makes a 10% payment for commissions and fees, to Mine & Milling Accounting Services, Inc.
3. Thirty (30) days later, buyer begins making monthly principal and interest payments of \$120.00 per 500-ton contract (10% per annum). These payments continue to be paid monthly until buyer's ore is processed at which time any remaining balance of the note is paid from the proceeds from the ore.
4. During the payment period all principal payments are placed in a Buyer's Trust Account and remain there (earning bank interest for the Buyer).
5. Projected processing time will be within 1 to 3 years, depending on date of purchase (the earlier the purchase, the earlier the processing date).

INSTRUCTIONS TO PURCHASE GOLD

1. Complete and sign the Ore Purchase and Sale Agreement.
2. Complete and sign the non-recourse Promissory Note using the table below to determine tons for your purchase contract (1 above), principal sum of your note, its monthly payment and the amount of commission and expenses:

TONNAGE	PRINCIPAL SUM	MONTHLY PAYMENT *	COMMISSION EXPENSES **
500	\$ 12,500	\$ 120.	\$ 1,260.
1000	25,000	240.	2,510.
1500	37,500	360.	3,760.
2000	50,000	480.	5,010.
2500	62,500	600.	6,260.
3000	75,000	720.	7,510.
3500	87,500	840.	8,760.
4000	100,000	960.	10,010.
4500	112,500	1,080.	11,260.
5000	125,000	1,200.	12,510.

FOR EACH ADDITIONAL 500 TON CONTRACT, INCREASE BY:

500	\$ 12,500	\$ 120.	\$ 1,250.
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- * YOUR FIRST MONTHLY NOTE PAYMENT ON THE PURCHASE IS DUE 30 DAYS AFTER THE DATE ON THE NON-RECOURSE NOTE.
 - ** THE COMMISSION AND EXPENSES ARE TO BE REMITTED WITH THE COMPLETED DOCUMENTS.
3. Complete and sign the letter of instructions for Buyers Trust Account.
 4. Mail your check and all completed papers to:

MINE & MILLING ACCOUNTING SERVICES, INC.
P. O. BOX 2633
LAUGHLIN, NEVADA 89029
(702) 382-7556
 5. Signed copies of each document will be sent to you after processing and recording, along with your Purchase Contract(s).

PLEASE REMEMBER TO MAKE YOUR CHECK PAYABLE TO:

Mine & Milling Accounting Services, Inc.

ORE PURCHASE AND SALE AGREEMENT

THIS AGREEMENT entered into this ___ day of _____, 19___, by and between TYRO MINES, INC., a Nevada Corporation, hereinafter referred to as "Seller" and _____ hereinafter referred to as "Buyer", WITNESSETH:

WHEREAS, the Seller owns a license to mine and mill ore from the Tyro Mine, Mohave County, Arizona, and Buyer desires to purchase _____ tons of ore to be mined and milled as provided herein, and

WHEREAS, the parties each acknowledge the price of gold at any given date is determined by the international gold market; nevertheless, regardless of gold's price per ounce the terms and conditions stated herein control this Agreement between the parties.

THEREFORE, in consideration of the warranties, promises and consideration stated, the parties agree as follows:

1. SELLER WARRANTS AND REPRESENTS

1.1 It is a Nevada Corporation, duly organized and it is authorized to enter into this Agreement.

1.2 It will sell _____ tons of ore to Buyer at Twenty-five dollars (\$25.00) per ton for a total of \$_____.

1.3 That the net value, exclusive of taxes and royalties, of the ore sold herein is Fifty Dollars (\$50.00) per ton. If not, Seller agrees to sell Buyer additional tonnage at one cent (\$.01) per ton from the warranty reserve held by Mine & Milling Accounting Services, Inc., Laughlin, Nevada, until the value has reached \$50.00 per ton in Buyer's Purchase Contract.

1.4 It will assign to Mine & Milling Accounting Services ore to fulfill and complete the tonnage of ore required as paragraph 1.3 provides.

2. BUYER WARRANTS AND REPRESENTS

2.1 To purchase and pay for _____ tons of ore at Twenty-five Dollars (\$25.00) per ton for a total of \$_____ and delivers his non-recourse promissory note in the amount of \$_____ to Seller.

2.2 Buyer agrees to pay interest and principal on the aforesaid as it provides and as the parties agree below.

2.3 Buyer agrees to pay Mine & Milling Accounting Services, Inc.'s cost of handling and registered mailing gold produced to be delivered to Buyer herein.

2.4 To pay Mine & Milling Accounting Services, Inc. a ten percent (10%) cash fee of the ore purchased above plus \$10.00.

3. THE PARTIES MUTUALLY AGREE

3.1 Mine & Milling Accounting Services, Inc. (hereinafter "Service") shall act as the parties agent and it shall hold Buyer's note aforesaid (the "Promissory Note") and receive all payments made by Buyer as this Agreement and said note requires. Seller may provide ore from any mine it elects.

3.2 Services shall make delivery of Buyer's gold when mined and milled by mailing same, certified, insured and prepaid, through the U. S. Postal Service and deduct the cost of same from Buyer's gold produced at market price; however, if Buyer receives cash or check for his gold produced there is to be no service charge.

3.3 The ten percent (10%) cash service fee described in paragraph 2.4 above is non-refundable and the sole property of Service.

3.4 That Service will either cause the delivery of gold or its value to Buyer, as Buyer directs, in which event Services will deliver Buyer his non-recourse promissory note marked "Fully Paid" at the conclusion of this Agreement, or in the event Buyer should elect to terminate payment of his Promissory Note as it provides to return Buyer's Promissory Note marked "cancelled" and remit to Buyer therewith all principal payments accumulated by Services.

3.5 That if Buyer shall default in this Note, and such default shall not be remedied within ten (10) days after written notice, Holder may declare this Contract, together with any other agreements between Buyer and Holder, to be null and void, with interest earned by Holder until date of default to be retained as liquidated damages and accumulated principal remitted to Buyer.

3.6 Payment of both principal and interest shall be payable to Mine & Milling Accounting Services, Inc., P. O. Box 2633, Laughlin, Nevada 89029 who shall maintain a trust account for Buyer and Services will remit all interest payments to the conclusion of this Agreement and at the conclusion remit said accumulated principal payments to Holder.

3.7 The parties acknowledge that they don't know the date Seller will commence to mine and mill Buyer's ore, but Seller acknowledges that it will cause the mining and milling of Buyer's ore to commence and to be completed within three (3) years from the date hereof; however, the parties further acknowledge there are other ore purchasers, similar to Buyer, and that Seller may mine ore by the various Buyers on a first come-first serve basis. Seller acknowledges and represents all current ore purchase contracts will be completed within three (3) years from the date of inception.

3.8 The Promissory Note and Mine & Milling Accounting Services, Inc. agency and services are a part of this Agreement.

3.9 In the event a dispute arises out of the performance of this Agreement, or the services to be performed by Services, they will arbitrate their differences by the aggrieved party giving notice of his grievance in writing to the other party and the name and address of his "Arbitrator". The party receiving the aforesaid written grievance shall respond and

-14-

name his respective "Arbitrator" within fifteen (15) days of notice unless the grievance is satisfied. The two (2) arbitrators thus named shall meet at an acceptable time and agree upon a third or neutral arbitrator. The arbitrators thus selected shall conduct a hearing of the dispute within forty-five (45) days and thereafter submit their findings in writing to the parties. An award signed by any two (2) of the three (3) arbitrators shall be final and may be enforced as a Judgment as the laws of the State of Nevada provide. The current rules of the American Arbitration Association shall control any arbitration proceeding and the laws of the State of Nevada shall prevail.

4. NOTICE

4.1 Notice, if any is required, shall be through prepaid U.S. Postal Services at the respective address given below for the parties to this Agreement except for the delivery of gold by Services. (Gold Delivery to be made as described above.)

IN WITNESS WHEREOF the parties have set their hands and seal the year above first written.

SELLER:

TYRO MINES, INC.
P. O. BOX 2633
LAUGHLIN, NV. 89029

BY: _____

PRESIDENT

ACCOUNTING:

MINE & MILLING ACCOUNTING SERVICES, INC.
P. O. BOX 2633
LAUGHLIN, NV 89029

BUYER:

SIGNATURE

PRINT NAME

ADDRESS

CITY STATE ZIP

()

TELEPHONE

ACCEPTANCE

Mine & Milling Accounting Services, Inc. ("Service") accepts the appointment of Agent for the parties above and agrees to perform the duties described above for the service fee stated. Further, Service agrees to maintain a trust account for Buyer's principal payments and disburse said funds at the conclusion or termination of the above contract as it provides.

A quarterly statement of account will be provided the parties at the addresses shown above upon written request.

DATED this _____ day of _____, 19____.

MINE & MILLING ACCOUNTING SERVICES, INC.

BY: _____

PRESIDENT

-15-

ces

PROMISSORY NOTE

\$ _____
City & State

_____, 19____
Date

For value received, the undersigned, hereinafter referred to as Maker, promises to pay to the order of TYRO MINES, INC., hereinafter referred to as Holder, its nominee or assignee, the principal sum of _____ dollars (\$ _____), payable monthly at _____ dollars (\$ _____), including interest at the rate of (5.75 percent) per annum. Principal, together with any unpaid interest, all due and payable in accordance with the terms of a certain Ore Purchase and Sale Agreement between Maker and Holder, hereafter referred to as "Contract". All terms and conditions of said contract are incorporated herein by reference as though fully set forth herein.

This note is accepted subject to a security interest in Maker's right, title and interest in and to any gold owned by Maker, as set forth in the Contract, and without further liability or recourse against Maker for collection of this Note, principal and interest. Maker shall have the right to prepay this note, as to both principal and interest, in whole or in part, at any time, with interest.

If the Maker shall default on this Note, and such default shall not be remedied within ten (10) days after written notice, Holder may declare the Contract, together with any other agreements between Maker and Holder, to be null and void, with interest earned by Holder until date of default to be retained as liquidated damages.

Payment of both principal and interest shall be payable to: MINE & MILLING ACCOUNT SERVICES, INC., P. O. Box 2633, Laughlin, Nevada, 89029 Client Trust Account or at such other place as may be designated by the Holder.

This Note has been made and delivered in the State of Nevada and shall be construed in accordance with the laws of the State of Nevada.

Dated: _____

() _____
Telephone

Maker-Signature

Print or type name

Street Address

City, State, Zip

INSTRUCTIONS FOR BUYER'S TRUST ACCOUNT

Mine & Milling Accounting Services, Inc.
P. O. Box 2633
Laughlin, Nevada 89029

_____, 198__

I/We herewith enclose an amount equal to \$10.00 per 500 ton contract or \$_____ as an administrative handling fee, plus (10% of the amount of the Ore Purchase and Sale Agreement) \$_____, for a total check in the amount of _____ dollars (\$_____) which you are hereby authorized to disburse as you see fit for fees, commissions and expenses.

Further, I/We have executed a certain promissory note of even date to these instructions and will be directing interest and principal payments to you which you are to place in your Buyer's Trust Account. You are authorized to remit interest paid on said note(s) to TYRO MINES, INC., or designated assignee, and further to place all principal payments on said note in an FDIC insured, interest bearing account, with interest accumulating to my/our credit to be disbursed as my Ore Purchase and Sale Agreement provides.

These instructions are to remain in effect until such time as they may be amended or terminated by me/us in writing.

I/We certify the legal capacity to execute this Agreement. (I) (WE) desire to take title of (MY) (OUR) Unit(s) as follows: (Check one)

- ____ (a) Individually
- ____ (b) Husband and wife, as community property
- ____ (c) Joint tenants with Right of Survivorship
- ____ (d) Tenant in common
- ____ (e) Separate property
- ____ (f) Other (e.g. Corporation, Partnership, Custodian, Trustee, etc.)

If other, please indicate: _____

Name (please print or type)

Signature

Mailing Address

Spouse, if applicable

City State Zip

Social Security or Tax ID No.

Spouse Social Security No.

GLOSSARY OF GOLD TERMS

Acid Test - A method to determine the fineness of gold by subjecting it to various acids. Nitric acid is used for testing up to 10k gold and gold finer than 10k will only react with a mixture of nitric and hydrochloric acids known as aqua regia.

Alloy - A metal, such as copper, silver, zinc, nickel, etc. mixed with gold to increase its durability and hardness and vary its color.

Assay - To analyze a metal to determine its purity.

Au - The chemical symbol for gold, from aurum, the Latin word for gold, derived from Aurora, the goddess of shining dawn.

Bullion - Gold which is at least .995 pure or finer. Bullion is available in the form of ingots, bars or wafers.

Casting - The process of duplicating an object by pouring molten metal into a hollow mold that has been made of the original object or model. In lost wax casting, used in jewelry production, molten gold is forced under pressure into a mold from which the wax model has been burned out.

Chasing - A highly skilled and ancient art of decorating metal with figures or ornamental patterns, which may be either raised or indented. The work is done entirely by hand without mechanical aids. The modern chaser draws out the design on the surface of the metal and delineates it with a hammer and punches, not removing metal, as is done in engraving, but pushing it aside. The process is extremely slow.

Coin Gold - Gold used in coins is generally alloyed with small amounts of other metals, usually silver and copper, for durability. U.S. Standard gold coins are 900 fine or 21.6k.

Die-Striking - Essentially the same as die-stamping, the method used by the ancient Greeks to make their coins. A master, or model of the jewelry item to be produced, is made out of hard steel. This in turn is used to make a die, which is hammered into sheets of karat gold with tremendous force, producing exact copies in gold.

Ductility - The property of a metal that allows it to be drawn or stretched into thin wire. Gold is the most ductile of all metals.

Electroplating - A process using electrical current to coat objects, usually jewelry, with a thin layer of gold. The thickness of the coating depends on the amount and duration of the current and ranges from .01 micron to .1mm thick.

Electrolytic Gold - Very pure gold (.999) produced by a refining process employing electric current, used for specialized applications.

Embossing - The art of producing figures in relief on both flat metal items and hollow items such as pitchers, coffee pots or cups, by using punches or hammers on the back or inside of the article, creating the design on the front.

Filigree - A form of decoration in which fine gold wire is twisted and soldered into intricate patterns. The Hellenic Greeks were masters of this technique.

Fine Gold Wire - The manufacture of gold wire for clothing dates back several thousand years, having been found in cloth worn by the Ancient Egyptians. Gold wire of different karat levels is used in jewelry fabrication for chain making. In electronics, pure gold wire (.99975 pure) is used in transistors and integrated circuits.

Florentine Finish - A textured surface for precious metals produced by engraving a series of parallel lines in one direction, then cross-hatching them at a 90 degree angle more lightly than in the first direction.

Fools Gold - Popular name for iron pyrite. It is sometimes mistaken for gold and is often found associated with it, but it is hard and brittle, whereas gold is soft and malleable.

Gilding - Coating a surface with a thin layer of gold, which may be either pure gold or a gold alloy. The most durable method, dating from Roman times, is fire gilding which uses mercury and heat. The modern form of gilding is electroplating.

Gold-filled - A process by which a layer of at least 10k gold has been mechanically bonded to a base metal. This layer must constitute at least 1/20th of the total weight of the metal in the piece. Items must be marked gold filled preceded by the karat fineness of the plating; e.g. 14k gold filled. (See also rolled gold plate).

Gold Fix - Refers to the price of gold which is determined twice daily by the members of the London Gold Market at the Rothschild Bank in London, and is transmitted by wire services throughout the world.

Gold Nugget - A water-worn mass of placer gold (a form of natural gold) washed from the rock that contained it and deposited in riverbeds. Usually ranging in weight from approximately 30 grams to 50 kilograms. The heaviest nugget ever recorded, named the Welcome Stranger, was found in Australia in 1869 and weighed 90.0 kilograms or 200 lbs.

Gold Standard - A monetary system whereby a country backs its paper currency with gold and agrees with other countries on the gold standard to buy and sell gold at a fixed price.

Gold Leaf - Developed by the Egyptians, this dwindling craft reaches back 6500 years. Skilled goldbeaters can hammer gold so thin, it would take 250,000 sheets of it to make a layer an inch high. Gold leaf is used for a variety of decorative purposes, including picture frames, signs, book edges and ornaments.

Gold-Washed - Term for a gold electroplate thinner than 7-millionths of an inch of gold (or gold alloy). Also known as gold-flashed.

Grain - The earliest unit of weight, originally a grain of wheat or barley corn. Grain is the smallest unit in the Troy and avoirdupois systems. In Troy weight, which is used for precious metals, 1 gran = .648 grams; 24 grains = 1 pennyweight (dwt.); 5769 grains = 1 pound Troy.

Gram - A metric unit of mass and weight equal to 1/1000 kilogram. Grams are also used in Troy weight as a measure of gold. 1 gram = 15.43 grains = 0.032 ounce Troy; 1 poynd Troy = 373.2 grams.

Granulation - An ancient jewelry art, perfected by the Etruscans, by which small gold particles adhere to a gold surface without evidence of solder.

Hallmark - A mark or set of marks, used in England since about 1300 to indicate the fineness and the maker of gold and silver articles. The Worshipful Company of Goldsmiths, London, and other guilds are empowered to test and stamp gold and silver wares with four or more marks, including a quality mark, a town mark, a date letter (changed each year) and a maker's mark.

Heavy Gold Electroplate - The term for electroplating of gold or gold alloy of a minimum 10k fineness with a minimum thickness of 100 millionths of an inch.

Karat - A measure of fineness equal to 1/24 part pure gold in an alloy. Fine (pure) gold is 24k. If an article is made of 18k gold it is 18 parts pure gold and 6 parts other metal.

Karat Gold - A gold alloy of not less than 10k fineness. The term is synonymous with real gold when referring to fine jewelry.

Liquid Gold - For bright gold surface decoration on ceramics and glass, a solution of 12% gold and other chemicals in a suspending agent such as oil of lavender is painted on the object and then fired to a temperature of 540° C. The result is a smooth lustrous coating of gold about 0.1 microns (0.00004 inches) thick.

Malleability - The property of some metals of being extended in all directions by hammering without cracking or breaking. Gold, the most malleable of all metals can be beaten to a thickness of 0.000005 of an inch (Derived from the Latin malleare, meaning to hammer.)

Native Gold - Refers to the natural and rare occurrence of gold in a pure state in nature.

Pennyweight - Originally the weight of an English silver penny or 1/24th of a Tower pound. Still used in the U.S. as a unit of measure for gold. Most other countries, however, have adopted the metric system, using grams in Troy weight, 20 pennyweight (dwt.) = 1 ounce.

Place - Soil material deposited by running water.

Repousse' - A form of decoration on metal objects where a relief pattern is made by hammering from the back or on the front of the surface.

Restrike - Also known as new minting, this refers to a coin remade by the government that originally issued it, and is manufactured from the original die.

Rolled Gold Plate - Same as gold-filled except the quantity of karat gold is less than 1/20th of the total metal weight. Must be identified with a fraction indicating the quantity of gold, e.g., 1/40 12k R.G.P.

Roman Gold - A finish on gold jewelry produced by matting or frosting the surface, then electroplating it with pure gold. It gives a soft matte finish with a rich yellow color.

Sand Blasting - A method of producing on gold and other metals a matted or frosted finish by holding the work against a stream of sharp sand driven by a jet of compressed air.

Solid Gold - An item that some would reserve for fine or 24k gold because it contains no other metals (alloys); however, in 1967 the Federal Trade Commission held that solid gold may be used to describe articles that do not have a hollow center and are 10k or finer.

Stope - Underground working surface in a mine from which gold ore is extracted.

Troy Ounce - Part of the Troy system of weight used for measuring precious metals, based on a pound of 12 ounces and an ounce of 20 pennyweight or 480 grams. Gold is measured worldwide in Troy ounces.

Vermell - A term used to describe heavy gold electroplate over sterling silver, or a substantial layer of karat gold mechanically applied over sterling silver.

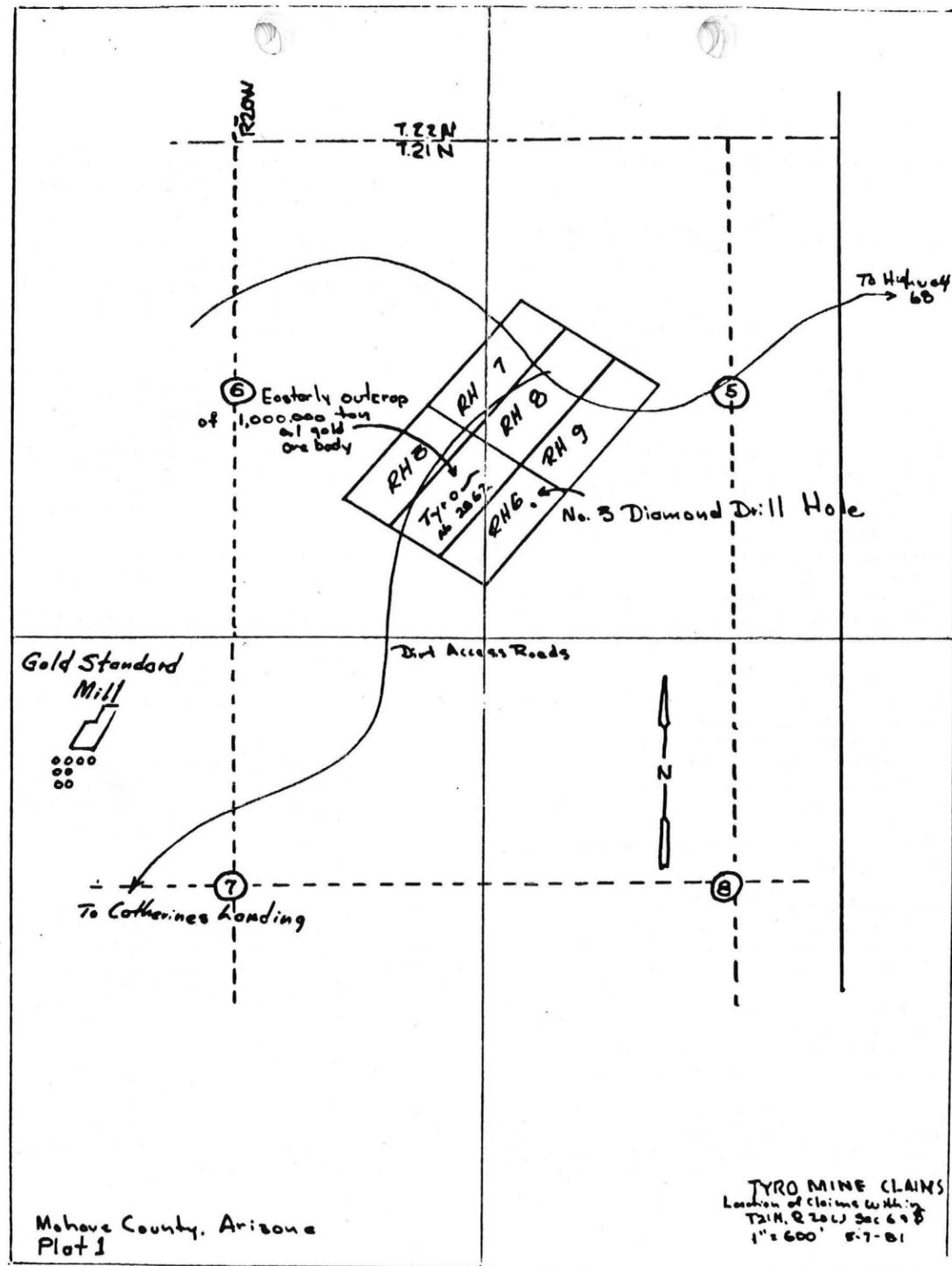
Year Mark - A character or symbol stamped on articles of silver or gold by British goldsmiths to mark the year in which the article was manufactured. One of the four or more symbols making up the Hallmark.

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Blakemore, Kenneth, The Book of Gold, Stein and Day, New York, 1971

Green, Timothy, The World of Gold Today, White Lion Publishers, Ltd., London, 1973.



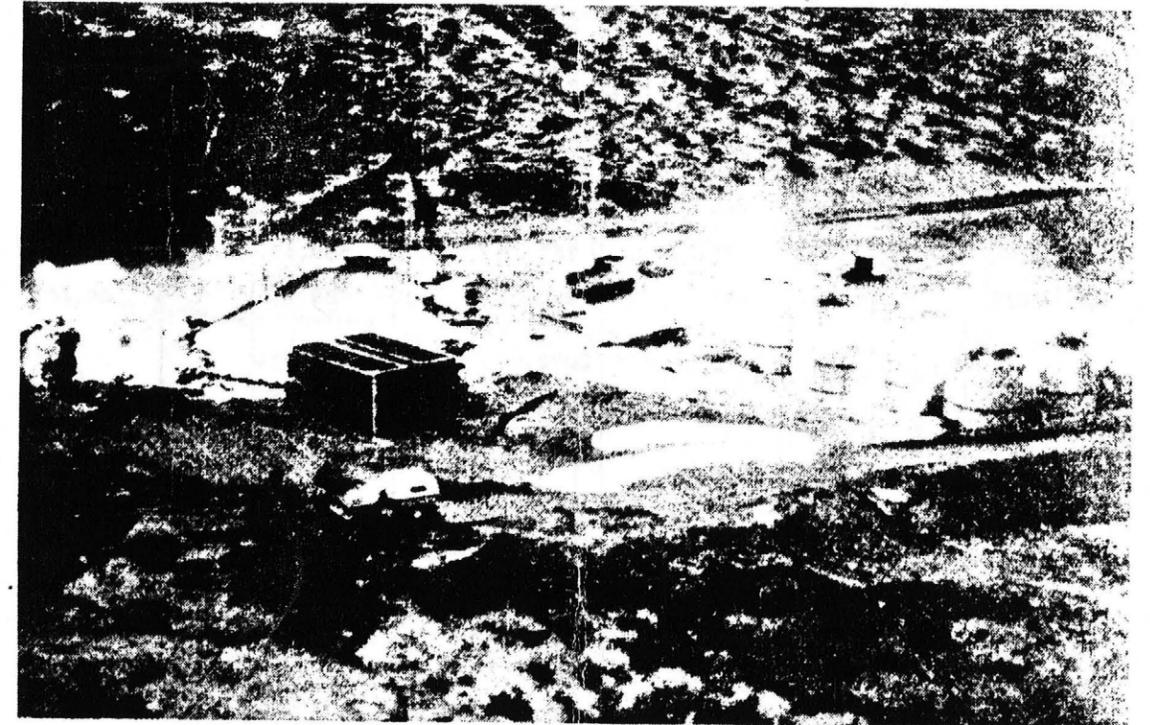
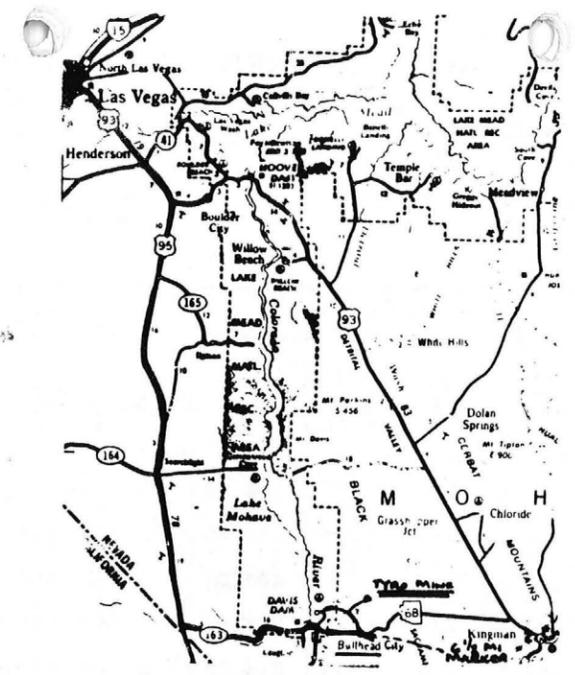
GOLD STANDARD MINES CORPORATION
KINGMAN, ARIZONA

TREATED FOR I. M. George
MINE Stockpile
PERIOD November 16 to 30, 1942

GOLD LESS 8 @ \$34.60
SILVER LESS 70 @ .7111

DATE	MINE LOT	ASSAY		WEIGHT	TONS		VALUE PER TON	TOTAL VALUE	ROYALTY	
		GOLD	SILVER		NET	GROSS			PER TON	AMOUNT
November 16	1319	.11 3.50	.39 .03	231	1.5 3.48	227.54	3.58	815.49	5	40.73
17	none									
18	1320	.105 3.34	.42 .09	151	2.27	148.73	3.51	522.04		28.10
19	1321	.08 2.55	.28 .06	240	3.60	236.40	2.61	617.00		30.85
20	1322	.10 3.18	.40 .09	210	3.15	206.95	3.27	676.40		33.82
21	1323	.102 3.25	.42 .09	239	3.58	235.42	3.34	786.30		39.32
22	1324	.11 3.50	.41 .09	218	3.21	214.73	3.59	770.98		38.54
23	1325	.09 2.86	.37 .08	227	3.41	223.59	2.94	657.35		32.87
24	1326	.115 3.66	.49 .10	231	3.46	227.54	3.76	855.55		42.78
25	1327	.14 4.46	.48 .10	231	3.47	227.53	4.56	1037.54		51.88
26	1328	.11 3.50	.39 .08	243	3.64	239.36	3.58	856.91		42.95
27	1329	.115 3.66	.41 .09	244	3.66	240.34	3.75	901.28		45.06
28	1330	.12 3.87	.38 .08	249	3.74	245.26	3.90	956.51		47.93
29	1331	.115 3.66	.39 .08	160	3.40	157.50	3.74	589.42		29.47
30	1332	.10 3.18	.40 .09	245	3.67	241.33	3.27	789.14		39.46
		14 3.44	.086	3119	4.68	3072.22	4.90	10830.91		
							3.53	10844.93		
								Royalty	2.54	541.56
										542.25
										.69

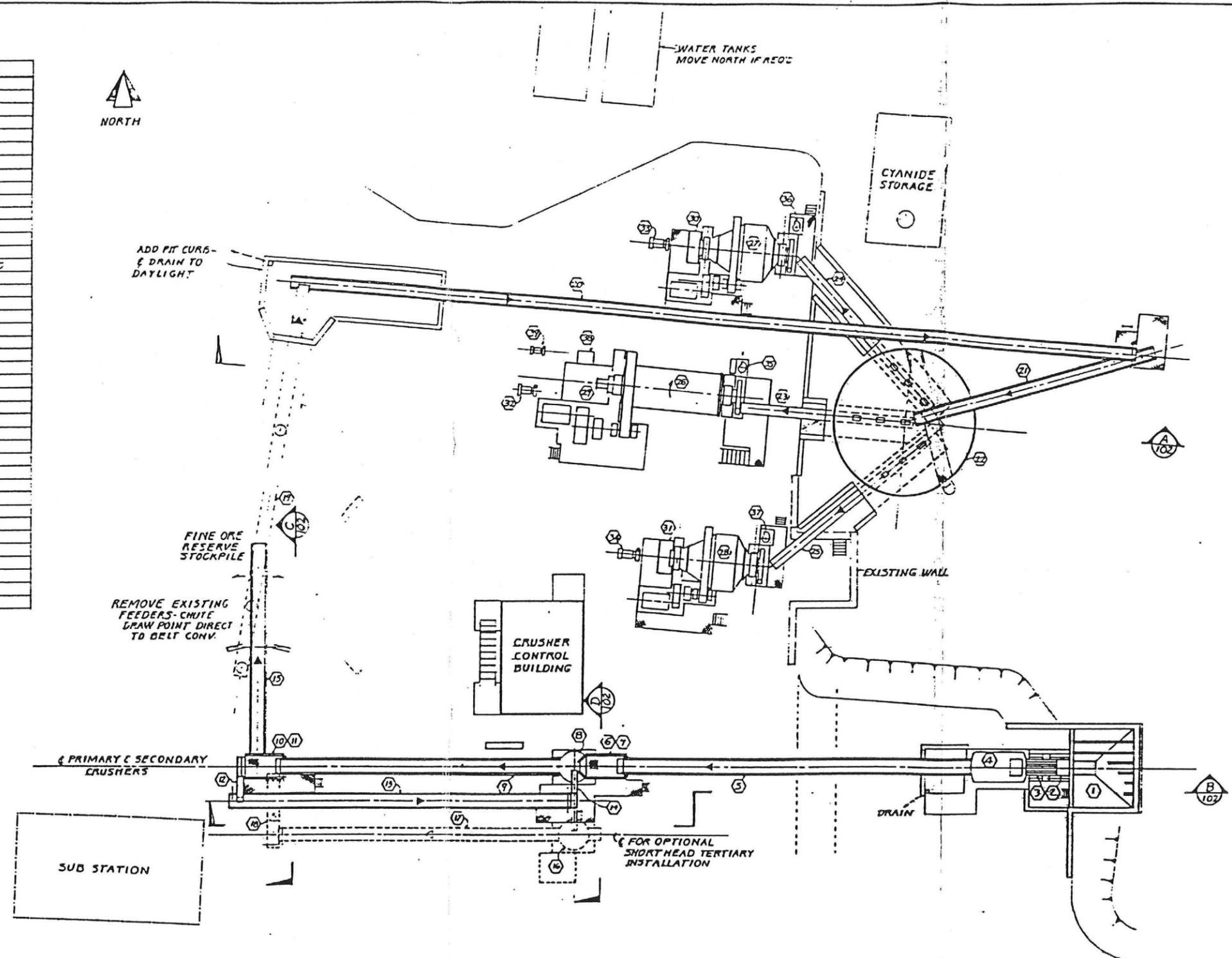
TYPICAL MILL RUNS OF TYRO ORE
EXHIBIT 1



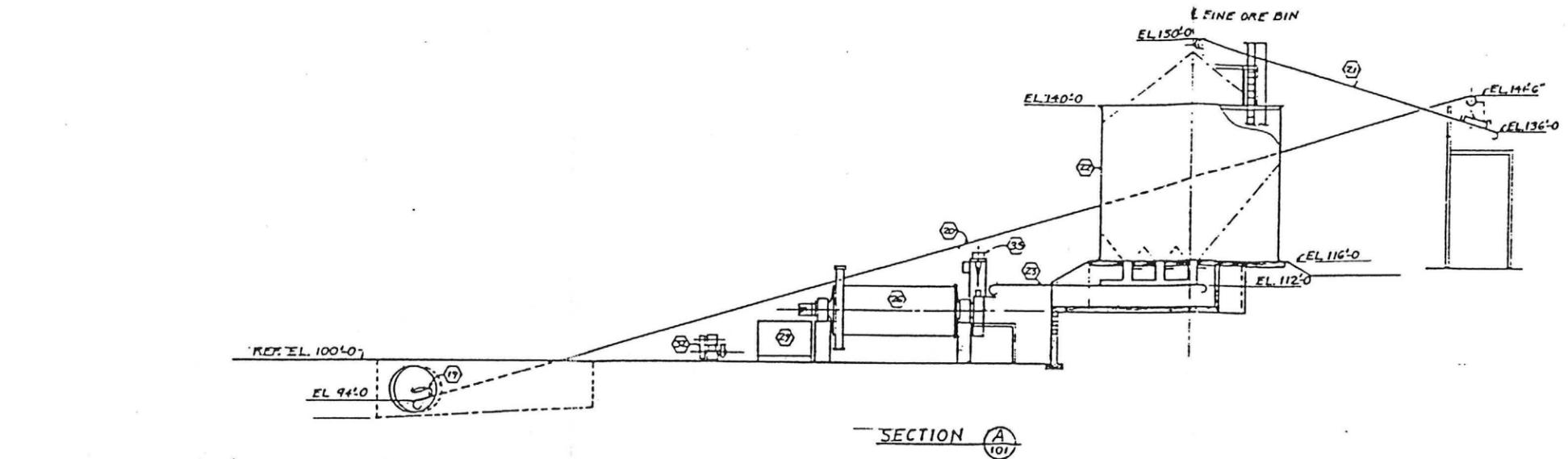
EQUIPMENT SCHEDULE

ITEM	DESCRIPTION	MOTOR	REMARKS
1	COARSE ORE BIN 40 TONS 15'X12'X12'		
2	VIBRATING GRIZZLY 36'X14' WITH 3'OPNGS	75 HP	
3	UNDERSIZE CHUTE		
4	JAW CRUSHER 24'X36" FARREL BACON	100 HP	RELOCATED
5	BELT CONVEYOR 30'X 84' 75 TPH 23'6" LIFT	3 HP	
6	VIBRATING SCREEN 4'X8' 1" OPNG	7 1/2 HP	RELOCATED
7	UNDERSIZE CHUTE		
8	GYRASPHERE CRUSHER-TELSMITH 36 FC	100HP	EXISTING
9	BELT CONVEYOR 30'X 64' 17'6" LIFT	3 HP	EXTENDED
10	VIBRATING SCREEN 4'X8' 1" OPNG.	7 1/2 HP	RELOCATED
11	UNDERSIZE CHUTE		
12	OVERSIZE CHUTE		
13	BELT CONVEYOR 30'X 67'6" 18'9" LIFT	3HP	
14	CHUTE-OVER SIZE		
15	STACKING CONVEYOR	3HP	RELOCATED
16	SHORT HEAD CRUSHER-3' SYMONS	100HP	OPTIONAL
17	BELT CONVEYOR 30'X 64' 17'6" LIFT	3HP	OPTIONAL
18	BELT CONVEYOR 30'X 13' 3'6" LIFT	1 HP	OPTIONAL
19	RECLAIM BELT CONVEYOR 18'3' X 75'	1 HP	EXISTING
20	BELT CONVEYOR 18'X 170' 47'6" LIFT	7 1/2 HP	
21	BELT CONVEYOR 18'X 50' 14'0" LIFT	2 HP	
22	FINE ORE BIN 28'X24' SIDE 500 TON LIVE CAPACITY		
23	BELT FEEDER 24'X33'	1 1/2 HP	
24	BELT FEEDER 24'X38'	1 1/2 HP	
25	BELT FEEDER 24'X38'	1 1/2 HP	
26	BALL MILL 7'8" X 18' A.C.	1400 HP	EXISTING
27	BALL MILL 10'8" X 48' HARDINGE CONICAL	225HP	
28	BALL MILL 10'8" X 48' HARDINGE CONICAL	225HP	
29	BALL MILL DISCHARGE & CYCLONE FEED SUMP		EXISTING
30	BALL MILL DISCHARGE & CYCLONE FEED SUMP		
31	BALL MILL DISCHARGE & CYCLONE FEED SUMP	40HP	
32	CYCLONE FEED PUMP GALIGHER 6"X4"	40HP	EXISTING
33	CYCLONE FEED PUMP 3X3	7 1/2 HP	
34	CYCLONE FEED PUMP 3X3	7 1/2 HP	
35	CYCLONE-KREBS D6B		RELOCATED
36	CYCLONE-KREBS D6B		
37	CYCLONE-KREBS D6B		
38	CYCLONE OVERFLOW SUMP		EXISTING
39	PUMP-CYCLONE O'FLOW TO LEACHING	10 HP	EXISTING

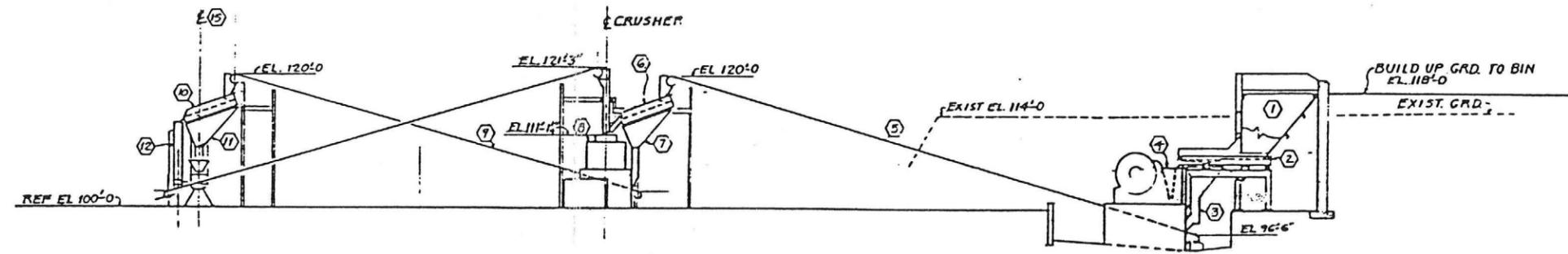
* EXISTING 40 HP MOTOR COULD BE REPLACED WITH 7 1/2 HP



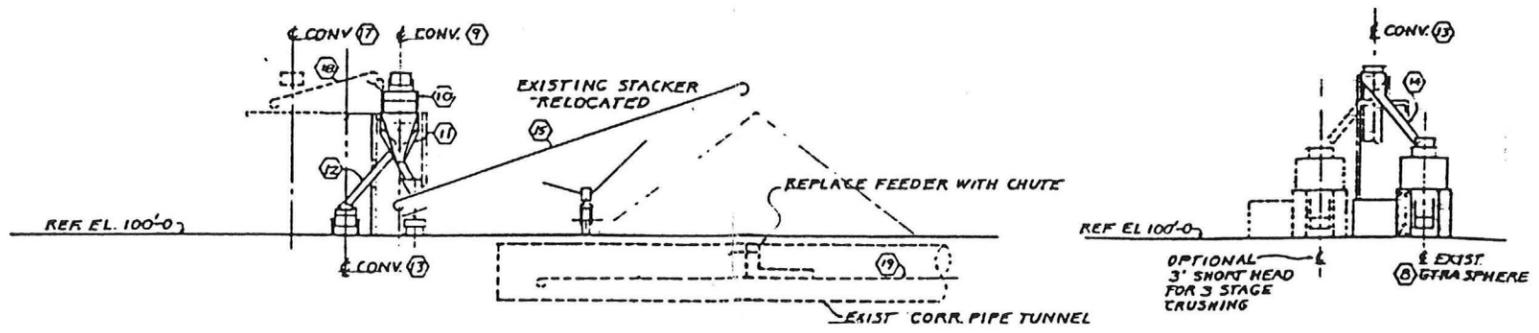
MOOS/MILLER ENGINEERING, INC. TUCSON, ARIZONA		
SCALE 1"=10'	DATE 8-23-23	DESIGNED BY WRE
TYRO MILL BULLHEAD CITY, ARIZONA		
PLAN: CRUSHING & GRINDING		MM-01-101



SECTION A
101



SECTION B
101



SECTION C
101

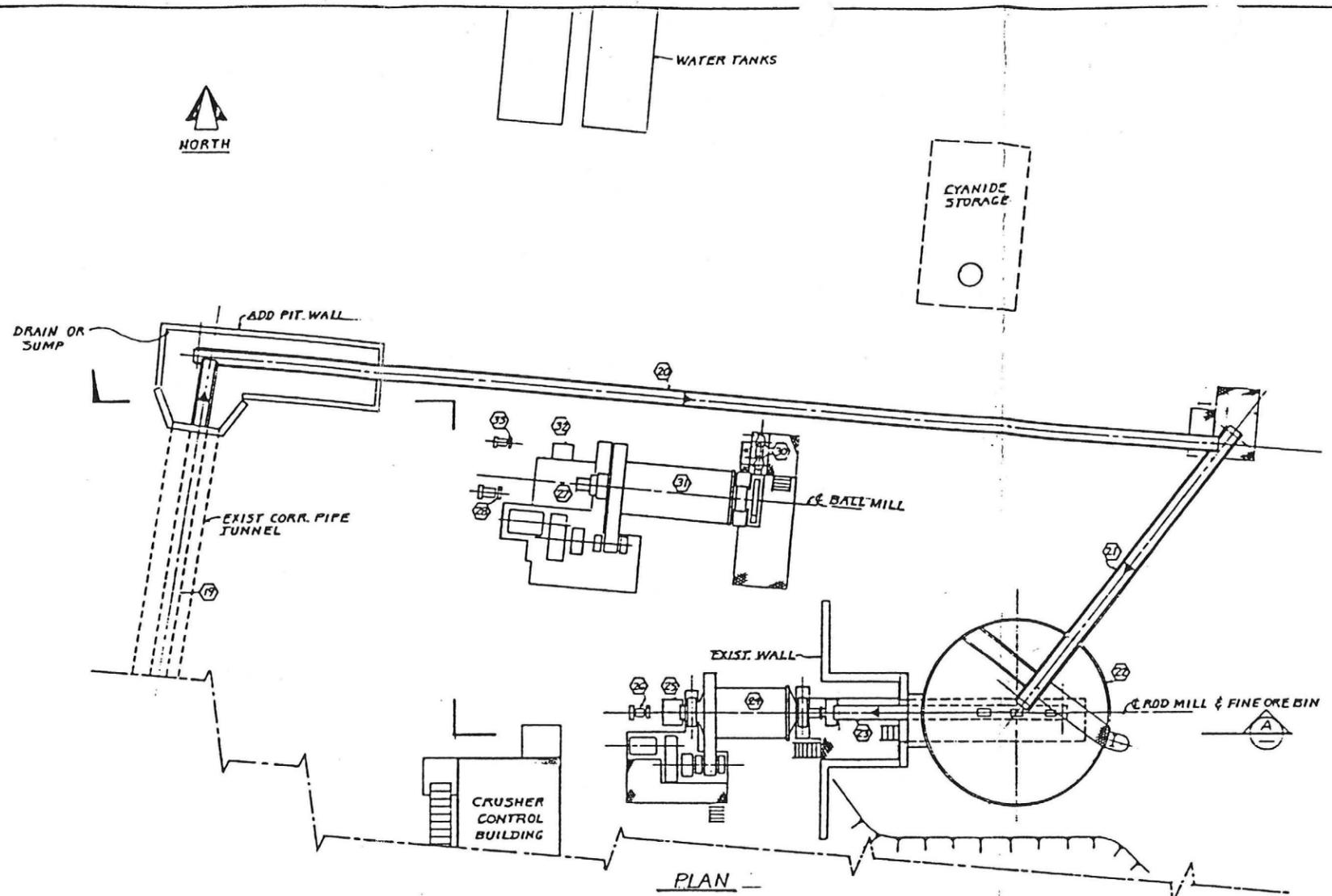
SECTION D
101

REF. DWG. MM-01-101 PLAN

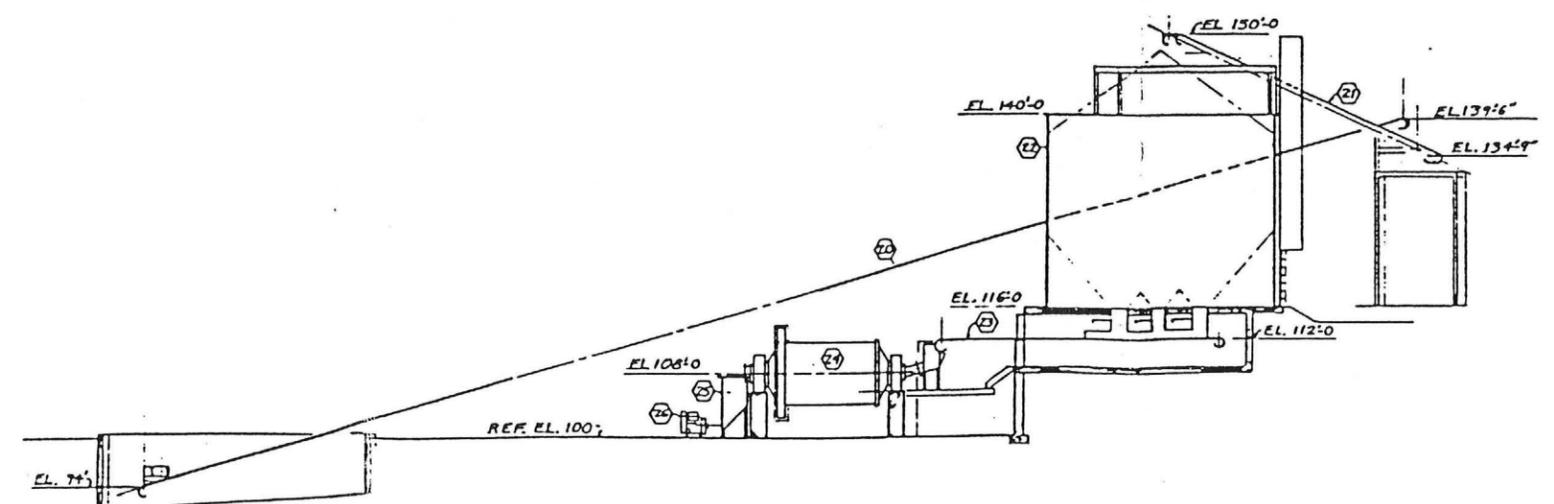
MOOS/MILLER ENGINEERING, INC. TUCSON ARIZONA		
Scale: 1" = 10'	Drawn by: [Signature]	Checked by: NFE
Date: 8-23-87	TYRO MILL BULLHEAD, CITY ARIZONA	
SECTIONS: CRUSHING & GRINDING		MM-01-102

EQUIPMENT SCHEDULE
FOR ITEMS 1 THRU 19 SEE DWG MM-01-01

ITEM	DESCRIPTION	REMARKS
20	BELT CONVEYOR 18" X 162'-6" 45° LIFT	7 1/2 HP
21	BELT CONVEYOR 18" X 56'-3" 15° LIFT	2 HP
22	FINE ORE BIN 28' X 24' SIDE 500 TONS LIME CAPACITY	
23	BELT FEEDER 24" X 34'	1 1/2 HP
24	ROD MILL 7' X 12'	250 HP
25	ROD MILL DISCHARGE SUMP	
26	PUMP-ROD MILL DISCHG TO CYCLONE FEED SUMP	5 HP
27	SUMP-CYCLONE FEED & BALL MILL DISCHARGE	EXISTING
28	CYCLONE FEED PUMP GALLIGHER 6x4	40 HP EXISTING
29	CYCLONE-KREBS D6B	RELOCATED
30	CYCLONE-KREBS D6B (STANDBY)	
31	BALL MILL-7' X 18' A.C.	400 HP EXISTING
32	CYCLONE OVERFLOW SUMP	EXISTING
33	PUMP-CYCLONE OVER FLOW TO CLP.	10 HP EXISTING



PLAN
FOR CRUSHING PLANT
ARRANGEMENT PLAN
SEE DWG MM-01-01

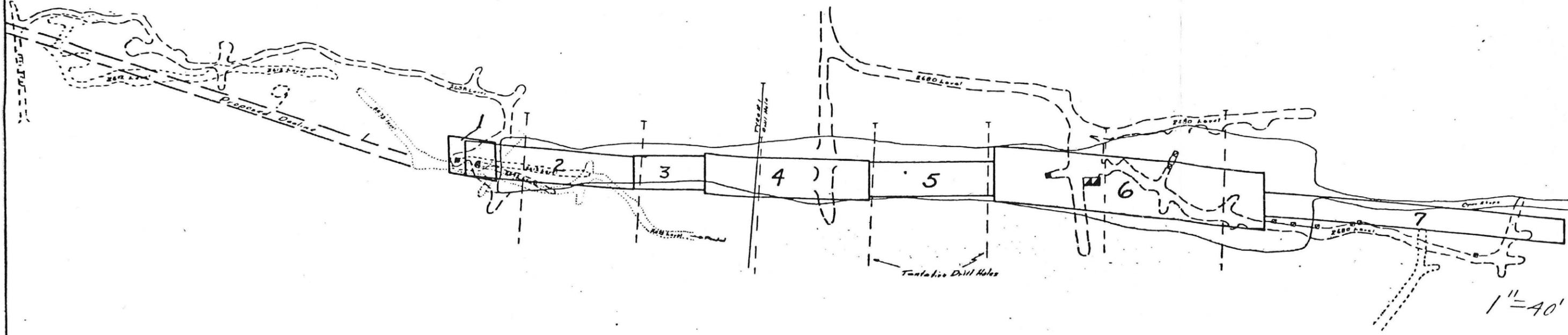


ELEVACION SECTION A



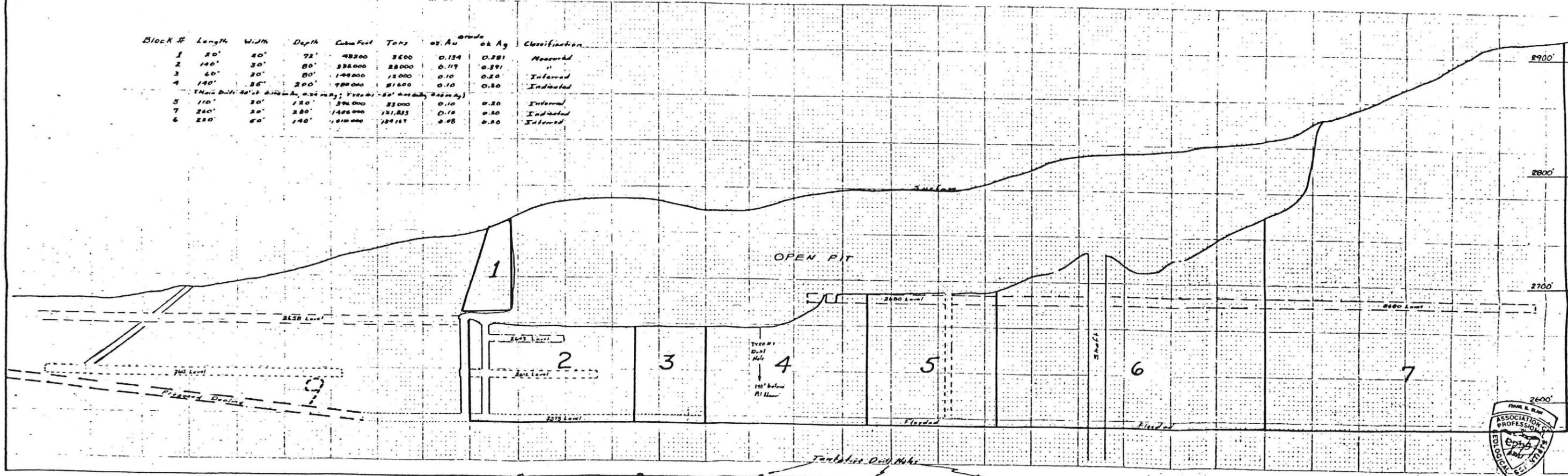
MOOS/MILLER ENGINEERING, INC. TUCSON, ARIZONA		
SCALE: 1" = 10'	DATE: 8-29-63	DRAWN BY: WRE
TYRO MILL BULLHEAD CITY, ARIZONA		
ROD MILL-BALL MILL GRINDING PLAN & ELEVATION		MM-01-103

PLAN
 Scale: 1" = 40'
 Date: 1914
 No. 1000



Block #	Length	Width	Depth	Cuba Feet	Tons	oz. Au	oz. Ag	Classification
1	20'	40'	72'	48200	3600	0.134	0.381	Measured
2	140'	30'	80'	336000	28000	0.117	0.397	"
3	60'	30'	80'	144000	12000	0.10	0.30	Inferred
4	140'	36'	200'	1008000	81600	0.10	0.30	Inferred
[Notes: 1. New Drill 20' x 30' x 80' = 48000 Cu. Ft. = 3600 Tons. 2. New Drill 20' x 30' x 200' = 120000 Cu. Ft. = 9600 Tons.]								
5	110'	30'	120'	396000	33000	0.10	0.30	Inferred
7	260'	30'	280'	1488000	121823	0.18	0.30	Inferred
6	280'	60'	140'	1,018,000	79,167	0.08	0.30	Inferred

PROFILE
 Scale: 1" = 40'
 Date: 1914
 No. 1000



K.E. MERRILL & CO. ENGINEERS



TYRO MINE