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Item 39

- 4970 0039 -

CARGOLD MINING & DEVELOPMENT CORP

SUPPLEMENTAL REPORT

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1960?

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TYBO MINE

In the past few weeks considerable marketing research has been accomplished with respect to the crude ore, old smelter slag, tailings, concentrate from a milling plant and the general economic picture of Tybo.

The American Smelting and Refining Company Plant at Selby, California furnished an acceptance schedule and their Zinc Plant at Amarillo, Texas has given a schedule. Photostatic copies of these schedules are contained in this report.

The International Smelting and Refining Company of Salt Lake City, Utah, has furnished both lead and zinc acceptance data. This company will bid on the silver-lead schedule and all Tybo products when production is certain. Mr. Burt of I. S. & R. stated that in recent years they had made a geological study of Tybo that resulted in a favorable summary, however, a clear working agreement was not available on the property at that time. Mr. Burt has volunteered access to all I. S. & R. technical data on Tybo. Since I. S. & R. is a subsidiary of Anacondo Copper Company, Cargold will attempt to determine if Mike Keldale, the Chief Consulting Geologist for Anacondo Copper Company made any reports on Tybo.

Mr. Burt has requested that samples of the Tybo slag be shipped to him for analysis. I. S. & R. will then make an offer on the slag under present market conditions. Since I. S. & R. is familiar with the Tybo slag, there is a possibility of shipping the unprocessed slag direct. This would result in a return without any outlay by Cargold for the loading and shipping would be paid by the smelter.

RICO ARGENTINA OPERATION:

Cargold contacted Sherman Hinkley, General Manager of the Rico Argentina Company, Colorado, and the following information was obtained. Mr. Hinkley reported that they were working in 5 Pb, 6 Zn and 3 Ag and 0 Au with a 200 ton per day mill. They are grinding to 100 minus to release the values. Their milling cost is $2.50 per ton.

Rico Argentina is shipping a bulk concentrate based on the following acceptance schedule: Zinc $4.78 per cwt., Lead $8.30 per cwt. with an $18.00 per ton freight rate and $4.00 per ton treatment cost. The zinc concentrate must be 50 percent.

In view of the above statement, Ivan Nicholas Laboratory was contacted and Mr. Nichols stated that he was running controls for Rico Argentina and that their ore is very similar to Tybo's ore in nature and almost identical in iron and sulfide properties. Further, comparison was made in that both ores have the lead and zinc locked in iron sulfides and they are released between a grind of 65 minus and 100 minus. There has been no trouble from the flotation standpoint and values are easily recovered. Rico Argentina recovery is 90% for lead and 85% for zinc and a bulk concentrate is obtained. This allows for a cheaper operation than attempting to separate the lead and zinc.

On the basis of a 100 ton per day mill, and compared to Rico Argentina's operation with a similar ore, it is estimated that the milling cost at Tybo would run $3.50 per ton. However, Tybo mill heads will be of a higher value. Further investigation and analysis reveal Tybo ore to be .04 gold, 8 oz. silver, 8 percent lead and 8 percent zinc.

Mr. Lyle Hubbard, Mine Superintendent for Kenecott Mining Company at Ruth, Nevada, formerly worked below ground at Tybo. He gave permission to

quote him as saying that the ore in upper levels averages 6 to 7 feet and in some places is as wide as 15 feet. However, at lower levels, 500 to 900 feet, the miners skipped ore shoots that narrowed to 6 feet. On the 1000 foot level 15 to 20 men worked in 60 foot stopes. In fact, he worked for 2 years in just one stope area with no selective mining. This statement agrees with Cargold's findings for on the 300 foot level a pod measuring 40 feet in width was found. Mr. W. T. Carson personally observed this.

DETAILED ECONOMICS:

A recent trip to the Tybo property resulted in an increased estimate of broken ore from 3,000 to 5,000 tons. A grade of .04 gold, 8 ozs. silver, 8% lead and 8% zinc was shown in the analysis of samples taken on the property.

A. SLAG

Two shipments to the Selby Plant of A. S. & R. in 1944, when translated into present market values, average the following:

Weight in Dry Tons	96.465 tons
Gold value ounce per ton	.20 oz. or $7.00
Silver value ounce per ton	5.17 oz or $4.65
Lead value per cent per ton	3.875 or $9.30
Gross Market Value	20.95 per ton
Estimated tonnage available	30,000 tons

For immediate income, with no investment by Cargold, direct shipment would be the course to follow. In the case of direct shipment (no processing) to I. S. & R. it is estimated that only $1.00 per ton net would be realized or $30,000.00 net.

Truck Freight to Railhead	4.90/ton	
Railroad freight	3.50/ton	
Loading Charge (front end loading)	.25/ton	
TOTAL EXPENSE		8.65/ton

No royalty, property free and clear.

B. UNDERGROUND ORE

QUALIFICATION: The following reserve estimate concern only the depth to the 400 foot level that is available through the 2-G Shaft. The major reserves of the Tybo mine, between the 1,000 and 1,300 foot levels, will be accessible after the Hale's Shaft has been rehabilitated. Narrow widths shown on the 400 foot and 300 foot assay plan compiled in 1926 are disproved by the fact that existing stopes show 6 foot to 10 foot ore widths in place of 2 foot to 3 foot widths shown on the plan.

The last 300 feet of the 300 foot level, running southeasterly, was driven by the Hall Brothers in 1940. They report all drift cubics shipped with "Backs" left intact. There are 600 feet of virgin backs above that level. The water problem has been thoroughly investigated and will not prove too difficult to solve.

C. RESERVE ESTIMATE:

Broken Ore	5,000 tons	
Values per ton:		
Gold	.04 oz.	
Silver	8.0 oz.	
Lead	8.0%	
Zinc	8.0%	
Total value per ton		$46.00

300 and 400 foot level developed	25,000 tons	
Same values as above		$46.00 per ton
400 foot level, drift out and raises	25,000 tons	
Per ton values same as above		$46.00

Milling above reserves (Based on 100 ton milled per day)

A 15% mill loss will be assumed due to the sliming of the non-sulphide complex, etc.

Total values in one days operation per A. S. & R. Schedule:

4.0 oz. Au. 800 ozs. Ag 8 Tons Pb 8 Tons Zn.

Less 15% mill loss = 85% Recovered

3.4 ozs. Au. 680 ozs. Ag. 13,600 lbs. Pb. 13,600 lbs. Zn.

Total Gross Value per day $2,799.25

Note: A small portion of the above 15% estimated mill loss will be in the form of lead-silver in zinc concentrates. Part of the silver may be salvaged on the payment schedule.

D. PRODUCTION COSTS:

First 50 working days labor cost and supply cost while handling the 5,000 tons of broken ore.

MINING DEPT.

Two shift per day operation.

2 mucking machine operators @ $20 per day each	$ 40.00
2 Trammers @ $16.00 per day each	32.00
1 lead miner-timberman, assit trammers pocket pulling	20.00
2 Hoistmen @ $20 per day ea.	40.00
	$ 132.00
Workeman's Comp. Underground	9.20
" " Hoistmen	1.60
	$ 142.80
Supplies, fuel, timber, powder, etc.	60.00

The first 5,000 tons with a gross market value of $46 will be reduced to $39.10 with the 15% mill and marketing loss (High) marketable metal out of the first 5,000 is estimated to be valued at $195,500.

After the first 5,000 tons of broken ore have been extracted and breakage is commenced the labor and supply cost will be as follows:

1 mucking machine operator	$	20.00
5 combination miners-timbermen @ $20 each		100.00
2 Motormen @ $20 each		40.00
2 Skiptenders generally servicing primers, etc. @ $16		32.00
2 Hoistmen @ $20 each		40.00
	$	232.00
Workman's Comp. Underground		19.20
" " Hoistmen		1.60
		252.80
Supplies, fuel, powder, air, etc.		105.00
Total mining dept. cost per day when producing the 25,000 tons of in place ore	$	357.80

MILLING DEPT.

1 Crusherman (crush out in 8 hrs. grease rest)	$	16.00
3 mill operator @ $20 per day each		60.00
1 concentrateman, gen'l mill utility		16.00
		92.00
Workman's Compensation		9.20
Total Daily Mill Labor	$	101.20
Mill Reagents, carried parts' cost, maintenance power cost, expendable parts replacement		60.00
Total Estimated Mill cost 100 TPD	$	161.20

GENERAL:

1 Gen'l Supt.		30.00
1 Heavy Duty experienced mine-mill mechanic		22.00
1 Truck Driver, overall utility man		20.00
	$	72.00
Workman's Compensation		7.20
	$	79.20

Total Direct daily production cost 1st 5,000 tons	$	443.20
" " " " " New breakage		598.20
or	$	5.98 per ton

It is suggested to first work a 40 hour week to keep over time to a minimum and as soon as possible a staggered mill shift should be affected. In this way the mill can operate seven days a week and no overtime experienced except in the case of the mechanic on emergency repair jobs. With the installation of adequate storage the mine can produce two days extra mill run in five days of mining. As soon as this policy can be instituted the mining and milling cost will be reduced below the $5.98 cost per ton shown above. It should be pointed out that the $5.98 cost per ton would probably be over $10.00 per ton if the exploration, development, and grade proof had not already been effected by the former operator.

E. MARKET ANALYSIS:

The following analysis is based on the schedules offered by the American Smelter and Refining Company and the International Smelting and Refining Company. These are open schedules that can be improved when a definite production schedule is available. I. S. & R. has indicated a desire to discuss a purchase schedule for silver-lead concentrates against the A. S. & R. schedule listed below.

The A. S. & R. schedule is effective March 29, 1960 on an estimated daily silver-lead concentrate output from a 100 ton mill

GOLD: 4 ounces per day. 15% mill loss or 3.4 oz. Pay 91.14% of 3.4 @ $35.00	$	108.50
SILVER: 800 ounces per day. 15% mill loss or 680 ozs. @ 90¢ per oz. Pay 95% market less 1¢ per ounce 680 @ (90 x 95)-1		574.60

LEAD: 87 tons per day
15% mill loss or 13,600 lbs.
Pay 90% of 13,600 = 12,240
Less 2¢ @ 12¢ lb. market
12,240 x 10¢ 1,224.00

Note: 66⅔% wet lead assay deduct 1½% for calculations

ESTIMATED DAILY MARKET PAYMENT 1,907.10
Less treatment charge $7.50 with 10¢ credit for each unit over 30% Pb @ 65% concentrate equals $4.00 base or 4 x 6.8 tons -27.20

NET ESTIMATED SMELTER PAYMENT PER DAY 1,879.20

Zinc 10% free excess charged at 30¢ per unit

Moisture: minimum deduction of 1% moisture will be made from wet weight when over 1% contained actual moisture will be deducted.

TRUCKING COST: Existing bid 3½¢ per ton mile to Selby
387 miles = 13.55 per ton
6.8 tons lead plus 3.43 tons gangue and other minerals plus 5% moisture = 10.74 ton
10.74 ton x 13.55 145.52

ESTIMATED NET AG, AU, PB PER DAY TO CONCENTRATE BIN $ 1,734.38

The following calculations are based on I. S. & R., Great Falls, Montana market:

ZINC: 8 tons per day
15% mill loss 13,600 lbs.
Pay 80% E. St. Louis Price, $46.00 Base Charge
13,600 x 80% = 10,880 @ 12@ 1,305.60
6.8 tons Zn plus other metals, gangue
5.556 tons plus 5% moisture
12.88 tons @ 46.00 base 592.48

140 miles truck @ 3½ ton mile	4.90	
RR Freight	17.93	
	22.83	
22.83 x 12.88		294.00

TOTAL BASE AND HAULAGE 886.48

TOTAL ZINC NET TO CONCENTRATE BIN $ 419.12

Total Net to Mine Concentrate Bin @ 100 ton per day treated for a sulfide ore	$	2,190.57
Direct daily cost before management overhead		443.20
POSSIBLE DIRECT OPERATING NET	$	1,747.37
Direct daily cost before management overhead and amortization while running 25,000 to 50,000 above the 400 foot elevation		598.20
POSSIBLE DIRECT OPERATING NET	$	1,592.37

By proper drying the 5% moisture content might be lowered in the filtered concentrates and reduce some freight.

Mr. Burt of I. S. & R. has made an offer to Cargold for some ore to be consigned to their selective flotation plant at Tooele, Utah. This will depend on samples now being supplied I. S. & R.. On the basis of the herein listed head values they would pay $22 smelter net.

Costs involved:

Net I. S. & R.		22.00 per ton
Less 140 miles trucking to railhead	4.90	
Less Railroad freight	3.50	8.40
Net to bin		13.60
Probable net on broken ore		10.00 per ton

The above may be a source of income along with the slag while the milling plant is being installed. This would give Cargold approximately $50,000 above operating cost.

Detailed specifications and cost estimates for a 100 ton mill are now being compiled.

MINE MANAGEMENT
OPERATIONAL CONSULTING

MINE EXAMINATIONS
MINING ENGINEERING

INVESTOR'S REPORTS
EFFICIENCY STUDIES

J. H. WREN & CO.

CONSULTING MINING ENGINEERS

CABLE ADDRESS
WRENCO

PHONE GLADSTONE 6-0922
4297 D STREET
SACRAMENTO, CALIF.

APRIL 14, 1960

MR. W. T. CARSON, JR.
P. O. BOX 346
HUGHSON, CALIFORNIA.

RE.: TYBO MINE TRUCK HAUL.

DEAR MR. CARSON :

THIS WILL ADVISE THAT THE WRITER HAS INTERVIEWED SEVERAL TRUCKING CONCERNS AND TRUCKING CONTRACTORS WITH REGARD TO THE TYBO MINE, NYE COUNTY, NEVADA TAILINGS, SLAG, CRUDE ORE AND CONCENTRATE HAULING TO THE RAILHEAD AT MINA , NEVADA OR OTHER POINTS WHERE MARKETS EXIST.

THE BETTER BID FOR THE HAULING WAS PRESENTED BY MR. WM. M. BROWN, OF 2408 - 19TH STREET, SACRAMENTO, CALIFORNIA. HIS TENTATIVE BID WAS ON THE BASIS OF A FLAT RATE OF 3½¢ PER TON MILE HAULED.

MR. BROWN HAS BEEN KNOWN TO THE WRITER FOR ABOUT TWELVE YEARS AND HAS DURING THAT PERIOD ALWAYS BEEN IN THE HEAVY DUTY TRUCKING BUSINESS IN SEVERAL WESTERN STATES.

VERY TRULY YOURS,
J. H. WREN & CO.

BY James H. Wren
JAMES H. WREN.

ESTIMATED COST OF STARTING TYBO MINE OPERATION

Costs based on materials available in Nevada

Schedule of Equipment and Operation (25,000 - 30,000)

1. Block Leasing
   50 - 50 after all costs

2. Equipment

Head Frame 40 ft.	100.00 cost
	500.00 Inst.
Hoist	200.00 cost
(Equiv. 700) Deliv. Inst.	150.00 cost
Placement	750.00
Power	
Generator	5400.00
5 K. W. Station	750.00
2 K. W. Station	
One Trammer	
$75 car 10 cars	750.00
20th Rail 75/ton	750.00 (10 ton)
Mucher	1000.00
Hazel Creek 700.00	
Transportation	
Dump Truck	NC
1 Ton Truck & Sta Wagon	1300.00
Rock Drill Equipment	
R.D. 5 Machines & Jack legs	750.00
Steel	300.00
Grinder	NC
Hand Tools	100.00
Pipe	
500' 4" 10¢ ft.	50.00
1000' 2" 15¢ ft.	150.00
T valves Unions	100.00
Receiver Tanks	100.00

	Phones	20.00
	Pump 200 gal/min	400.00
	Cable 500'	300.00
	Motor	300.00
	Stopers & Steel	100.00
	Bits	30.00
	Spikes	30.00
	Misc.	50.00
	Lag Screws, etc.	250.00
3. Camp		
	Refrigerator	125.00
	Store	25.00
	Hot Water 50 gal.	100.00
	House or Rehabil Brick	250.00
	Rent of School house	50.00
4.	Assay equipment	250.00
5.	Propane Tank 300	125.00
6.	Insurance Deposit	500.00
7.	Timber 40	250.00
	TOTAL	16,355.00

NOTE: The items listed above have been secured for the rehabilitation of the Tybo Mine by the Jensen Brothers at the prices listed.