

MINE MANAGEMENT  
OPERATIONAL CONSULTING

MINE EXAMINATIONS  
MINING ENGINEERING

INVESTOR'S REPORTS  
EFFICIENCY STUDIES

## J. H. WREN & CO.

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TYBO MINE REPORT

OF

NOVEMBER 4, 1960  
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VOLUME NUMBER TWO

CONTINUATION OF NOVEMBER 4, 1960 VOLUME NUMBER ONE  
REPORT

TYBO MINE REPORT, NOV. 4, 1960

DEVELOPMENT :

ENTRIES INTO THE 2-G AREA OF THE MINE ARE THE HALES SHAFT AND THE 2-G SHAFT.

A). THE HALES SHAFT IS 1,546 FEET DEEP BELOW THE SHAFT COLLAR. THE COLLAR IS 6820.65 FEET ABOVE SEA LEVEL. IT IS A THREE COMPARTMENT SHAFT. COLLAR TIMBER AND SHAFT TIMBER NEEDS REPLACEMENT TO A POINT BELOW THE ADIT LEVEL. THAT POINT WILL PROBABLY BE THE WATER LINE AT ABOUT 375'. TIMBER BELOW THE WATER LEVEL SHOULD BE IN USABLE CONDITION AFTER DEWATERING AND REPAIR. THE WRITER HAS RECOVERED MANY SHAFTS, SOME THAT WERE IDLE OVER 50 YEARS, AND PRACTICALLY ALL ONLY REQUIRED REPAIR BELOW THE WATER LINE.

NO ORE DEPLETION WAS DONE BETWEEN THE 1,310 FOOT LEVEL AND THE 1,546' LEVEL OF THE HALES SHAFT.

THIS SHAFT REPRESENTED A CONSIDERABLE INVESTMENT BY THE OPERATING COMPANY, TREADWELL YUKON CONSOLIDATED, LTD. IT WAS SUNK IN COUNTRY ROCK ON THE HANGING-WALL SIDE OF THE 2-G VEIN. FORMER MINE BOSSES REPORT THAT THE SHAFT LINE IS ALL IN GOOD STANDING GROUND. AT 1960 PRICES, THIS SHAFT EQUIPED, WOULD COST APPROXIMATELY \$300 PER FOOT TO SINK. THAT WOULD REPRESENT A DEVELOPMENT INVESTMENT OF OVER \$450,000. AN ESTIMATE OF REHABILITATION COST WILL BE MADE AS SOON AS THE 2-G SHAFT HAS BEEN DEWATERED. THIS WILL GIVE ACCESS TO THE 710' LEVEL AND HALES SHAFT TIMBER CAN BE INSPECTED TO THAT ELEVATION.

B). THE 2-G SHAFT COLLAR IS 6700.15 FEET ABOVE SEA LEVEL. IT IS A TWO COMPARTMENT SHAFT AT THE COLLAR BEING ENLARGED TO A 3 COMPARTMENT SHAFT UNDERGROUND TO THE 710 LEVEL AND FORMERLY WAS USED AS A TRANSFER SHAFT.

THIS SHAFT WILL GIVE THE FASTEST AND LOWEST COST ACCESS TO THE UPPER LEVEL 2-G VEIN WORKINGS. ABOUT 10 WESTERLY END PLATES NEED CHANGING, GUIDES NEED REALIGNMENT AND MANWAY LANDINGS SHOULD BE INSTALLED. ITS INSPECTION IS ACCESSIBLE TO THE WATERLINE, ABOUT THE 375' ELEVATION.

IN VIEW OF THE VERY REASONABLE COST NOW EXISTING OF GOOD USED MINING MACHINERY, THIS SHAFT'S RECOVERY AND REHABILITATION TO THE 450' ELEVATION PLUS 1,000 FEET OF 300 AND 400 LEVELS' REHABILITATION WILL COST APPROXIMATELY \$30,000. THIS WILL INCLUDE, NEW HEADFRAME, HOIST, 500 CU. FT. COMPRESSOR, 2 TON PAYLOAD SKIP, 100 K. W. DIESEL ELECTRIC GENERATOR, MANCHA TRAMMER, TIMBER, CARS RAILS AND PIPE WITH NECESSARY PUMPING EQUIPMENT TO HOLD THE WATER AT THE 560' LEVEL. CONTRACT PRICES HAVE BEEN OBTAINED FOR THIS EQUIPMENT AND INSTALLATION.

LITTLE WATER VOLUME IS MADE AT THE 400' ELEVATION AND THE 560' LEVEL ELEVATION WOULD FURNISH ADEQUATE WATER FOR MORE THAN 100 TONS PER DAY DIFFERENTIAL FLOTATION MILLING AT REASONABLE PUMPING COST.

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DEVELOPMENT, CONTINUATION:

FOLLOWING LEVEL DEVELOPMENT FOOTAGE LISTED IS CHIEFLY FOR DRIFTING WITH MINOR FOOTAGE BEING X-CUTS. NO RAISE FOOTAGE INCLUDED.

300'	LEVEL, IN EXCESS OF.....	3,400'	DEVELOPMENT.
400'	" " " " .....	2,800'	" .
560'	" " " " .....	4,000'	" .
710'	" " " " .....	4,000'	" .
860'	" " " " .....	2,500'	" .
1010'	" " " " .....	1,200'	" .
1160'	" " " " .....	1,200'	" .
To the 1160' Lv., Inc. ....		19,100'	" .

ACCORDING TO WHAT DATA IS AVAILABLE ONLY MINOR ORE DEPLETION WAS PRODUCED BETWEEN THE 1310' LEVEL AND THE 1,160' LEVEL. THE 1310' LEVEL STATION WAS CUT, PRODUCTION GATES INSTALLED AT THE SKIP LOADING POCKET, SHAFT TO MINERALIZED ZONE X-CUT DRIVEN AND SOME DEVELOPMENT FOOTAGE ADVANCED.

SERVICE RAISES, PROSPECT RAISES, RAISES THROUGH TOTALLY MINED OUT AREAS, RAISES THROUGH GROUND TOO LOW-GRADE FOR 1929-1937 CUT-OFF POINT ECONOMICALLY, RAISES THROUGH GROUND NON-AMENDABLE TO 1929-1937 DIFFERENTIAL FLOTATION, RAISES IN OXIDE ZONES, WILL AMOUNT TO SEVERAL THOUSAND FEET MORE OF TOTAL DEVELOPMENT.

NO PROBABLE OR POSSIBLE ORE DEPLETION WAS ACCOMPLISHED BETWEEN THE 1,546' AND THE 1,310' ELEVATIONS.

PRESENT AVERAGE CROSS CUTTING AND DRIFTING DEVELOPMENT COST FOR 5'x 7' ENTRY SIZE IS APPROXIMATELY \$30 PER FOOT OF ADVANCE.

MINE CAMP DOMESTIC WATER SUPPLY WAS DEVELOPED FROM NEARBY SPRINGS. THAT SYSTEM REQUIRES SOME REHABILITATION.

MINE CAMP AND MINE SERVICE ROADS REQUIRE LESS THAN TWO DAYS OF BULL-DOZER WORK TO RENEW.

PART OF THE FORMER TREATMENT PLANT'S CONCRETE HEAVY EQUIPMENT FOUNDATIONS AND FLOW SHEET FLOOR PLAN COULD BE UTILIZED FOR NEW INSTALLATION, AT SOME CONSIDERABLE CONSTRUCTION COST SAVING. NEW CONCRETE POURING RUNS SOME \$50 PER CUBIC YARD AT EXISTING LABOR, FORM LUMBER, CONCRETE AGGREGATE AND CEMENT PRICES.

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RESERVES :

A SUPPLEMENTAL SERIES OF TYBO MINE ORE RESERVES<sup>1</sup> MEMOS WILL BE COMPILED AS ACCESS IS GAINED TO THE VARIOUS, LEVEL PILLARS, GROUND DEVELOPED AND BEING PRODUCED AT TIME OF ACTIVITY, SUSPENSION, BLOCKS JUST UNDER THE THEN EXISTING ECONOMIC CUT-OFF POINT, BLOCKS WHOSE OXIDE CONTENT WOULD NOT PERMIT MILLING WITH THE KNOWN METALLURGY KNOWN OF DIFFERENTIAL FLOTATION AT THAT TIME, SELECTIVE MINING OF NARROW WIDTHS, ETC.

THIS RESERVE OBSERVATION ESTIMATE DOES NOT COVER PROBABLE AND POSSIBLE RESERVES BETWEEN THE 1160 LEVEL AND THE LOWEST POINT OF THE HALES SHAFT AT 1,546'. FROM THE 300' LEVEL TO THE 860' LEVEL, EXCEPTING FOR EASTERLY PRODUCTION FROM DRIFT ADVANCE MADE BY THE HALL BROS. COMPANY IN THE EARLY 1940S, THE PRODUCTION OF REMAINING DEVELOPED ORE WILL BE A SALVAGE OPERATION. FROM THE 860' LEVEL DOWN, EXISTING DEVELOPMENT WILL BE UTILIZED AND SOME NEW DEVELOPMENT WILL BE NEEDED. THE EXISTING DEVELOPMENT AND PROVEN PRODUCTION GRADE IN THE STOPES ABOVE THE 1160' LEVEL CERTAINLY STRENGTHENS THE STATUS OF PROBABLE ORE CLASSIFICATION BELOW THE PROVEN ORE BODIES ABOVE THE 1160. IT IS DOUBTFUL THAT A COMPANY WITH THE OPERATING EXPERIENCE TREADWELL YUKON CONSOLIDATED, LTD. HAD WOULD CONTINUE TO SINK THE HALES SHAFT IN 1937 UP TO ALMOST THE SHUT DOWN TIME, AFTER SCRUTINY OF THE 1310' ELEVATION, UNLESS THE ORE SHOWED EVERY INDICATION OF GOING DOWN. A RESEARCH OF THE 1937 METAL ACCEPTANCE AND METAL MARKETS WILL DISCLOSE THAT A SLUMP OCCURRED IN THE FALL OF THAT YEAR.

ORE SALVAGE ABOVE THE 860' LEVEL CAN BE PRODUCED FROM PILLARS AND OTHER ABOVE MENTIONED WORKINGS AT REASONABLE COST IN VIEW OF MINING PROCEDURE ADVANCEMENT. SECTIONAL DRILL STEEL WITH TUNGSTEN CARBIDE BITS THE DROPPING OF PILLARS IN A SINGLE BLAST TO BE PICKED UP BY SLUSHER AND MUCKING MACHINE OUT OF THE LEVEL BELOW ON THE BASIS OF A RETREAT SYSTEM OF SALVAGE. SECTIONALIZED STEEL WITH TUNGSTEN CARBIDE BITS WAS UNKNOWN IN 1937. IMPROVED BLASTING CAP AND POWDER CONTROL WILL ALSO SERVE TO LOWER COST. MODERN MINING UNDER SALVAGE CONDITIONS DOES NOT RENEW ORE CHUTES, RETIMBER MANWAYS WHERE SMALL SHORT HOLE BLASTS NEED A GREAT DEAL OF SERVICE. ONE 15-B EIMCO ( SMALL SIZE ), IS ABLE TO CONSISTENTLY PRODUCE 50 TONS PER SHIFT LOADED INTO ORE CARS, IF THE BREAKAGE IS KEPT IN FRONT OF THE UNIT.

THE WRITER HAS HAD WIDE UNDERGROUND SALVAGE EXPERIENCE. TO CITE ONE EXAMPLE : ON TWO LEVELS OF THE HORN SILVER MINE, MILFORD, UTAH, IN LESS THAN 500' OF LENGTH, PILLARS, LEVEL PILLARS AND ENDS AND TAILS BY USE OF LONG HOLE BLASTS, SLUSHERS AND MUCKING MACHINES PRODUCED 660.7 OZS. GOLD, 128,844 OUNCES OF SILVER, 3,703,700 POUNDS OF LEAD, 198,222 POUNDS COPPER AND 5,946,660 POUNDS OF ZINC FROM WHAT WAS THOUGHT TO BE A MINED OUT PROPERTY, BETWEEN JULY 15, 1945 AND JUNE 30, 1947. TYBO'S WALL CONDITIONS, GRADE AND ACCESSIBILITY ARE MUCH BETTER THAN THE HORN SILVER MINE SITUATION AND SALVAGE TONNAGE MUCH HIGHER.

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RESERVES. CONTINUATION :

STOPE PILLARS, LEVEL PILLARS, UNMINED NARROW WIDTHS, LOW GRADE AREAS THAT CAN BE BENEFICIATED BY SELECTIVE MINING IN THE SALVAGE ZONE OF THE MINE ABOVE THE 860' LEVEL SHOULD RUN WELL OVER 100,000 TONS AS PROBABLE ORE. CM&DC CAN CONVERT THESE PROBABLE TONS INTO POSITIVE ORE JUST AS FAST AS NEW ASSAY CHARTS CAN BE MADE ON THE BASIS OF EXISTING METAL PROCES, MODERN METALLURGY AND AN UP-TO-DATE ECONOMIC CUT-OFF POINT.

EXAMPLE : THE STOPING AREA ABOVE THE 800' LEVEL BELOW THE 300' LEVEL AND BETWEEN "4-E TO 6-W" ON THE LONGITUDINAL SECTION SHOWS MORE THAN 1/3 OF THE IN-PLACE ORE UNMINED AT JUST ABOUT WHERE THEIR CLEAN SULPHIDES CAME IN. IF ONLY A 4' WIDTH IS CREDITED IN THIS SINGLE DESCRIBED LOCATION, MORE THAN 16,000 TONS CAN BE CALCULATED @ 10 CUBIC FEET IN PLACE TO THE TON.

ACCORDING TO WHAT RESEARCH WAS POSSIBLE, IT WAS FOUND THAT A MINIMUM OF 5,000 TONS REMAIN BROKEN UNDERGROUND.

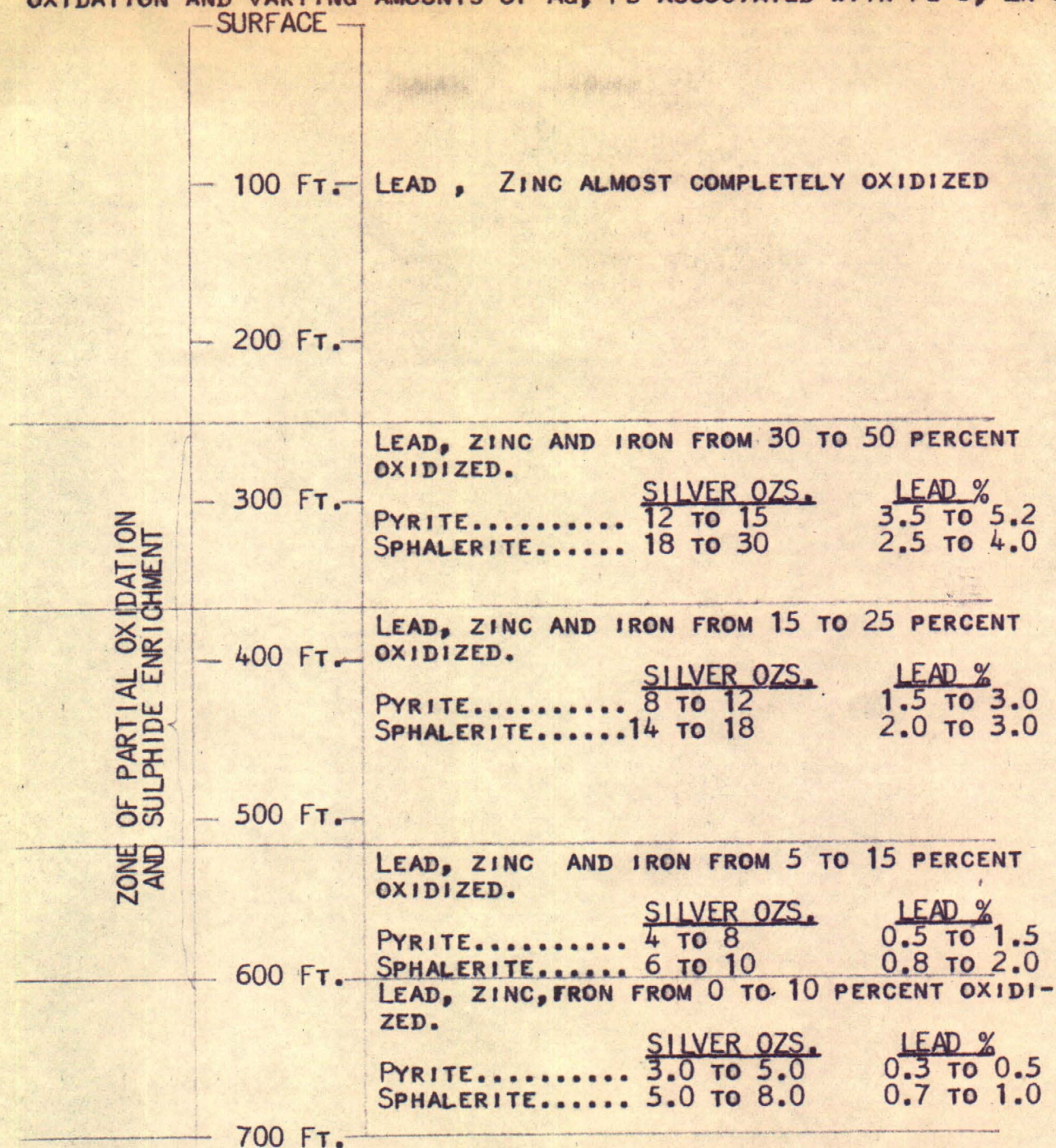
THE VARIOUS LEVELS SALVAGE, NOT INCLUSIVE OF THE LOW GRADE AREAS WHERE SELECTIVE MINING CAN PRODUCE AN ACCEPTABLE PRODUCT, CAN BE ASSUMED TO BE SIMILAR IN GRADE TO THE PRODUCTION GRADE TAKEN OUT ABOVE AND BELOW THESE LEVEL PILLARS. NORMAL MINING PRACTICE DURING DEVELOPMENT DOES NOT ALLOW LEAVING LEVEL PILLARS OF THE LOWEST GRADE ROCK. IT IS USUALLY REPRESENTATIVE OF THE SUCCEEDING PRODUCTION RECORDS.

THE 12 MONTHS OF 1935 PRODUCED 106,086 DRY TONS WHICH CARRIED A GRADE OF : .027 OZ. GOLD, 11.51 OZS. SILVER, 6.69% LEAD AND 5.02% ZINC. THE GROSS VALUE OF THAT ORE IN 1937 WAS APPROXIMATELY, \$17.13 PER TON. THE SAME ORE TODAY WOULD HAVE A GROSS VALUE OF \$40.23 PER TON. THE GROSS VALUE OF THE 1935 PRODUCTION WAS UNDER TWO MILLION DOLLARS. NOW THE SAME TONNAGE WOULD BE NEAR \$4,250,000.

ACCORDING TO EXISTING MINE REPORTS, DEVELOPMENT CONTINUED ALMOST UP TO THE SUSPENSION DATE. THE HALES SHAFT SINKING ADVANCED 17' DURING THE FIRST TWO WEEKS OF SEPTEMBER 1937, JUST BEFORE THE SHUT DOWN. THE LATER PERIOD DEVELOPMENT WORK WILL BE OF VALUE TO CM&DC IN THE FUTURE. THE UPPER LEVELS' SALVAGE OPERATION WILL REQUIRE CONSIDERABLE TIME PRIOR TO PRODUCTION NEED IN THE LOWER LEVELS, IF ONLY 100 TONS PER DAY IS TREATED. TOTAL DEVELOPMENT WORK IS NOT KNOWN FOR 1936 BUT IN 1935, 5201.0 FEET WERE DRIVEN. SUB-TOTALS OF DEVELOPMENT RECORDS AVAILABLE SHOWED THAT ADVANCE WAS CONTINUED IN 1936 AND TO THE SUSPENSION IN 1937.

AS SOON AS MINE REHABILITATION HAS BEEN COMPLETED IN THE 2-G SHAFT AND THE MINE HAS BEEN DEWATERED TO THE 710, MUCH ACCURATE SALVAGE DATA CAN BE COMPILED IN FORM OF PRESENT MARGIN ECONOMIC RESERVES.

U. S. BUREAU OF MINES INFORMATION CIRCULAR # 6430 SHOWING  
VERTICAL SECTION OF THE TYBO VEIN'S APPROXIMATE DEGREES OF  
OXIDATION AND VARYING AMOUNTS OF Ag, Pb ASSOCIATED WITH Fe S, Zn S



TYPICAL ASSAYS OF PURE MINERALS GIVE THE FOLLOWING RESULTS :

	SILVER OZS. PER TON
GALENA.....	110.0 TO 130.0
SPHALERITE(UPPER LEVELS).....	12.0 TO 20.0
SPHALERITE(LOWER LEVELS).....	7.0 TO 10.0
PYRITE (UPPER LEVELS).....	8.0 TO 11.0
PYRITE (LOWER LEVELS).....	3.0 TO 6.0

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RESERVES, CONTINUATION :

SLAG :

AN OLD SLAG PILE ON THE TYBO PROPERTY HAS HAD A 3,000 TON TEST SHIPMENT MARKETING IN 1944. PRODUCTION GRADE OF THIS 3,000 TONS AVERAGED: -02 AU, 5.5 OZS. AG, 4% PB, PAY METALS. 100 TON ANALYSIS STATEMENT HERewith IN EXHIBIT SECTION, MARKED, "TEST SHIPMENTS - TYBO SLAG".

THIS SLAG PILE HAS BEEN SAMPLED THREE TIMES BY REPRESENTATIVES OF C.M.& D. C. ALL SAMPLES CHECKED OR BETTERED THE SHIPMENT ASSAY AVERAGE. METALLIC VALUES ARE APPARENTLY CONTAINED IN COARSE PIECES DISSEMINATED THROUGH THE SLAG AND IN SOME INSTANCES CONCENTRATED WITHOUT RECOVERY BUT POOR MELTS. A 500 POUND JIG TEST SAMPLE IS BEING TAKEN TOMORROW BY THE COMPANY TO DETERMINE BENEFICIATION RATIO AND MARKETING GRADE OF THE PRODUCT.

ASSAY AVERAGES <sup>1</sup> GROSS METAL VALUE.....	\$15.30
MINIMUM SLAG PILE TONNAGE .....	30,000 TONS
ESTIMATED GROSS VALUE IN SLAG PILE .....	\$459,000

MILL TAILINGS :

THE TYBO MILL TAILINGS POND CONTAINS CONSIDERABLE VALUE. ITS COMPLEX METALLURGY IS BEING GIVEN ATTENTION. IN VIEW OF THE VOLUME AND MARGIN, HIGH BENEFICIATION TAILINGS LOSS COULD BE ABSORBED IN VIEW OF LOW COST RETREATMENT COST.

NUMEROUS CUT AND TEST PIT SAMPLES TAKEN IN VOLUME AVERAGED: .015 AU, 2½ OZS. AG, 2% PB AND 2% ZN.

ASSAY AVERAGES <sup>1</sup> GROSS METAL VALUE.....	\$ 12.75
ESTIMATED TAILINGS POND TONNAGE.....	500,000 TONS
GROSS VALUE ( 1/2 OR POSSIBLY LESS RECOVERABLE), KNOWN ECONOMICS AVAILABLE AFTER A SERIES OF CONVENTIONAL MILL TESTS,.....	\$6,375,000

OXIDE UNDERGROUND ORE :

PROBABLE ORE RESERVES FOR DIRECT SMELTING SHIPMENT, ESTIMATED FROM DATA FURNISHED BY HALL BROS. COMPANY OF ELY, NEVADA, ON THEIR 300' OF 300 LEVEL EASTERLY ADVANCE. THIS AREA IS IN OR NEAR THE FAVORABLE ZONE MENTIONED BY H. G. FERGUSON AS HOLDING GOOD EXPLORATION POTENTIAL. IT HAS UP TO 600' OF BACKS.

GRADE REPORTED BY HALL : .07 AU, 10-20 OZS. SILVER, 12 % LEAD, NO ZINC PAY AT LEAD SMELTER.

GROSS VALUE PER TON.....	\$ 44.90
300' X 100' X 4', 50' PROJECTION ABOVE 300 AND 50' BELOW 300' LEVEL IN HALL'S OPENED GROUND @ 10 CU. FT. TON	12,000 TONS.
GROSS VALUE .....	\$538,800

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RESERVES. CONTINUATION :

OXIDE UNDERGROUND ORE :

THE GILMORE SECTION OF THE PROPERTY HAS NOT BEEN ACCESSIBLE FOR RESAMPLING. HOWEVER, SHIPMENTS MARKETING AS CRUDE ORE DIRECT TO LEAD SMELTING, 1937-'38 BY LESSEES USING VERY CRUDE AND INEFFICIENT METHODS : 654 TONS THAT WERE PAID FOR AT, .235 GOLD, AND 39.53 OUNCES SILVER, THE MCGILL MARKET NOT PAYING FOR LEAD AND ZINC AT THAT TIME. PRESENT VALUE GROSS \$44.19 PER TON. IN 1941 215 TONS WERE MARKETING BY LESSEES ABOVE THE 150 LEVEL OF THE DIMMICK SHAFT THAT RAN : .1955 GOLD, 40.16 OZS. SILVER NO LEAD SHOWN AT NON-LEAD PAY MARKET. NO ATTEMPT WILL BE MADE AT THIS TIME TO ESTIMATE ANY PROBABLE RESERVE FIGURE FOR THE GILMORE SECTION. HOWEVER, A CONNECTION COULD BE MADE OUT OF THE 300 LEVEL WESTERLY THROUGH THE DIMMICK TO DEVELOP SOME 300 FEET OF BACKS ON THIS GOOD GOLD, HIGH SILVER ZONE. THIS AREA AS WELL AS OXIDES ABOVE THE 300 LEVEL SHOULD BE SETUP ON A BLOCK LEASE PROGRAM.

SUMMARY OF PROBABLE RESERVES :

SULPHIDE MILLING ORE  
TONNAGE..... 100,000

GRADE : .025 Oz. Au, 10.00 OZS. Ag, 6.0% Pb 5% Zn.

PRESENT GROSS VALUE PER TON : ..... \$37.37 PER TON

PROBABLE ORE, SULPHIDE RESERVE, GROSS VALUE : \$ 3,737,000

PROBABLE ORE, HALL BROS. DEVELOPMENT GROSS : 538,800

Total : \$ 4,275,800

1010 LEVEL, 1160 LEVEL, 1310 LEVEL WILL MATERIALLY ADD TO THE POSITIVE AND PROBABLE ORE RESERVES WHEN EVALUATED.

SUMMARY OF POSSIBLE ORE RESERVES :

500,000 TONS TYBO MILL TAILS' GROSS VALUE: \$ 6,375,000

30,000 TONS OLD SMELTER SLAG GROSS VALUE : 459,000

Total : \$ 6,834,000

## TYBO MINE REPORT, NOV. 4, 1960

### ECONOMICS :

EXISTING ORE RESERVES AT THE TYBO MINE AT THIS TIME HOLDS POTENTIAL PROFIT ONLY BECAUSE THE 1937 ECONOMIC CUT-OFF POINT WOULD NOT ALLOW ITS PRODUCTION. EXAMPLE : THE 106,086 TONS PRODUCED IN THE 12 MONTHS OF 1935 HAD A GROSS VALUE OF \$17.13. THE SAME GRADE TODAY WOULD GROSS \$40.23, AN INCREASE OF 2.368 %. ANOTHER VARIABLE IN FAVOR OF PRESENT PRODUCTION IS THE EXTENSIVE ADVANCE MADE IN THE SELECTIVE FLOTATION PROCESS. OXIDE LEAD FLOTATION, FOR INSTANCE, WAS NOT PRACTICED IN 1937. WHILE MINE AND MILL LABOR COST IS CONSIDERABLY HIGHER THAN IT WAS DURING THE LAST TYBO OPERATION, THE RISE HAS BEEN OFFSET TO SOME CONSIDERABLE EXTENT BY IMPROVED METHODS AND EQUIPMENT. TO QUOTE A U. S. GOVERNMENT STATEMENT THIS MONTH FROM WASHINGTON, D. C.: IN 1959 THE COPPER INDUSTRY RAISED ITS OUTPUT PER MAN-HOUR 8.4%. THE COST OF LEVEL PILLAR PRODUCTION NOW IS LESS THAN ONE HALF THE FORMER MAN-HOUR REQUIREMENT WITH USE OF SECTIONALIZED STEEL AND TUNGSTEN CARBIDE BITS WHICH WERE UNKNOWN IN 1937. THERE HAS BEEN AS MUCH IMPROVEMENT IN PNEUMATIC ROCK DRILLS AS THERE HAS BEEN IN AUTOMOBILES IN THE PAST 23 YEARS. ANOTHER MAJOR ITEM RELATIVE TO PRODUCTION COST IS THE FACT THAT 50% OF ALL MINING COST IS IN EFFECT ~~SAVED~~ BY THE EXISTING EXPLORATION AND DEVELOPMENT, AS FAR AS THE KNOWN RESERVES ARE CONCERNED.

TYBO CRUDE ORE ABOVE AN ECONOMIC CUT-OFF POINT CAN BE MARKETED AT THIS TIME. THREE MARKETS ARE AVAILABLE FOR SUCH PRODUCT. TWO ZINC CONCENTRATE MARKETS ARE AVAILABLE AND TWO LEAD CONCENTRATE MARKETS ARE AVAILABLE. IT WAS NOTED THAT DURING THE LAST MILLING ACTIVITY, SOMETIMES ZINC HAD TO BE STORED ON ACCOUNT OF ZINC MARKET LACK.

TWO PROBABLE UNDERGROUND ORE PRODUCTS ARE AVAILABLE AT TYBO : A). DIRECT SMELTING CRUDE ORE. B). A SELECTIVE FLOTATION RESERVE TONNAGE. THIS TONNAGE WILL RESULT IN TWO MARKETABLE PRODUCTS - LEAD CONC<sup>TS</sup>. CONTAINING MOST OF THE GOLD AND SILVER - ZINC CONCENTRATES CONTAINING VERY LITTLE GOLD AND SILVER.

TWO POSSIBLE CHEAPLY PRODUCED TO A BENEFICIATING PLANT ON THE PROPERTY ARE : 500,000 TONS OF MILL TAILINGS AND 30,000 TONS OF OLD SMELTER SLAG.

### DIRECT SMELTING OXIDES :

NO TONNAGE HAS BEEN HEREIN LISTED AS GILMORE RESERVES. HOWEVER, RESERVES DO EXIST AND HAVE A RECORD OF BETTER SILVER VALUES THAN THE FOLLOWING ~~LOST~~ ESTIMATED ECONOMICS FOR THE GROUND OPENED BY HALL BROS. COMPANY ON THE EASTERLY 300' LEVEL, OF THE 2-G VEIN. THE PROBABLE RESERVES LISTED ARE BASED UPON ONLY A 50' UPWARD~~IN~~ PROJECTION AND A 50' DOWNWARD PROJECTION OF THE GROUND OPENED UP, AT ONLY 4' OF WIDTH. THE 2-G VEIN MINED AREA HAS BEEN PROVEN TO HAVE HELD ORE OCCURRENCE DOWNWARD FROM THE CROPPINGS SEVERAL HUNDRED FEET. CONSEQUENTLY, IT SEEMS REASONABLE TO PROJECT THE PROBABLE ORE AS HAS BEEN DONE IN "RESERVES"

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ECONOMICS :

DIRECT SMELTING OXIDES, CONTINUATION:

HALL BROS. CO. PROBABLE ORE BLOCK AS DESCRIBED..... 12,000 DRY TONS

PROBABLE GRADE : .07 Oz. Au, 15 Ozs. Ag, 12 Pb NO ZINC PAY.

NOTE : THE FOLLOWING MARKETING IS BASED UPON AMERICAN SMELTING & REFINING COMPANY SCHEDULE CONTRACT GIVEN CM&DC IN MARCH OF THIS YEAR. CONSISTENT SHIPMENTS WOULD ALLOW QUALIFYING FOR A BETTER TREATMENT CONTRACT. INTERNATIONAL SMELTING & REFINING CO. OF SALT LAKE CITY OFFERED ABOUT THE SAME SCHEDULE VERBALLY AND WILL BID FOR THE ORE WHEN CM&DC IS READY TO SHIP. THAT MARKET WILL BE BETTER AS \$3.65 OR \$182.50 WILL BE SAVED ON 50 TNS. FREIGHT DIFFERENTIAL BETWEEN MARKETS ALONE. THE AS&R PLANT IS AT SELBY, CALIFORNIA.

50 TON DAILY PRODUCTION ESTIMATE :

GOLD, PAY FOR 91.14% @ \$35 Oz. 3.5 Ozs. ....\$ 111.68

SILVER, PAY 95% MARKET (~~91¢~~LB.) = 0.8645¢ FOR  
750 OUNCES LESS 1¢ OUNCE..... 630.87

LEAD, PAY 95% OF N. Y. Mkt. (12¢) = 0.108¢ WITH  
2¢ DEDUCT FOR EACH POUND = .088¢..... 1,056.00

\$1,798.55

BASE CHARGE, \$7.50 P. TON LESS 10¢ PER Pb UNIT  
UNDER 30% = \$1.80 = TOTAL BASE \$9.30..... 465.00

TRUCK HAUL TO SELBY, CALIF., 3½¢ TON MILE X 50 TNS 667.50

\$1,142.50

NET TO MINE BIN..... 656.05

MECHANIZED BREAKAGE AND DELIVERY TO SURFACE \$6 TON 300.00

OPERATING NET.....\$ 356 .05 PER DAY

PROBABLE NET PER 27 DAY MONTH SELBY Mkt. ....\$9,613.35

12,000 TONS SELBY MARKET NET ..... \$85,452.00

SAME SCHEDULE WITH FREIGHT SAVING-TOOELE NET.. 538.55 PER DAY

" " TO TOOELE ESTIMATED NET-12,000 TONS \$129,252.00

PRODUCTION MOVEMENT WOULD REQUIRE 240 DAYS @ 50 TONS PER DAY.

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ECONOMICS. CONTINUATION :

SULPHIDE MILLING ORE :

PROBABLE RESERVES..... 100,000 TONS.

ESTIMATED GRADE : .025 Au, 10.0 Ozs. Ag, 6.0% Pb, 5.0% Zn.

GROSS VALUE : \$37.37 PER TON. ESTIMATED MILL LOSS 15 %  
31.77 PER TON. ESTIMATED METAL RECOVERY

METAL RECOVERY ON BASIS OF 100 DRY TONS TREATED PER DAY :

GOLD..... 2.125 Ozs. .... GROSS VALUE \$ 74.375

SILVER .. 850 Ozs. .... GROSS VALUE 773.50

LEAD .... 10,000 LBS. .. " " 1,212.00

ZINC .... 8,500 LBS. .. " " 1,105.00

ESTIMATED GROSS RECOVERY..... \$3,164.875

ESTIMATED CONC'T. GRADE :

LEAD CONC'TS.: 100 Ozs. SILVER, 70.0 % LEAD, 3.0 % ZINC.  
2.0 Ozs. Au

ZINC CONC'TS. : 82 Ozs. SILVER, 2.5% LEAD, 50.0% ZINC.  
0.125 Ozs. Au.

ESTIMATED MARKET PAYMENT PER DAY , 100 TONS TREATED :

A. S. & R. C. SELBY PLANT, SELBY, CALIFORNIA.

GOLD, PAY 91.14% \$35 = \$35 X 1.818 Ozs. .... \$ 63.63

SILVER, PAY 95% OF 91¢ = .8645¢ LESS 1¢-Oz. ... 725.325

LEAD , PAY 90% LEAD N. Y. MARKET PLUS 10¢ PER  
UNIT OVER 30% IN CONC'TS. -40 UNITS-\$4  
WITH A BASE CHARGE OF \$7.50..... \$ 1,090.80

14-1/4 TONS CONC'TS. WITH 40 UNITS 10¢  
CREDIT = \$3.50 BASE CHARGE X 14 1/4 TONS 49.88

14-1/4 TONS TRUCK HAUL TO SELBY 3 1/2¢ PTM 193.08

DAILY, GOLD, SILVER, LEAD NET-TO-MINE-BIN.... 1,636.79

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ECONOMICS :

SULPHIDE MILLING ORE, CONTINUATION :

CARRIED FORWARD PROBABLE NET-TO-THE-MINE  
GOLD, SILVER, LEAD PRODUCT AS&RC SCHEDULE.... \$ 1,636.79

I.S.& R., GREAT FALLS, MONTANA ZINC PLANT :

ZINC, PAY 80% OF EAST ST. LOUIS PRICE 13¢  
= .104¢ ..... 884.00

NO GOLD OR SILVER PAY .

BASE CHARGE : ..... \$46 TON ..... 383.00

TRUCKING 8.5 TONS PLUS 3½% MOISTURE = 9 TNS  
@ 3½ TON MILE 140 MILES TO CALIENTE , NEV. .. 44.10

U.P.R.R. CALIENTE TO GREAT FALLS \$17.93 TN... 161.37

NET-TO-THE-MINE-MILL-BIN..... 285.53

ZINC MARKET RESEARCH WILL PROBABLY BENEFICIATE  
THE ABOVE HAULAGE, FRIEGHT, TREATMENT NET OF THE  
AMOUNT OF \$285.53.

TOTAL LEAD CONC'TS. ZINC CONC'TS. NET TO BIN \$1,922.32

MECHANIZED MINING DELIVERY TO PRIMARY  
CRUSHER @ 6.50 PER TON, 100 TNS. PER DAY... 650.00

\$3.00 MILLING COST .50¢ PER TON @ 100 TONS  
PER DAY 5 YR. AMORTIZATION OF MILL..... 350.00

PROBABLE DAILY NET ON BASIS ESTIMATED GRADE \$ 922.32

" MONTHLY NET..... \$24,902.64

NO PAY LEAD IN ZINC CONCENTRATES, SILVER DISSEMINATED NO  
PAY IN ZINC CONC'TS. ACCOUNT FOR IN 15% LOSS. ACTUAL  
PRODUCTION BALANCE WILL GIVE THE EXACT RATIO. MORE LEAD AND  
ZINC RELEASE NOW POSSIBLE ABOVE 1937 METALLURGY IN HANDLING  
PYRITE. POSSIBLY ZINC AG CONTENT HIGHER THAN ABOVE - LAB  
TEST WILL CALIBRATE ACCURATELY.

TYBO MINE REPORT, NOV. 4, 1960

ECONOMICS. CONTINUATION :

OLD SMELTER SLAG :

NOTE: JIG TEST NOW PENDING. VISUALLY MATERIAL APPEARS TO BE AMENDABLE TO JIG BENEFICIATION.

3,000 TON SAMPLE SHIPPED CRUDE BY HALL BROS. Co.

SPECIMENS OF ANALYSES AND WEIGHTS HERewith, LOT No. S-1, MAY 16, 1944, LOT No. S-2, MAY 22, 1944.

CM&DC TOOK CHECK SAMPLES AND RAN SOME PRELIMINARY GRAVITY CONCENTRATION TESTS. RESULTS WERE FAVORABLE.

CHECKED GRADE AVERAGE : .02 Oz. Au, 5.5 Ozs. Ag, 4 % Pb.

30,000 TON GROSS VALUE..... \$459,000

FINAL , FAVORABLE JIG TEST RESULTS WILL ALLOW VERY REASONABLE BENEFICIATION COST PER TON. POSSIBLE FLOW SHEET AS FOLLOWS :

300 TONS PER DAY CAPACITY

FRONT END LOADED WITH RIPPER FEEDING TUNNEL STOCKPILE.

TUNNEL STOCKPILE CONVEYOR TO :

PRIMARY CRUSHER TO:

SET OF ROLLS WITH CLOSED CIRCUIT SCREEN FOR OVERSIZE ABOVE 1/8" RETURN, DISCHARGE TO :

300 TON JIG CAPACITY, HARTZ TYPE, WASTE TO :

DISPOSAL CONVEYOR, PRODUCT MAY BE USED ON ROAD.

JIG HUTCH PRODUCT TO DEWATERING UNIT TO:

TRUCK LOADING BIN FOR SHIPMENT.

WITH WHAT EQUIPMENT THE COMPANY HAS ( A LARGE HAMMER MILL AVAILABLE AND MAY SERVE IN PLACE OF ROLLS) AND WHAT IS ON CALL AT REASONABLE PRICES, THIS BENEFICIATION UNIT CAN BE SETUP FOR \$25,000. OPERATING COST PER TON WILL BE NOMINAL:

SINGLE SHIFT ON FRONT END LOADER, OPR.	\$20.00 PER DAY
2 MEN EACH SHIFT 3 SHIFTS @\$20	\$120.00
FUEL, PART REPLACEMENT, AMORTIZATION (AMORTIZATION \$1 TON 100 DAYS)	150.00
OVERHEAD, INSURANCE, ETC. 20¢ P. TON	60.00

COST PER TON : \$1.16 TREATMENT..... \$350.00 PER DAY  
ROUGHER BENEFICIATION COULD BE QUITE PROFITABLE.

TYBO MINE REPORT, NOV. 4, 1960

ECONOMICS :

TYBO MILL TAILINGS

ESTIMATED VOLUME..... 500,000 TONS.

PRELIMINARY SAMPLING GRADE:..... \$ 12.75 P. TON.

GROSS METAL PRICE VALUE..... \$6,375,000

THIS TAILINGS POND HOLDS CONSIDERABLE DOLLAR VOLUME AND METALLURGY IS BEING STUDIED. THE MARGIN IS SO GREAT THAT 1/2 COULD RESULT IN BENEFICIATION TAILINGS LOSS AS FAR AS VALUES ARE CONCERNED AND SOME CONSIDERABLE VOLUME OF METALLIC UNITS WOULD REMAIN FOR MARKETING. STUDIES TODAY INDICATE THAT THE SLIMES COULD BE LOST WITHOUT ATTEMPT AT RECOVERY OF THEIR METAL CONTENT BY TAKING THE HEAVY MINERALS OUT WITH EITHER JIGS OR SPIRALS ON A 1,000 TON PER DAY BENEFICIATION MOVEMENT. THE TREATMENT WOULD BE ON THE BASIS OF HIGH VOLUME PER MANSHIFT WORKED, AS FOLLOWS :

TRACTOR-15 Cu. Yd. SCRAPER SINGLE SHIFT  
1 OPERATOR FIVE 1,200 TON DAYS TO STOCKPILE, TO:

TUNNEL CONVEYOR FEEDING JIGS OR SPIRALS 1,000  
TONS PER DAY SIX DAYS PER WEEK TO :

BENEFICIATING ROUGHER PRODUCT TO MARKET GRADE  
IN FLOTATION PLANT AFTER REGRIND TO RELEASE MINERALS, TO:

FILERS AND CONCENTRATE BINS, WASTE TO POND.

TWO OPERATORS PER SHIFT OR SIX PER DAY, THE BULLDOZER-SCRAPER OPERATOR, A GEN'L. MAINTENANCE MAN, COMBINATION MILL BOSS-ASSAYER-METALLURGIST MAKING A TOTAL OF 9 MEN COULD HANDLE A 1,000 TON PER DAY PRODUCTION VOLUME UNDER THESE CONDITIONS.

OPERATING COST BEFORE REAGENT COST ( NOT KNOWN AT THIS TIME ) :

LABOR .....	\$160	PER DAY
MILL SUPT.....	30	" "
FUEL, SUPPLIES, ETC.	150	" "

1,000 TONS COULD BE TREATED  
AT .29 CENTS PER TON AND IF  
SUITABLE METALLURGY IS WORKED OUT .20¢ PER TON WOULD AMORTIZE A  
\$100,000 ROUGHER PLANT.

ANOTHER INTERESTING POINT WITH REGARD TO THESE TAILINGS IS THE FACT THAT THEY CONTAIN, ACCORDING TO OUR RECENT OBSERVATIONS OF GRAVITY TESTS, ABOUT 25% IRON PYRITE, COMPOSES THIS TAILINGS POND. THIS MEANS THAT THERE IS 125,000 TONS OF Fe S THAT SHOULD CONTAIN 53.4 SULPHUR LESS THE DISPLACEMENT OF THE COMBINED MINERALS, GOLD, SILVER, SPHALERITE, AND OTHERS IN MINOR AMOUNTS. POSSIBLY FOR LATER CONSIDERATION THE TONNAGE OF SULPHUR IN EXCESS OF 50,000 TONS MAY BE OF ECONOMIC USE FOR SULPHURIC ACID MANUFACTURE.

TYBO MINE REPORT, NOV. 4, 1960

ECONOMICS, CONTINUATION :

ESTIMATED COST :

AT THIS TIME MINING AND MILLING EQUIPMENT IS AVAILABLE IN VIEW OF COPPER, MANGANESE, CHROMITE, SCHEELITE, GOLD AND OTHER PRODUCTS<sup>1</sup> MARKETS BEING VERY POOR AT THIS TIME. A DIFFERENTIAL FLOTATION PLANT WITH NEW EQUIPMENT AND CONSTRUCTED BY WESTERN KNAPP, SOUTH WESTERN ENGINEERING CO., OR OTHER SIMILAR FIRMS WOULD COST SOME \$2,500 FOR EACH TON OF PLANT CAPACITY. HOWEVER, BY TAKING ADVANTAGE OF VERY REASONABLY PRICED EQUIPMENT A HIGHLY REFINED 100 TON CAPACITY PLANT FOR THE TYBO MINE SULPHIDE ORES CAN BE BUILT FOR \$75,000. THIS CAN BE ACCOMPLISHED BY PURCHASE OF MACHINERY AND RELATED MATERIAL AT THE LOWEST CASH PRICE.

CAMP :

MINE ACCESS ROADS, CAMP GRADING.....	\$500.00
DOMESTIC WATER SYSTEM REHABILITATION....	500.00
DWELLING SEWAGE DISPOSAL.....	1,000.00
10 TRAILER UNITS AS EMPLOYE LIVING QUARTERS, PURCHASED ON CONTRACT, NO DOWN PAYMENT, \$50 MONTH PAYMENTS CHARGED AS RENT TO PAYOUT FOR CO. EVENTUAL OWNERSHIP. DELIVERY AND SETUP COST .....	1,000.00
EMPLOYE SHOWER ROOM, CAMP RESIDENTS <sup>1</sup> LAUNDRY FACILITIES IN REHABILITATED CAMP HOUSE.....	500.00
WAREHOUSE-SHOP BUILDING , THE STANDING LARGE BRICK BUILDING, PURCHASED FOR \$500 AND \$500 REHABILITATION.....	1,000.00
MISC. CAMP EXPENDITURES.....	500.00
	<hr/> \$5,000.00

2-G SHAFT :

VERY LOW CONTRACT PRICES FOR 2-G SHAFT REHABILITATION MACHINERY, MATERIAL AND FITTINGS IS AVAILABLE FROM THE JENSEN BROTHERS OF ELY, NEVADA. THEY OWN CM&DC STOCK AND WILL SUPPLY THE MACHINERY AND SUPPLIES AT COST IN-ORDER-TO ASSIST THE COMPANY.

2-G SHAFT REHABILITATION TO 25 FEET BELOW THE 400<sup>1</sup> LEVEL EQUIPED TO HANDLE A SKIP PAYLOAD OF 1½-2 TONS, NEW HEADFRAME, HOIST, SKIP, POWER CABLE, GENERATOR, PUMP, MUCHING MACHINE, ELECTRIC TRAMMER, 15 ORE CARS, SLUSHER EQUIPMENT AND SLUSHER, PIPE, RAIL, LUMBER AND FITTINGS, INSTALLATION LABOR, REHABILITATION OF THE 300 AND 400 LEVELS TO COMMENCE PRODUCTION OF CRUDE SULPHIDE ORE TO MILLING MARKET, OXIDE ORE TO SMELTING MARKET, STOCKPILE SULPHIDES FOR COMPANY MILL HELD PENDING INSTALLATION, ALL LABOR COST, INSURANCE, ETC. : .....

\$35,000.00

NOTE : THE ABOVE EXTREMELY LOW ESTIMATE IS POSSIBLE ONLY BECAUSE CM&DC MEMBERS AGREED TO CONTRIBUTE THEIR TIME, EQUIPMENT AND EFFORT AT COST. TIME ELEMENT TO PRODUCTION : 60-90 DAYS.

TYBO MINE REPORT, NOV. 4, 1960

ECONOMICS :

UTILITIES :

1 - 3/4 TON SERVICE PICKUP .....	\$1,800.00
1 - USED 5 TON STOCKPILE TRUCK....	2,500.00
1 - 300 AMP GASOLINE-ELECTRIC WELDER.....	500.00
1 - GAS WELDING OUTFIT .....	125.00
1 - COMBINATION, FRONT END LOADER, BULLDOZER, RIPPER .....	6,000.00
MINE OFFICE EQUIPMENT .....	200.00
ASSAY LABORATORY EQUIPMENT ...	500.00
SAFETY, FIRST AID, FIRE PREVENTION EQUIPMENT .....	300.00
	<hr/> \$11,925.00

MILL TESTING, SCREEN ANALYSIS,  
PRODUCTION CONTROL SAMPLES,  
CUSTOM LABORATORY WORK..... 1,000.00

TOTAL ESTIMATE TO ARRIVE AT  
FIRST PRODUCTION DELIVERY.... \$52,925.00

100 TON CAPACITY SELECTIVE FLOTATION MILL :

AS POINTED OUT HEREIN, MANY COST SAVING ELEMENTS APPLY TO THE FOLLOWING ESTIMATE. THE PROPOSED MILL'S CONCRETE FLOOR PLAN CAN BE ADJUSTED TO THE EXISTING CONCRETE FLOW SHEET FOUNDATION, WATER WILL COME FROM 2-G PUMPING OPERATIONS WITHOUT INSTALLATION COST CHARGED TO MILL FACILITIES, CAMP FACILITIES ARE CHARGED TO THE PRODUCTION AMORTIZATION CHARGES, AND BY PAYING CASH DURING THIS INTERIM OF MODERN MILLING EQUIPMENT AVAILABILITY, THE UNITS CAN BE PURCHASED FOR BETWEEN 10 AND 20% OF THEIR NEW COST. EXAMPLE : 300 K. V. A. ATLAS DIESEL-ELECTRIC UNIT COMPLETE, ORIGINAL COST OVER \$50,000. HAS VERY FEW HOURS AND IS IN 85% NEW CONDITION. PRICE : \$10,000.

IT IS RECOMMENDED THAT EQUIPMENT PURCHASE BE ACCOMPLISHED DIRECT FROM OWNERS FOR CASH. MORE THAN 50% OF COST WILL BE SAVED IN THAT FASHION INSTEAD OF SETTING UP ON A PURCHASE CONTRACT BASIS. THERE IS NO ROOM FOR "MIDDLEMEN" COMMISSIONS IN THESE COST ESTIMATES.

TYBO MINE REPORT, NOV. 4, 1960

ECONOMICS :

FLOTATION MILL, CONTINUATION :

IT IS RECOMMENDED THAT MILL CONSTRUCTION BE STARTED DURING THE LATTER PART OF MARCH 1961. COST WILL BE SAVED BY NOT DOING SURFACE CONSTRUCTION IN THE WINTER. FURTHERMORE WITH GOOD SPRING AND SUMMER WEATHER ON THE HORIZON, MILL BUILDING COVERAGE CAN BE MADE PERMANENT AFTER PRODUCTION INCOME COMMENCES. THE JENSEN'S HAVE SOME EXCELLENT STEEL FRAME BUILDINGS IN ELY, NEVADA THAT CAN BE PURCHASED FOR ABOUT 10% OF THEIR ORIGINAL COST.

MILL FLOW SHEET :

PRIMARY AND SECONDARY CRUSHING CAPACITY SET UP FOR 300 TONS WHICH WILL ALLOW ADDITION OF METALLURGICAL UNITS WHEN PRODUCTION IS INCREASED OVER 100 TONS PER DAY, TO:

STEEL FINES BIN OR FINES STOCKPILE MOVED BY TUNNEL CONVEYOR TO :

GRIND UNIT TO :

CLASSIFICATION TO :

FLOTATION TREATMENT UNIT ~~DELIVERING~~ SEPARATE LEAD AND ZINC CONCENTRATES TO :

DEWATERING, TO : LEAD FILTER, ZINC FILTER TO :

LEAD CONCENTRATE BIN, ZINC CONCENTRATE BIN.

CASH PURCHASE F. O. B. LOCATION ..... \$ 25,000.00

TEAR DOWN ( POSSIBLY ) HAULAGE TO TYBO... 5,000.00

ERECTION, LABOR, FITTINGS, PLATE, RENTED CRANE, BULLDOZER WORK, WELDING, ELECTRICAL WORK, RENEWAL OF NEEDED BEARINGS, WEAR FACES, PARTS RENEWAL, SHORT RANGE WEATHER PROTECTION, NEEDED CONCRETE WORK, ADDITIONAL FREIGHT, PARTS PROCUREMENT TRIPS, SPECIALIST FEES ( GOOD MILLWRIGHT ), CONVEYOR SYSTEM FROM 2-G SHAFT - ( POSSIBLY ), \$1,000 EXPENSE ITEM LOCATING AND INSPECTING LISTED AVAILABLE MILLS..... 45,000.00

TOTAL COST ( ONLY POSSIBLE BY ALL OWNERS CONTRIBUTING TIME AND FOLLOWING THIS PROCEDURE, TAKING ADVANTAGE OF THE TEMPORARY LOW COST AVAILABILITY )..... \$75,000.00

TYBO MINE REPORT, NOV. 4, 1960

ECONOMICS, CONTINUATION :

OVERHEAD, CORPORATE EXPENSES, CONTINGENCIES .....	\$ 22,075.00
2-G SHAFT PRODUCTION SETUP..... ( INCLUDING CAMP UTILITY,ETC.)	52,925.00
100 SELECTIVE FLOTATION MILL....	75,000.00
PRODUCTION SETUP ESTIMATE.....	<u>\$ 150,000.00</u>

TYBO SLAG :

NO JIG OR SPIRAL BENEFICIATING PLANT DETAILS WILL BE HEREIN LAID OUT FOR THIS 30,000 TON RESERVE. SUPPLEMENTAL ESTIMATES WILL BE GIVEN AS SOON AS GRAVITY CONCENTRATION TESTS HAVE BEEN MADE. HOWEVER, IF SIMPLE JIG BENEFICIATION IS ALL THAT IS REQUIRED, \$25,000 SHOULD SETUP A 300 TONS PER DAY ROUGHING SYSTEM. A HEAVY MEDIA TEST ALSO SHOULD BE RUN IF SCREEN ANALYSIS SHOWS GOOD RECOVERY AND CONCENTRATION IN THE 1/4" TO 1/8" FRACTIONS. I. S. & R. REPORTS ONE OF THEIRS IS AVAILABLE. I BELIEVE IT IS A SEMI-MOBILE 400 TON UNIT. IN VIEW OF COARSE METALLIC DISSEMINATION VISUALLY, HEAVY MEDIA COULD BE ANOTHER LOW COST BENEFICIATING METHOD.

TYBO TAILINGS :

THE COMPANY WILL HAVE A VERY FULL SCHEDULE WITH 2-G PRODUCTION SETUP AND SELECTIVE FLOTATION MILL ERECTION NOT TO MENTION MINING SOME OXIDES ON COMPANY ACCOUNT AND SUPERVISING "BLOCK LESSEES". IT WOULD BE THE WRITER'S RECOMMENDATION TO JOINT VENTURE OR LEASE THE TAILINGS, IN SOME MANNER SUCH AS IS NOW BEING NEGOTIATED BY THE TITAN, INC. FIRM OF DENVER, COLORADO WITH CM&DC.

ECONOMICS SUMMARY :

THE 1960 FAVORABLE ECONOMIC OUTLOOK AT THE TYBO MINE WAS MADE POSSIBLE BY THE LACK OF EXPLORATION-DEVELOPMENT CAPITAL REQUIREMENT, STANDING AVAILABLE SALVAGE ORE RESERVES, ADVANCEMENT IN METALLURGICAL SCIENCE DURING THE PAST 23 YEARS AND THE FACT THAT LEAD-ZINC HAVE A BETTER MARKETING OUTLOOK THAN MOST METALS. A MUCH LOWER PERCENTAGE OF LEAD AND ZINC IS RECLAIMED FOR ANOTHER CYCLE OF USE THAN IS IRON-STEEL, COPPER, ETC. STRONG PRESSURE IS BEING BROUGHT TO BEAR BY THE U. S. LEAD ZINC INDUSTRY TO FAVORABLY INFLUENCE PRODUCTION OUTLOOK.

## TYBO MINE REPORT, NOV. 4, 1960

### RECOMMENDATIONS :

#### 1. 2-G SHAFT :

- A). RECOVER THE 2-G SHAFT AT THE EARLIEST CONVENIENCE. THIS WILL LOWER THE TIME ELEMENT TOWARDS TYBO MINE PRODUCTION.
- B). WHILE THE 2-G SHAFT IS BEING REHABILITATED, A SAMPLING PROGRAM SHOULD BE INSTITUTED ON THE BASIS OF 1960-61 MARGINS. PROBABLE ORE LISTED HEREIN COULD BE CONVERTED INTO POSITIVE ORE EVALUATION PROCEDURE BY COMPILING NEW ASSAY CHARTS.
- C). WHILE SHAFT REHABILITATION IS GOING FORWARD, TWO MEN SHOULD BE OCCUPIED ON THE 300' LEVEL STULLING OFF AND MUCKING BACK ORE WHICH HAS RAN OUT OF CHUTE MOUTHS, BLOCKING POINTS OF THE EAST AND WEST SECTIONS OF THE LEVEL. IT IS SUSPECTED THAT MUCH SALVAGE ORE CAN BE COMPILED IN ADVANCE OF HAULAGE INSTALLATION AND IT WILL ALLOW WORKING OUT TRAFFIC CONTROL ALIGNMENT.

THE SAME PROCEDURE SHOULD BE FOLLOWED ON THE 400' LEVEL AS SOON AS THE WATER IS DROPPED BELOW THE SILL. THERE IS WHAT APPEARS TO BE ONE PARTICULARLY GOOD BLOCK OF GROUND NEAR THE SHAFT THAT MIGHT BE CONSIDERED FOR THE IS&RC OR THE USSR&MC CUSTOM MILLING MARKETS IN INTEREST OF PRODUCTION INCOME, ASIDE FROM OXIDES, PRIOR TO THE COMMENCEMENT OF TYBO MILLING.

- D). BLOCK LEASING AREAS ON THE 400 AND THE 300 LEVELS SHOULD BE SELECTED AND BLOCK LEASING TEAMS LINED UP TO COMMENCE AS SOON AS HAULAGE FACILITIES ARE INSTALLED.

#### 2. TYBO MILL :

- A). MILL FLOW SHEET ELEVATION PLANS AND SECTIONS SHOULD BE RUN AND LAID OUT.
- B). EQUIPMENT LOCATION AND PRICE RESEARCH SHOULD BE COMPILED.

#### 3. SLAG :

- A). SCREEN ANALYSIS SHOULD BE RUN WITH ALL FRACTIONS ASSAYED.
- B). A JIG AND SPIRAL TEST OF THE MOST FAVORABLE RELEASE SIZE SHOULD BE RUN.
- C). A HEAVY MEDIA TEST SHOULD BE RUN, IF SCREEN TEST INDICATES ECONOMIC VALUES PLUS 1/16".

TYBO MINE REPORT, NOV. 4, 1960

RECOMMENDATIONS. CONTINUATION :

TYBO TAILINGS :

- A). WHEN CONVENIENT THE COMPANY SHOULD RUN A MILL TEST FOR STRAIGHT GRAVITY BENEFICIATION AND FOLLOW BY REGRIND AND DIFFERENTIAL FLOTATION TEST.
- B). TITAN, INC. AND OTHERS WHICH SHOW INTEREST IN A LEASE, JOINT VENTURE OR RECOVERY AGREEMENT WITH REGARD TO TAILINGS BENEFICIATION SHOULD RECEIVE ATTENTION.
- C). SOME RESEARCH SHOULD BE DONE COSTWISE AND MARKETWISE CONCERNING THE ECONOMICS OF MANUFACTURING ACID OUT OF THE 100,000 TO 125,000 TONS OF IRON PYRITE CONTAINED IN THE TAILINGS PILE. IRON PYRITE ( $\text{FeS}_2$ ), IS 53.4 SULPHUR AND 46.6 IRON. THE 100,000 TO 125,000 TONS OF PYRITE COULD BE CONCENTRATED VERY CHEAPLY BY SIMPLE GRAVITY METHODS AND WOULD MAKE A GREAT VOLUME OF ACID. RICO ARGENTINA WITH A SIMILAR ORE TO TYBO'S CHARACTER HAS INSTALLED AN ACID PLANT, REPORTEDLY. IF ANY ECONOMICS COULD BE WORKED OUT, FAVORABLY, FOR THE TYBO TAILINGS, A PLANT USED FOR THEIR TREATMENT WOULD HAVE FUTURE USE IN NEWLY MINED AND MILLED SELECTIVE FLOTATION MILL IRON PYRITE REJECT.

GILMORE MINE SECTION :

- A). THE PATENTED SURVEY PLATS ARRIVED EARLY THIS WEEK. CONSEQUENTLY, IT HAD BEEN INCORRECTLY ASSUMED THAT SOME AVAILABLE DIRECT SMELTING OXIDE ORE WAS ON THE DIMMICK SECTION. IT WAS FOUND THAT THE ORE IS IN THE GILMORE SECTION, OWNED BY CL&DC AND LEASED TO CM&DC. SOMETHING OVER 800 TONS WERE MINED IN A CRUDE, INEFFICIENT MANNER IN THE LATE 1930S AND EARLY 1940S BY LESSEES WHICH WERE MARKETED AT THE MCGILL SMELTER WITH NO PAY FOR LEAD WHICH RAN : .235 GOLD AND 39-40 OUNCES SILVER - LEAD NOT SHOWN.
- B). SOME 250' OF PROBABLE MINING BACKS ARE AVAILABLE FOR PRODUCTION IN THIS PROVEN SECTION. IT IS SUGGESTED THAT A BLOCK LEASE OR THE WHOLE SECTION BE GIVEN OUT ON A ROYALTY CONTRACT TO A PRODUCTION GROUP. SUCH GROUPS ARE AVAILABLE AS PROFESSIONAL LESSEES ARE LIMITED TO ONLY A FEW SALABLE PRODUCTS NOW. GILMORE SELECTED ORE CAN BE MARKETED AT THIS TIME.

## TYBO MINE REPORT, NOV. 4, 1960

### SUMMARY :

THE TYBO MINE IS A PROPERTY WHICH OPERATED UNDER VERY STRAINED ECONOMIC TIMES BETWEEN MAY OF 1929 AND FALL OF 1937. BESIDES HAVING LOW MARKET PRICES AND POOR CONCENTRATE ACCEPTANCE AT ANY PRICE (SOMETIME THE ZINC CONCENTRATES HAD TO BE STORED IN TONOPAH LACKING MARKETS), DIFFERENTIAL FLOTATION WAS A NEW PROCESS AND COULD HANDLE SEPARATION OF LEAD AND ZINC SULPHIDES UNDER RIDGED TOLERANCE. THE TOLERANCE IS MUCH MORE ELASTIC AS OF 1960 BECAUSE OF 23 YEARS OF PROCESS REFINEMENT.

THE THOUSANDS OF DEVELOPMENT FEET, INCLUDING SHAFTS, RAISES, CROSS CUTS AND DRIFTS, FURNISH ACCESS TO ANY OPERATING COMPANY WITHOUT HAVING TO SUBSCRIBE THOSE DEVELOPMENT COSTS.

ORE BLOCKS WHICH HAVE SOME LEAD OXIDES COMBINED WITH CHIEFLY SULPHIDE ORES WERE NOT AMENDABLE TO 1929-1937 DEFERENTIAL FLOTATION. IN MANY INSTANCES THESE ORES CAN BE EASILY TREATED NOW.

AVAILABLE OPENED ORE, SALVAGE ORE, PILLARS, LEVEL PILLARS, WITH ONLY A 100 TON MILL, AT THE START TO FEED, WILL PERMIT CAREFUL SELECTION AND CONTROL OVER DILUTION, WITHOUT ANY DEVELOPMENT COST OTHER THAN ACCESS AND HAULAGE INSTALLATION. GENERALLY THE MINE'S WALL CONDITIONS ARE VERY GOOD AND LITTLE SHUT DOWN INTERIM SLOUGHING WILL BE EXPERIENCED.

ADVANCEMENT IN METALLURGY, METALLURGICAL EQUIPMENT, MINING METHODS AND MINING EQUIPMENT ALL HAVE PROGRESSED IN THE PAST 23 YEARS TOWARDS MORE TONNAGE OUTPUT PER MANSHIFT WORKED. WHILE 1937 WAGES AND SUPPLIES WERE LOWER THAN 1960 PRICES THE PRODUCTS ARE HIGHER IN MARKET VALUE NOW, TO THE EXTENT OF: 2.2 TIMES AS MUCH FOR SILVER, 2.4 TIMES AS MUCH FOR LEAD, 2.6 TIMES AS MUCH FOR ZINC.

STRONG PRESSURE IS BEING EXERTED NATIONALLY TO STRENGTHEN LEAD-ZINC DOMESTIC PRODUCTION. NUMEROUS "BIG COMPANY" EXPLORATION PROJECTS ARE IN FORCE NOW (VENTURES, LTD., IDAHO SPRINGS, COLO., CYPRUS MINES JOINT VENTURING WITH NEWMONT, EUREKA, NEVADA, ETC.) A LEAD-ZINC MARKETING BENEFICIATION IS EXPECTED EARLY IN 1961 BY MANY OF THE INDUSTRY'S MEMBERS. INTERNATIONALLY MUCH LEAD-ZINC TONNAGE IS GOING TO EUROPE AND SOME PRODUCTION AREAS ARE LOWERING METAL OUTPUT ON ACCOUNT OF POLITICAL DIFFICULTIES. SO, THE OUTLOOK FOR LEAD AND ZINC IS GOOD - MUCH BETTER THAN COPPER AS THE LATTER IS SO SUBJECT TO SALVAGE ON THE RECLAIMING MARKET.

THE TYBO MINE HAS HAD CONSIDERABLE TECHNICAL SCRUTINY AND ESTABLISHED TECHNICAL INFORMATION WHICH SUBSTANTIATES OBSERVATIONS MADE IN THIS REPORT.

TYBO MINE, REPORT, NOV. 4, 1960

SUMMARY, CONTINUATION :

MINING AND METALLURGICAL EQUIPMENT IN VERY GOOD USED CONDITION AT THIS TIME IS PARTICULARLY AVAILABLE. MUCH PRODUCTION SETUP INSTALLATION CAN BE SAVED ON THE TYBO PROJECT, IF COMMENCED IN THE NEAR FUTURE.

THE CARGOLD MINING & DEVELOPMENT CORP. IS OBLIGATED FOR ONLY VERY NOMINAL ROYALTY TO ITS RELATED COMPANY, CARSON, LAND & DEVELOPMENT CORP., A MATTER OF SOME 6%. THE CL&DC WILL LEND EVERY ASSISTANCE TO CM&DC AS SOME OF THE PRINCIPALS OWN RIGHTS IN BOTH CORPORATIONS.

THE TYBO MINING PROPERTY IS FREE AND CLEAR OF LEENS OR OTHER FINANCIAL OBLIGATIONS.

THE TYBO MINE IS ONE OF THE FEW LARGE PROPERTIES THAT HAS AVAILABLE ORE RESERVES OF A PROBABLE ECONOMIC GRADE, DEVELOPED IN GOOD VOLUME, AND HAS PRODUCTS WHICH CAN BE MARKETING BY A SMALL TO MIDDLE CLASS COMPANY AT THIS TIME.

VERY TRULY YOURS,

J. H. WREN & CO.

BY

  
JAMES H. WREN.

Nov. 4, 1960

JAMES H. WREN  
4297 - D - STREET  
SACRAMENTO, CALIFORNIA

Born: San Francisco, California - January 22, 1912.

Married, two children.

Engineering Education: Have knowledge of the Spanish language. Hold valid U. S. Passport No. 434059. Member of the American Institute of Mining and Metallurgical Engineers.

PROFESSIONAL RECORD

SEPTEMBER 1, 1947 TO DATE:

INDIVIDUAL FEE BASIS MINING ENGINEERING and short term MANAGEMENT ASSIGNMENTS, specializing in production problems. EXAMPLES: Basic Refractories, Inc., 3,500 tons per day open pit magnesite project, Alder Copper-Gold Corp., 300 ton underground Au, Ag, Pb, Zn, production and differential flotation plant operation. U. S. Tin Corp., Alaskan Lode and placer tin production. Baltimore-Camas Crop., 125 ton tungsten project. Placeres de Sonora, S. A., 4,000 Cu. Yds. per day Mexican placer enterprise. Northern Resources Corp., 100 ton quicksilver movement. Ecuadorian Enterprises, Inc., Ecuadorian Dredge Corp., Western Hemisphere Resources Corp. Consulting Mining Engineer to and member of Industrial Development, 1745 K Street, N. W. Suite 63, Washington, D. C. To the above were numerous domestic examinations, evaluations and production alignments as well as assignments handled in Mexico, Central and South America.

REFERENCE: Nichols Laboratories, 160 SW Temple, Salt Lake City.

JULY 1, 1945 TO SEPTEMBER 1, 1947:

GEN'L SUPT. and UTAH MANAGER for Metal Producers, Inc. Chief operation: Horn Silver Mine. Upon arrival at the property an excessive deficit existed. By engineering alignment, mechanization and marketing adjustment production was raised from 50 to 400 tons per day in form of three ore character products - complex selective flotation tonnage, direct smelting copper crude and direct smelting silver-lead crude. Operations were suspended August 11, 1947 as a direct result of Metallic premiums termination on June 30, 1947.

REFERENCE: J. W. Mangram, 243-1/2 So. Elm Dr., Beverly Hills, Calif.

FEBRUARY 1944 TO JUNE 1945:

SUPERINTENDENT, Tungstar Mine near Bishop, California, Project produced a monthly average of 3,000 units of  $W O_3$  at \$30 per unit tungsten market.

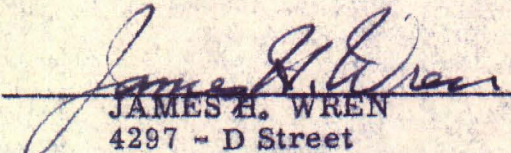
JAMES H. WREN

Page 2

MAY 1941 TO DECEMBER 1943:

SUPERVISORY DUTIES connected with military construction related to rock and heavy earth moving in foreign fields.

For eight years previous to 1941, worked as a miner, millman, shiftboss, mine foreman, engineer and assistant superintendent at various Western United States metallic mining properties.

  
\_\_\_\_\_  
JAMES H. WREN  
4297 - D Street  
Sacramento, California  
Phone: GLadstone 6-0922

JAMES H. WREN  
4297 - D - STREET  
SACRAMENTO, CALIFORNIA

PROFESSIONAL RECORD DETAILED SUPPLEMENTAL DATA:

EMPLOYEE STATUS:

Mason Valley Mines Co., Yerington, Nevada, Chuck Tender  
Argonaut Mining Co., Jackson, California, Mucker  
Mina Mercury Co., Mina, Nevada, Grizzlyman  
J. Cain Mine, Mina, Nevada, Machine Miner  
B & B Quicksilver Co., Basalt, Nevada, Miner  
Belden Placer Co., Belden, California, Engineer  
Smith Valley Exploration Co., Simpson, Nevada, Engineer  
North Bloomfield Placer Testing, Suveyor  
Calif. Exp'l Co., Sacramento, Calif. Placer Test.  
Graywing Mine (underground placer) Folsom, California  
Cardinal Mine, Bishop, Calif., Contract Miner  
Murchie Mine, Nevada City, California, Miner  
Sliger Mine, Auburn, California, Miner  
Montezuma Mine, Plymouth, Calif. Contract Miner  
Nashville Mine, Plymouth, California, Timberman  
Little Amador Mine, Amador City, Calif. Engineer  
Stone Cabon Con., Dayton, Nevada, Shaft Foreman  
Como Mines Co., Dayton, Nevada, Shiftboss  
Palisades Mine, Calistoga, Calif. Engineer  
Wiley Mine, Wellington, Nevada, Partner  
Surcease Mine, Oroville, California, Jigger Boss  
Rawhide Mine, Baxter, Calif., Sampler-Surveyor  
Walker Mine, Walkermine, California, Assistant Superintendent  
U. S. Engineers, Panama, C.Z., Supervisor Rock  
U. S. Engineers, Costa Rica, C. A., Supervisor Rock  
Viking Mine, Darwin, Calif. General Foreman  
Napoleon Mine, Copperopolis, Calif., General Foreman  
Krome Corp., Marshfield, Oregon, Superintendent  
Tungstar Mine, Bishop, California, Superintendent  
Horn Silver Mine, Milford, Utah, General Superintendent

Following are specimens of several hundred mine examinations and production alignment Professional Engineering assignments; from August 11, 1947:

Bonanza Mine, Bonanza, Nicaragua, C. A. (Gold)  
Fine Gold Mine, Railroad Flat, California (Gold)  
Huanchaca Mine, Pulacayo, Bolivia (Au, Ag, Pb, Zn)  
Golfito Placers, Costa Rica, C. A. (Placer Gold)

U. S. Engineers, Utah, Explosives Inspection  
Sunshine Gold Co., Redding, California (Gold Mine)  
WDC, Wellington, Nevada (Silver-Lead Mine)  
Berry Creek Placers, Oroville, California (Gold)  
Alder Mine, Twisp, Washington (400 ton Gold-Copper)  
U. S. Tin Mines, Nome, Alaska (Placer & Lode Tin)  
Placers de Sonora, Sonora, Mexico (4,000 Yd. Au Placer)  
Schneider Asbestos, Lower Lake, California  
Lower Lake Exp'l., Lower Lake, California (Chromite)  
El Dorado Chrome Co., El Dorado, Calif. (Chromite)  
Carnet Hill Tungsten, Calvaras Co., (Tungsten)  
Basic Refractories, Inc., Gabbs, Nevada (3,500 tons Magnesite)  
W & C Scheelite, Gabbs, Nevada, (Tungsten)  
Morning Star Mine, Boone Springs, Nevada (Copper-Ag)  
Sonny Boy Mine, Bishop, California (Tungsten)  
Stormy Day Mine, Gerlach, Nevada (Tungsten)  
Buckskin Mine, Yerington, Nevada (Copper-Gold)  
Gray Dawn Mine, Moab, Utah (Uranium)  
Firefly Mine, Moab, Utah (Uranium)  
Cliff Dweller's Mine, Greenriver, Utah, (Uranium)  
Last Chance Placers, Foresthill, Calif. (Placer)  
Yankee Mining Co., Rocklin (Underground Placer Au)  
Vestalee Mining, Salt Lake (U-308-Cu, WO<sub>3</sub>, M, Au, Ag)  
Baltimore-Camas Corp., Ely, Nevada (10 Tungsten Mines)  
Northern Resources, Salt Lake, (Quicksilver)  
Reese River Mines, Austin, Nevada (Tungsten)  
Macklin Equipment & Mining Co., Sacramento, Calif.  
Southwestern Graphite Co., Sonora, Mexico  
Jabali Mines, Nicaragua, C. A. (Lode Gold)  
Ecuadorian Enterprises, Inc. (Placer Gold)  
Ecuadorian Dredge Corp. (Placer Gold)  
Western Hemisphere Resources Corp:  
    Ecuadorian Placer Gold, Sugar Loaf  
    Lode Gold Mine, Beaver View Silver Lead Mine

STATE OF CALIFORNIA )  
COUNTY OF ALAMEDA ) SS.

On this 23rd day of August, 1960 personally appeared before me, a Notary Public in and for the said County and State, PHILIP R. BRADLEY, JR., known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Grace F. Hess  
NOTARY PUBLIC  
GRACE F. HESS

My Commission Expires: Feb. 13, 1962

STATE OF CALIFORNIA )  
COUNTY OF NAPA ) SS.

On this 21st day of August, 1960, personally appeared before me, a Notary Public in and for the said County and State, HERMAN D. BUDELMAN, known to me to be the person described in and who executed the foregoing instrument, who acknowledged to me that he executed the same freely and voluntarily and for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Glen R. Butler  
NOTARY PUBLIC

My Commission Expires: April 8, 1963

42 254

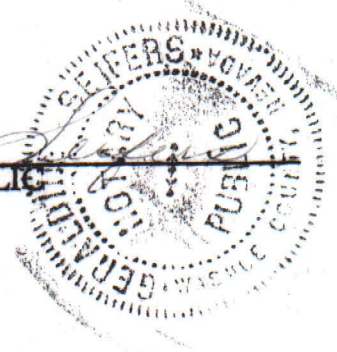
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STATE OF NEVADA )  
COUNTY OF WASHOE ) SS

On this 25 day of August, 1960, personally  
appeared before me, a Notary Public in and for the said County and State,  
FREDERICK C. NINNIS, known to me to be the person described in and  
who executed the foregoing instrument, who acknowledged to me that  
he executed the same freely and voluntarily and for the uses and purposes  
therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed  
my official seal the day and year last above written.

Geraldine S. [Signature]  
NOTARY PUBLIC



My Commission Expires: 9/2/62

RECORDS SECTION  
CLERK  
ONE FORTY-NINTH STREET  
TRUST DEPARTMENT  
NEVADA BANK OF COMMERCE  
Please Return to

36776  
File No. \_\_\_\_\_  
Filed for record at request of \_\_\_\_\_  
\_\_\_\_\_  
September 9, 1960  
at 45 minutes past 10 o'clock  
A.m and recorded in Book 42  
of Official Records page 251  
Nye County, Nevada Records  
Margaret H. Booth  
County Recorder

GRANT, BARGAIN AND SALE DEED

THIS INDENTURE, made the 21st day of August, 1960, between PHILIP R. BRADLEY, JR., of San Francisco, California, HERMAN D. BUDELMAN, of St. Helena, California, and FREDERICK C. NINNIS of Reno, Nevada, all constituting a partnership and being parties of the first part and hereinafter referred to as "Grantors", and CARSON LAND & DEVELOPMENT CORP., a Nevada corporation, party of the second part and hereinafter referred to as "Grantee";

WITNESSETH:

That the said Grantors, for and in consideration of the sum of One Dollar (\$1.00), lawful money of the United States of America, and other good and valuable considerations, the receipt whereof is hereby acknowledged, do hereby grant, bargain and sell unto said Grantee and to its heirs, successors and assigns forever all of the following described lots, pieces and parcels of land situate in Tybo Mining District, County of Nye, State of Nevada, and more particularly described as follows:

Two G Lode	U.S.M.S. No.	1300-37
Crosby Lode	" "	1301-38
2nd Extension Two G Lode	" "	1302-37-44 also referred to as 1302-38-44
Neckar Lode	" "	1303-39
Heidelberg Lode	" "	1304-38
Lafayette Lode	" "	1305-39
Casket Lode	" "	1306-40
Millsite	" "	1307-41 also referred to as 1307-5
Millsite (All Buildings Excepted)	" "	1308-42
Bunker Hill Lode	" "	1309-43
G. F. Mine	" "	2123 also referred to as 2132
Garrett Lode	" "	3948

TOGETHER WITH all of Grantors' right, title and interest in and to the following described lots, blocks and parcels of land in the Townsite of Tybo in the Tybo Mining District, Nevada, without guaranteeing title to the same or to improvements situate thereon:

1 Lot 6  
2 All of  
3 Lots 1 to 8 inclusive  
4 Lot 1  
5 All of  
6 Lots 1 to 19 inclusive  
7 Lots 3, 4, 5, 7, 8, 10, and 12 to 20 inclusive  
8 Lots 2 to 9 inclusive  
9 Lots 1 to 8 inclusive and 10, 13 and 14  
10 All of  
11 Lots 1 and 3  
12 All of  
13 Lots 1 to 5 inclusive  
14 All of  
15 All of

Block 4  
Block A  
Block B.  
Block C  
Block D  
Block E  
Block F  
Block G  
Block H  
Block I  
Block J  
Block K  
Block L  
Block M  
Block N

54.357 acres of patented land, and any and all water rights and easements and property, including real and personal property formerly owned by Treadwell Yukon Corporation, Limited, known as the TYBO MINE.

TOGETHER WITH all dips, spurs, and angles, and in and to all the ores, mineral-bearing quartz, rock and earth or other deposits therein or thereon, and in and to all and singular the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, and the rents, issues and profits thereof; and also in and to all the estate, rights, title, interest, property, possession, claim and demand whatsoever, as well in law as in equity, of the said Grantors, of, in or to the premises and every part and parcel thereof, with the appurtenances, including all after acquired title.

TO HAVE AND TO HOLD, ALL AND SINGULAR, the said premises, together with the appurtenances, unto the said Grantee and to its heirs, successors and assigns forever.

IN WITNESS WHEREOF, the said Grantors have hereunto caused the foregoing to be executed as of the day and year first above written.

Philip R. Bradley  
Herman D. Budenhausen  
Edmund J. Williams

# Policy of Title Insurance

ISSUED BY

## Pioneer Title Insurance Company of Nevada

Pioneer Title Insurance Company of Nevada, a Nevada corporation, herein called the Company, for a valuable consideration paid for this policy of title insurance, the number, date, and amount of which are shown in Schedule A, does hereby insure the parties named as Insured in Schedule A, together with the persons and corporations included in the definition of "the insured" as set forth in the stipulations of this policy, against loss or damage not exceeding the amount stated in Schedule A which the insured shall sustain by reason of:

1. Title to the land described in Schedule C being vested, at the date hereof, otherwise than as herein stated; or
2. Unmarketability, at the date hereof, of the title to said land of any vestee named herein, unless such unmarketability exists because of defects, liens, encumbrances, or other matters shown or referred to in Schedule B; or
3. Any defect in, or lien or encumbrance on, said title, existing at the date hereof, not shown or referred to in Schedule B; or
4. Any defect in the execution of any mortgage or deed of trust shown in Schedule B securing an indebtedness, the owner of which is insured by this policy, but only insofar as such defect affects the lien or charge of such mortgage or deed of trust upon said land; or
5. Priority, at the date hereof, over any such mortgage or deed of trust, of any lien or encumbrance upon said land, except as shown in Schedule B, such mortgage or deed of trust being shown in the order of its priority in Part Two of Schedule B;

all subject, however, to Schedules A, B and C and the Stipulations herein, all of which schedules and stipulations are hereby made a part of this policy.

*In Witness Whereof*, Pioneer Title Insurance Company of Nevada has caused its corporate name and seal to be hereunto affixed by its duly authorized officers on the date shown in Schedule A.

Pioneer Title Insurance Company of Nevada

by

President

Attest

Assistant Secretary

R. L. Evans

Vice President

## SCHEDULE A

Amount \$20,000.00

Date September 9, 1960 at 10:45 A. M.

Policy No. EC-587

### INSURED

CARSON LAND & DEVELOPMENT CORP.

The title to said land is, at the date hereof, vested in: CARSON LAND & DEVELOPMENT CORP., a Nevada Corporation.

## SCHEDULE B

This policy does not insure against loss by reason of the matters shown or referred to in this Schedule except to the extent that the owner of any mortgage or deed of trust shown in Part Two is expressly insured in paragraphs numbered 4 and 5 on the first page of this policy.

PART ONE: This part of Schedule B refers to matters which, if any such exist, may affect the title to said land, but which are not shown in this policy:

1. Taxes or assessments which are not shown as existing liens by the records of any taxing agency or by the public records; and easements, liens or encumbrances which are not shown by the public records.
2. Rights or claims of persons in possession of said land which are not shown by the public records.
3. Any facts, rights, interests, or claims which are not shown by the public records but which could be ascertained by an inspection of said land, or by making inquiry of persons in possession thereof, or by a correct survey.
4. Mining claims, reservations in patents, water rights, claims or title to water.
5. Any laws, governmental acts or regulations, including but not limited to zoning ordinances, restricting, regulating or prohibiting the occupancy, use or enjoyment of the land or any improvement thereon, or any zoning ordinances prohibiting a reduction in the dimensions or area, or separation in ownership, of any lot or parcel of land; or the effect of any violation of any such restrictions, regulations or prohibitions.

## SCHEDULE C

### TYBO MINING DISTRICT,

The land referred to in this policy is situated in the county of NYE, state of Nevada, and is described as follows:

#### The following Patented Mining Claims:

TWO G	U. S. Survey No. 1300 (37)	Patent No. 1558
CROSBY	U. S. Survey No. 1301 (38)	Patent No. 2387
2nd EXTENSION EAST TWO G	U. S. Survey No. 1302 (37-44)	Patent No. 3225
NECKAR	U. S. Survey No. 1303 (39)	Patent No. 3215
HEIDELBERG	U. S. Survey No. 1304 (38)	Patent No. 5020
LAFAYETTE	U. S. Survey No. 1305 (37)	Patent No. 1559
CASKET	U. S. Survey No. 1306 (40)	Patent No. 1560
MILLSITE	U. S. Survey No. 1307 (41)	Patent No. 2872
MILLSITE	U. S. Survey No. 1308 (42)	Patent No. 2873
BUNKER HILL	U. S. Survey No. 1309 (43)	Patent No. 1842
G. F. MINE	U. S. Survey No. 2123	Patent No. 40860
GARRETT	U. S. Survey No. 3948	Patent No. 06046

SCHEDULE B— *(Continued)*

PART TWO: This part of Schedule B shows liens, encumbrances, defects and other matters affecting the title to said land or to which said title is subject:

1. Taxes for the year 1960-1961, including any secured personal property taxes, a lien, but not yet due or payable.

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.

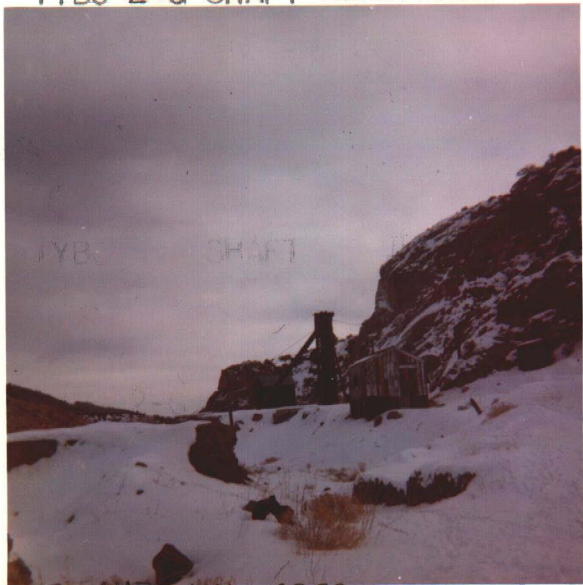
### TYBO MINE REPORT

NOVEMBER 4, 1960

#### MAPS :

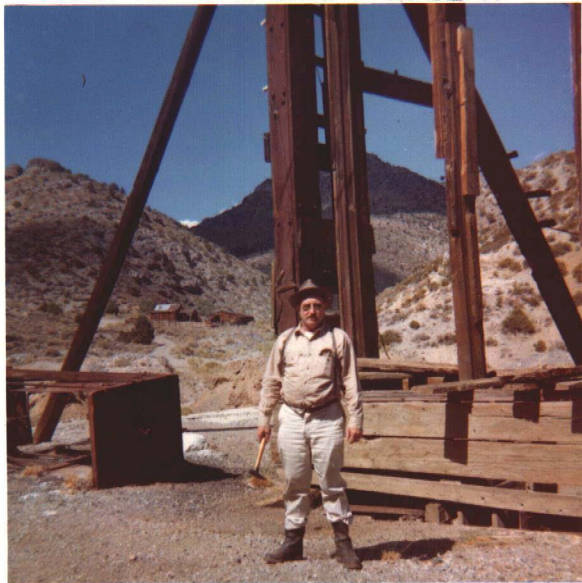
GEOLOGIC MAPS NOS. 1, 1-A, 2, AND 3 IN TUBE # 1  
LONGITUDINAL SECTION..... TUBE # 2  
SUPERIMPOSED TYBO LEVEL PLAN..... TUBE #2  
GENERALIZED GEOLOGIC MAP, IN VOLUME #1 POUCH

TYBO 2-G SHAFT HEADFRAME



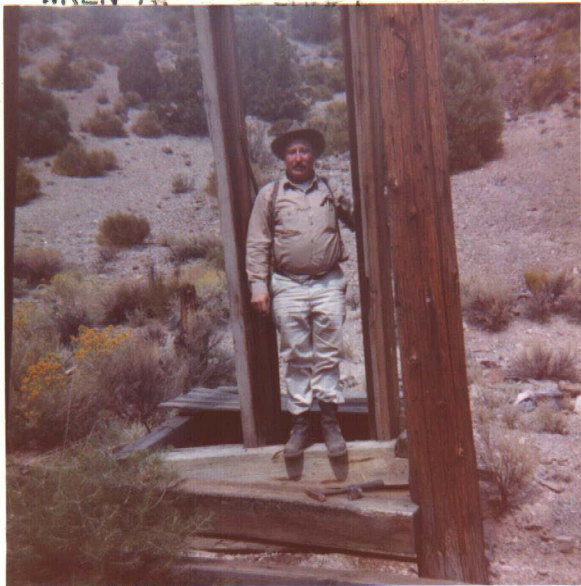
MID JAN. 1960

WREN AT 2-G SHAFT COLLAR



TYBO MINE, SEPT. 1960

WREN AZ



TYBO SEPT. 1960

PART OF OLD SMELTER TYBO

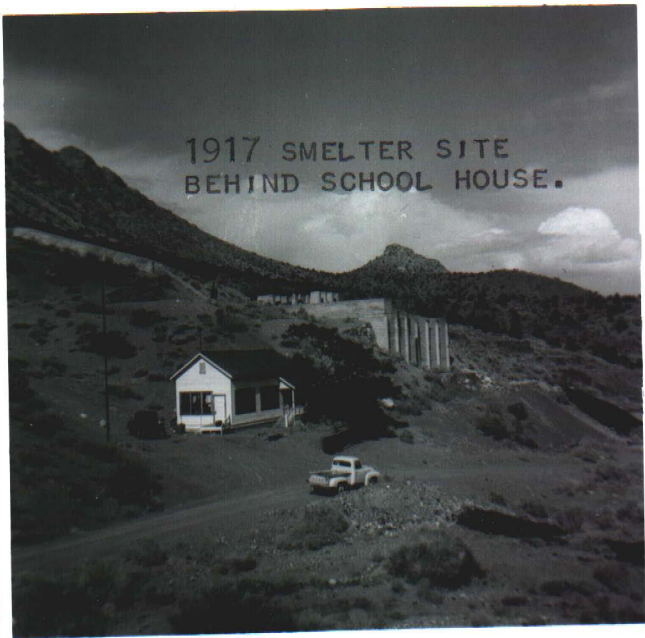


30-40,000 TONS OLD SMELTER



SLAG - CONTAINS VALUE

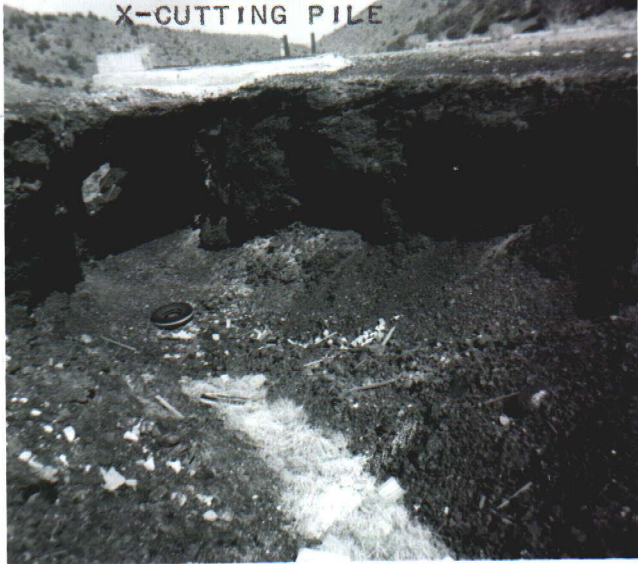
1917 SMELTER SITE  
BEHIND SCHOOL HOUSE.



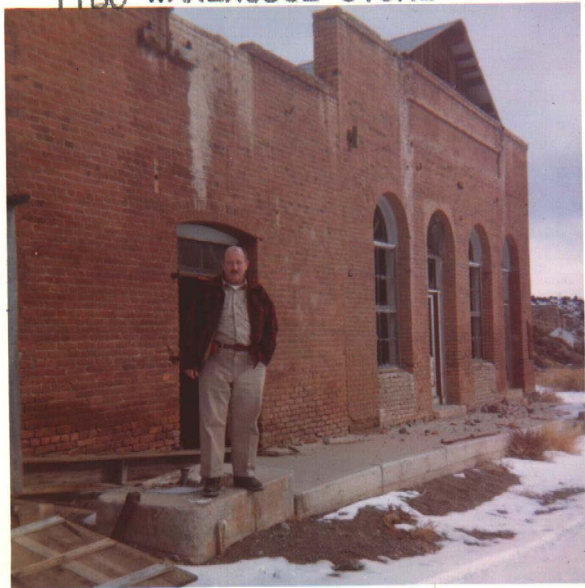


TOP OF SLAG PILE  
SHOWING OLD  
SAMPLE CUT

3,000 TON SLAG  
SAMPLE HOLE  
X-CUTTING PILE



TYBO WAREHOUSE-STORE



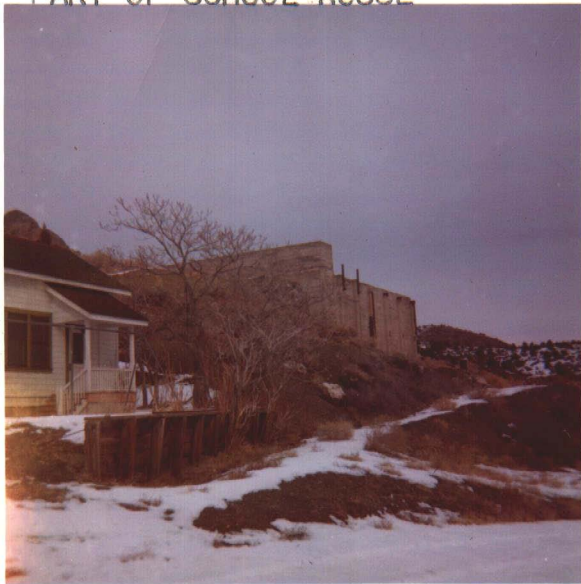
J. H. WREN JAN. '60

TYBO VIEW FROM OLD LAB



SEPT. 1960

PART OF SCHOOL HOUSE



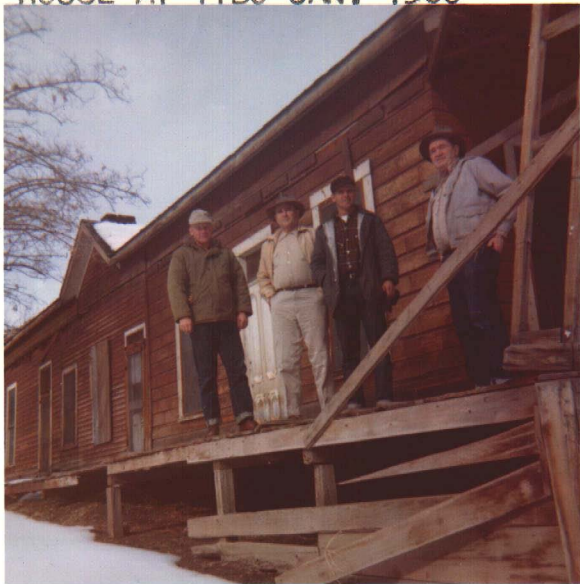
& 1917 SMELTER RUINS

TYBO SCHOOL HOUSE JAN. '60



W.T. CARSON, SR. B. JENSEN

HOUSE AT TYBO JAN. 1960



A WATER SPRING TYBO SEPT '60



F.J.MILLER -W.T.CARSON, SR.

TYBO TAILINGS POND  
SOME 500,000 TONS.  
CONTAINS OVER \$10 PER TON  
1960 METAL VALUE.



TYBO TAILIGS POND OVER  
20' DEEP AT THIS SECTION  
WIDTH 1ST CHECK 526'  
" 4TH " 372'



MIDDLE SECTION TYBO MINE  
TAILINGS POND MARCH 1960



SAMPLING TYBO MINE  
TAILING POND, MARCH 1960



C O P Y

STATEMENT  
HALL BROS. COMPANY INC.  
TEST SHIPMENTS \* TYBO SLAG

at Selby

5/16/44  
3641  
S-1  
S.P. 47066

5/22/44  
3672  
S-2  
P.E 6009

Gross Weight  
Moisture

(2.13%)

99260 lbs.  
2114 " (1.4%)

98900 lbs.  
1385 "

Dry Weight

97416 lbs.

97515 lbs.

ASSAYS AND ANALYSIS

Gold - Ozs per Ton  
Silver  
Lead  
Copper  
Silica  
Iron  
Lime  
Zinc  
Sulphur  
Arsenic  
Antimony

0.020  
5.57  
3.85%  
0.05%  
38.6 %  
21.8 %  
17.6 %  
1.9 %  
1.3 %  
0.40%  
0.10%

0.020  
4.77  
3.95%  
0.08%  
39.7 %  
22.5 %  
17.7 %  
1.4 %  
1.2 %  
0.34%  
0.15%

GUARANTEED EXPENSES TO  
HALL BROS. BY A.S. & R.CO.

Trucking @ \$3.00 per ton  
" Tax 3%  
Labor, Mining and Loading  
Use of Small truck  
Use of Compressor  
Labor of Mr.Redenbaugh (Supervision)  
Power and Supplies  
Royalty @ 25¢ per dry ton

Total	Lot 3641	Lot 3672
297.24	148.89	148.35
8.92	4.47	4.45
129.60	64.80	64.80
25.00	12.50	12.50
20.00	10.00	10.00
55.00	27.50	27.50
9.00	4.50	4.50
24.33	12.14	12.19
<u>\$569.09</u>	<u>\$284.80</u>	<u>\$284.29</u>

To be paid by Metals Reserve Co.  
a/c Premium Payments - 90% Advance  
Balance after advance  
Royalty due Treadwell Yukon Corp.  
Balance to be paid Hall Bros Co.  
by A.S. & R. Company  
Hank's Bill for Supervision

335.00	164.95	170.14
37.33	18.33	18.91
<u>24.33</u>	<u>12.14</u>	<u>12.19</u>
172.43	89.38	83.05
<u>30.00</u>	<u>15.00</u>	<u>15.00</u>

Payment as per our Check  
GES:SC

cc: Treadwell Yukon Corp, Ltd.  
(Ex.cc's.-6)



# AMERICAN SMELTING AND REFINING COMPANY

SELBY PLANT

SELBY, CALIFORNIA

March 29, 1960

JOSEPH T. ROY  
MANAGER

Mr. J. Wren  
4297 D Street  
Sacramento, Calif.

Dear Mr. Wren:

In reference to our telephone conversation of this morning, there is enclosed a copy of our Open Purchase Schedule covering lead ores and concentrates.

Concentrates assaying 0.3 oz. of gold per ton, 70.0zs. of silver per ton and 65% lead would have a net value of approximately \$171 per ton based on the above schedule, and with the present price of lead at 12¢.

After your work has proceeded further we will be pleased to have a sample of the concentrates and will make a full analysis.

Thank you for this inquiry.

Yours very truly,

*George H. Playter*  
GEORGE H. PLAYTER  
Asst. Manager

GHP:EC

**American Smelting and Refining Company**  
**SELBY SMELTING WORKS**  
**Selby, California**

**O P E N**  
**PURCHASE SCHEDULE**

**DATE EFFECTIVE: 3-29-60**

Shipper	Address
Mine	Location
Character Ore	LEAD ORES & CONCENTRATES
	R. R. Station

The following purchase terms are subject to the General Clauses shown on the back of this sheet, and are subject to prompt acceptance. Unless shipments are begun within 30 days this quotation is automatically cancelled.

**TONNAGE:** Limited to.....tons per month except by special arrangement.

**DELIVERY:** F.O.B. unloading bins American Smelting and Refining Company, Selby, California.

**P A Y M E N T S**

**GOLD:** (a) If .03 of a troy ounce per dry ton or over and less than 5.00 ounces, pay for 91.14%; (b) if 5.00 ounces per dry ton or over and less than 10.00 ounces, pay for 92.57%; (c) if 10.00 ounces per dry ton or over and less than 15.00 ounces, pay for 93.28%; and (d) if 15.00 ounces per dry ton or over pay for 94.0% at the net price per ounce paid by the United States Mints for gold recovered from domestic mine production on the 15th day following the date of delivery of product at Buyer's Plant. Nothing paid for gold if assaying less than .03 of a troy ounce per dry ton. Note: Under the present Mint price of \$34.9125 per ounce, this is equivalent to paying for 100% at (a) \$31.81925; (b) \$32.31850; (c) \$32.56638; and (d) \$32.81775 per troy ounce.

**SILVER:** Pay 95% at the average Handy & Harman New York silver quotations for the calendar week including date of delivery of the last car or truck, of each lot at plant of Buyer or at the realized Mint price if higher, provided silver qualifies for Government purchase and affidavit is furnished, in either case less a deduction of 1¢ per ounce. In case Handy & Harman shall discontinue publishing quotations for silver then the New York quotations for silver as published by the Engineering and Mining Journal shall govern.  
Minimum deduction one Troy ounce per dry ton.

**LEAD:** Deduct from the wet lead assay 1.5 units and pay for 90% of the remaining lead at the quotations for common domestic lead for delivery in New York City as published in the Engineering and Mining Journal (Metal and Mineral Markets) averaged for the calendar week including date of delivery of last car or truck, of each lot at Plant of Buyer, less a deduction of 2¢ per pound of lead accounted for. Nothing paid for lead if less than 3% by wet assay.

**COPPER:** Deduct from the wet copper assay 1.3 units and pay for 100% of the remaining copper at the Custom Copper Price, f.o.b. refinery, for electrolytic copper sold in standard shapes in the United States market as published in the Engineering and Mining Journal (Metal and Mineral Markets) for the seven day period ending on the Wednesday following the calendar week including date of delivery of last car, or truck, of each lot at the plant of Buyer, less a deduction of 9¢ per pound of copper paid for. Nothing shall be paid for copper if less than 1.3% by wet assay.

No payment will be made for any metal or content except as above specified.

**D E D U C T I O N S**

**BASE** \$ 7.50 per net dry ton of 2,000 pounds, when settlement lead assay is 30%.  
**CHARGE:** Add 10¢ per ton per unit of lead under 30%, credit 10¢ per ton per unit over 30%.

**ARSENIC, ANTIMONY**

**AND TIN COMBINED:** 1% free. Excess charged at 50¢ per unit, fractions in proportion.

**ZINC:** 10% free. Excess charged at 30¢ per unit, fractions in proportion.

**BISMUTH:** Charge for all at 50¢ per pound, fractions in proportion.

**MOISTURE:** A minimum deduction of 1% will be made from wet weight; when over 1% contained, actual moisture will be deducted. Moisture in excess of 10% will be charged at 10¢ per unit, fractions in proportion.

**SHIPMENT:** The rates quoted are based upon shipment in solid or fiat dump bottom gondola equipment. Extra unloading charge of \$1.00 per dry ton will be assessed for products received in box cars or hopper bottom gondolas, and actual cost of unloading products received by truck.

**FREIGHT:** All railroad freight and delivery charges for account of shipper. Deduct from settlement, freight and other advances made by Buyer.

CONSIGN ALL SHIPMENTS TO THE AMERICAN SMELTING AND REFINING COMPANY, SELBY, CALIFORNIA, AND MAIL ORIGINAL BILL OF LADING AND LETTERS WITH INSTRUCTIONS FOR MAKING PAYMENT TO ASARCO, SELBY, CALIFORNIA

**AMERICAN SMELTING AND REFINING COMPANY**

By.....

(Over)

## AMERICAN SMELTING &amp; REFINING COMPANY (BUYER)

## ZINC DEPARTMENT

For Calculation Purposes Only

## QUOTATION FOR ZINC ORES AND CONCENTRATES

Date March 29 1960

Shipper TYBO TREADWELL-YUKON MINE Shippers Address \_\_\_\_\_  
 Shipping Point Mina, Nevada Class of Material ZINC CONCENTRATES

## APPROXIMATE GRADE OF MATERIAL

Au	Ag	Pb	Cu	Zn	Fe	S	CaO	MgO	SiO <sub>2</sub>	Insol	As	Sb	Cd	Mn

## PAYMENTS

GOLD: If .03 of a troy ounce per dry ton or over, pay for 80 <sup>92.57% of</sup> per cent at the net price per ounce paid by United States Mints for gold recovered from domestic mine production on the 15th day following the date of delivery of product at Buyer's plant, provided however, that the payment to be made for the gold content of Seller's product shall be subject to the terms and conditions of the Gold Schedule hereto attached and expressly made a part hereof. Nothing paid for gold if assaying less than .03 of a troy ounce per dry ton.

SILVER: If 1.0 ounces per dry ton or over, pay for 80 per cent on the basis of the "Mint price" as defined in the Silver Schedule hereto attached and expressly made a part hereof, except as therein otherwise provided. Minimum deduction 1.0 ounces per dry ton. Nothing paid for silver if assaying less than 1.0 troy ounces per dry ton.

If, however, the Seller shall so elect, the price payable for the silver content of Seller's product shall be based on the average of the Handy & Harman New York quotations for silver for the calendar week following date of delivery at the plant of the Buyer, provided, however, that written notice of such election shall be given to the Buyer prior to said date of delivery, and further, that if during said calendar week, in the sole judgment of the Buyer, the market for silver for three months' forward delivery shall be inadequate, and the Buyer shall so notify the Seller, said price shall be based on the average of the Handy & Harman New York quotations for silver for the calendar week including the ninetieth day following said date of delivery. In case Handy & Harman shall discontinue publishing quotations for silver then the New York quotations for silver as published by the Engineering and Mining Journal shall govern.

LEAD: From the wet lead assay deduct 4 units and pay for 80 per cent of the remainder at the price for common desilverized domestic lead for delivery in New York City, as published in the Engineering and Mining Journal of New York, averaged for the calendar week including date of arrival of the last car of each lot at Buyer's smelter, less a deduction of 2 cents per pound of lead accounted for. Nothing paid for lead if assaying less than 4.0 per cent by wet assay.

COPPER: If 1.0 per cent or over wet assay pay for 65 per cent of content at the daily net refinery domestic quotation for Electrolytic Cathodes, as published in the Engineering and Mining Journal of New York, averaged for the calendar week including date of arrival of the last car of each lot at Buyer's smelter, less a deduction of 4.0 cents per pound of copper accounted for. Nothing paid for copper if assaying less than 1.0 per cent by wet assay.

ZINC: If 40 per cent or more contained pay for 85 per cent of content, or, if assaying less than 40 per cent deduct 8 units and pay for remainder. Payment in either case shall be made at the East Saint Louis price for Prime Western zinc as published by the Engineering and Mining Journal of New York, averaged for the calendar week including date of arrival of the last car of each lot at Buyer's smelter, less a deduction of 55.5 cents per 100 pounds of zinc accounted for.

From the total of the above make the following

## DEDUCTIONS

BASE CHARGE: \$ 46.57 per net dry ton of 2000 pounds. (If the full East Saint Louis quotations for zinc applicable under the above zinc payment clause is more than 6.0 cents per pound, there shall be added to the base charge \$ 1.00 per net dry ton for each one cent increase above 6.0 cents, fractions in proportion.)

QUOTATIONS FOR ZINC ORES AND CONCENTRATES

Manganese  
IRON plus 7.0 per cent free; charge for excess at 50 cents per unit, fractions in proportion.

ARSENIC & ANTIMONY COMBINED: 1.0 per cent free; charge for excess at \$ 1.00 per unit, fractions in proportion. In the event materials delivered hereunder contain in excess of 2.0 per cent combined arsenic and antimony it shall be optional with the Buyer to accept or refuse such material.

LIME & MAGNESIA COMBINED: 1.0 per cent free; charge for excess at \$ 1.00 per unit, fractions in proportion.

MOISTURE: Minimum deduction 1.0 per cent.

\*LABOR: This quotation is based on an average hourly labor cost of \$ 2.548 at Buyer's Amarillo plant, based on the wage rates, shift differentials, holiday, vacation, and overtime payments and pay roll taxes paid to or on behalf of the employees (excluding foremen and other salaried employees and men on construction work) at said plant. Any increase or decrease in said average hourly labor cost in effect during the month prior to (including) date of delivery of product shall be for Seller's account and to adjust, add 15 cents per dry ton for each 1 cent per hour that the average hourly labor cost shall be in excess of \$ 2.548, and deduct 15 cents per dry ton for each 1 cent per hour that the average hourly labor cost shall be less than \$ 2.548, fractions in proportion.

SPELTER FREIGHT: This quotation is based on the present freight rate on spelter from Amarillo, Texas, to East St. Louis, Illinois, of 55.5 cents per 100 pounds. Any increase or decrease in this rate shall be for account of shipper and proper credit or deduction for zinc paid for shall be made accordingly.

DELIVERY: Delivery under this schedule shall be made F. O. B. cars at unloading bins at Buyer's smelter at Amarillo, Texas.

OTHER TERMS: This quotation includes the provision of the "Complimentary Schedule" hereto attached and expressly made a part hereof.

Unless otherwise stipulated all quotations are for immediate acceptance only and unless shipments hereunder are made within 30 days from the date hereof, this quotation is automatically cancelled.

Fuel: This schedule is based upon a cost of natural gas at Buyer's Amarillo Plant of 7.0 cents per MCF. Any increase or decrease in such cost in effect during and averaged for the calendar month prior to the date of delivery of product shall be for Seller's account, and to adjust charge 40¢ per dry ton for each 1.0¢ per MCF increase in such cost and credit 40¢ per dry ton for each 1¢ per MCF decrease in such cost, fractions in proportion. (Fuel cost Amarillo Feb. 1960 9.9¢ per MCF resulting in charge on March deliveries of \$1.16 per dry ton)

\*Labor cost Amarillo Feb. 1960 \$2.589 - labor escalation March deliveries \$ .62 per ton.

Tucson, Arizona  
March 29, 1960

*Reed F. Welch*  
REED F. WELCH

UNITED STATES SMELTING REFINING AND MINING COMPANY  
MIDVALE PLANT  
29 NORTH HOLDEN STREET  
MIDVALE, UTAH

August 26, 1960

AIRMAIL

Mr. James H. Wren  
J. H. Wren & Co.  
4297 D Street  
Sacramento, California

Jim, we were pleased to receive your letter of August 24th and to hear of your activity in mining and the new interest in the Tybo mine.

Even though we have discontinued smelting at Midvale, we are still interested in purchasing direct smelting ores and concentrates as we are in an operating arrangement with International using their smelter. We still operate our mill at Midvale and must smelt the concentrate, purchasing fluxing material for that purpose. We would, therefore, be interested in any direct smelting product you may have from Tybo if we can handle it to advantage.

Under our present flotation operating set-up, we would not want to refloat a bulk concentrate already produced by flotation. We might be able to smelt this type of product to advantage because we could pay for the zinc, if high enough, at the smelter. Any gravity concentrate could probably be refloated without difficulty at Midvale and we probably would be interested in this production. If you have any figures from test work that you would like us to figure, please do not hesitate to send them along and we will be glad to work with you on it.

It is noted that you would have sulphide lead-zinc ore for direct shipment. We would probably be interested in this material and are wondering if you know about what volume you would have to ship. We may not be able to take an unlimited quantity but probably could handle what you may produce.

I presume the ore, or concentrate, would be trucked to East Ely, a distance of 118 miles instead of to Mina, a distance of 139 miles. For example: The \$50 rate out of East Ely is \$8.13 per ton against a rate of \$11.48 per ton out of Mina for the same value.

Mr. James H. Wren

Page 2

8/26/60

I am sorry we won't be able to give you any help on shipping records on Tybo as we now keep only those records covering the last 10 years of business. It may be, however, that our Exploration department in Salt Lake has maps and data on file that they would let you look at. You might write to J. M. Ehrhorn who heads up our Exploration department and see what he can do for you. Write him c/o our company, P. O. Box 1980, Salt Lake City 10.

Don't hesitate to write again Jim, if we can do anything for you in the way of doing calculations and supplying information you might need.

Cordially,

*Blaine*

Blaine Watts  
Ore Buyer

BW:mes

*I will probably be in  
Sacramento early in  
November. I'll be happy  
to see you then if you  
are there.*

*Blaine*

# ABBOT A. HANKS, INC.

ESTABLISHED 1886

1300 SANSOME STREET • SAN FRANCISCO 11, CALIFORNIA • EXBROOK 7-2464

Engineers  
Assayers  
Chemists  
Metallurgists  
Spectrographers  
Soils and Foundations  
Consulting • Testing • Inspecting

## REPORT OF ASSAY

October 19, 1960

Mr. W. T. Carson  
P. O. Box 346

Deposited by Hughson, California

Sample of ORE

Labty. No.	Mark	GOLD, per ton of 2,000 lbs.		SILVER, per ton of 2,000 lbs.		Percentages	
		Troy Ounces	Value at \$35.00 oz.	Troy Ounces	Value at		
					\$		
C111837	572			32.85	\$ 29.56	LEAD	4.57
C111838	573	.025	\$ .87	11.00	9.90	LEAD	1.85
C111839	574	Trace		.15	.13	LEAD	0.03
C111840	575	.13	4.55	6.67	6.00	LEAD	13.22
C111841	576	.05	1.75	16.15	14.53	LEAD	0.87
C111842	577	1.09	38.13	79.67	71.70	LEAD ZINC	68.58 3.70
C111843	578	.03	1.05	7.00	6.30	LEAD	28.02
C111844	No Tag (Slag Large Sample)	Trace		8.00	7.20	LEAD	5.78

cc: J. H. Wren & Co.

ABBOT A. HANKS, INC.

By \_\_\_\_\_

Martin P. Quist

OCTOBER 20, 1960

TO: MR. W. T. CARSON, SR.

FROM: J. H. WREN.

SUBJECT : ABBOT HANKS, INC. OCT. 19TH TYBO MINE SAMPLE ANALYSIS

<u>SAMPLE NO.</u>	<u>AU Oz.</u>	<u>AG Oz.</u>	<u>PB%</u>	<u>ZN%</u>	<u>TOTAL VALUE</u>
572		32.85	4.57		\$41.52
573	.025	11.00	1.85		15.21
574	Tr	.15	.03		.21
575	.13	6.67	13.22		42.47
576	.05	16.15	.87		18.40
577	1.09	79.67	68.58	3.70	274.44 PLUS ZN
578	.03	7.00	28.02		74.55
SLAG	Tr.	8.00	5.78		21.00

CODE INTERPRETATION :

#572, RED OXIDIZED DIMICK VEIN MATERIAL AT SHAFT COLLAR N. SHAFT. \$41.52

#573, COMPOSITE OXIDES-MINOR % SULPHIDES DIMICK NW DUMP. \$15.21

#574, BLUE FAULT ZONE GOUGE , NOT ORE, DIMICK NW CATTLE GUARD DUMP. \$0.21

#575, DIMICK AREA GILMORE FAULT OLD WORKINGS 4' CUT. \$42.47

#576, DIMICK SE WORKINGS DUMP. \$18.40

#577, SORTED SLAG PILE - EVIDENCE OF POOR MEET. \$274.44

#578, SORTED SLAG ON CONCRETE FLOOR. \$74.55

SLAG, 50# GENERAL SAMPLE , GOOD REPRESENTATION. 30-40,000 TON VOLUME \$21.00

OBSERVATIONS :

- A). THE SAMPLES TAKEN IN THE DIMICK AREA INDICATE REPORTS OF SHIPMENT CRUDE ORE SELECTION AS PROBABLY TRUE. MARKETS ARE AVAILABLE. SUGGEST TO GET BLOCK LESSEES STARTED AT EARLIEST CONVENIENCE. THIS ZONE HOLDS VERY FAVORABLE DEPTH POTENTIAL, IT IS NOW PROVEN 700' LONG 150' DEEP.
- B). SLAG SAMPLES ARE VERY INFORMATIVE. THE ZINC IS LOW ON PREVIOUS ASSAYS AND WOULD NOT BE PAID FOR ANYWAY. GOLD WILL BE SPOTTY BUT WILL FURNISH VALUE AS INDICATED BY #577 AND #578. POSSIBILITY OF A SIMPLE FINE CRUSHING TREATMENT AND SIMPLE JIG CONCENTRATION MAY DELIVER A LOW COST GOOD SMELTING GRADE PRODUCT. A MINUS 1/8" JIG TEST SHOULD BE MADE IMMEDIATELY WITH 500 LBS. OF PULP. IF THE \$21 HEAD VALUE IS ACCURATE A JAW CRUSHER, SET OF ROLLS AND A 42"X42" HARTZ JIG WOULD EASILY TREAT 200 TONS PER DAY WITH A GROSS VALUE OF \$4,200. THE BEST EXPECTABLE WOULD BE 25% TAILINGS LOSS RESULTING IN \$3,150 MARKETABLE PRODUCT OR AT 50% TAILINGS LOSS \$2,100 MARKETABLE PRODUCT PER DAY. AN INEXPENSIVE JIG TREATMENT MAY BE THE PRODUCTION ANSWER IN VIEW OF THE COARSE HEAVY METALLICS CONTAINED IN THE SLAG.

## 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  $3\frac{1}{2}$ ¢ 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.

Phone ELgin 9-9962

Mr. James H. Wren  
4297 D Street  
Sacramento, Calif.

NICHOLS LABORATORIES, INC.

ASSAYERS & CHEMISTS

C. Ivan Nichols, Mgr.

160 South West Temple Street

Salt Lake City 1, Utah

April 18, 1960

WE HAVE ASSAYED 1 SAMPLES

ASSAY PER TON OF 2000 POUNDS

DESCRIPTION	NO.	GOLD OUNCES	SILVER OUNCES	WET LEAD %	COPPER %	ZINC %	INSOL %	%	%	%	VALUE OF GOLD PER TON
TS 1		0.155	9.70	3.6		0.9					
THIS IS THE TABLES <del>SLAG</del> CONC'TS, MIDDLEINGS											

CHARGES \$ 4.00

*C. Ivan Nichols*

# C O P Y

FROM ROOM 1022 CROCKER BUILDING  
SAN FRANCISCO 4

FOR \_\_\_\_\_

Ore Drawn from Stopes	101749
" " " Development	4716
Total	106465
Ore broken in Stopes	105971
" " " Development	4716
Total	110687
Stopes-Reserve of Broken Ore 12-31-34	25794
" " " " 12-31-35	25300
Depletion	494

## ORE RESERVES

Broken Ore in Stopes	25300	
Unbroken Ore Developed	25000	
Total Ore Reserves	50300	Tons

Estimated Metal Content of Reserve Ore,  
.027 oz. Au., 11.2 oz. Ag., 6.7% Pb., 5.4% Zn.

Total dry tons milled in 12 months 106086

Grade of ore milled same period,  
.027 oz. Au., 11.51 oz. Ag., 6.69% Pb. and 5.02% Zn.

Ratio of concentration, Lead 10.51 to 1, Zinc. 13.94 to 1.

## COSTS:

Based on 106086 dry tons milled:

Mining \$3.69, Milling \$1.06, Hauling, taxes & etc. \$1.00-total \$5.75.

Total power cost 85 cents per ton. Milling power cost per ton 33 cents.

EXAMPLE OF THE TYPE OF DATA  
RESEARCHED FOR INFORMATION  
CONCERNING 1929 TO 1937  
DEVELOPMENT AND PRODUCTION

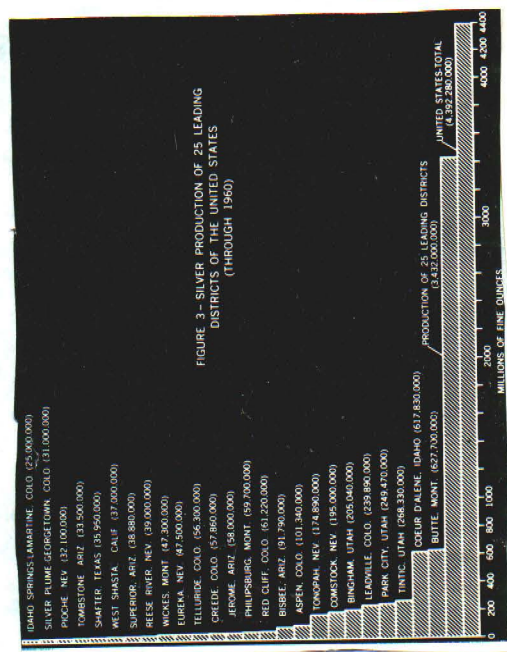
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FIGURE 4 - PRODUCTION OF SILVER IN 5 LEADING SILVER-PRODUCING DISTRICTS OF THE UNITED STATES FROM 1930 THROUGH 1960 (DATA FROM BUREAU OF MINES)

EXPLANATION

- COEUR D'ALENE, IDAHO
- - BUTTE, MONT.
- - - BINGHAM, UTAH
- ..... PARK CITY, UTAH
- . - RED CLIFF, COLO.

DEPRESSION

WORLD WAR II

ACCUMULATED LABOR SHORTAGE AND STRIKES

FIGURE 1- SILVER PRODUCTION OF THE UNITED STATES AND THE 13 LEADING STATES (THROUGH 1960)

State/Category	Production (Millions of Fine Ounces)
OTHERS	19,740,000
SOUTH DAKOTA	11,520,000
MICHIGAN	11,540,000
WASHINGTON	18,770,000
ALASKA	20,310,000
TEXAS	33,300,000
NEW MEXICO	72,340,000
CALIFORNIA	118,920,000
ARIZONA	359,310,000
NEVADA	604,340,000
IDAHO	717,210,000
COLORADO	766,500,000
UTAH	809,030,000
MONTANA	829,410,000
UNITED STATES TOTAL	4,392,280,000

FIGURE 1- SILVER PRODUCTION OF THE UNITED STATES AND THE 13 LEADING STATES (THROUGH 1960)

AUGUST 13, 1962

SUPPLEMENTAL DATA, TYBO MINE REPORT OF NOV. 4, 1962

AS OF AUGUST 10, 1962, DOMESTIC SILVER MARKET WAS QUOTED AT \$1.08 PER OUNCE. THIS IS THE HIGHEST SILVER QUOTATION SINCE THE YEAR AVERAGE PRICE IN 1919, OF \$1.11 PER OUNCE.

THE PRESENT TREND OF THOUGHT WITH REGARD TO SILVER MARKET PRICE IS THAT IT WILL BE SOME \$1.15 PER OUNCE BEFORE THE END OF 1962. THIS WOULD ESTABLISH THE HIGHEST MARKET PRICE FOR SILVER THAN IT HAS BEEN ANY YEAR IN THIS CENTURY.

SHOULD THE MARKET PRICE OF SILVER REMAIN FIRM, SOME CONSIDERATION SHOULD BE GIVEN, BENEFICIATION OF THE BACKFILLED STOPES IN THE 2-G SECTION OF THE TYBO MINE ABOVE THE 300' LEVEL. THE CONCENTRATE FROM THESE FILLS WOULD MAKE A DIRECT SMELTING PRODUCT OF GOLD, SILVER AND LEAD PRODUCTS. ALL MINERALS WOULD BE SECONDARY WITH ONLY A MINOR AMOUNT OF ZINC BEING PRESENT. THESE STOPE FILLS CAN BE ECONOMICALLY PRODUCED.

THE GILMORE SECTION OF THE CARSON LAND AND DEVELOPMENT CORP. NYE COUNTY, NEVADA, HOLDINGS NOW UNDER LEASE TO VENTURE ACTION, INC. HAS A RECORD OF THE LAST 800 TONS SHIPPED @ 39.5 OUNCES OF SILVER TO THE TON PRODUCED. ITS MINE RUN PRODUCT ALONG WITH THE GOLD AND LEAD SHOULD MAKE AN ACCEPTABLE LEAD SMELTER PRODUCT.

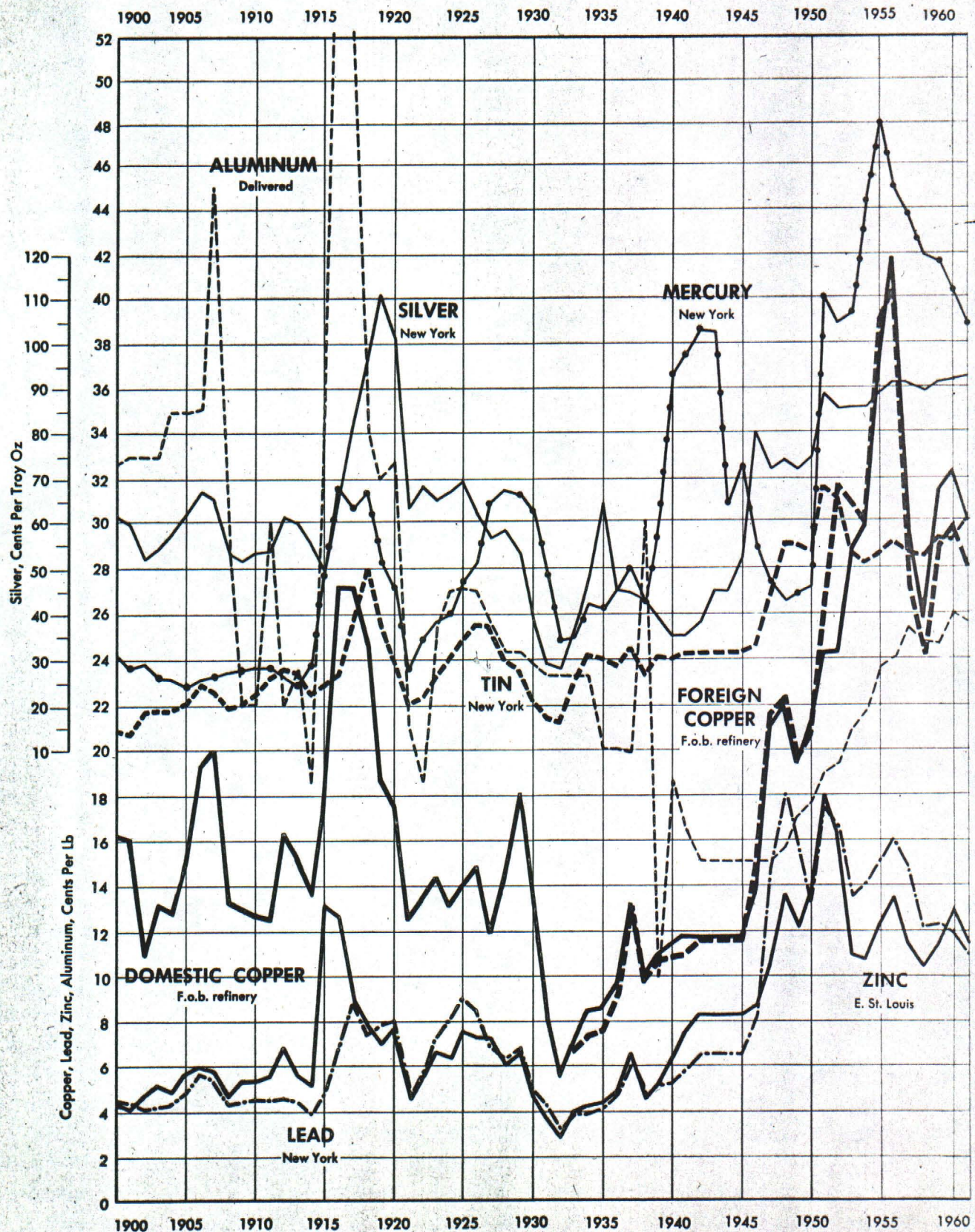
  
JAMES H. WREN.

# E&MJ Meta

As Published in Engineering & Mining Journal and E

McGraw-Hill Publishing Company, Inc

## Annual Averages -1900-1961

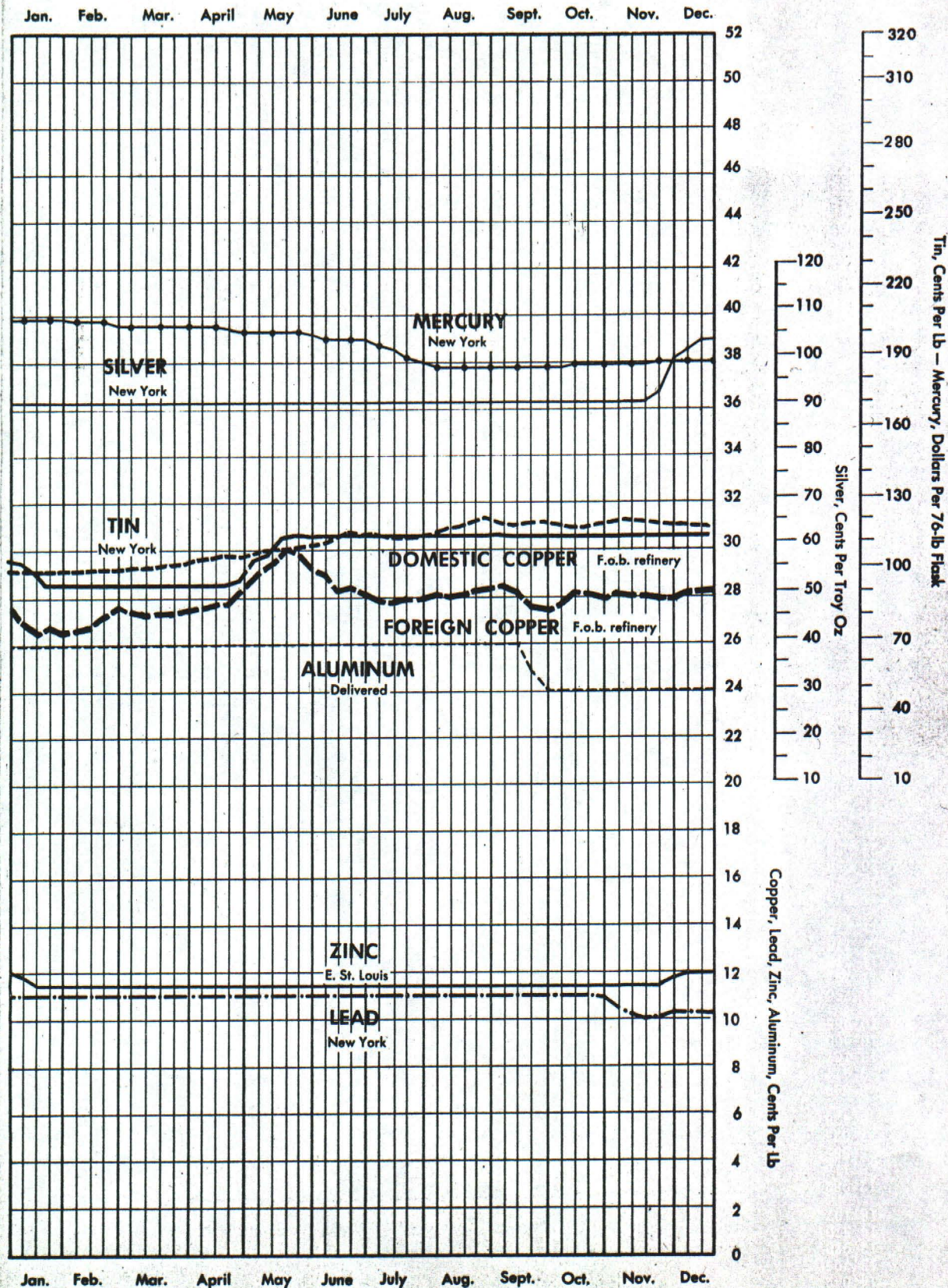


# I Prices

BMJ Metal and Mineral Markets

New York

## Weekly Averages - 1961



# E & M J Annual Average Metal Prices—1898 to 1961

Year	COPPER		LEAD Common N. Y.	ZINC Prime Western (b) E. St. Louis	TIN (c) N. Y.	SILVER (e) N. Y.	MERCURY (f) N. Y.	ALUMI- NUM Ingot
	(a) Domestic Refinery	Foreign Refinery						
1898.....	12.03	.....	3.780	4.570	15.70	58.260	40.70	30.58
1899.....	16.67	.....	4.470	5.750	25.12	59.580	43.63	32.72
1900.....	16.19	.....	4.370	4.390	29.90	61.330	51.00	32.72
1901.....	16.11	.....	4.330	4.070	16.74	58.950	47.00	33.00
1902.....	11.026	.....	4.069	4.840	26.79	52.160	48.03	33.00
1903.....	13.235	.....	4.237	5.191	28.09	53.570	41.32	33.00
1904.....	12.823	.....	4.309	4.931	27.99	57.221	41.00	35.00
1905.....	15.590	.....	4.707	5.730	31.358	60.352	38.50	35.00
1906.....	19.278	.....	5.657	6.048	39.819	66.791	40.90	35.75
1907.....	20.004	.....	5.325	5.812	38.166	65.237	41.50	45.00
1908.....	13.208	.....	4.200	4.578	29.465	52.864	44.84	28.70
1909.....	12.982	.....	4.273	5.352	29.725	51.502	46.30	22.00
1910.....	12.738	.....	4.446	5.370	34.123	53.486	47.06	22.25
1911.....	12.376	.....	4.420	5.608	42.281	53.304	46.54	30.07
1912.....	16.341	.....	4.471	6.799	46.096	60.835	42.46	22.01
1913.....	15.269	.....	4.370	5.504	44.252	59.791	39.54	23.64
1914.....	13.602	.....	3.862	5.061	34.301(d)	54.811	48.31	18.63
1915.....	17.275	.....	4.673	13.054	38.590	49.684	87.01	33.98
1916.....	27.202	.....	6.858	12.634	43.480	65.661	125.49	60.71
1917.....	27.180	.....	8.787	8.813	61.802	81.417	106.30	51.59
1918.....	24.628	.....	7.413	7.890	88.750	96.772	123.47	33.53
1919.....	18.691	.....	5.759	6.988	63.328	111.122	92.15	32.14
1920.....	17.456	.....	7.957	7.671	48.273	100.900	81.12	32.72
1921.....	12.502	.....	4.545	4.655	29.916	62.654	45.46	21.11
1922.....	13.382	.....	5.734	5.716	32.554	67.528	58.95	18.68
1923.....	14.421	.....	7.267	6.607	42.664	64.873	66.50	25.41
1924.....	13.024	.....	8.097	6.344	50.176	66.781	69.76	27.03
1925.....	14.042	.....	9.020	7.622	57.893	69.065	83.13	27.19
1926.....	13.795	.....	8.417	7.337	65.285	62.107	91.90	26.99
1927.....	12.920	.....	6.755	6.242	64.353	56.370	118.16	25.40
1928.....	14.570	.....	6.305	6.027	50.427	58.176	123.51	24.300
1929.....	18.107	.....	6.833	6.512	45.155	52.993	122.15	24.300
1930.....	12.982	.....	5.517	4.556	31.694	38.154	115.01	23.787
1931.....	8.116	.....	4.243	3.640	24.467	28.700	87.35	23.300
1932.....	5.555	.....	3.180	2.876	22.017	27.892	57.93	23.300
1933.....	7.025	6.713	3.869	4.029	39.110	34.727	59.23	23.300
1934.....	8.428	7.271	3.866	4.158	52.191	47.973	73.87	23.300
1935.....	8.649	7.538	4.065	4.328	50.420	64.273	71.99	20.000
1936.....	9.474	9.230	4.710	4.901	46.441	45.087	79.92	20.000
1937.....	13.167	13.018	6.009	6.519	54.337	44.883	90.18	19.917
1938.....	10.000	9.695	4.739	4.610	42.301	43.225	75.47	30.000
1939.....	10.965	10.727	5.053	5.110	50.323	39.082	103.94	10.000
1940.....	11.296	10.770	5.179	6.335	49.827	34.773	176.86	18.691
1941.....	11.797	10.901	5.793	7.474	52.018	34.783	185.02	16.500
1942.....	11.775	11.684	6.481	8.250	52.000	38.333	196.35	15.000
1943.....	11.775	11.700	6.500	8.250	52.000	44.750	195.21	15.000
1944.....	11.775	11.700	6.500	8.250	52.000	44.750	118.36	15.000
1945.....	11.775	11.700	6.500	8.250	52.000	51.928	134.89	15.000
1946.....	13.820	14.791	8.109	8.726	54.544	80.151	98.24	15.000
1947.....	20.958	21.624	14.673	10.500	77.949	71.820	83.74	15.000
1948.....	22.038	22.348	18.043	13.589	99.250	74.361	76.49	15.733
1949.....	19.202	19.421	15.364	12.144	99.336	71.930	79.46	17.000
1950.....	21.235	21.549	13.296	13.866	95.539	74.169	81.26	17.713
1951.....	24.200	26.258	17.500	18.000	127.077	89.368	210.13	19.000
1952.....	24.200	31.746	16.467	16.215	120.473	84.941	199.097	19.410
1953.....	28.798	30.845	13.489	10.855	95.845	85.188	193.032	20.931
1954.....	29.694	29.889	14.054	10.681	91.838	85.250	264.386	21.784
1955.....	37.491	39.115	15.138	12.299	94.735	89.099	290.348	23.668
1956.....	41.818	40.434	16.013	13.494	101.409	90.826	259.923	24.032(g)
1957.....	29.576	27.157	14.658	11.399	96.261	90.820	246.978	25.416
1958.....	25.764	24.123	12.109	10.309	95.127	89.044	229.057	24.790
1959.....	31.182	28.892	12.211	11.448	102.053	91.202	227.484	24.738
1960.....	32.053	29.894	11.948	12.946	101.438	91.375	210.760	26.000
1961.....	29.920	27.919	10.871	11.542	113.311	92.449	197.605	25.458

(a) Lake copper 1897-98: domestic market since 1932.  
 (b) New York delivery 1898-1902. (c) 99% in 1897 to 1920,  
 inclusive: Straits quality thereafter. (d) Average for 11  
 months. (e) New York market. . . . All quotations in cents

per lb, except for silver, which is in cents per troy oz, and  
 (f) mercury, which is in dollars per flask of 76 lb. See  
 opposite page and reverse for weekly average prices for 1961.  
 (g) Unalloyed ingot beginning 1956.

# E & M J Weekly Average Metal Prices—1961

		COPPER		LEAD	ZINC	TIN	SILVER	MERCURY	ALUMINUM
		Domestic Refinery	Foreign Refinery	Common N. Y.	Prime Western E. St. Louis	N. Y.	N. Y.	N. Y.	99.5% unalloyed Ingot
Jan.	4....	29.600	27.606	11.000	12.000*	100.406	91.375	209.000	26.000
Jan.	11....	29.545	26.915	11.000	11.800	100.340	91.375	209.000	26.000
Jan.	18....	29.175	26.415	11.000	11.500	100.350	91.375	209.000	26.000
Jan.	25....	28.600	26.785	11.000	11.500	100.500	91.375	209.000	26.000
Feb.	1....	28.600	26.515	11.000	11.500	100.350	91.375	209.000	26.000
Feb.	8....	28.000	26.655	11.000	11.500	100.450	91.375	208.000	26.000
Feb.	15....	28.600	26.795	11.000	11.500	100.625	91.375	208.000	26.000
Feb.	22....	28.600	27.265	11.000	11.500	101.281	91.375	208.000	26.000
Mar.	1....	28.600	27.675	11.000	11.500	102.050	91.375	206.000	26.000
Mar.	8....	28.600	27.395	11.000	11.500	102.250	91.375	206.000	26.000
Mar.	15....	28.600	27.190	11.000	11.500	103.500	91.375	206.000	26.000
Mar.	22....	28.600	27.280	11.000	11.500	103.875	91.375	206.000	26.000
Mar.	29....	28.600	27.275	11.000	11.500	104.275	91.375	206.000	26.000
Apr.	5....	28.600	27.515	11.000	11.500	104.594	91.375	206.000	26.000
Apr.	12....	28.600	27.650	11.000	11.500	107.100	91.375	206.000	26.000
Apr.	19....	28.600	27.820	11.000	11.500	107.675	91.375	206.000	26.000
Apr.	26....	28.600	27.830	11.000	11.500	108.200	91.375	205.000	26.000
May	3....	28.860	28.410	11.000	11.500	107.750	91.375	203.000	26.000
May	10....	29.600	29.185	11.000	11.500	109.700	91.375	203.000	26.000
May	17....	29.840	29.615	11.000	11.500	110.350	91.375	203.000	26.000
May	24....	30.570	30.050	11.000	11.500	110.850	91.375	203.000	26.000
May	31....	30.631	29.805	11.000	11.500	111.219	91.375	203.000	26.000
June	7....	30.600	29.160	11.000	11.500	111.600	91.375	202.000	26.000
June	14....	30.620	28.931	11.000	11.500	112.750	91.375	200.000	26.000
June	21....	30.600	28.360	11.000	11.500	114.150	91.375	200.000	26.000
June	28....	30.600	28.465	11.000	11.500	119.025	91.375	200.000	26.000
July	5....	30.600	28.075	11.000	11.500	117.063	91.375	200.000	26.000
July	12....	30.600	27.915	11.000	11.500	116.950	91.375	197.000	26.000
July	19....	30.600	27.755	11.000	11.500	115.700	91.375	195.000	26.000
July	26....	30.600	27.905	11.000	11.500	115.550	91.375	192.000	26.000
Aug.	2....	30.600	27.955	11.000	11.500	116.625	91.375	190.000	26.000
Aug.	9....	30.600	28.075	11.000	11.500	117.250	91.375	188.000	26.000
Aug.	16....	30.600	28.030	11.000	11.500	118.700	91.375	188.000	26.000
Aug.	23....	30.600	28.050	11.000	11.500	120.025	91.375	188.000	26.000
Aug.	30....	30.600	28.235	11.000	11.500	123.450	91.375	188.000	26.000
Sept.	6....	30.600	28.320	11.000	11.500	124.188	91.375	188.000	26.000
Sept.	13....	30.615	28.400	11.000	11.500	121.475	91.375	188.000	26.000
Sept.	20....	30.600	28.225	11.000	11.500	120.850	91.375	188.000	26.000
Sept.	27....	30.600	27.485	11.000	11.500	121.900	91.375	188.000	24.800
Oct.	4....	30.600	27.355	11.000	11.500	121.725	91.375	188.000	24.000
Oct.	11....	30.600	27.650	11.000	11.500	121.050	91.375	188.000	24.000
Oct.	18....	30.600	28.185	11.000	11.500	120.750	91.375	189.000	24.000
Oct.	25....	30.600	28.035	11.000	11.500	120.475	91.375	189.000	24.000
Nov.	1....	30.600	27.975	10.900	11.500	122.050	91.375	189.000	24.000
Nov.	8....	30.600	28.075	10.500	11.500	123.063	91.375	189.000	24.000
Nov.	15....	30.600	28.020	10.200	11.500	123.300	91.375	189.000	24.000
Nov.	22....	30.600	28.005	10.000	11.500	123.075	91.375	189.000	24.000
Nov.	29....	30.600	27.965	10.076	11.500	122.250	93.719	190.000	24.000
Dec.	6....	30.600	27.870	10.250	11.801	122.125	100.850	190.000	24.000
Dec.	13....	30.600	28.155	10.250	12.000	121.375	102.450	190.000	24.000
Dec.	20....	30.600	28.185	10.250	12.000	120.800	104.450	190.000	24.000
Dec.	27....	30.600	28.058	10.250	12.000	120.219	104.750	190.000	24.000