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Carole -
w/ plans

M E M O

TO: A.F. Budge, C.A. O'Brien cc: P.A. Handverger
FROM: Don White
DATE: April 1, 1987
SUBJECT: Road improvement plans for State Park access at the U.V.X.

By chance I learned of and was able to attend a public meeting yesterday (March 31, 1987) for "design review" of road improvement plans in and around the U.V.X. It was fortuitous that I attended for the plans have much impact upon Verde's property, Budge's lease, our future operational plans, and, in reverse, our plans should affect their road design.

The Arizona State Parks and Dept. of Transportation teamed up with plans to improve access to the Jerome State Historic Park (e.g., Douglas mansion museum) by widening and straightening the access road to "better handle big campers, trailers, and buses." They contracted Coen Engineering to draw up the attached plans. The plans call for right-of-way acquisitions that would cut into our leased and already limited surface working area. Note on sheet number 18 that the new "R/W Esmt." cuts considerably into the engineering office (our present core storage and work spaces) to the north and the old Edith hoist foundation area to the south. The engineering office was, in their words "to be relocated."

At the informal review session which included a walk along the road, I pointed out the impracticality of relocating the engineering office to which they readily agreed. I also pointed out the importance to us of work space adjacent to the Edith shaft (which can't be moved!). We discussed our present limits to N and W by existing road, to S by hoist equipment and the need to retain vehicle access to the shaft from the east. That leaves a very small area just N of the Edith shaft (where the old Edith hoist foundation is) for shaft-proximity ore handling equipment (e.g., bins, loadouts, surge piles, conveyors, etc.). That is the same area that would be all the more infringed upon by shifting the new, wider road further S to avoid demolition of the engineering office. Possible alternatives include any combination of a) narrowing the road, b) extending the curve to the W by cutting into the hill and shift the Bell family's access road W as well, and c) building retaining walls to minimize the encroachment toward the Edith.

Other topics of discussion I brought up included our need for continued access, likelihood of ore haulage, and the very names of the roads being discussed. They had envisioned construction this fall (depending upon right-of-way acquisitions, etc.) including full tearing up of the old road (i.e., closure) with alternate access via the steep, windy, rough road from town via the Little Daisy shaft area. Clearly this would prevent timber, rail or other large deliveries. They acknowledged the need to coordinate worker access for shift miners and drillers, etc.

A.F. Budge, C.A. O'Brien
cc: P.A. Handverger
April 1, 1987
Page Two

It seems to me several things ought to be done immediately:

- 1) Coordinate our response with Verde Expl. Ltd. I have phoned Paul Handverger who was not otherwise informed of any of this. My question to him was what right-of-ways presently exist since our lease does not document them. He promised to dig out the appropriate file which apparently includes a 1950's recorded easement for the road only. The present trailer/camper parking area is "permissive use only", meaning it can be withdrawn any time by Verde (Budge as lessee) if so elected (e.g., space needs for surface plant).
- 2) Decide internally what our needs are with regard to:
 - a) Surface plant and storage; will the present trailer parking area be an issue?
 - b) Shaft area space plans; will a wider road easement around the Edith be a problem and if so what solutions do we recommend?
 - c) What haulage loads do we anticipate? Axle loadings and bed lengths are important to pavement thickness and turning radii.
- 3) Formally notify the appropriate authorities of our concerns, including:
 - a) Road name corrections; the road in questions is the "U.V.X. Mine Road" on all old maps, etc. They have called it the State Park Road, effectively and unwittingly a name change. We should retain the old name. The alternate road up to Jerome is the "Little Daisy Road" I believe, though the Coen Engineering plans have now dubbed it the UVX Mine Road. This too should be corrected.
 - b) Our concerns for the engineering office.
 - c) Our need of space near the Edith shaft.
 - d) Our likely need of space where the trailers presently park.
 - e) Our interest in seeing ore haulage accomodated in their design for turning radii, pavement thickness, and entering route 89A at the intersection on the hogback.
 - f) The need for continued access to the mine for shift work and coordinating closures for the sake of scheduling large deliveries or shipments.
 - g) Our wish to work together with them for a better road for everyone's benefit.

Clearly this is an opportunity to mold their project to everyone's advantage. They want right-of-way enlargements from us. We can't afford space in some areas but may be able to in others. In return we may be able to get a better, safer, haulage road.

A.F. Budge, C.A. O'Brien
cc: P.A. Handverger
April 1, 1987
Page Three

Persons involved in the project include:

David J. Mellgren, P.E.; Civil Engineer who directed the design review meeting, March 31, 1987.

Highways Division
Arizona Department of Transportation
Roadside Development Services
205 S. 17th Ave., Rm. 228E
Phoenix, AZ 85007
(602) 255-8629

Tim Brand, Facilities Planning and Development Manager

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Michael Bruder, ADOT rights-of-way coordinator

Highway Division
Arizona Department of Transportation
R/W Plans
205 S. 17th Ave., Rm. 330E
Phoenix, AZ 85007
(602) 255-8767

MEMORANDUM

TO: Anthony F. Budge
FROM: Carole A.O'Brien
DATE: May 20, 1987
SUBJECT: Some Thoughts related to Exploration/Development
UVX Project, Jerome

Introduction

This memorandum outlines our current strategy in regards to the ongoing exploration/development at the UVX, and some thoughts on future activities.

Exploration

Longyear is presently drilling from the 809 drill station on the 800 level. We finished hole 809-1 at 336 ft. in a stope. Hole 809-2 was collared today on a bearing of 185 degrees; expected length 200-250 ft. Hole 809-3 will be drilled at a bearing of 165 degrees. Assuming no other holes are anticipated or drilled, we expect the drilling from this station to finish in about 4 weeks.

Crews are working on a drift extending out from the Morgan drill station on the 950 level towards the 902 drill station located approximately at coordinates 11350 N, 7300E. At the same time, a switch will be installed and a cross cut to the M-3 zone will be started.

Development

The cross cut to the M-3 zone is intended to serve two purposes: access to the zone for sampling, and access to the zone for possible mining of the high grade core.

A pocket and loading station from the 950 level will be constructed as soon as possible, coinciding with the fabrication and modification to the skip/cage combination purchased from UNC. A plan to cage cars, loaded from this facility, has been discussed and may be adopted to ease muck disposal problems.

Reserves

Don White and Bob Hodder have estimated reserves of small tonnage, high grade, low iron material in the M-3 zone at 13,600 tons of 0.23 oz/t gold and 2.5 oz/t silver, and reserves of large tonnage, low grade, iron bearing material in the same zone at 46,000 tons of 0.15 oz/t gold and 2.6 oz/t silver.

They also indicate that these reserves may represent one

sixth of the total reserves in the Verde area, i.e. total reserves of 276,000 tons of low grade, iron bearing material. The implication is apparent that there may be 81,600 tons of high grade, low iron material within this reserve. If this is an accurate assessment of the possible reserves, the attached sheet indicates the possible "net" return.

To date, we have spent about \$1.5 million on the project. Out running costs are about \$60,000 per month; drilling, \$50 per foot; and estimated costs to complete pocket and loading facilities, hoist and headframe modifications and surface materials handling, \$150,000. By September 30 without doing any additional drilling, our total investment will be close to \$2.0 million.

Without finding and developing additional reserves, if we mine only what we have found, according to the reserve figures mentioned above, we gain little or nothing.

The proposed drill stations on the 950 level, i.e. the original 902 and 906 plus two intermediate sites could be finished within this 4 month period. The proposed drilling of possibly 6,000 ft. (1,500 ft from each of four sites) would cost an additional \$300,000 and could be ongoing as the sites were completed. If this drilling could begin at the end of June, the total program of 6,000 ft. would take about 7 months, to the end of January. The additional costs would bring total investment then to about \$2.54 million. Should we find all the reserves, i.e. 81,600 tons of high grade, or 276,000 of low grade, we could recover all the investment. Should we possibly find more, or better grade, the attached sheets indicate possible "net" returns.

One additional note: This may or may not have any significant impact on our overall costs, but the preferred target area, at least by Don's standards, is the area south of the Florencia Fault, that would be easier to reach from the 901-S. We discussed this area briefly when you were in the office on Monday. Our 1104 holes did not penetrate the area, only the PD holes.

Comments: "Net" Return based on mining costs of \$75/ton (including any processing and shipping costs); \$450/ounce gold, \$8.00/ounce silver; 85% smelter pay; and 85% net from Verde.

Grades and tonnages based on DCW & RWH Memo of 5-15-87

<u>GRADE</u> gold oz/t silver oz/t	<u>NUMBER OF TONS</u> 13600	<u>NUMBER OF TONS</u> 46000	<u>NUMBER OF TONS</u> 81600	<u>NUMBER OF TONS</u> 276000
0.15 2.60		\$442,026		\$2,652,153
0.23 2.50	\$476,561		\$2,859,366	

Comments: "Net" Return based on mining costs of \$75/ton (including any processing and shipping); \$400/ounce gold, \$7.00/ounce silver; 85% smelter pay; and 85% net from Verde.

GRADE gold oz/t silver oz/t	NUMBER OF TONS					
	20000	40000	50000	75000	100000	150000
0.10 1.00	(\$404,600)	(\$809,200)	(\$1,011,500)	(\$1,517,250)	(\$2,023,000)	(\$3,034,500)
0.15 1.50	(\$65,025)	(\$130,050)	(\$162,563)	(\$243,844)	(\$325,125)	(\$487,688)
0.20 2.00	\$274,550	\$549,100	\$686,375	\$1,029,563	\$1,372,750	\$2,059,125
0.25 2.50	\$614,125	\$1,228,250	\$1,535,313	\$2,302,969	\$3,070,625	\$4,605,938
0.30 3.00	\$953,700	\$1,907,400	\$2,384,250	\$3,576,375	\$4,768,500	\$7,152,750
0.35 3.50	\$1,293,275	\$2,586,550	\$3,233,188	\$4,849,781	\$6,466,375	\$9,699,563
0.40 4.00	\$1,632,850	\$3,265,700	\$4,082,125	\$6,123,188	\$8,164,250	\$12,246,375

Comments: "Net" Return based on mining costs of \$75/ton (including any processing and shipping);
\$450/ounce gold, \$8.00/ounce silver; 85% smelter pay; and 85% net from Verde.

GRADE gold oz/t silver oz/t	NUMBER OF TONS					
	20000	40000	50000	75000	100000	150000
0.10 1.00	(\$317,900)	(\$635,800)	(\$794,750)	(\$1,192,125)	(\$1,589,500)	(\$2,384,250)
0.15 1.50	\$65,025	\$130,050	\$162,562	\$243,844	\$325,125	\$487,687
0.20 2.00	\$447,950	\$895,900	\$1,119,875	\$1,679,813	\$2,239,750	\$3,359,625
0.25 2.50	\$830,875	\$1,661,750	\$2,077,188	\$3,115,781	\$4,154,375	\$6,231,563
0.30 3.00	\$1,213,800	\$2,427,600	\$3,034,500	\$4,551,750	\$6,069,000	\$9,103,500
0.35 3.50	\$1,596,725	\$3,193,450	\$3,991,813	\$5,987,719	\$7,983,625	\$11,975,438
0.40 4.00	\$1,979,650	\$3,959,300	\$4,949,125	\$7,423,688	\$9,898,250	\$14,847,375

Comments: "Net" Return based on mining costs of \$85/ton (including any processing and shipping); \$450/ounce gold, \$8.00/ounce silver; 85% smelter pay; and 85% net from Verde.

GRADE gold oz/t silver oz/t	NUMBER OF TONS					
	20000	40000	50000	75000	100000	150000
0.10 1.00	(\$566,440)	(\$1,132,880)	(\$1,416,100)	(\$2,124,150)	(\$2,832,200)	(\$4,248,300)
0.15 1.50	(\$235,535)	(\$471,070)	(\$588,838)	(\$883,256)	(\$1,177,675)	(\$1,766,513)
0.20 2.00	\$95,370	\$190,740	\$238,425	\$357,638	\$476,850	\$715,275
0.25 2.50	\$426,275	\$852,550	\$1,065,688	\$1,598,531	\$2,131,375	\$3,197,063
0.30 3.00	\$757,180	\$1,514,360	\$1,892,950	\$2,839,425	\$3,785,900	\$5,678,850
0.35 3.50	\$1,088,085	\$2,176,170	\$2,720,213	\$4,080,319	\$5,440,425	\$8,160,637
0.40 4.00	\$1,418,990	\$2,837,980	\$3,547,475	\$5,321,213	\$7,094,950	\$10,642,425

MEMORANDUM

TO: Anthony F. Budge with copy to D.W. White
FROM: Carole A. O'Brien
DATE: May 22, 1987
SUBJECT: Reserve Estimate Using Polygon Method

The attached sketch shows the polygons I have used in the M-3 area based on Don's cartoon of the inclined longitudinal section with intercepts and grades of flux quality material only.

Hole No.	Intercept	Gold oz/t	Silver oz/t	Planimeter Value	Sq.ft.	Tons @ 15 cu.ft/ton
M-3	24 ft.	0.88	32.5	360	1800	2800
M-4	6 ft.	0.17	3.4	741	3700	1400
M-6	14 ft.	0.40	5.2	753	3700	3400
M-8	4 ft.	0.22	3.7	524	2600	700
M-9	13 ft.	0.39	1.8	467	2300	1900
M-11	11 ft.	0.22	7.5	237	1100	900
806-1	11 ft.	0.24	2.2	500	2500	1800
Total tons						12900

Weighted average 0.43 oz/t gold; 10.09 oz/t silver

The polygon method is an acceptable procedure for calculating reserves, at least from surface holes. I see no reason why this method can't be used here, at least for illustration purposes for a more realistic reserve. The high grade in M-3 is just as important as the lower grade in M-4; all must be taken into consideration.

Because of the hole spacing, the block surrounding M-6 has a substantial effect, moreso perhaps than M-3.

Based on map by D.C.W., May, 1987
M-3 Ore Zone, Verde Area, UVX
Inclined longitudinal section

Scale: 1" = 20'

○ M-4

12': 0.14 oz/t Ag
3.4 oz/t Ag

[Note: reduced to remove
ferruginous chert]

6': 0.17 oz/t Au
3.4 oz/t Ag

M-8 ○

4': 0.22 oz/t Au
3.7 oz/t Ag

○ M-6

14': 0.40 oz/t Au
5.2 oz/t Ag

806-1 ○

11': 0.24 oz/t Au
2.2 oz/t Ag

M-11 ○

13': 0.22 oz/t Au
7.5 oz/t Ag

○ M-3

24': 0.88 oz/t Au
32.5 oz/t Ag

M-9 ○

13': 0.39 oz/t Au
1.8 oz/t Ag

MEMORANDUM

TO: Pete Flores
FROM: Carole A.O'Brien
DATE: May 19, 1987
SUBJECT: Work Program at UVX

Introduction

This memorandum outlines our current strategy in regards to the ongoing exploration/development at the UVX.

Exploration

Longyear is presently drilling hole 809-1 from the drill station on the 800 level. At the present time, this hole is out about 300 ft. The hole was planned for 400 ft. A second hole from this drill site is planned, and depending on results, possibly a third.

Crews are working on a drift extending out from the Morgan drill station on the 950 level towards the 902 drill station located approximately at coordinates 11350 N, 7300E. At the same time, a switch will be installed and a cross cut to the M-3 zone will be started.

Development

The cross cut to the M-3 zone is intended to serve two purposes: access to the zone for sampling, and access to the zone for possible mining of the high grade core.

A pocket and loading station from the 950 level will be constructed as soon as possible, coinciding with the fabrication and modification to the skip/cage combination purchased from UNC. A plan to cage cars, loaded from this facility, has been discussed and may be adopted to ease muck disposal problems.

Objectives

Based on memos from Don White and Bob Hodder who have estimated reserves of small tonnage, high grade, low iron material in the M-3 zone at 13,600 tons of 0.23 oz/t gold and 2.5 oz/t silver, and reserves of large tonnage, low grade, iron bearing material in the same zone at 46,000 tons of 0.15 oz/t gold and 2.6 oz/t silver, our primary objectives are:

1. test the northern extension of the M-3 zone with holes from the 809 drill station and the southern extension with holes from the 902 drill station. If the 809 holes produce no significant zones of mineralization, drilling from the 902 drill

station will only be planned to define the southern limits of the M-3 zone.

2. if no significant mineralization is encountered in the 902 holes, no further exploration drilling will be done.

3. plans for mining will only be sufficient to remove the higher grade core from the M-3 zone, perhaps less than 10,000 tons, in order to cover some of the \$1,500,000 that has been spent on the project to date.

MEMORANDUM

TO: Anthony F. Budge
FROM: Carole A. O'Brien
DATE: May 19, 1987
SUBJECT: Change in Drilling from 809 Drill Station

Our original plans from the 809 drill station were to drill 809-1 at a bearing of 205°, then 809-2 at a bearing of 165° to check the possible extension of chert intercepts from M-1 and M-2.

Hole 809-1 could possibly finish tonight. Drillers lost circulation, which could mean we are close to the silica stopes. If circulation is regained, we will have to reduce to BQ to the end. We are back in the chert again, although the drillers have reported to Don that it looks brown (ferruginous chert.)

Hole 809-1 intersected chert from about 179 to 240, where it entered the altered diorite gouge. The chert came back in about 310+. The chert from 179 to 240 was massive, which in the holes drilled from the Morgan station were barren of gold. Yet another surprise for our geologist. This massive chert is not barren. Intervals summarized below: (to the best of my recollection, as in my haste I left notes at home)

200 - 214:	14 ft.	0.218 oz/t Au	0.77 oz/t Ag
187 - 214:	27 ft.	0.17 "	1.5 "
187 - 234:	47 ft.	0.15 "	1.4 "

Don would like to drill 809-2 on a bearing of 185° which would go closer to the reported assays on the 700 level of about 10 ft. of 0.6 oz/t Au. It could be a short, 200 ft. hole, and could be drilled NQ for additional speed. Then 809-3 would be the 165° hole. We are looking at additional \$6,000 perhaps in drilling costs and extra week.

(corrected, May 20, 1987 @ 7:30 a.m.)

File

MEMO

To: File

April 15, 1987

From: A.J. Fernandez

Subject: Conceptual Design of Skip Loading Pocket; Safety Concerns

On April 14, Howard King presented his conceptual design of the 950 Level ore pocket and skip loading station to Pete Flores and myself. We both are pleased with the design. There are, however, several concerns that will have to be addressed in the final detailed design. These are primarily safety problems that can be "engineered out" as long as we recognize the hazards and commit to reducing the risks.

First, due to the close proximity of the pocket opening to the shaft and the large cross section of the opening, all traffic in and out of the 950 level will necessarily have to pass over the opening. Several options are feasible to prevent persons from falling into the hole or slusher trench. A removable cover over one-half the opening and hand rails elsewhere may be all that is needed.

Another potential problem is the rail switch to the tail drift. Derailment of a loaded train or the switch left in the wrong position could cause cars to enter the shaft. Total elimination of this hazard would mean some radical changes in the conceptual design as well as being cost prohibitive. The probable solution to this problem is careful construction and maintenance of the railway, some fool-proof switch locking/indicator system and careful drafting and strict enforcement of standard operating procedures.

The operation of a slusher to muck the slusher trench to the ore pocket also has some inherent safety problems. All the appropriate guards need to be designed into the system.

Since the skip loader operator will probably make several trips per shift from the 950 station to the skip loading station, the accessway should be improved. The work station itself will require careful detailing not only for reducing hazards, but also for "human engineering" concerns. Communication with the hoistman must be provided. The operator needs to safely view the position of the skip from time to time. Safety interlocks to prevent both doors from being open simultaneously should be considered. A means to minimize muck overflow should be provided should the upper door fail in the open position. Procedures for clearing a flooded chute must be well planned. Water sprays and adequate ventilation must be provided for dust control.

Bridging is always a concern in muck pockets. Small, capped holes can be placed near the top door to allow the passage of wooden poles and/or explosives to free hang-ups. Again, a carefully written standard operating procedure must be designed.

A third, emergency, guillotine type door located near the end of the skip loading chute could be useful. A third door would provide the means to stop all muck flow to the shaft.

This conceptual design has many advantages. The safety problems inherent to it are a concern, but can be minimized or eliminated by design, construction and careful formulation and strict adherence to safe operating procedures.



A. F. Budge (Mining) Limited

7340 E. Shoeman Lane, Suite 111 "B" (E)

Scottsdale, AZ 85251-3335

(Business Office)

Telephone: (602) 945-4630

Telex: 751739

June 3, 1987

Harold Ashton, President
The Ashton Company
P. O. Box 26927
Tucson, Arizona 85726

Dear Sir:

A. F. Budge (Mining) Limited is currently in the engineering and feasibility stages of a heap leach gold mine in central Arizona near Wickenburg. The operation will entail the re-processing of 225,000 tons of amalgamated tailings and mining approximately 500,000 tons of ore and 1,250,000 tons of waste.

Your company was referred to us as a possible candidate to mine this material on a contract basis. Should this be of interest to your company, please send us a letter to that effect and information on your company and its qualifications.

Please feel free to contact me at the number above for any further information you may require.

Sincerely,

A. J. Fernandez

Senior Mining Engineer



A. F. Budge (Mining) Limited

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(Business Office)

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Telex: 751739

May 29, 1987

To: Anthony F. Budge
A.F. Budge Limited

From: Carole A. O'Brien

John Menke called this morning. He wants to get a letter out to the Verde stockholders and wants your permission to release results of drilling and assays. Verde apparently only issues a letter once every 4 or 5 years. Last one, Menke said, was in 1983. He is quite paranoid about leaving the company open to lawsuits regarding any statements made about the results. He suggested not making any interpretation, but just presenting the numbers and a sketch map showing location of the drilling. I suggest we send him a copy of Don's Table 1 which is the compilation of assay/drill results from holes 806-1 and M-1 thru M-11. My little sketch map follows, also a draft letter to Menke.

Should you wish to speak with him yourself, his number in Scarsdale is 914-723-2602. After June 3, he will be in California visiting his son.

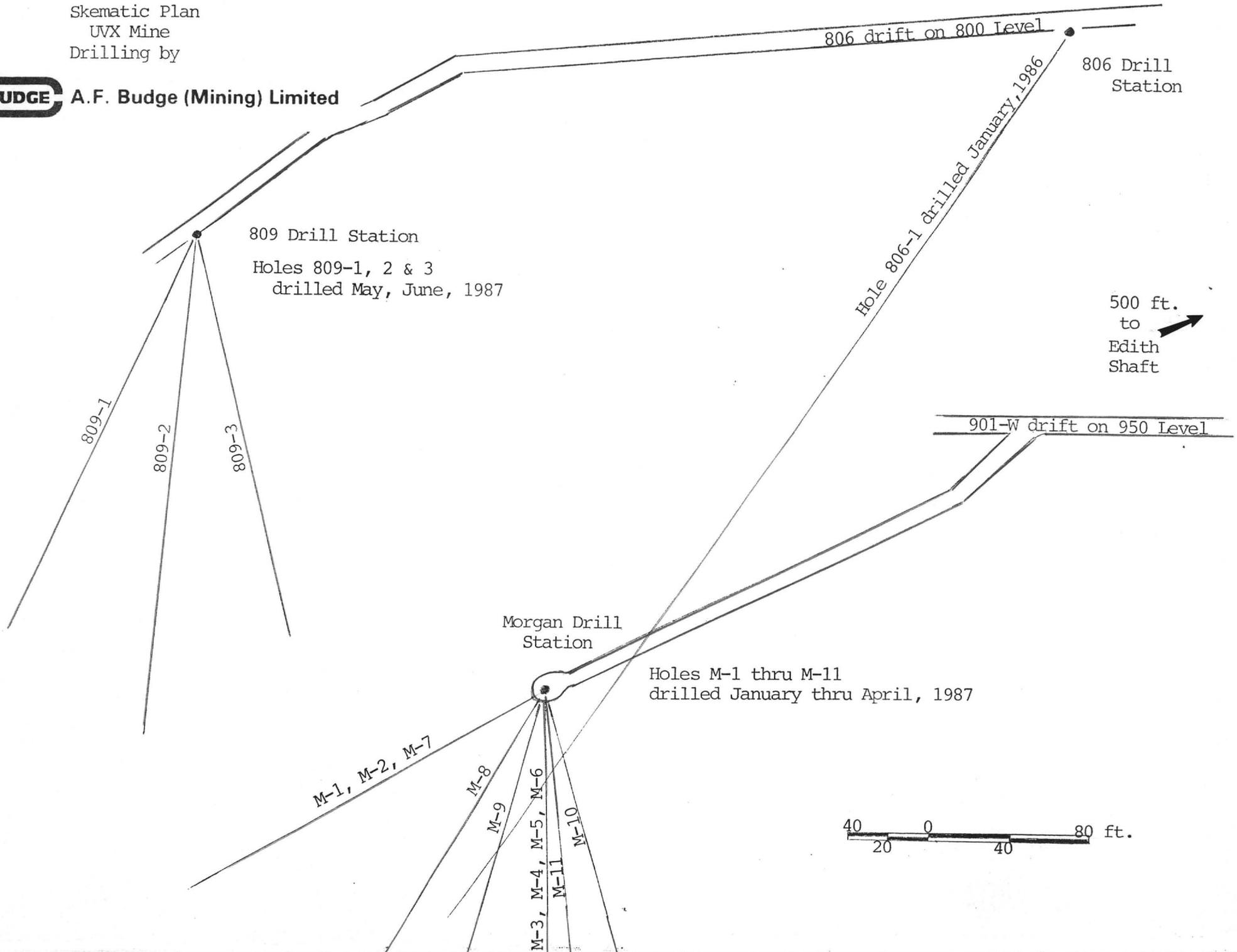
He also wanted to let us know that we should "not feel pressed about drilling (their) hole." and that we could drill it "when we have the correct location and station."

Allen Krause of Longyear called yesterday. The \$5 additional charge per foot in the chert was only quoted and agreed to for 2 holes from the 809 station. Any subsequent holes on the 800 level or elsewhere would be subject to the following prices: \$37.15/ft, HQ; \$36.15/ft NQ; and \$35.85/ft BQ.!!

Total pages: 6 including cover

Schematic Plan
UVX Mine
Drilling by

BUDGE A.F. Budge (Mining) Limited



DRAFT LETTER

Mr. John R. Menke
44 Ogden Road
Scarsdale, NY 10583

Dear Mr. Menke:

Pursuant to our telephone conversation of Friday, please find enclosed the following items for use in preparation of your letter to the Verde stockholders:

(1) UVX Verde Target Area Drilling/Assay Summary, compiled by Don White, May, 1987

(2) Schematic Plan, UVX Mine, Drilling by A.F. Budge (Mining) Limited showing locations of drilling to Verde Area on 800 and 950 levels.

We appreciate your concern for liability in either understating or overstating the results of what is still basically an exploration program. However, just a statement of facts, as represented in item (1), may be misleading without disclaimers. A few people, even a little knowledgeable about gold mining and exploration, may conclude from the assay results that we have a viable and economic mine. What the numbers do not show is the different rock types in which the gold occurs. Some MAY be suitable for shipment and sale as smelter flux (high silica), other types contain too much iron. We as yet do not know how much it will cost to mine. Some independent mining consultants have advised that we might have to square set in areas where the chert is very friable and breaks to a fine, sandy grit.

J.R. Menke
Page 2.

The results are encouraging. But we have tested a very small portion of the Verde Area, only about 180 feet of strike length. With a vertical dimension of 70 feet and width of 14 feet, this is only about 15,000 tons! Based on mining costs of \$75.00/ton, a gold price of \$450/ounce, silver price of \$8/ounce and smelter return of 85%, we would need 75,000 to 100,000 tons of material grading at least 0.20 oz/t gold to repay our exploration costs.



A. F. Budge (Mining) Limited

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May 22, 1987

To: Anthony F. Budge

A.F. Budge Limited

Total pages including cover, 5 pages

Hole 809-2 already in chert at 102 ft.

News from Montana is they had 4 inches of snow yesterday.

Work to date has been concentrated on Senecal property;
reflagging 10 miles of grid; geological mapping of
140 acres, at scale of 1" = 100'; 32 line miles of
magnetometer survey; 80 soil samples and 40 rock chip
samples sent for assay.

Ernie Lehmann will contact Western Energy when he is in
Montana first week in June regarding Garnet Range proposal.

Regards,

Carole.

MEMORANDUM

To: Anthony F. Budge
From: Carole A. O'Brien
Date: June 4, 1987
Subject: Mr. Irwin Parrish's Visit

Mr. Parrish of Derry, Michener, Booth & Wahl, visited the UVX Project on Wednesday, June 3, spending most of the day with Don White reviewing the results of our drilling, geology, etc.

He stopped in at the office at 4:30 pm and discussed his overall impression of the project for about an hour before he left for the airport. He will follow up his visit with a letter in which he will summarize these discussions.

Generally, he thought we were doing all the right things, in the right sequence. He felt we should really formulate a general strategy plan, including the definition of specific targets, e.g. high silica, high gold flux material and large tonnage, lower grade material, how much it would cost to find and develop these targets and what our possible net return would be after production. He pointed out that we are basically scavenging an old mine and therefore should not expect to find vast quantities of mineable material. He suggested we may want to consider joint venturing the property to reduce the risk of losing all our investment. This would mean standing back and taking a carried interest position. It might also require some additional drilling in "virgin" areas to enhance the probability of developing additional tons. Rather than putting all our eggs in one basket, or all our money in the M-3 zone, it would be more advantageous to put a couple of holes in each of the target zones Don has identified on the 950 level. The incoming joint venture partner would then spend the required money to develop each of these areas. If the M-3 zone cost, for example \$300,000, to delineate, then 5 additional zones of similar magnitude would cost \$1.5 million.

Mr. Parrish did make the comment that if he had the choice between mining the small tonnage, high grade zone or mining the larger tonnage, lower grade zone, he would take the latter. If you go in and take the high grade, you may not be able to return and mine the remaining lower grade material. You essentially destroy the integrity of the overall zone, and risk diluting the high grade to an extent which defeats the initial purpose. There is a higher probability of the existence of the larger tonnage, lower grade zone than of a lower tonnage, high grade zone. We should, however, raise into the M-3 zone and sample it. Larger stopes mean lower mining costs. So my evaluation of the economics showing equal return on mining either the small high grade or the larger low grade, is in error. I should have used a lower mining cost for the larger tonnage mined.

Mr. Parrish did not think we would develop sufficient tons to warrant investing the capital for our own mill. He suggested that we might want to consider using a custom mill such as Stan West's proposed operation at McCabe, scheduled for construction in August. He also mentioned that Robertson Research is investigating the possibility of erecting a custom mill in the Prescott area, and has spoken with Echo Bay concerning the possibility of treating ores from the Congress Mine. He did think that our possible treatment of UVX ores at the Vulture CIL plant was certainly feasible.

He stressed the need for a "brainstorming" session and development of overall plan:- What are we looking for? How much is it going to cost to find it? What do we expect as a return if we find it? Are the returns worth the risk? Do we want to minimize risk by taking on a joint venture partner now, or possibly at some point down the road?

And as the Wall Street Journal has been so fond of printing these past few days - "We are not so concerned about the return on our money, as in the return of our money."!

To: Anthony F. Budge

From: Carole A. O'Brien

Date: June 3, 1987

Subject: 350 hp. Air Compressor from Arizona Pneumatic Systems.

The 350 hp air cooled, Gardner Denver air compressor is \$45,470 f.o.b. Memphis.

Rental/lease for minimum of 1 year: \$2700 per month.

100% applied to purchase price during first 3 months;

90% applied to purchase price, months 4 thru 6;

60% applied to purchase price, thereafter.

Currently, we are paying \$3075 per month for the 800 cfm compressor (diesel) from Wisco Supply, plus an average of \$2400 in diesel fuel.

Renting the larger unit would save about \$300 per month. The diesel fuel cost would be offset by increased power usage.

JR cheaper in UK than his price.

*check -
Ing. Rand.*

*can you
develop as
much
torque.*

MEMO

To: A.F. Budge

From: A.J. Fernandez

Date: June 3, 1987

Subject: Bi-Weekly Activity Report

Installation of a muck hoisting system at the UVX is progressing very well. Smelter City Ironworks will complete the skip/cage by June 12. As of end of day shift June 2 the raise from the loading station had progressed about 8 feet. Pete estimates completion next week. Preparation of a truck loadout in the headframe is underway. Structural steel has been removed and the hole at the collar has been lagged over to support a truck. Howard and I are confident that the steel removed does not significantly weaken the structure, however we plan to add some bracing to put at ease the casual observer. Howard is to give Pete plans for installation of the scrolls and chute today. This will then be prepared for mounting in the headframe. We have decided to install the new skip/cage in the shaft before we install the skiploading chute. The week of June 22 appears to be the likely time for the new skip/cage to be hung in the shaft. Our target, therefore, for hoisting muck is the week of July 13. The drilling on the 800 level should be complete before the shaft work.

I will be looking around Cottonwood and Jerome for a truck that would be available on a rental basis to haul waste on the

mine site. At this time, the thinking is that ore shipments will be carried by a contractor. Therefore, our only need will be for a small end dump to tram waste. An ore truck could be loaded directly from the skip or the waste truck could stockpile ore for later loading by the front-end loader.

Progress on the new drift on the 950 level has been slow due to only one crew available and the muck disposal situation. Once the muck hoisting system is complete, advance on the drift and turnout to the M-3 zone can proceed simultaneously.

This Friday I have planned to interview several surveying firms in the Cottonwood area. We should contract someone soon to begin surveying in Jerome for subsidence monitoring. Exactly what work a surveyor performs will depend on the data available from Phelps Dodge. Also, I will be photographing obvious subsidence damage in Jerome.

For the Vulture, I have been sending out letters to prospective mining contractors. The letter requests information about the company and a response as to their interest in our project. A copy is attached.

Monday, our Notice of Disposal was third in line on the desk of Mr. Lewis of ADHS. I expect to hear something by Friday.

The final plant design for the Vulture is crucial to any further decision making. The characteristics and volume of the plant tail will determine how we dispose of them. It seems that the leach pad may be the logical choice. This may require some further work by SHB to evaluate the stability of what would be a substantially different heap. We would be avoiding a tailings dam by using stacked ore as a retaining structure.

Initially, we should process the high grade ore and the tailings and from that history decide what is minable in the remaining reserve. This probably entails an expansion of the heap pad or construction of other tailings disposal means (back-fill pit?)

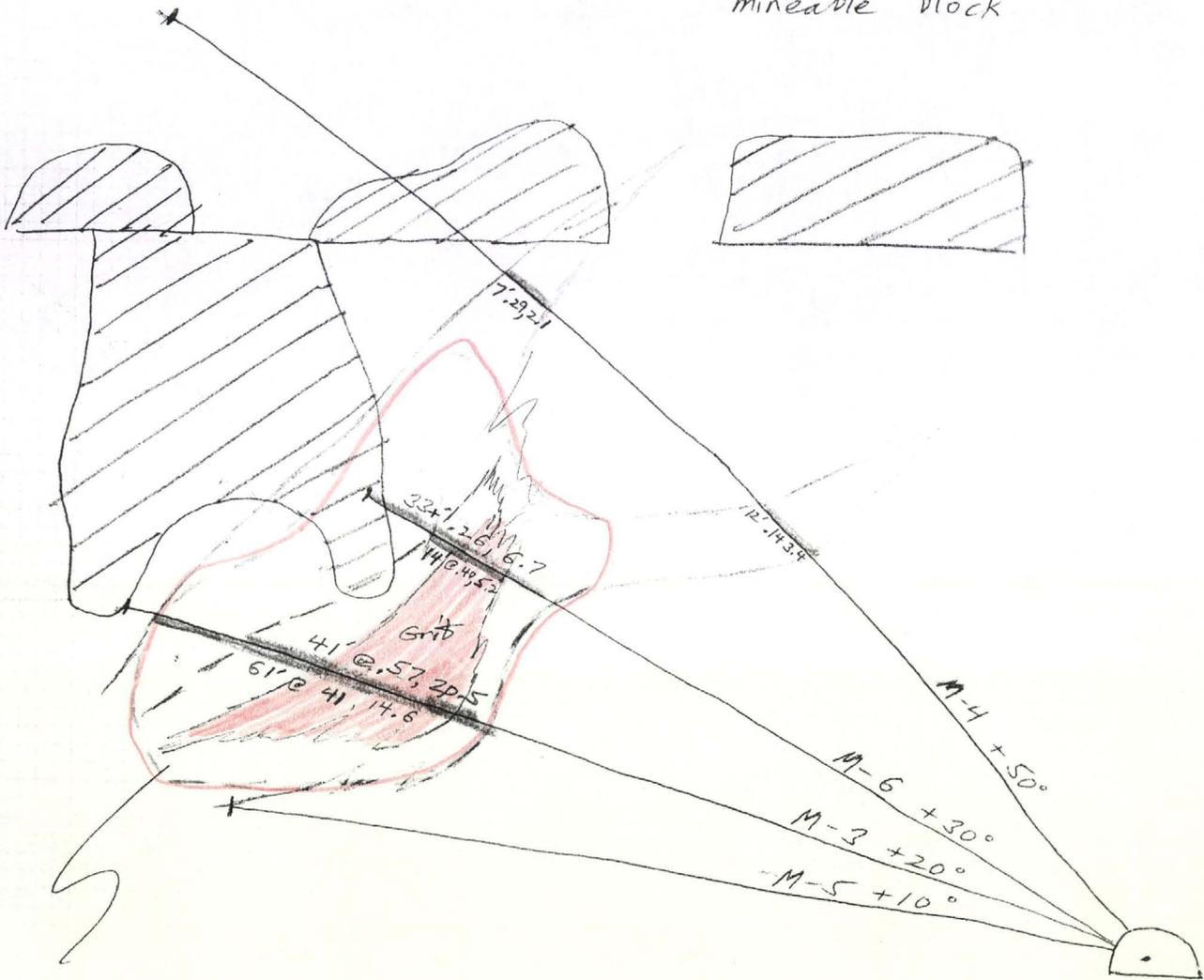
Invoice	Amount	Terms	Date Due
VMP Royalty, Vulture	\$5,500.00		6-05
Budge: Telephone	\$196.29		6-08
DMEA fees, expenses and reimbursement for rent, picnic, etc.	\$5,531.49		
Pete Hahn, fees and expenses	\$6,140.07		
Don White, fees & expenses	\$7,365.05		
Sub-total	\$24,732.90		

On June 12, I will need \$35,000 to cover the remaining accrued invoices:

Invoice	Amount	Terms	Date Due
State Fund, June premium	\$789.00		6-15
Skyline UVX assays	\$230.00	net 30 from 5-15	6-15
Ingersoll Rand: Rock bolts	\$3,000.00	net 30 from 5-15	6-15
Ace Hardware	\$493.25	2% discount by 10th	
Arrow Gas	\$42.00		6-20
Visa: AJF	\$286.07		6-21
Jiffy Janitor	\$87.56		6-25
Woodard (Explosives)	\$658.00	net 30 from 5-18	6-18
AGM Sales & Service	\$75.00	net 30 from 5-20	6-20
MSA	\$239.47	net 30 from 5-22	6-22
Wisco Supply	\$520.19	net 30 from 5-20	6-20
Wisco Supply	\$1,027.12	net 30 from 5-20	6-20
Wisco Supply	\$145.73	net 30 from 5-21	6-20
Wisco Supply	\$529.06	net 30 from 5-22	6-22
Wisco Supply	\$16.94	net 30 from 5-27	6-27
Smelter City	\$160.28	net 30 from 5-27	6-27
Iron King assays	\$340.00		6-10
Babbits	\$230.07		6-10
Budge: Veldman Landscaping	\$200.00		6-10
Iron King Assay	\$175.00		
Newhall's Alaskan Oil	\$2,356.53		
Wisco Supply	\$26.07	net 30 from 5-22	6-22
Weible Petroleum	\$20.87		6-10
AGM Sales & Service	\$1,735.10		
Cottonwood	\$52.39		

Overlay to UVX
 Morgan Drill Section 3
 showing mineralized intercepts
 in true thickness with Au & Ag grad.
 Note orange outlined potentially
 mineable block

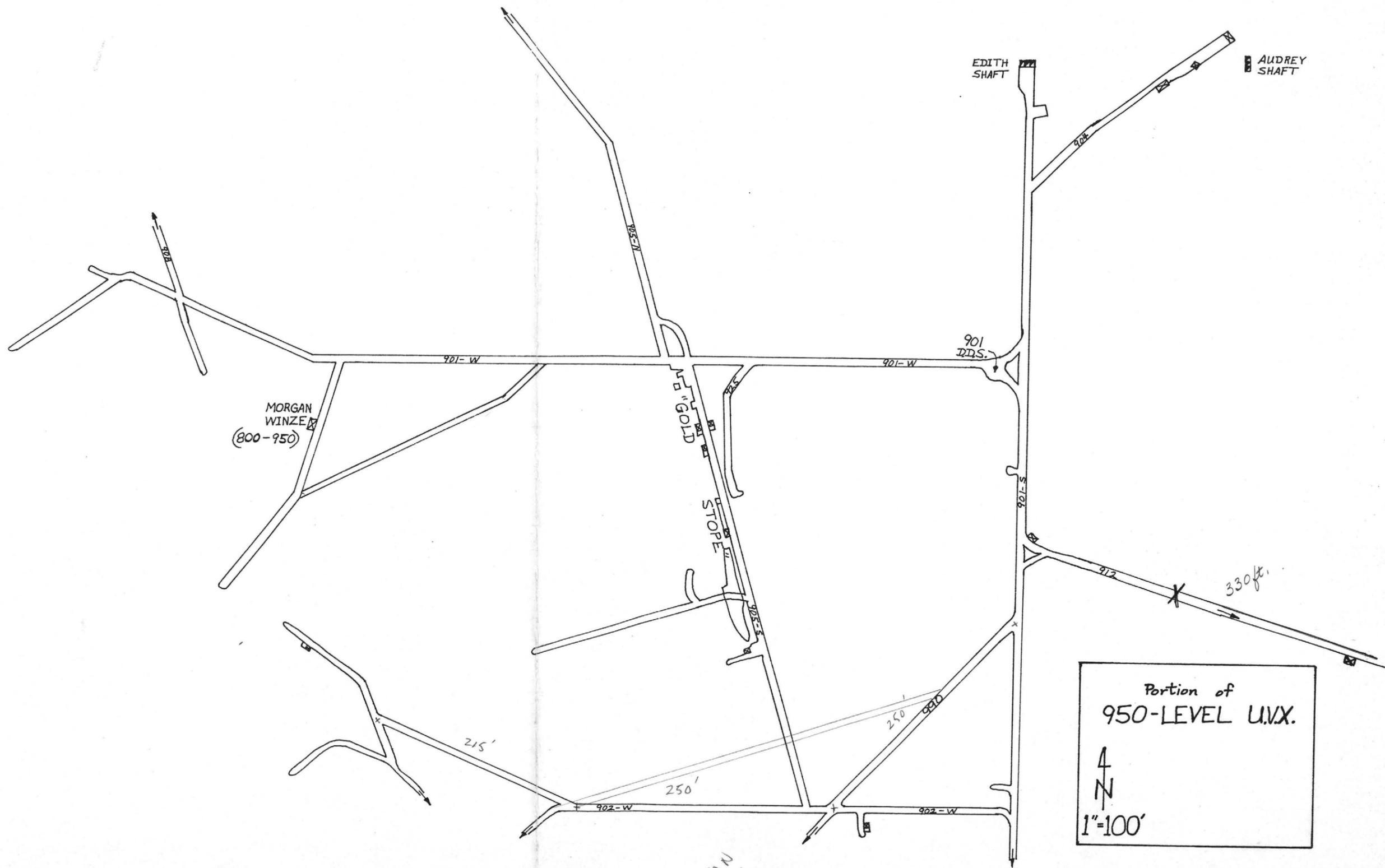
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True X-Sectional dimensions ~ 50' thick (stratigraphic dimension) } Morgan DRS
 ~ 100' high (dip dimension) } 5,000 ft^2 X-sec.
 ~ (100?) long (strike dimension)

$$\frac{1/2 \text{ mil } \text{ft}^3}{12 \text{ ft}^3/\text{ft}} \approx 40,000 \text{ ft}^3 @ .3\% \text{ Au}, 5\% \text{ Ag}$$

$$\text{or } \left. \begin{array}{l} \sim 12,000 \text{ oz Au} \\ 209,000 \text{ oz Ag} \end{array} \right\} = \left. \begin{array}{l} \$4.8 \text{ mil @ } 400./\text{oz} \\ 1.0 \text{ mil @ } 5./\text{oz} \end{array} \right\} \approx \$6. \text{ mil}$$



11250 N
 7850 E

M E M O

TO: Carole A. O'Brien, A.F. Budge
FROM: Don White
DATE: April 21, 1987
SUBJECT: Reno symposium news related to U.V.X., Vulture and Montana projects.

The Geologic Society of Nevada's "Bulk Mineable Gold Deposits" symposium was a good forum for learning, establishing contacts, and advancing various aspects of our projects. Items of import to each project are:

1) U.V.X.

- a) Russ Beddow of Longyear's Phoenix office was there. We chatted about drilling progress and bit costs and so forth. He claims to be making no money on the U.V.X. project and even losing several thousand dollars in February. I doubt that he is correct. In any case, Beddow is being replaced this next week as S.W. District Mgr. by Allen Krause and I hear through Joe Reedy that Mr. Krause will probably visit U.V.X. within the week. So if we are going to hear of any problems it would likely be then.
- b) Robert Earhart of the U.S.G.S. (Denver office) is hosting three Portugese geologists from the Iberian pyrite district for a tour of related deposits in the western U.S.A. They'll be taking in the Shasta District in CA, the U.V. and with your approval, the U.V.X. That would be about May 12 or 13 and the likelihood is learning as much of use to us as we share with them.
- c) I had the chance to talk with Irwin Parrish, a well reputed partner of the firm Derry, Michener, Booth and Wahl, and manager of their Denver office. He is personally involved in ore reserve calculations and mine planning at the McCabe. At my suggestion he agreed to let me know when he would next be in Phoenix for Stan West Corp. At such time, and at no expense to Budge, a meeting could be arranged, say over lunch, to scope out his expertise and personality with respect to our project needs.

My suspicion is that Parrish or someone like him, retained on an as-needed basis, could preempt the need for a full time mine manager. Between Pete Flores' practical experience and on-site supervision, my geologic input, and Carole's administrative, managerial, and financial control, I do not see the need for a higher level manager tied to this project alone. An advisory role filled by the likes of Parrish may better and more cost effectively serve to keep the project on track as far as feasibility analyses and mine planning. After that, the need for both a manager and a mining consultant would diminish considerably. And the life of any UVX operation, even if we find another M-3-like lobe or two, will be quite short.

Carole A. O'Brien, A.F. Budge
April 21, 1987
Page Two
Reno symposium

So I recommend a meeting with Parrish, perhaps in Scottsdale, whenever he is next in town. A copy of a portion of DMBW's brochure is attached.

2) VULTURE

- a) I met a representative of Blue Range Engineering Co., Inc. of Butte, Montana. They had been recommended by others as being very affordable constructors of portable crushing and milling equipment, perhaps the sort of contractor for certain of our Vulture equipment. Attached are a couple pages on their services and capabilities.
- b) Bill Rehrig, now a consultant in Englewood, CO, was at the meeting. We have the Vultures in common as he has mapped throughout the Vulture Mtns. except at the mine. Bob Hodder has previously recommended we retain Rehrig for advice on the faulting in the district.

It turns out Rehrig will be in Wickenburg this week and at no cost we can trade ideas with him. We have a tentative date for Wednesday morning, April 22 to spend a few hours at the Vulture. His ideas on what structural or other controls may have focussed the qpi apophysis could be of much help to us.

3) MONTANA Brian Gavin of ELA was in Reno and we made a couple occasions to talk in some detail about the Gold Canyons project. I think it is a well designed program with very good potential. Some specific comments:

- a) The scale of the program, now spanning jasperoids over 2 miles by 3 miles is such that the system is certainly big and with it the opportunities. Similarly, the task of finding the hot spots is all the more difficult over so much terrain.
- b) Brian has some good ideas on how to focus his efforts within the project area. He plans a magnetic survey which may trace the structural geometry of the buried plutons which are likely gold sources. Local complexities on that surface or even high points with notable flexure would certainly constitute target areas.
- c) One thing coming out of the papers presented was the sometimes offset between surface (e.g., soil) geochemical anomalies and their bedrock source for these types of deposits. ELA personnel are aware of this and trying to track the good anomalies back to their logical sources.
- d) Given the importance of stratigraphic and structural permeability to mineralization, it's reasonable to expect some core drilling (as opposed to only reverse circulation) to advance understanding of just what stratigraphy and structure they are dealing with. They may well benefit by some core drilling this season.

Carole A. O'Brien, A.F. Budge
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Page Three
Reno symposium

- e) ELA apparently has some other areas in mind for reconnaissance and land acquisition for similar targets (open-pitabile gold associated with jasperoids at structural and stratigraphic loci). One area in particular which they call the Garnet Mtns., is about 60 miles W of Gold Canyon and is dominated by Western Energy land control (ex-Anaconda properties). One may wish to monitor that situation for possible Budge involvement.
- 4) GENERAL I guess what struck everyone in Reno was the overall mood of enthusiasm in the exploration business, more so than in the last five years at least. The combination of exploration successes, strong gold price, more available financing, and increased management backing is making for more competition for properties. I think a more exciting tempo of exploration is upon us.

DW:sk

Don White
521 East Willis St.
Prescott, AZ 86301
602/778-3140

April 21, 1987

Irwin S. Parrish
DMBW, Inc.
13949 West Colfax Ave.
Suite 110
Golden, CO 80401

Dear Irv,

Thank you for your letter and company brochure. I look forward to meeting with you whenever you're next in Phoenix. At that time I will introduce you to Carole A. O'Brien, administrator and coordinator on behalf of Budge (Mining) Ltd. for the U.V.X. project in Jerome and other exploration projects.

My query to you is based on our find of very substantial gold and silver grades in chert capping and flanking the old U.V.X. copper ore body. I am convinced some of it will be mineable though the size potential is small. Underground drilling, both as delineation and continued exploration, is ongoing. We are entering our third year of active exploration. We could be only a few months away from limited production and sale of auriferous smelter flux. Other gold we have drilled is not in flux quality silica.

Tasks upcoming will include reserve calculation, feasibility analysis, market studies, and, if appropriate, development of a mining plan. On-site staff of Budge include a mine superintendent and crews suited to old tunnel cleanup and excavation of drill stations. They would become the core of a mining crew. Carole and I are consultants retained on an as-needed basis for this and other projects. Thus far, metallurgical and engineering tasks have been contracted out. My supposition is that with senior level guidance from the like of yourself we can see through such a small operation with a production life of only a couple years. This is not necessarily the route we will go and I do not call the shots on such matters but I recognize your expertise as a potential asset to the project. Discussion of this with Carole O'Brien will give her an idea whether this is appropriate.

I look forward to hearing from you.

Regards,



Don White
Geologist, C.P.G.

DW:sk

cc: Carole A. O'Brien ✓
A.F. Budge

DMBW Partners



David Wahl, a graduate of Colorado School of Mines, merged the well-respected geological and geophysical consulting firm W.G. Wahl Limited into DMBW early in 1982. With a long history of international mineral exploration, this organization was recognized for its expertise in conceiving, organizing and managing exploration projects, some of which resulted

DAVID G. WAHL
Engineer of Mines (Colo.) P.Eng.

in significant mineral discoveries. He was closely associated with discovery and development, including pit design, of chemically-pure limestone and dolostone deposits in Ontario and Quebec, Canada. At DMBW Mr. Wahl concentrates on marketing of the many services available and on planning, management and budgetary control of geophysical services and exploration projects.

Derry, Michener, Booth & Wahl, Inc. Golden, Colorado, U.S.A.

Managing Partner



IRWIN S. PARRISH
B.Sc., M.A. CPGS

Irwin Parrish is Manager of the Golden, Colorado subsidiary **Derry, Michener, Booth & Wahl, Inc.** and a partner in DMBW. He joined DMB in 1977, bringing a wide-ranging experience in mining geology, exploration and mine management.

Formerly with the U.S. Geological Survey, Mr. Parrish was associated in Canada with the Dome and Campbell Red Lake gold mines, Patino copper mines in the Chibougamau area of Quebec and Mount Pleasant tin-tungsten-molybdenum mine in New Brunswick. He opened the United States office (DMB, Inc.) in 1978.

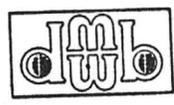
Mr. Parrish has directed DMBW exploration projects and evaluations for uranium, base and precious metals in the United States and has represented DMBW on projects in Fiji, China and India.

Mr. Parrish is the author of several professional papers on the geology of gold, tungsten and uranium. He has also published on practical aspects of mining geology such as ore reserves, grade control, sampling and assaying.

Derry, Michener, Booth, & Wahl

Mining and Geological Consultants

DMBW, Inc.
13949 West Colfax Ave., Suite 110
Golden, CO 80401
(303) 233-8786 Res. 423-8786
Telecopier (303) 232-2586
Telex 450349
Toronto (416) 368-4636



Irwin S. Parrish

DMBW Partners



DUNCAN R. DERRY
O.C., Ph.D., P.Eng.

Duncan Derry is known internationally for his many contributions to minerals exploration. A past president of the Geological Association of Canada and the Society of Economic Geologists, his professional skill is honored in the name of a medal awarded annually by the Minerals Division of the G.A.C. for outstanding contributions to the advancement

of geological knowledge in the economic field. Before starting as a consultant, he was Chief Geologist of Ventures Ltd., in their worldwide projects under the leadership of the famous Thayer Lindsley. Subsequently he directed the exploration activities of the Rio Tinto organization in Canada at the time of their acquisition and development of the uranium mines at Elliot Lake, Ontario.



CHARLES E. MICHENER
B.A., M.S., Ph.D., P.Eng.

Charles Michener joined DMBW in 1969 after a lengthy career with Inco Ltd. including a position as vice-president of the exploratory subsidiary from 1955. He is known widely for his contributions to the development of airborne geophysical systems and his role in many discoveries including the Thompson, Manitoba nickel area, the Lupin gold mine in Canada's Northwest Territories and the large copper-nickel deposit in the Duluth Gabbro, Minnesota. Discovery of the Heath Steele Mine in New Brunswick was the first successful application of airborne electromagnetic equipment. He is a holder of the Selwyn G. Blaylock Medal, awarded by The Canadian Institute of Mining and Metallurgy for outstanding service to the mining industry.

Derry, Michener, Booth & Wahl

DMBW Partners



JAMES K. BOOTH
B.Sc., A.R.M.S., P.Eng.

James Booth joined DMBW in 1969 and has played an especially active role in evaluations and feasibility studies for mergers and acquisitions as well as for such projects as development of large uranium mines, coal mining operations, and heap leach gold deposits in North America and Australia. A graduate of the Royal School of Mines in London,

he was with the Colonial Geological Survey in East Africa, served as Exploration Manager and Director of new projects for the Rio Tinto organization in Canada and established and managed Canadian Superior Exploration, a company formed to effect the entry into Canadian mining of the U.S. Superior Oil Group.



IAN S. THOMPSON
B.A., P.Eng.

Ian Thompson, a graduate of the University of Toronto, is a specialist in exploration management and economic geology. His extensive Canadian and international experience together with innovative and pioneering techniques in such areas as geochemistry are widely used by major mining organizations and junior mining companies. Mr. Thompson joined DMBW in 1969 following a decade of field experience.

Derry, Michener, Booth & Wahl

The Services of Derry, Michener, Booth & Wahl

DMBW activities take in several roles — as consultants, managers and initiators of mining projects.

DMBW brings together extensive practical experience and the latest knowledge and technological tools to be applied to minerals exploration and development.

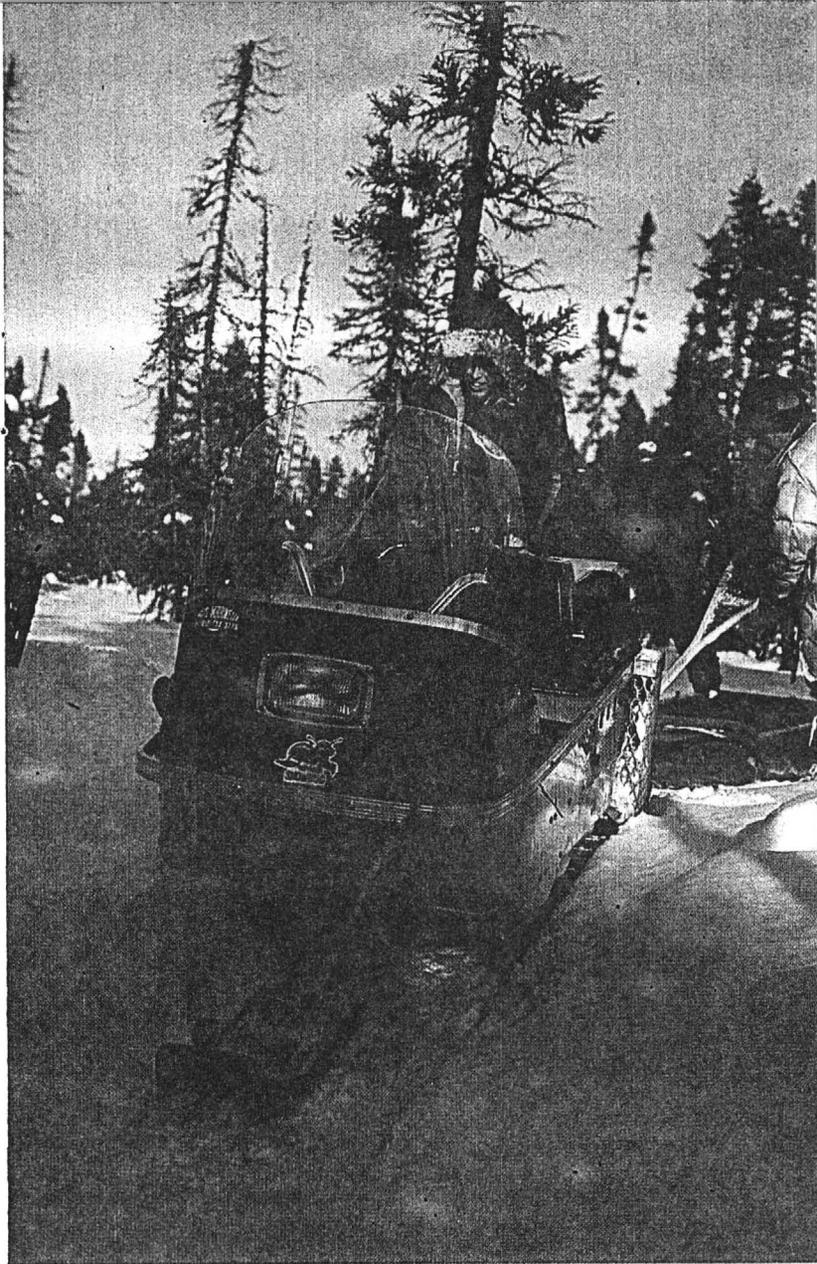
EXPLORATION SERVICES are as varied as requirements.

- **Initiation** of exploration projects throughout the world.
- **Preparation** of qualifying reports and budgets.
- **Organization and Planning** of all aspects of exploration including arranging and directing staking, property acquisition, line-cutting, recruitment of manpower, supplies and transportation services.
- **Selection and Execution** of regional and/or detailed geophysical, geochemical and geological surveys and any other related activities including logistics and environmental studies.
- **Recording, Reporting, Analyzing and Evaluation** of results.
- **Evaluation and Planning** for possible follow-up programs where warranted.
- **Management** of projects including corporate accounting for mining companies and syndicates and acting as Trustee for exploration funds and properties.
- **Appraisals** of previous information and **Evaluation** through new exploration programs including surface and underground drilling.

ECONOMIC AND FINANCIAL EVALUATION SERVICES are provided as appropriate for mineral projects in more advanced stages.

- **Ore reserve calculation** for prospects and projects at all stages.
- **Mine operating and capital cost** calculations including detailed economic feasibility studies in association with other engineering firms.
- **Preparation of Preliminary Feasibility** studies.
- **Full Feasibility** studies in association with other engineering firms.
- **Review and Evaluation** of feasibility studies for financing.
- **Valuation** of mineral resource companies for public and private financings, investment, acquisition or merger.

Derry, Michener, Booth & Wahl



ADVISORY SERVICES in more general areas.

- **Guidance** on mineral development policies and programs for governments and international agencies.
- **Analysis** of the impact on mineral resource companies of government policies and long and short-term commodity market conditions.
- **Preparation of background papers** on mineral resources on behalf of governmental and international agencies.

Derry, Michener, Booth & Wahl

Carole

BLUE RANGE ENGINEERING CO., INC.

56 E. Mercury St. • Butte, MT 59701

(406) 782-9354 or 782-1433

April 10, 1987

Mr. Donald C. White
521 East Willis Street
Prescott, AZ 86301

Dear Mr. White:

Pursuant to your conversation with Michael R. Garverich, enclosed are the brochures you requested. Thank you for your interest in our company. If you have any questions, please call.

Sincerely,



Larry C. Hoffman, P.E.
Mining Engineer

LCH/gkh
encls.

MINING AND MINERAL PROCESSING ENGINEERS
DESIGN - TESTING - CONSTRUCTION

LARRY C. HOFFMAN
REGISTERED PROFESSIONAL ENGINEER

BLUE RANGE ENGINEERING CO.
56 E. MERCURY ST.
BUTTE, MT 59701

(406) 782-9354

CONSTRUCTION — Partial or turn-key fabrication and erection of mine or processing plants. Head-frames, bins, compressor plants, etc. All types of cyanide plants and concentrators, portable and semi-portable mills, and concentrate treatment facilities. Re-building and improvement of existing facilities.



Montana heap leach production test.

TROUBLESHOOTING — A unique problem-solving service for mines and mills. If you have a problem, call us. We will take a look at no cost to you. If we can solve the problem, we will give you a cost and time estimate. If it doesn't work, there is no cost to you.



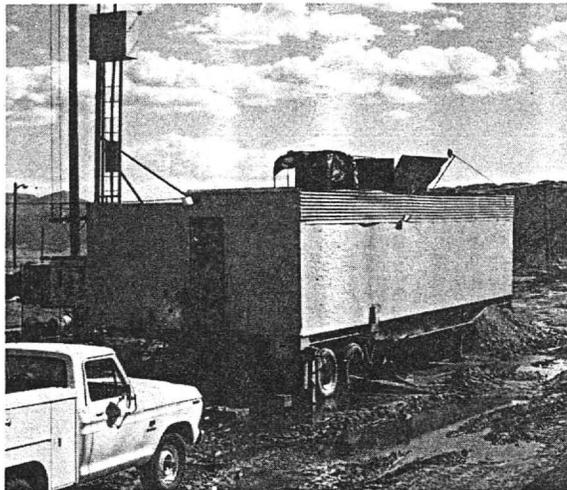
200 TPD portable crushing/sampling plant.

EQUIPMENT CONSTRUCTION — We have designed and built a wide variety of mine and mill equipment. We can construct virtually any piece of specialized equipment to suit the client's needs.

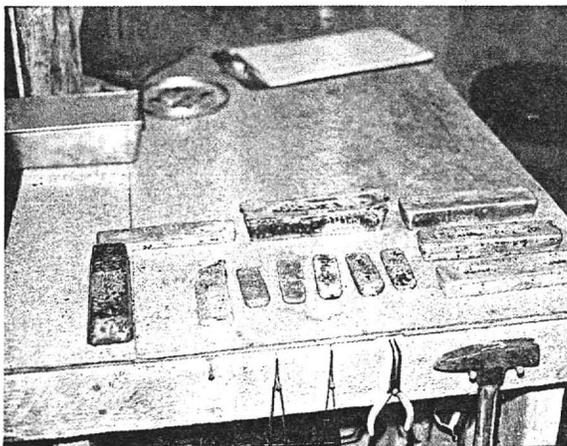
Shaft muckers, hoists, mine cars, trammers, jumbos, car transfers, etc. for mines. Carbon and zinc precipitation units, carbon strippers, cyanide regenerators, variable-speed slurry pumps, etc. for processing.

EQUIPMENT REPAIR AND RE-BUILDING — For all types of mining and milling equipment, in place or in our shop.

We also buy, sell and trade equipment, as well as do salvage work.



100 TPD portable gravity/flotation mill.



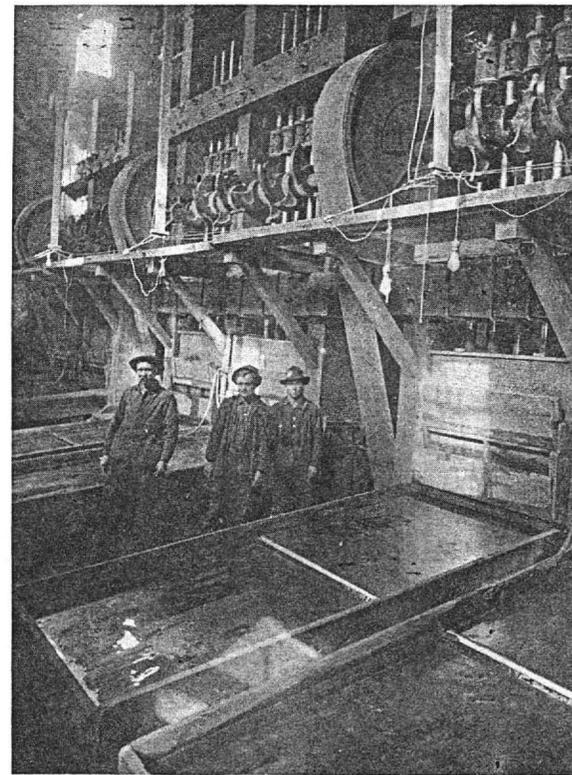
900 ounces of Alaska gold.

REMEMBER: EITHER OUR WORK IS RIGHT OR IT DOESN'T COST YOU ANYTHING!

BLUE RANGE ENGINEERING CO. INC.

**Registered Professional
Engineers**

**OFFERING COMPLETE AND FULLY
GUARANTEED TESTING, ENGINEERING
AND CONSTRUCTION SERVICES FOR
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AND SILVER**



Stamp milling and amalgamation — 1910

56 East Mercury

Butte, Montana, 59701

(406) 782-9354 or 782-1433

Blue Range Engineering feels that a client has only one concern in hiring a consultant or a contractor, to end up with a profitable project. Trial and error is costly, in money spent and time lost, so practical operating experience is usually the key to success. Every project is different and benefits from extensive "nuts-and-bolts" exposure on the part of the design and construction personnel to convert theory into profit.

We offer a complete selection of services to the mineral industry, specializing in precious metals. All assay work and metallurgical testing is done in our own lab, so each step of a project, from sampling to sale of bullion, can be closely supervised. Because of this control, and our experience from South America to Alaska, we can offer **GUARANTEED SERVICES:**

Either our work is right or it doesn't cost the client a dime. This is not to say that we are perfect, no one is. We just don't think that anyone should pay for our mistakes and that gives us the incentive to minimize errors.

This brochure briefly describes our capabilities.

Blue Range Engineering is a development and production oriented firm, designed to provide all of the engineering and construction services necessary to make a prospect into a profitable operation.

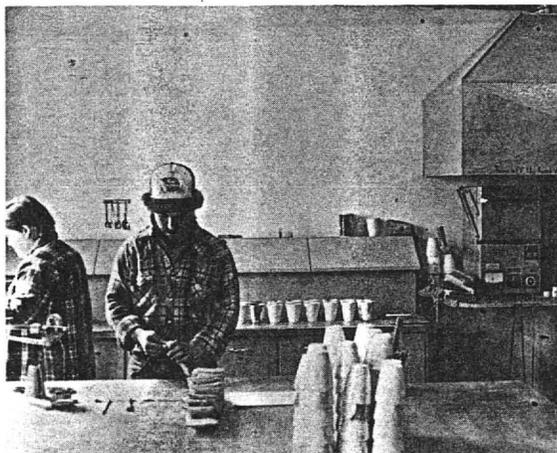
From the time a geologist decides that a mineralized area has ore potential, Blue Range Engineering has the personnel, experience and equipment to make it into a mine.



Sample preparation.

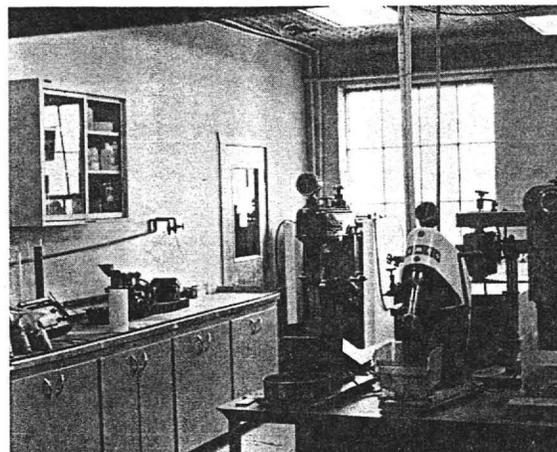
SAMPLING — Portable and laboratory crushing, grinding, and splitting equipment for sampling cuttings, dumps, trenches, or development muck. Field capacities to 200 tpd, and a sample preparation department equipped for high volume work. Special statistical reductions designed and implemented to minimize sampling errors.

ASSAYING — Full fire and wet facilities to control our sampling and test work. We do custom assaying and specialize in large exploration programs.

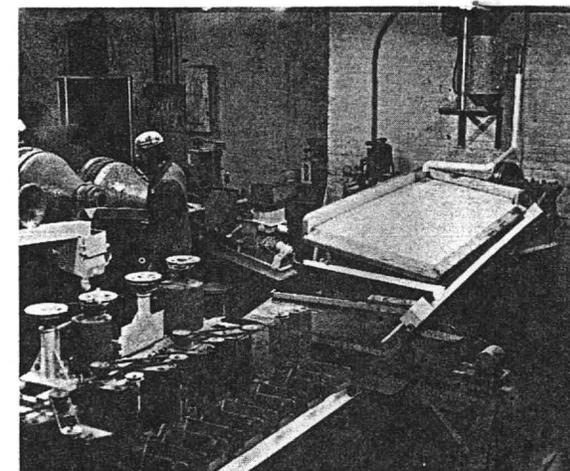


Fire assaying.

TESTING — Modern laboratory facilities for all types of mineral processing. Crushing and grinding, screen analysis, gravity, amalgamation, cyanide, flotation and metal extraction from concentrates.



Process test benches.



400 lb./hr. Pilot plant.

PILOT PLANT — Scaling up successful lab tests to several hundred pounds per hour. Multi-stage grinding, gravity and flotation circuits, tailings or concentrate leaching and large-column testing for heap leaches. This work eliminates most flow and recovery problems before planning production facilities. The plant may also be used for concentrate treatment, an alternative to smelter shipments.

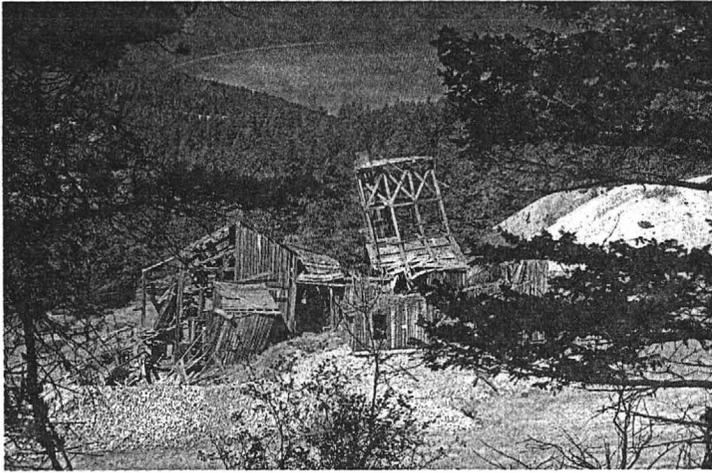
DESIGN — Consulting or full planning of facilities. Complete plants or specific problem areas.

DEVELOPMENT — Complete underground mining equipment for track or trackless operations. Re-opening of old workings, adits, shafts, raises and construction of mine facilities.



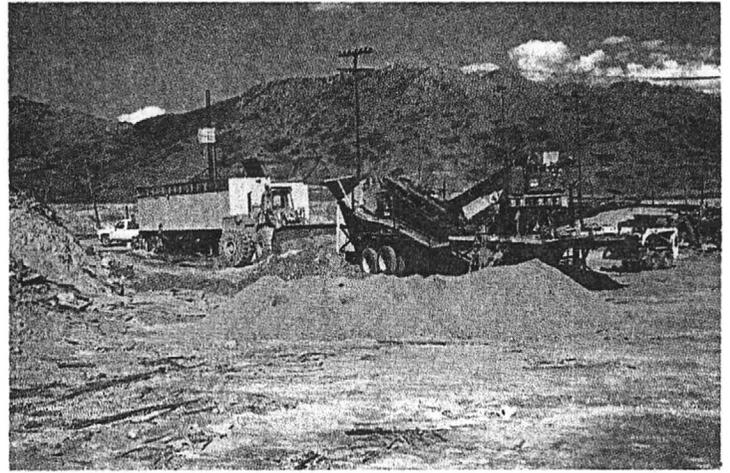
80 Miles north of the Arctic Circle.

AFTER THE ORE IS GONE



**SHOULD HALF THE MILL INVESTMENT
REMAIN FOR SCENERY?**

OR

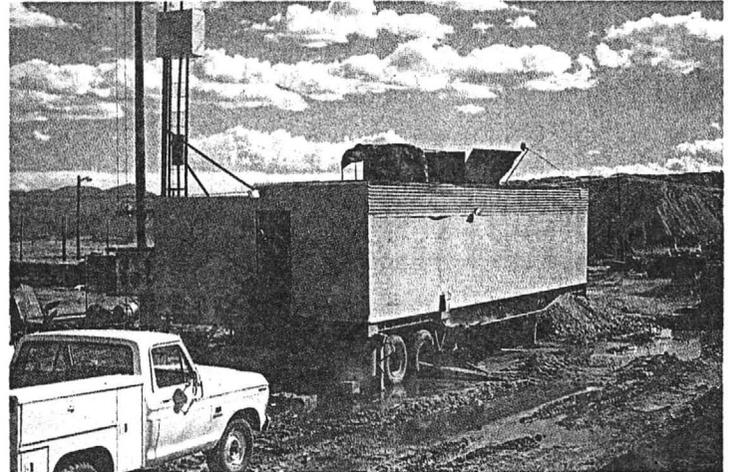


**SHOULD ALL OF THE INVESTMENT
ROLL TO ANOTHER SITE?**

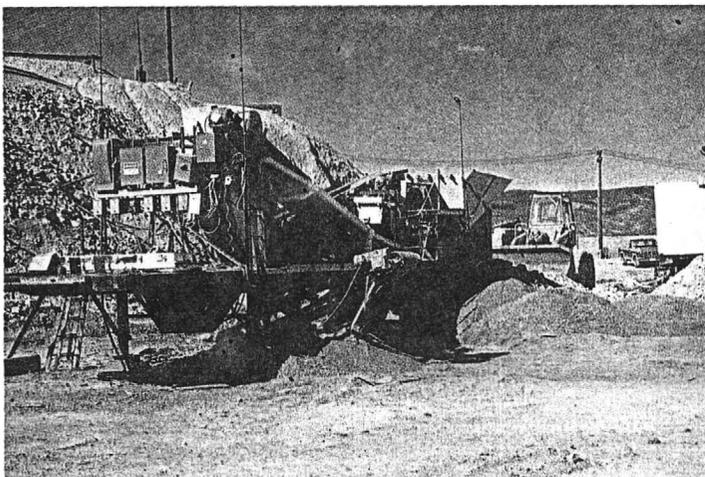
FOR MINES WITH LIMITED OR UNCERTAIN RESERVES, BLUE RANGE MILLING OFFERS A LINE OF TRULY PORTABLE MILLS, CUSTOM DESIGNED, WITH CAPACITIES TO 250 TPD

THESE PLANTS OFFER:

- Flexible gravity-flotation flowsheets
- Easy transportation, highway legal
- Quick, simple set-up & tear-down
- No extensive site preparation
- All standard milling equipment
- Diesel-electric or line power



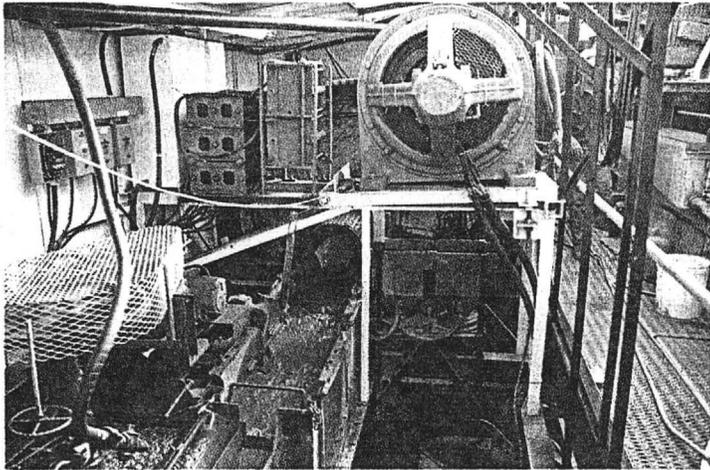
OVERALL VIEW OF 100 TPD PLANT



CRUSHING PLANT

THE CRUSHING PLANT FEATURES:

- Two-stage crushing and screening
- Belt magnet tramp iron protection
- Hand sorting of coarse feed
- Variable rate feeding
- One-man operation
- Automatic sampling of product
- Dust collection equipment
- Excess capacity — 24 hours milling with single shift crushing



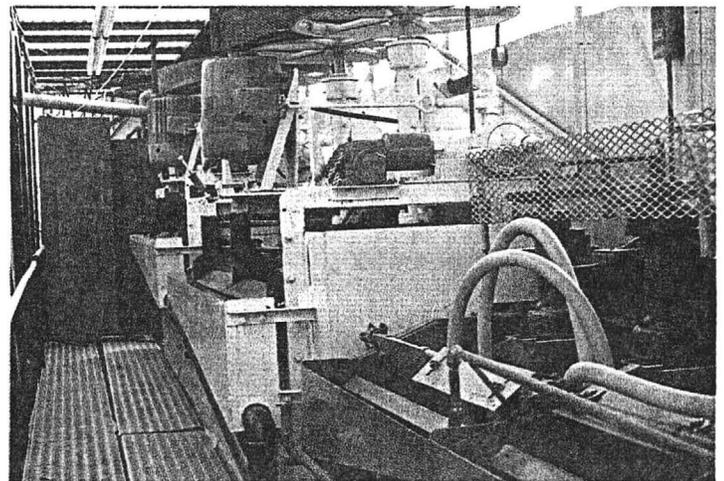
INTERIOR — BALL MILL, DRIVE, JIGS

THE GRINDING TRAILER FEATURES:

- Heated fine ore bin and feeder
- Grate-discharge ball-mill to minimize over-grinding and retained values
- Rubber linings to save weight & wear
- Jigs and unit flotation cell for recovery of coarse metalics
- Centralized controls — all processes within sight of operators station
- One-man operation
- Easy accessibility for service

THE FLOTATION TRAILER PROVIDES

- Simple inter-trailer connections
- Ample conditioning/flotation capacity
- Flexible flotation flowsheet
- Automatic tailings sampling
- Continuous concentrate filtering



INTERIOR — CONDITIONER TANK AND FLOTATION CELLS

THESE PLANTS ARE OF PARTICULAR INTEREST TO SMALL OR NEWLY DEVELOPED MINES WITH LIMITED ORE RESERVES AND COMPANIES WITH SEVERAL MINES OR PLANS OF ONGOING ACQUISITION AND DEVELOPMENT. A PORTABLE MILL IS ALSO USEFUL IN THE EARLY STAGES OF A LARGE MINE TO ACT AS A PILOT PLANT FOR PROCESS DESIGN.

SINCE THESE MILLS USE STANDARD HEAVY-DUTY MILLING EQUIPMENT, THEY ARE AS DURABLE AS A PERMANENT INSTALLATION. HOWEVER, THE VALUE OF A PORTABLE MILL, PROPERLY MAINTAINED, DOES NOT DROP WHEN THE ORE IS GONE. THE REAL CAPITAL CHARGE AGAINST THE ORE IS NEARLY ZERO AND FROM AN ACCOUNTING STANDPOINT EVEN THE INTEREST ON THE CAPITAL INVESTMENT IS OFFSET BY THE INVESTMENT TAX CREDIT AND DEPRECIATION.

FOR FURTHER INFORMATION, PLEASE CONTACT:

BLUE RANGE MILLING CORP.
56 E MERCURY ST.
BUTTE, MT 59701
(406) 782-9354

or our agent

GENE BROWER MACHINERY CO., INC.
P. O. BOX 11794
SPOKANE, WA 99211
(509) 535-4332

BLUE RANGE ENGINEERING CO., INC.

56 E. Mercury St. • Butte, MT 59701

(406) 782-9354 or 782-1433

SCHEDULE OF CHARGES

March 1987

Laboratory test work:

Screen analysis, dry	\$ 60.00 + assays
wet	\$ 100.00 + assays
Flotation tests (Minumum of three)	\$ 80.00 + assays
Gravity concentration tests	\$ 75.00 + assays
Cyanide leach tests - hot centrifuge	\$ 7.50 ea.
- bottle	\$ 80.00 + assays
- agitated	\$ 120.00 + assays
- carbon-in-leach	\$ 150.00 + assays
- 6" column	\$ 400.00 + assays
agglomerated	\$ 450.00 + assays
- 12" x 12' column	\$2,000.00 incl. assays
agglomerated	\$2,300.00 incl. assays
Special laboratory work	\$ 40.00/hr.

Assay work:

Sample preparation - to 10 lbs.	\$ 2.50
- over 10 lbs.	\$ 0.35/lb.
- separate metallics	\$ 15.00 additional
Gold - silver fire assay @ 1 AT	\$ 10.00 ea (volume rates quoted)
metallics	\$ 55.00
carbon	\$ 12.50 - 1/10 AT
concentrate	\$ 20.00
bullion	\$ 50.00
umpire	\$ 50.00
visual pt	\$ 1.00 for 5
Cu, Pb, Zn (AA)	\$6.00 first element, \$2.00 each additional
As	\$ 11.00
Bullion melting big furnace	\$ 80.00/hr
small furnace	\$ 55.00/hr

Carbon stripping (reduced to dore' bullion) \$ 900.00/batch

Concentrate treatment by quotation, please call.

Pilot plant work (continuous, 400 lbs./hr +, gravity, flotation, leaching)
please call for quotations.

Shop time, repair and construction \$ 30.00/hr.

All work is cash, unless prior credit is arranged, and fully guaranteed.

The cost of engineering is small compared to the loss of one percent recovery or one day's production

BFD

Don White
521 East Willis St.
Prescott, AZ 86301
602/778-3140

January 7, 1987

A.F. Budge
c/o DMEA, Ltd.
7340 East Shoeman Ln.
Suite 111-B-(E)
Scottsdale, AZ 85251

Dear Tony,

At the conclusion of your phone call earlier today, you asked that I write you my thoughts on any activities I recommend for the U.V.X. or Vulture projects. I am afraid this will be a very brief letter and redundant with my previous reports for I report to Ben and Carole frequently and thoroughly in writing and you say you receive all such correspondence.

At the Vulture, plans call for conducting the ground magnetic survey of the area south of the main pit area. Such survey was recommended in our memo of Nov. 14, 1986 (R.W. Hodder and White) with some refinements in my memo of Dec. 18, 1986. My understanding is that Ben is agreed on the merit of this survey with the understanding that it may add virtually nothing but it may also tell us enough to better guide any drill-testing and thus make the survey well worth its cost.

The proposed Vulture Mine model may be started any time. I am mainly interested in the underground portion of the model as a tool to unravel the faulting and structural controls on the mineralization, thereby aiding exploration for any faulted extensions and perhaps understanding to help explore for blind (alluvium covered) deposits to the south. The surface (pit and reverse circulation drill hole) modelling I suggested would not have any clear exploration usefulness right now. I recommend the U.G. be modelled now and designed to accommodate the surface as an addition if desired later.

The Vulture underground model, as predicted in my Dec. 18, 1986 letter of proposal, will take about 3 weeks. That is charged time, not elapsed time. It would have to be built concurrent with monitoring double-shifted core drilling and sludge drilling at the U.V.X., a full time job. Just like the U.V.X. mine model, it would have to be fit in on weekends and other available time. Its merit is so great compared to a few thousand dollars cost that I have no doubt as to its worth to the project. The U.V.X. model, for instance, for a total of less than \$5,000 serves to better guide hundreds of thousands of dollars worth of drilling.

The only other thing I would like to see done at the Vulture now is a few radiometric age determinations. This won't by and of itself, find ore or "pay the bills." It might, however, tell us whether our thoughts

A.F. Budge
January 7, 1987
Page Two

on the epigenetic origin of the Vulture mineralization are correct. If they are we have more confidence in our strategies for exploring the overall claim block. If they are not, we ought to know now, in time to correct our plans. Radiometric ages were to be determined by the U.S.G.S. this year but who knows whether they will do the work or whether we'll be able to obtain the results. A couple thousand dollars would allow us to date several samples ourselves in time to be of use.

At the U.V.X. we are about to core drill the Verde area and percussion (sludge) drill the perimeter and hanging wall of the Gold Stope. The latter is to be approached from the 901-W, 925, 1125, 1105, and perhaps the 1101-W and 806 crosscuts. These are the most important tasks at hand.

If financial analyses support the viability of the 0.15 oz/t Au that is likely in the Florencia area, then we could open up the 1104 and 1104-A-S to facilitate testing that area. If the Verde area core drilling is encouraging, we should consider similar drill tests of the extension further south between the presently targeted Verde area and the Florencia area. We could call it the Verde South area between 10,900N and 11,200N, 7,200E and 7,700E, from the 950 through 903 and 800 levels. This area is drillable from the 950 level if the 901-S (minor caves only) and the diagonal crosscut to the 902-W (some major caves but I have traversed it on foot) were both reopened. Any other work at the U.V.X. would be a development from the drilling now under way.

Going beyond what you asked of me, let me give you my opinion of your consultant and my client. I have worked as an employee of a good consulting company (Lehmann & Assoc.), a poorly managed one (Resource Assoc. of Alaska), and two well respected large companies (INCO and Shell). Only with Lehmann did I enjoy the rapid decision-making, the hassle-free administration, and the supportiveness of creativity that I believe are fundamental to a geologist's success in metal's exploration and which Ben so well fosters.

Everyone works very hard and long on your behalf. In my case that includes whatever time is necessary to any project at any time. My nights and weekends are often devoted to the Vulture and U.V.X. projects on short notice for high priority tasks. Drilling at the Vulture is usually a 6:00am to 11:00pm schedule, still just a day's work on my reports. My last four months have been totally devoted to your projects and neither I nor anyone else in DMEA have had time to set up or execute the likes of the ground magnetic survey. If it is to be expedited, it is a matter between you and Ben for establishment of priorities.

Sincerely,



Don White
Geologist, C.P.G.

DW:sk

cc: Ben F. Dickerson, III

GEOLOGY OF THE VULTURE MINE, ARIZONA.

Abstract of a paper
for presentation at the SME Annual Meeting
Phoenix, AZ Jan. 26-29, 1988

by Don White, C.P.G.
521 East Willis St.
Prescott, AZ 86301

The historic Vulture Mine near Wickenburg, Arizona is an epigenetic gold deposit within otherwise barren Precambrian country rock. Mineralization is associated with a semi-conformable apophysis from a porphyritic quartz monzonite stock of probable Laramide age. Bonanza-grade native gold, mined in the 1870s, occurred in quartz veins within and adjacent to the sill. More disseminated gold occurs throughout the sill and in silicified, pyritized and argillized wall rocks. Pre-mineral, low-angle faults may have guided the intrusion. Post-mineral, high-angle faulting has created several major offsets in the lode. Production may have totalled nearly 900,000 metric tons (1 million s.t.) containing about 11,000 kg (350,000 troy ounces) of gold and 8,000 kg (250,000 troy ounces) of silver. Grades averaged 12 grams Au and 9 grams Ag (.35 oz and .25 oz, respectively) with minor copper and lead. Present activity includes plans to develop small open-pit table reserves along with tailings reprocessing.