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PART 2 OF 3
SUB A

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: NEWSBOY

ALTERNATE NAMES:

GRANDE GROUP
CHAS. BLACK CLAIMS
GNOME DEVELOPMENT

MARICOPA COUNTY MILS NUMBER: 226A

LOCATION: TOWNSHIP 6 N RANGE 4 W SECTION 22 QUARTER NW
LATITUDE: N 33DEG 50MIN 51SEC LONGITUDE: W 112DEG 40MIN 00SEC
TOPO MAP NAME: WICKENBURG SW - 7.5 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

SILVER
GOLD LODE
SILICON
MANGANESE OXIDE

BIBLIOGRAPHY:

ADMMR NEWSBOY FILE
USBM RI 4097, 1947 & RI 4077, 1947
ADMMR "U" FILE, MARICOPA AU5
AZBM BULL. 180, P. 260
ADMMR MINE MAPS UPSTAIRS ROLLED BOXES
AGS 1990 FALL FIELD TRIP GUIDE
BLM DRAFT EA NO. AZ-026-92-39, JULY, 1992
BLM MINING PLAN OPERATIONS, 11/1992, VOL. 1&2

SUMMARY:

ALL WORK PERFORMED TO DATE HAS ASSISTED IN GREATLY ENHANCING ECONOMICS RELATIVE TO MINING THE GNOME GOLD, SILVER, AND PLATINATES GROUP OREZONE.

THE MORE SALIENT FEATURES OF THE GNOME HOLDINGS ARE THE FOLLOWING:

1. ABUNDANT ORE, EXCELLENT POTENTIAL FOR ADDITIONAL RESERVES.
2. EXCEPTIONALLY HIGH GRADE PRECIOUS METALS.
3. AMENABLE TO INEXPENSIVE OPEN PIT TECHNIQUES.
4. EASY ACCESS.
5. EXCELLENT YEAR AROUND CLIMATE.
6. ELECTRIC POWER LOCATED LESS THAN ONE MILE FROM PROPERTY.
7. WATER SOURCES AVAILABLE NEARBY.
8. APPARENTLY NO METALLURGICAL PROBLEMS.
9. INITIAL CAPITAL OUTLAY SMALL TO INITIATE PRODUCTION.
10. NO ECOLOGICAL PROBLEMS ANTICIPATED, SOIL RETURNED TO GROUND.
11. WORLD WIDE DEMAND FOR PRODUCIBLE PRECIOUS METALS.
12. EXCELLENT CURRENT AND FUTURE MARKETS FOR PRECIOUS METALS.
13. NIL WASTE OVERBURDEN.
14. SHORT TIME PERIOD TO PRODUCTION.
15. STABLE GOVERNMENT WITH REALISTIC TAX POLICIES.
16. PROPERTY ADJACENT TO LABOR AND COMMODITY SOURCES.
17. LONG MINING POTENTIAL.
18. PROPERTY SUBSTANTIALLY INDICATED TO DATE AS LARGE MINE.
19. FEDERAL GROUND THUS NO GOVERNMENT PAYMENTS FROM PRODUCTION.
20. ORE APPARENTLY AMENABLE TO NORMAL PROCESSING TECHNIQUES.
21. PROPERTY IN MIDST OF LARGE AREA PLAY FOR PLACER DEVELOPMENT.

GNOME PRECIOUS METALS MINE

GOLD SILVER PLATINUM

STATE OF ARIZONA

MARICOPA COUNTY

INTRODUCTION:

REPORT HEREIN IS RELEVANT TO THE ECONOMIC VIABILITY OF THE IMPRESSIVE GOLD, SILVER, AND PLATINATES METALS CONTAINED IN THE GNOME OREBODY LOCATED SOME 40 MILES NORTHWEST OF PHOENIX, ARIZONA.

AN APPRAISAL OF THE MINERAL POTENTIAL OF THE GNOME MINE IS PRESENTED HEREIN. BASED UPON MOST POSITIVE RESULTS OF PROFESSIONAL RESEARCH AND FIELD WORK RECENTLY PERFORMED, RECOMMENDATION IS TO CONDUCT WORK TO PROVIDE AN ECONOMIC MILL FLOWSHEET IN PREPARATION OF EARLY PRODUCTION.

PROPERTY, LOCATION, ACCESS:

COMPOSED OF 24 CONTIGUOUS LODE MINERAL CLAIMS WITH 5 SUPER-IMPOSED PLACER CLAIMS, SOME 520 ACRES IN ALL LOCATED IN THE VULTURE MINING DISTRICT, SECTION 22, TOWNSHIP 6 NORTH, RANGE 4 WEST, G. & S. R. B. & H., MARICOPA COUNTY, ARIZONA.

THE GNOME PRECIOUS METALS DEPOSIT IS ACCESSIBLE FROM PHOENIX BY HIGHWAY 93 (89) FOR 35 MILES TO MORRISTOWN LOCATED 11 MILES SOUTH OF WICKENBURG, THENCE WEST 4 MILES OVER GOOD SECONDARY ROADS ACROSS THE USUALLY DRY HASSAYAMPA RIVER DIRECTLY ONTO THE PROPERTY.

GEOLOGY:

UNDERLYING THE CLAIM GROUP IS SILICEOUS SCHIST OF CAMBRIAN AGE STRIKING NORTHWEST, DIPPING NORTHEAST FROM 40° TO 60°. OF ECONOMIC IMPORTANCE GEOLOGICALLY IS A 200 FT. WIDE, 2,000 FT. LONG ZONE OF LIKELY SILURIAN AGE COMPOSED OF ALTERED SILICEOUS LIMESTONE-DOLOMITE CONTAINING ABUNDANT RED OXIDE MATERIAL. THIS ALTERED ZONE IS SANDWICHED WITHIN THE SCHIST AREA.

11,000 TONS OF THE ALTERED MATERIAL AVERAGELY ASSAYED FROM BEING PROCESSED AT FOUR DIFFERENT LOCAL SMELTERS 0.06 OUNCES/TON GOLD, AND 6 OUNCES SILVER FOR TOTAL METAL VALUE OF \$32.40, TODAY'S MARKET PRICES. DEPTH OF THE ALTERED ZONE AS DETERMINED BY UNDERGROUND IS AT LEAST 250 FT. AND LIKELY APPRECIABLY MORE. *when?*

DRY WASHES FORMING ABUNDANT PLACER SANDS ARE LOCATED ADJACENT TO THE ALTERED ZONE, AND CONTINUE FOR A MINIMUM 7,500 FT. DOWNSTREAM.

APPRECIABLE ECONOMIC VALUES OF PRECIOUS METALS HAVE BEEN NATURALLY CONCENTRATED IN THE PLACER SANDS. IT IS REASONED THAT THE ALTERED RED OXIDE ZONE IS SOURCE OF THESE METALS.

HISTORY:

GOLD AND SILVER WERE DISCOVERED IN THE ALTERED LIMESTONE-DOLOMITE SEQUENCE IN THE EARLY 1920'S, AND OVER 2,000 FT. OF UNDERGROUND DEVELOPMENT EXPLORATORY WORK WAS PERFORMED IN THE FORM OF ADITS, SHAFTS, CROSSCUTTING, AND DRIFTING IN ORDER TO ASSESS THE OREZONE.

IN 1940 - 1942 OVER 11,000 TONS OF THE ALTERED MATERIAL FROM A SINGLE OPEN PIT AREA ARITHMETICALLY AVERAGED \$32.40 IN GOLD-SILVER PER TON, CURRENT PRICES. BECAUSE OF DEFLATED PRICES, NO FURTHER WORK WAS PERFORMED.

THE GNOME PROPERTY REMAINED DORMANT UNTIL THE RECENT INCREASE IN PRECIOUS METAL MARKETS, AND UNDER THE DIRECTION OF THE WRITER AN ATTEMPT WAS MADE THROUGH NORMAL SAMPLING PROCEDURES TO OUTLINE A GOLD-SILVER OREBODY IN THE LIMESTONE-DOLOMITE ZONE WITH ENCOURAGING RESULTS.

SIMULTANEOUS TO ASSESSING THE ALTERED ZONE, THE ADJACENT PLACER

WAS ASSESSED FROM SAMPLES DERIVED FROM A 50 FT. DEEP BULLDOZER TRENCH. ASSAY VALUES IN PRECIOUS METALS WERE FOUND TO BE AMAZINGLY HIGH INDICATING AN EXTREMELY RICH, OPEN PIT, GOLD, SILVER, AND PLATINATES METALS OREZONE.

ASSAY DETERMINATIONS:

IT IS THE WRITER'S EXTENSIVE EXPERIENCE RELATIVE TO PRECIOUS METAL ORES OF THE SOUTHWESTERN UNITED STATES THAT ESSENTIALLY NO ASSAYER CAN DETECT THE PRESENCE OF GOLD, SILVER, OR THE PLATINATE GROUP METALS FROM SAMPLES DERIVED FROM PLACER MATERIAL. ALTHOUGH THIS REPRESENTS AN ASTOUNDING STATEMENT, IT IS THOROUGHLY BORNE OUT BY LITERALLY HUNDREDS OF "NIL" OR SUBECONOMIC ASSAY RESULTS FROM NUMEROUS PLACER DEPOSITS LOCATED IN THE SOUTHWEST UNITED STATES BY DOZENS OF DIFFERENT SUPPOSEDLY REPUTABLE ASSAY HOUSES EMPLOYING DIFFERENT BUT WIDELY USED AND ACCEPTED METHODS OF DETERMINING AS FIRE ASSAY, CHEMICAL, WET CHEMICAL, ATOMIC ABSORPTION, ETC. NORMALLY EMPLOYING THE LARGER ONE ASSAY TON AMOUNT FOR GREATER PRECISION.

THE SUBJECT GNOME PLACER MATERIAL DID NOT ESCAPE THE VAGARITIES OF ELUSIVE DETECTION, AND BUT FOR THE FACT UNDER CERTAIN CONDITIONS GOLD PARTICLES MAY BE VISUALLY DETECTED THIS APPARENTLY VERY HIGH GRADE LARGE OPEN PIT PRECIOUS METALS ORE-BODY WOULD HAVE REMAINED UNDETECTED.

SUBSEQUENT DETERMINATIONS OF MESSRS. W. LUEGGE, P.ENG.,

LANCASTER, CALIFORNIA, AND BOB LANTZ, SEATTLE, WASHINGTON, REPUTABLE PROFESSIONAL ASSAYERS, HAVE SUPPORT FOR THEIR FIGURES THROUGH MORE SOPHISTICATED METHODS OF DETERMINING SUCH AS ELECTROWINNING FROM LIGHT CYANIDE SOLUTION TO DEPOSIT GOLD "IN HAND" AND CONSEQUENTLY VALUES HAVE HIGH RELIABILITY.

PLACER ORE GRADE, TENOR, TONNAGES:

AS DETERMINED FROM 13 ORE SAMPLES TAKEN OVER A WIDTH OF 100 FT., LENGTH OF 1,000 FT., AND DEPTH 30 FT., AVERAGE GRADE IN OUNCES PER TON IS: GOLD 1.65; SILVER 9.33; PLATINUM GROUP METALS 0.21. EACH SAMPLE WAS SIEVED IN FIELD THROUGH HOUSE SCREEN SIZE EQUATING TO -10 MESH, OR ABOUT 1/16TH INCH PARTICLES, AND THUS APPROXIMATELY 60% OF HEAD CRUDE MATERIAL WAS DISCARDED AS WASTE.

EMPLOYING CURRENT MARKET PRICES OF RESPECTIVE METALS, AND USING A SAFE \$120.00/OUNCE FOR PLATINATE GROUP METALS, TOTAL METAL VALUES COMBINED ARE A DRAMATICALLY IMPRESSIVE \$293.52 PER TON OF SIEVED ORE.

THE GENERAL NATURE OF CRUDE PLACER ORE MATERIAL IS SUCH THAT PRECIOUS METAL VALUES FOR ANY GIVEN SAMPLE TAKEN IN GENERAL PROXIMITY TO ANY OTHER SAMPLE AT SAME DEPTH WOULD EQUATE. FURTHER, PRECIOUS METAL VALUES INCREASE WITH DECREASING DISTANCE FROM SOURCE OF THESE VALUES. ADDITIONALLY, VALUES OF PRECIOUS METALS INCREASE SUBSTANTIALLY WITH DEPTH, HIGHEST AT BEDROCK.

THE SUBJECT GNOME OREZONE APPEARS TO FOLLOW THE RULES EXCEPTIONALLY WELL. ORE VALUES INCREASE FROM 1,000 FT. DOWNSTREAM (DRY BED) TOWARDS THE SUGGESTED SOURCE. VALUES DERIVED FROM SAMPLES IN SAME GENERAL AREA CORRESPOND ROUGHLY AT THE SAME HORIZON. IT IS ECONOMICALLY SIGNIFICANT, FURTHER, THAT COMBINED ORE VALUES INCREASE A SURPRISING 245% FOR THE SECOND CONTIGUOUS 15 VERTICAL FEET OVER THE FIRST 15 VERTICAL FEET.

IT IS BECAUSE OF THE ABOVE CHARACTERISTICS THAT FEW SAMPLES ARE REQUIRED TO PROVE TONNAGE-GRADE REGARDING PLACER DEPOSITS.

THE ORE APPEARS TO HAVE SIMPLE METALLURGY WHICH WOULD ENHANCE GOOD RECOVERY. FURTHER, IT IS FORTUNATE THAT ESSENTIALLY ALL PRECIOUS METALS VALUES ARE NOT COMBINED IN THE SMALL PERCENTAGE OF BLACK SANDS, THUS ROASTING-CRUSHING IN THE MILL CIRCUIT WOULD BE ELIMINATED.

BENCH WORK TO DATE INDICATES THAT ESSENTIALLY ALL OF THE PRECIOUS METAL VALUES ARE FULLY LIBERATED ABOVE 300 MESH, AND THAT POSSIBLY NO PULVERIZING IS REQUIRED FOR FULL LIBERATION, HOWEVER FURTHER BENCH RESEARCH WOULD SUBSTANTIATE.

FIELD-LABORATORY PRACTICES INDICATE THERE EXISTS NO BARREN LAYER OVER THE PROLIFIC OREZONE, WHICH IS NORMALLY COSTLY TO REMOVE, THERE BEING EXCELLENT ORE VALUES COMMENCING AT SURFACE AND INCREASING SUBSTANTIALLY WITH DEPTH.

TO DEPTH ONLY 50 FT. FROM SURFACE, IT IS ESTIMATED THE FIVE PLACER CLAIMS COVER A CONSERVATIVE SIX MILLION TONS OF PLACER

MATERIAL. EACH ADDITIONAL 10 FT. IN DEPTH WOULD PRODUCE A FURTHER ONE MILLION TONS ABOVE THE CURRENT SIX MILLION AVAILABLE. AS ASSESSING OF THE ENTIRE PLACER AREA HAS NOT BEEN DONE TO DATE, IT IS DIFFUCULT TO STATE PRESENT TONNAGE AVAILABLE. FROM PRESENT SAMPLING ALONG A 1,000 FT. LONG AREA, THERE IS AN INDICATED ONE MILLION TONS OF WHICH 40% GRADES SOME \$290/TON FOR TOTAL IN-PLACE VALUE OF \$116 MILLIONS. EVEN CONSIDERING THIS SMALL AREA, AND ASSUMING TOTAL MINING-PROCESSING COSTS ARE A RIDICULOUS \$25.00/TON, NET OPERATING PROFIT IS \$106 MILLIONS.

POTENTIAL FOR ADDITIONAL ORE RESERVES WOULD BE AT DEPTH TO TOP OF LODE WHERE HIGHEST VALUES ARE LOCATED, DOWNSTREAM FURTHER AWAY FROM ASSUMED METALS' SOURCE, UP STREAM ADJACENT TO ASSUMED SOURCE, ADDITIONAL DRY BED TRIBUTARIES, AREAS UNCLAIMED OFF OF THE PROPERTY, ALL OF WHICH COULD TOTAL SOME 30 MILLION TONS OF PRECIOUS METALS CONTAINED IN PLACER MATERIAL.

SUGGESTED MILL FLOWSHEET:

PRECIOUS METALS ARE CONTAINED IN HEAVY MEDIA PORTIONS OF THE PLACER SAND-GRAVEL MATERIAL AND ARE THUS SUBJECT TO RELATIVELY EASY CONCENTRATION.

BASICALLY TWO STEPS WOULD BE INVOLVED IN PRODUCING A SALEABLE PRODUCT, ONE BEING TO PRODUCE A CONCENTRATE OF PRECIOUS METALS, THE OTHER TO PRODUCE MINER'S OR DORE BARS FROM THE CONCENTRATE THROUGH FURNANCING WITH ORGANIC FLUXES.

CONCENTRATING INTO HEAVY MEDIA FACTION MAY BE ACCOMPLISHED THROUGH VIBRATING GRIZZLY THENCE INTO PROGRESSIVELY FINER SCREENS UNTIL ALL HEAVY PARTICLES REPRESENTING PRECIOUS METALS ARE ACCUMULATED AS "FINES". THE FINES MIGHT REPRESENT AS LITTLE AS 5% OF THE ORIGINAL PLACER AND CONTAIN AS MUCH AS 98% OF ALL ORE VALUES, THE BASIC ASSUMPTION BEING THAT THE GREATEST PROPORTION BY FAR OF PRECIOUS METALS OCCUR AS VERY FINE GRAINED PARTICLES IN THE CRUDE HEAD ORE SAND-GRAVEL.

IF, IN FACT, A HEAVY MEDIA CONCENTRATE CANNOT BE MADE IN THE ABOVE NOTED MANNER DUE TO VARIABLE ORE GRAIN SIZES OR ADHESIONS OF ORE METALS ONTO LIGHTER ROCK, THEN IT WOULD BE ADVISABLE TO DRAW OFF SIEVED PORTIONS OF ORE WITHIN A 30 MESH RANGE FOR INDIVIDUALLY CONCENTRATING ON A VIBRATING JIG REMOVING HIGH LINE PORTION FROM TABLING EACH MESH RANGE FOR ACCUMULATION INTO ONE SEPERATE CONCENTRATE.

UNDOUBTEDLY THE ABOVE METHODS WOULD SERVE TO FORM A HIGH CONCENTRATE OF PRECIOUS METALS . LACKING PERFECTION, IT WOULD THEN BE BEST TO RESORT TO PULVERIZING AS IN A FAST-ROTATING MICRONIZER FOLLOWED BY ACCUMULATION OF HEAVY MEDIA IN AIR OR WATER CONCENTRATING CONES.

IN ANY ONE OF THE ABOVE METHODS, IT MIGHT BE NECESSARY TO DRY THE CRUDE ORE MATERIAL AFTER GRIZZLY FOR PROPER SIEVING, HOWEVER KILNING WOULD NOT BE AN EVERY DAY OCCURRENCE DUE TO THE DRY HOT ARIZONA SUN.

IN INITIAL CONCENTRATION, THE OLD FASHIONED BUT HIGHLY EFFECTIVE SLUICE BOX SHOULD NOT BE FORGOTTEN.

THE SECOND STEP IS TO FURNACE THE CONCENTRATE TO PRODUCE DORE BARS. BECAUSE DORE BARS ARE THE HIGH DEGREE OF ACCUMULATION OF PRECIOUS METALS FROM THE RELATIVELY EXPENSIVE PROCESS OF FURNACING (BUT WELL BELOW THE COSTS OF MORE ELABORATE SYSTEMS WITH LESS PERFORMANCE), IT IS ECONOMICALLY IMPERATIVE THAT MAXIMUM HEAVY METAL ACCUMULATION IN THE FORM OF CONCENTRATES BE PERFORMED FOR THE LOWEST COST.

THE CONCENTRATED ORE IS MIXED WITH ORGANIC FLUXES, FURNACED IN LARGE CRUCIBLES TO 2200°F UNTIL MOULTEN, THEN Poured OFF RESULTING IN BARS CONTAINING LITERALLY ALL PRECIOUS METALS IN CONCENTRATIONS GREATER THAN 900 FINE. (MAXIMUM 1,000 FINE)

SELLING CONCENTRATES NORMALLY RESULTS IN THE WELL-KNOWN RIP OFF UP TO 50% OF TOTAL VALUE BY REFINERIES, WHEREAS FULL PRICE IS USUALLY PAID FOR DORE BARS BEING LME LESS REFINERY AND DISPOSITION CHARGES. FURTHER, THERE EXISTS A WORLD-WIDE COMPETATIVE DEMAND FOR EASY-TO-SELL DORE BARS, THUS SELLER MAY TAKE ADVANTAGE OF PRICE FLUCTUATIONS.

ESTIMATED COSTS TO ESTABLISH MILL FLOWSHEET BASED UPON SUGGESTED FLOWSHEET WOULD BE \$15,000.00, WHILE A FURTHER \$50,000.00 IS REQUIRED FOR MILL FACILITIES (BULLDOZER, FRONT END LOADER, DIESAL GENERATOR, TRUCKS AND SERVICE VEHICLES AS WELL AS TRAILER-OFFICE ON A RENTAL-PURCHASE BASIS, WHILE FURNANCING WOULD BE PERFORMED ON CUSTOM BASIS WITH LOCAL SMELTERS). THE ABOVE FIGURES WOULD

LIKELY SUFFICE FOR A 100 TONS/DAY OPERATION.

CONCLUSIONS AND RECOMMENDATIONS:

BASED UPON PRELIMINARY STUDIES, ENCOURAGEMENT IS HIGH RELATIVE TO PROVING A LARGE OPEN PIT EXCEPTIONALLY HIGH GRADE PRECIOUS METALS MINE ON THE 520 ACRE GNOME MINERAL PROPERTY.

TO DATE, ASSAY DETERMINATIONS PERFORMED BY MOST RELIABLE PARTIES INDICATE ABOUT ONE MILLION TONS OF DRY PLACER MATERIAL AVERAGING A SIGNIFICANT \$390.00 PER TON IN GOLD, SILVER, PLATINUM PRODUCTS. IT IS ESTIMATED ALL COSTS OF MINING-PROCESSING SHOULD NOT EXCEED \$15.00 PER TON HEAD CRUDE ORE.

RESEARCH INDICATES ORE CONCENTRATION IS AMENABLE TO NORMAL PLACER TECHNIQUES.

IT IS RECOMMENDED STUDIES BE PERFORMED TO CREATE A MILL FLOW-SHEET AS SUGGESTED HEREIN IN ORDER TO EFFICIENTLY CONCENTRATE ORE MATERIAL TO MAXIMUM ECONOMIC DEGREE. CONCENTRATES, IN THEMSELVES A SALEABLE PRODUCT, ARE LIKELY AMENABLE TO FURNACING WITH ORGANIC FLUXES INTO INTENSIVELY DEMANDED DORE BARS CONTAINING HIGH DEGREES OF THE PRECIOUS METALS.

IT IS FURTHER RECOMMENDED THAT WORK PROGRAMS BE PERFORMED IN ORDER TO MORE EFFECTIVELY PROVE UP TONNAGE-GRADE ON THE GNOME PLACER PROPERTY, WHICH WORK SHOULD CONSIST OF CAT TRENCHING FOR SAMPLES BOTH Laterally AND VERTICALLY. SUCH EXPLORATION SHOULD

SUBSTANTIATE PRESENT FINDINGS, AS WELL AS PROVIDE ADDITIONAL
ORE RESERVES TO THE ALREADY EXTENSIVE HOLDINGS.



G.L. KIRWAN, B.Sc., P.ENG.

PHOENIX, ARIZONA,
JANUARY 12, 1976

C E R T I F I C A T E

THE UNDERSIGNED CERTIFIES AS FOLLOWS:

1. THAT I AM A CONSULTING GEOLOGICAL ENGINEER MAINTAINING OFFICES AT 2901-95 THORNCLIFFE PK. DR., TORONTO, AND 611 WEST GIBRALTAR LN., PHOENIX, ARIZONA.
2. THAT I HAVE BEEN GRADUATED FROM CARLETON UNIVERSITY, BSc., 1957, AND THAT I HAVE PRACTISED MY PROFESSION CONTINUOUSLY ALONG WITH MINOR AMOUNT OF STUDYING-TEACHING IN 1958, UNIVERSITY OF MISSOURI.
3. THAT I RECEIVED PROFESSIONAL EXPERIENCE AND KNOWLEDGE WITH UNITED STATES STEEL CORP., NEWMONT MINING CORP., BRITISH PETROLEUM CORP., AND NORANDA MINES LTD., ALL ALONG WITH 15 YEARS AS AN INDEPENDANT EXPLORATION-DEVELOPMENT-MINING CONSULTANT.
4. THAT I AM REGISTERED WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF ONTARIO AS A PROFESSIONAL ENGINEER. I AM A FELLOW OF THE GEOLOGICAL ASSOCIATION OF CANADA, AND A MEMBER OF THE CANADIAN INSTITUTE OF MINING AND METALLURGY.
5. THAT REPORT HEREIN IS BASED UPON STUDY OF ALL PERTINENT DATA RELATIVE TO THE GNOME MINE INCLUDING RESULTS OF PAST WORK PERFORMED, AND IS FURTHER OR MORE EXACTLY BASED UPON WORK PERFORMED BY THE WRITER.
6. THAT REPORT HEREIN IS A PRIVATE REPORT PREPARED AS A NORMAL SEQUENCE TO A MINING OPERATION. THIS REPORT IS NOT TO BE MISCONSTRUED AS AN APPEAL FOR FUNDING.

DATED AT PHOENIX, ARIZONA, THIS 12TH DAY OF JANUARY, 1976.



S U P P O R T I N G

D O C U M E N T A T I O N

EXECUTIVE SUMMARY

SUMMARY

Westmont Mining Inc. controls 6300 acres which contains an epithermal gold deposit and other mineralized zones on its property near Wickenburg, Arizona. The project known as the "Newsboy Project" contains a near surface geologic reserve of 1.3 million tons grading 0.044 opt gold. Cyanide bottle roll tests indicate that recoveries for the material tested range from 79% to 87% at -100 mesh.

PROPERTY

Westmont controls approximately 6,300 acres of mining property as follows:

- Two hundred thirty-seven (237) unpatented lode mining claims. Approximately 170 claims are subject to a four percent (4%) NSR royalty and the remainder are royalty free.
- Four (4) patented mining claims subject to a five percent (5%) NSR production royalty.
- Four (4) State of Arizona Prospecting Permits covering 1,520 acres with the production royalty to be determined upon conversion to state mining leases by 1993.

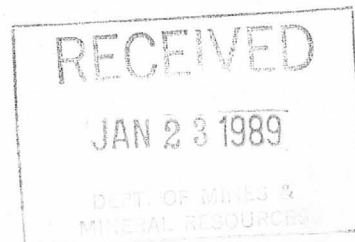
Total land payments to hold the leased properties over the next five years are:

1989	\$ 70,000
1990	\$ 96,520
1991	\$121,520
1992	\$120,000

All payments are advance royalties with the exception of the State Prospecting Permit payments which are rentals (\$1.00/acre/year) and \$20,000 of the 1993 payment. The State Prospecting Permits must be converted to mining leases by 1993.

Total work commitments over the next five years are:

- \$23,700 in annual assessment work
- State Prospecting permits:
 - \$10/acre/year 1989 and 1990
 - \$20/acre/year 1991 to 1993



EXPLORATION AND DRILLING

Westmont mapped in detail and sampled an area of approximately one square mile adjacent to the old Newsboy open pit. This exploration defined an epithermal gold and silver mineralized system that has been emplaced along a low angle fault that strikes north-south and dips to the east. This fault separates Precambrian metamorphics (schists) from overlying Tertiary rhyolites. The zone of mineralization occurs in intensely silicified and calcite replaced lithologies that outcrop discontinuously over a distance of about 400 feet. Gold and silver mineralization was probably introduced with a number of episodes of very fine-grained silica as well as at least one episode of black calcite.

A subhorizontal, tabular orebody with an average thickness of 45 feet has been defined. Depths to the top of the orebody range from 0 feet to 120 feet. Post-mineral faulting is minor. Exterior to the orebody are another two holes that contain ore grade gold intercepts (>0.040 ounces per ton) as well as other zones that contain gold grades over +10 foot intervals between 0.02 opt and 0.04 opt gold.

In addition to the detailed evaluation of the area around the Newsboy pit, reconnaissance mapping and rock chip sampling identified similar zones of mineralization within a radius of two miles on the north, west and south.

ORE RESERVES

Ore reserves for the project have been calculated using drillholes that contain average gold grade intercepts greater than 0.029 ounces per ton over thicknesses of 20 feet or greater. Calculated geologic reserves are 1.3 million tons grading 0.044 opt gold.

PROCESSING

Metallurgical testwork has been completed on three different Newsboy ore types by McClelland Laboratories, Inc., Sparks, Nevada. The ore types are classified as yellow siliceous, red siliceous and black calcareous-siliceous.

The samples were leached in alkali cyanide solution in bottle roll tests for 96 hours. Five tests were completed on each ore type for five different particle sizes from 1-1/4" down to -100 mesh. Gold recoveries increased dramatically with decreasing feed size. Recoveries for the various ores ranged from 79% to 87% at -100 mesh. Extraction rates were rapid and gold extraction was substantially complete in 24 hours for each sample.

Cyanide consumptions were low ranging from 0.10 to 0.74 pounds per ton of ore. Lime requirements were also low at from 1.0 to 3.9 pounds per ton ore.

Newsboy

DATE: January 18, 1985
TO: Mr. F. J. Menzer, Chief Geologist ✓
FROM: J. A. Waegli, Geologist
SUBJECT: Arizona Department of Mineral Resources
List of Flux Properties

In early October, 1984, Mr. John Robertson, Ore Buyer for Phelps Dodge Corporation, requested that the Arizona Department of Mineral Resources (ADMR) compile a list of properties in the state that could produce material grading +80% SiO₂ and +1/3 O/T Au. In response, Mr. Nyal Niemuth, Mineral Resources Specialist with the ADMR, compiled a list of 16 properties (attached) that he feels are capable of producing +70% SiO₂ with \$100.00 metal credits. (He stated that he did not know of any mines capable of meeting Mr. Robertson's criteria.)

November 19-21 were spent in Phoenix examining ADMR files to obtain information on each of the mines. Mr. J. E. DuHamel of Western Exploration screened their files and compiled the resulting information in a memo dated November 27 (attached). Based on his memo, pertinent reports were copied from the Western Exploration files on December 3 and 4.

The following is a listing of these 16 properties arranged in order by quad number. A brief description of each property is given, with information on current activity and a summary of past work conducted by Phelps Dodge Corporation. Recommendations based on information compiled to date are also given. Table 1 summarizes information compiled in this report.

John Hope of Western Exploration in 1951. Mr. Hope concluded that the ore shoot developed by the No. 1 shaft had been mined out. He also states that the cost of exploring for additional ore shoots would not be justified by the returns.

It appears then, that the Sunrise mine has almost no known reserves. Exploration for additional ore would be hindered by the fact that the vein is largely covered by detritus at the surface. Therefore, somewhat blind drilling would probably be required to further test the veins.

Sunrise ore would probably be a marginal flux because quartz occurs as stockwork in schist. This would decrease the SiO_2 and possibly make the Al_2O_3 unacceptably high.

Because of these drawbacks, a field examination does not seem justified.

11. QUEEN OF SHEBA (Figure 4): Maricopa County, T.6N., R.4W., Sec. 8, AZ 267

The Queen of Sheba is a gold property, where mineralization occurs in a major $\text{N}70^\circ\text{E}$ fault zone. Tertiary volcanics are down-dropped against Precambrian schist along the fault. Besides gold, mineralization includes specularite and copper oxides.

Past production from the Queen of Sheba is unknown. The property is currently held by Chuck May, who reported to the ADMR in 1980 that he had a contract to ship flux to Inspiration. He reported grades up to 1.25 O/T Au with vein widths up to 6 feet.

Herb Jacobson of Western Exploration examined the property in 1974. He reports that Queen of Sheba mining drilled four holes (160-foot maximum) near the fault zone that assayed 0.02 to 0.06% Cu. No precious metal grades are given.

It is felt that more data are needed before making further recommendations on this property. Gold grades reported by the present owner are interesting but are unsubstantiated. It is recommended that the owner be contacted to obtain more information and a field examination possibly be scheduled.

12. NEWSBOY (Figure 4): Maricopa County, T.6N., R.4W., Sec. 22, AZ 267

The Newsboy, which is also known as the Pitt mine, or El Grande-Newsboy, is located near the Hassayampa River, southeast of Wickenburg. Gold and silver mineralization occurs in a northwest trending vein that dips 55° to 65° northeast. The vein occupies a normal fault with rhyolite on the hanging wall and schist on the

footwall. Gangue minerals include quartz, black manganese calcite, and limonite. A small amount of argentiferous galena has been reported.

The vein has been developed by two inclined shafts, known as the McKenzie and the Komrack, and by the Gnome adit. In the 1930's or 40's, approximately 10,000 tons were shipped to three Arizona smelters, but the grade of this ore is not known. The silica content was apparently in the low 70% range.

The ADMR files show that the property has been recently leased by Nor-Quest, Arizona, Inc., whose parent is Nor-Quest Resources, Ltd. of Canada. Under the direction of their operations manager, Mr. Bill Moss, vat leach testing was being conducted in May of 1983. Heap leaching resulted in silver recoveries of only 15 to 20% due to high Mn content in the ore. Vat leaching was expected to obtain 90% Ag recovery. Material for leach testing came from blasting the old workings and an area to the northwest. Grade was reported as 7.0 O/T Ag and 0.04 O/T Au.

Leach testing continued on into 1984. The ADMR reports that 30,000 tons containing 0.05 to 0.06 O/T Au were shot in January. Mr. Rick Renn of Goldsil reported to the ADMR in May, 1984 that a cyanide heap leach had been put into production.

The Newsboy was examined by P. C. Benedict of the United Verde Copper Company in 1933. Based on Benedict and others' sampling, an ore shoot containing approximately 50,000 tons in an area 260-feet long, 50-feet wide and 40- to 50-feet high was delineated. The grade of this material would be approximately 7.0 O/T Ag and 0.076 O/T Au. With additional exploration, Benedict estimated that a total of 250,000 tons could be delineated.

The property was screened by Mr. Chuck Arnold of Western Exploration in September, 1964. Based on Benedict's data, he viewed the property to be of no interest to the Corporation.

It is likely that the current owners have mined a good portion, if not all, of the ore shoot described by Benedict. There is some potential for additional ore along strike to the southeast and at depth. Drilling would be required to test this potential. It is recommended that the lessors be contacted and a field examination be scheduled. This would allow us to confirm the amount of Benedict's ore shoot mined and get an estimate of cost required to conduct exploration. This is considered to be a medium priority project.

Matt



STATE MINE INSPECTOR

MAR 15 1984

NEWSBOY (1)

Office of State Mine Inspector

705 West Wing, Capitol Building
Phoenix, Arizona 85007
602-255-5971

NOTICE TO ARIZONA STATE MINE INSPECTOR

In compliance with Arizona Revised Statute Section 27-303, we are submitting this written notice to the Arizona State Mine Inspector, 705 West Wing, Capitol Building, Phoenix, Arizona 85007 of our intent to start or stop a mining operation.

COMPANY NAME LYDAR RESOURCES LTD

CHIEF OFFICER R. CARSON

COMPANY ADDRESS 2231 E 172 GARRIGLE RD MARIETTA SC GEORGIA

COMPANY TELEPHONE NUMBER 604 - 758 - 8161

MINE OR PLANT NAME NEWSBOY

MINE OR PLANT LOCATION (including county and nearest town, as well as directions for locating by vehicle)

3 MILES WEST OF MARRISTOWN
GATES RD.

TYPE OF OPERATION LEACH TEST PRINCIPAL PRODUCT AU, AG

STARTING DATE 13/3/84 CLOSING DATE 2 mths

DURATION OF OPERATION 2 mths

PERSON SENDING THIS NOTICE R CARSON

TITLE OF PERSON SENDING THIS NOTICE PRESIDENT

DATE NOTICE SENT TO STATE MINE INSPECTOR 13/3/84

PLEASE NOTE: Any operation found operating, without having sent this notice to the Arizona State Mine Inspector, will be charged with a petty offense.

Local Contact

12/83

WALTER EDWARDS
MINEREC MINING CHEMICALS
2420 NORTH HUACHUCA DRIVE
TUCSON ARIZONA 85715
602 - 623 - 5719

Unbacked 11/5/81
MHJ R

MELVIN H. JONES
Mining Geologist

MHJ/
1601 Sandhill Rd. #36
Las Vegas, Nev. 89104.
15 December, 1980.

MEMORANDUM FOR THE RECORD.

Newsboy Mine (gold-Silver), Vulture Mountains, 3 miles West of Morrystown, Arizona, 85432 (Maricopa County).

Incidental to looking over other old mining properties in the Vulture Mountains, the Newsboy mine was visited on December 6, 1980 by the writer, and J. David Campbell (Wickenburg), and August Gangola (Las Vegas, Nev.). The Newsboy mine is about 3 miles due West of Morrystown, Maricopa County, Arizona. It is in the W. $\frac{1}{2}$ of Sec. 22, T-6-N, R-4-W, G&SR B&M (and near the Hassayampa river $\frac{1}{2}$ mile to East of property). Present ownership of this mine is not known to the undersigned.

The property is on an extensive dry wash, where a large open pit cut has been made on the NE bank. From there an adit (with crosscut) goes NE for about 1000 Ft. Down stream from the open cut, there is another adit with a depth of about 250 ft, paralleling the first adit. Nearby, are 3 shafts. It was learned that extensive samples taken in the past, averaged .075 Au and 4.9 Ag. There are no obvious dumps as it appears that water action in the past, has washed them away.

While no time was taken to closely examine the country rock and the veins, the entire facies of the pit (and adits), it appears to be manganiferous silicious rock. One old record shows that 11,258 tons of ore was shipped between 1940 and 1942 (probably to a smelter).

Apparently, in the past, gold and silver recovery was difficult. Probably with a simple crushing and gravity separation process, concentrates could be made that were acceptable to smelters. Records show that some tests of the potential ore were made in 1947 by the US Bureau of Mines, and the Bur. of Mines of Arizona. These reveal that the Ag and Au were not amiable to cyaniding (in particular the latter). The high level of manganese, and lesser copper and Zinc, all acts as cyanicides. (inhibitors of cyanidation), and all are present in the Newsboy ore. I might add that new tests should be made now that we have pad leaching. Now, more oxygen gets into the solution, and the carbon adsorption process, may help (as compared to the zinc precipitation method).

Someone may ask, why is Jones bringing up a manganese problem in connection with leaching. Some people may not know it, but the Aguila, Almo Lake, Wickenburg region has the largest Mn deposits in the U.S. There is Mn in many, many places, and it can seriously interfere with ore processing for other metals. For those who are uninformed, Mn deposits result from processes of rock decay, and they are not common considering the whole world (Lindgren).

It may interest some people to know that there is a Kaolinite deposit near the road to Morrystown, on the W. bank of the Hassayampa river from the Newsboy. It was examined some years ago, as having potential commercial application

Melvin H. Jones

GERALD L. KIRWAN, B.Sc., P.Eng.

CONSULTING GEOLOGICAL ENGINEER

611 W. Gibraltar Ln.
Phoenix, Arizona 85023
(602) 993-1852

CONSULTING
EXPLORATION
ENGINEERING



Jan 12, 1976

MR. JOHN H. LETT,
Director, Dept of Min. Res.
Faigrounds, Phoenix, Az.

Hi John:

As promised, herein is updated report on GNOME property located 4 miles west of Morrystown, Arizona.


You can see that the nature of the property has changed from being a lode deposit primarily, to being a placer deposit. Apparantely no one assessed the sand but myself, and found it MOST positive in gold, silver, platinate metals.

I shall be working on other properties in the region of the GNOME, and subsequently will be able to help keep your files current re work results.

All the very best,

PLEASE KEEP OUT OF HANDS OF PUBLIC FOR SIX MONTHS AS I AM CURRENTLY ACQUIRING ADDITIONAL GROUND IN THE REGION.

Personally,


G.L. Kirwan

~~Please~~
~~keep~~
~~out~~
~~of~~
~~hands~~
~~of~~
~~public~~

GERALD L. KIRWAN, B.Sc., P.Eng.

CONSULTING GEOLOGICAL ENGINEER

4556 East Paseo La Casita
Tucson, Arizona 85718
(602) 299-1126

RELATED TO NEW TYPES OF ESSENTIALLY HYDROMETALLURGICAL EXTRACTIVE PROCESSES PARTICULARLY AIMED IN THE INTERESTS OF SEPERATING METALS CONTAINED IN COMPLEX PLACER SANDS. AS CONSULTANT FOR A GROUP OF CANADIAN-AMERICAN BASED FIRMS RELATIVE TO EXTRACTIVE PROBLEMS IN EXTENSIVE DEPOSITS OF BLACK PLACER SANDS LOCATED IN BRITISH COLUMBIA, AND WORKING CLOSELY WITH WORLD-RENOUNDED SCIENTISTS IN NEW JERSEY AND HAIFA, NEW PROCESSES HAVE BEEN DISCOVERED FOR THE ECONOMICAL EXTRACTION OF PRECIOUS METALS FROM A VARIETY OF BLACK SAND SOURCES, HERETOFOR UNEXTRACTABLE. WORK IS CURRENTLY PROCEEDING FOR PILOT PLANT PRODUCTION FROM THE SUBJECT DEPOSIT.

6. FOR THE PURPOSE OF ASSESSING ESSENTIALLY GOLD AND SILVER DEPOSITS OF MERIT BOTH FOR MYSELF AND CANADIAN-EUROPEAN INTERESTS LOCATED IN THE SOUTHLAND, I AM CURRENTLY BASED AT THE ABOVE NOTED ADDRESS.



G.L. KIRWAN

1056
GERALD L. KIRWAN, B.Sc., P.Eng.

CONSULTING GEOLOGICAL ENGINEER

611 W. Gibraltar Ln.
Phoenix, Arizona 85023
(602) 993-1852

CONSULTING
EXPLORATION
ENGINEERING



GNOME

OPEN PIT

GOLD, SILVER, PLATINUM MINE

PHOENIX AREA

ARIZONA

Phoenix, Arizona,
January 12, 1976

NEWSB-02(4) K 29



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
PHOENIX DISTRICT OFFICE
2015 WEST DEER VALLEY ROAD
PHOENIX, ARIZONA 85027

IN REPLY REFER TO:
3809/1791(026)

September 30, 1992

Dear Public Land Users:

In an effort to keep you informed of the status of the Newsboy Mine proposal, I want to provide you with this information update.

Since the time that BLM received Newsboys' proposal, there have been several news releases, three public meetings, an informal hearing with Arizona State Representative Kyle Hindman from Buckeye, a briefing and discussion with BLM's Phoenix District Advisory Council, and several mine tours conducted by Newsboy Gold Mining Company. A draft environmental analysis was written with a total of 60 days for public comment. The BLM received approximately 60 letters which offered specific comments, 130 form letters which favored the mine development proposal and 26 form letters opposing the proposed development.

The primary issues identified through public comments and meetings are:

- | | |
|---|---------------------------------------|
| 1. Aquifer contamination. | 5. Wildlife protection. |
| 2. Amount of projected water use by the mine. | 6. Noise from mining activity. |
| 3. Lowering of water table of existing wells. | 7. Traffic safety/access. |
| 4. Dust abatement. | 8. Visual. |
| | 9. Intensity of mine lights at night. |

My staff and I have made a thorough review of all the comments and have examined the relevant issues and acknowledge that there are deficiencies in the original environmental analysis. In consideration of this and the recommendation of the District Advisory Council, it has been determined that we will develop a new draft environmental analysis for this proposed mining operation. This new document, which is anticipated to be available during the month of November, will address the comments and issues that you have identified. It will be made available for a 45 day public review period for comment on the new draft. During this time, BLM will conduct additional public meetings in those areas where public concerns regarding the proposed mine have been identified. In addition, we plan on holding an open house at the proposed mine site during the comment period.

Thank you for your continued interest and input into the proposed mining project and the BLM environmental process. Please direct any questions or concerns to John R. Christensen, BLM Area Manager or Hank Molz at (602) 863-4464.

Sincerely,

Henri R. Bisson
District Manager

NEWSBOY (P) MMLI COPA

a
k

NEWSBOY GOLD MINING COMPANY

42811 Grand Avenue • P.O. Box 279
Morristown, Arizona 85342-0279
(602) 388-2441 • FAX (602) 388-2812

September 2, 1992

Leroy Kissinger
Director
Arizona Department of Mines & Mineral Resources
1502 West Washington
Phoenix, AZ 85390

Dear Leroy,

Just a note to extend our sincerest gratitude to you for being at the Wickenburg Town Council Meeting on August 31, 1992.

Although no resolution came to pass at this meeting, the pro-mining supporters attendance was recognized.

I do believe there is victory in numbers!

Sincerely,



Bill Fleshman,
Operations Manager

BF/aml

EXECUTIVE SUMMARY

SUMMARY

Westmont Mining Inc. controls 6300 acres which contains an epithermal gold deposit and other mineralized zones on its property near Wickenburg, Arizona. The project known as the "Newsboy Project" contains a near surface geologic reserve of 1.3 million tons grading 0.044 opt gold. Cyanide bottle roll tests indicate that recoveries for the material tested range from 79% to 87% at -100 mesh.

PROPERTY

Westmont controls approximately 6,300 acres of mining property as follows:

- Two hundred thirty-seven (237) unpatented lode mining claims. Approximately 170 claims are subject to a four percent (4%) NSR royalty and the remainder are royalty free.
- Four (4) patented mining claims subject to a five percent (5%) NSR production royalty.
- Four (4) State of Arizona Prospecting Permits covering 1,520 acres with the production royalty to be determined upon conversion to state mining leases by 1993.

Total land payments to hold the leased properties over the next five years are:

1989	\$ 70,000
1990	\$ 96,520
1991	\$121,520
1992	\$120,000

All payments are advance royalties with the exception of the State Prospecting Permit payments which are rentals (\$1.00/acre/year) and \$20,000 of the 1993 payment. The State Prospecting Permits must be converted to mining leases by 1993.

Total work commitments over the next five years are:

- \$23,700 in annual assessment work
- State Prospecting permits:
 - \$10/acre/year 1989 and 1990
 - \$20/acre/year 1991 to 1993

EXPLORATION AND DRILLING

Westmont mapped in detail and sampled an area of approximately one square mile adjacent to the old Newsboy open pit. This exploration defined an epithermal gold and silver mineralized system that has been emplaced along a low angle fault that strikes north-south and dips to the east. This fault separates Precambrian metamorphics (schists) from overlying Tertiary rhyolites. The zone of mineralization occurs in intensely silicified and calcite replaced lithologies that outcrop discontinuously over a distance of about 4000 feet. Gold and silver mineralization was probably introduced with a number of episodes of very fine-grained silica as well as at least one episode of black calcite.

A subhorizontal, tabular orebody with an average thickness of 45 feet has been defined. Depths to the top of the orebody range from 0 feet to 120 feet. Post-mineral faulting is minor. Exterior to the orebody are another two holes that contain ore grade gold intercepts (>0.040 ounces per ton) as well as other zones that contain gold grades over +10 foot intervals between 0.02 opt and 0.04 opt gold.

In addition to the detailed evaluation of the area around the Newsboy pit, reconnaissance mapping and rock chip sampling identified similar zones of mineralization within a radius of two miles on the north, west and south.

ORE RESERVES

Ore reserves for the project have been calculated using drillholes that contain average gold grade intercepts greater than 0.029 ounces per ton over thicknesses of 20 feet or greater. Calculated geologic reserves are 1.3 million tons grading 0.044 opt gold.

PROCESSING

Metallurgical testwork has been completed on three different Newsboy ore types by McClelland Laboratories, Inc., Sparks, Nevada. The ore types are classified as yellow siliceous, red siliceous and black calcareous-siliceous.

The samples were leached in alkali cyanide solution in bottle roll tests for 96 hours. Five tests were completed on each ore type for five different particle sizes from -14" down to -100 mesh. Gold recoveries increased dramatically with decreasing feed size. Recoveries for the various ores ranged from 79% to 87% at -100 mesh. Extraction rates were rapid and gold extraction was substantially complete in 24 hours for each sample.

Cyanide consumptions were low ranging from 0.10 to 0.74 pounds per ton of ore. Lime requirements were also low at from 1.0 to 3.9 pounds per ton of ore.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Newsboy Mine

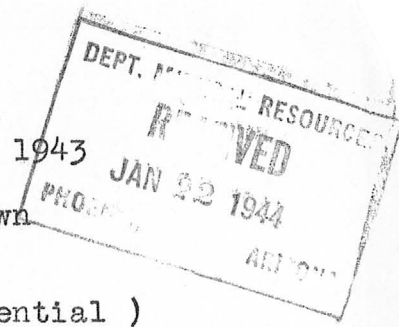
Date January 18, 1943

District Maricopa County
Vulture Mining District

Engineer B. W. Brown

Subject:

Memorandum: Newsboy Mine, M. D. Pitt, owner (Confidential)



On this day I made an examination of the Newsboy Mine in the company of Mr. M. D. Pitt, owner, for the purpose of determining the basic facts involved in Mr. Pitt's claim of alleged jumping of several of the Newsboy claims. The Newsboy group of unpatented mining claims ~~are~~ situated about four miles from Morrystown across the Hassayampa river and ~~is~~ are easily accessible by a good dirt road. They adjoin the Montezuma mine (now called the Arizona Lead mine) and cut that property off from the river. The dispute seemed to be chiefly centered around the ownership of a river claim used as a millsite and on which had been drilled a deep well making ample water. On this claim in question as on two others in dispute both parties had sunk a shaft to the required depth for a discovery shaft. But in none of these shafts or prospect holes was any valuable mineral found in place, nor was there any evidence of a vein or lode within the limits of the claims in dispute. It is my opinion that this ground would be declared open ground in a court of law.

It should be pointed out that ^{the} drilled well mentioned above was installed by the Arizona Lead Co. and that their pipeline from this well to the Montezuma property crosses claims now held by Mr. Pitt. It was to the end of protecting their rights in this well and in the pipeline, chiefly, that the Arizona Lead people had lode claims staked over the property in question. This was ill-advised, in my opinion. The ground that the well is situate upon cannot be held as a lode claim without first demonstrating the mineral nature of the land by exposing the vein or lode in place. The ground can however be held as a five acre mill site. That is advisable in this case. As far as the pipeline is concerned, it has already established its own right of way or lien by having been in service this length of time -- it cannot be touched by any conflicting interest.

In the course of my examination I made a rather sketchy and preliminary study of the Newsboy number 1, the main workings of the Newsboy mine. Here a large body of ore has been demonstrated by means of tunnels, shafts and a large open pit which develop the body and open it up to a point where its size can be readily appreciated. If a milling process could be determined whereby the values in this ore would be economically recovered, this property would be of more than marginal importance. The values are chiefly in gold and silver. It was my suggestion to Mr. Pitt that he submit his ore to the university for work along these lines.

B. W. Brown

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Newsboy
District Vulture

Date July 30, 1947.
Engineer A. C. Nebeker

Subject: Santa Fe Railroad request.

I just returned from the Newsboy property where I contacted Mr M D Pitt the owner, and looked over the open pit from which Mr F. G. Mitte had shipped 194 cars of ore of 54 tons each. Value of ore was \$7.00 per ton mostly silver with a small gold value, and silica was 73%.

Mining was by power shovel and hauled to railroad by heavy trucks. Mining was stopped by reason of the values dropping and other costs raising.

The property consists of 23 mining claims and is located 3 miles west of Morrystown on the west side of the Hassayampa river. The property is served by a good road from Morrystown.

The mineralized zone of a crushed rhyolite is 85 to 200 feet wide and several hundred feet long down the side of a wide wash. Within this zone there are several seams a foot to 5 feet wide that will carry \$12 to \$15 value in silver.

The development consists of 4 shafts with drifts at the bottom, work all done by hand, so shafts are all naturally shallow ones.

There is no equipment or buildings on the property. There is a water well on the property which will furnish water for operations.

The property is open for lease or sale.

Address of owner is Morrystown, Arizona.



DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Newsboy Mine (file)

Date May 6, 1983

District Vulture

Engineer Nya! J. Niemuth, & Ken A. Phillips

Subject: Mine Visit

The following information was obtained from a field interview with W. R. (Bill) Moss, Operations Manager, Nor-Quest Arizona, Inc. P.O. Box 464, Congress, Arizona 85332, Phone: (602) 427-3718. Nor-Quest's parent company is Nor-Quest Resources Ltd., Nanaimo, B. C., Canada, phone: (604) 758-8161.

Preparation of a heap leach pad and carbon plant had been completed but plans for a heap leach operation have been deferred while pilot vat leach studies are being completed.

Four men and a supervisor are currently employed. Also on site is a camp consisting of two travel trailers and steel water tank.

The old underground workings and an area to the northwest of them has been drilled and shot. The deposit has been reported to contain .04 oz Au/ton and 7 oz. Ag/ton. Recovery by conventional heap leaching was expected to be only 15-20% of the Ag. With a pilot vat leach process recovery of Ag is expected to be 80%.

The pilot plant seen consists of a belt feeder to a vibrating screen. Minus $\frac{1}{4}$ " material is loaded into a 1 ton test vat. The plus $\frac{1}{4}$ " material is discarded. The test vat is constructed of stainless steel and is fitted with a manifold and solution distribution lines in the bottom. The vat is charged with the minus $\frac{1}{4}$ " material. Mr. Moss reported that the vat is first pumped full with sulfuric acid which flows upward through the charge. The sulfuric acid dissolves the carbonates, breaks down and carries off the slimes, and the ph is lowered to about 2. Sulfur dioxide gas is then pumped through the charge to breakdown the manganese minerals. Fresh water is then pumped through the charge and washes it and raises the ph to about 5. A sodium hydroxide solution is added to raise the ph to about 10.5, at which time cyanide is added to dissolve the contained Ag and Au. Precious metals are to be recovered in a conventional Merrill Crowe plant.

Following pilot testing, plans are to build and operate 4 vats of 150 ton capacity. Tailings will be removed as a slurry and disposed of in the heap leach pad site.

A new well has been drilled at the Hassayampa River and a water line constructed to the pilot plant site.

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine Newsboy Mine

Date January 18, 1943

District Maricopa County
Vulture Mining District

Engineer B. W. Brown

Subject:

Memorandum: Newsboy Mine, M. D. Pitt, owner (Confidential)

DEPT. OF MINERAL RESOURCES
RECEIVED
JAN 22 1943
P.M.C.

On this day I made an examination of the Newsboy Mine in the company of Mr. M. D. Pitt, owner, for the purpose of determining the basic facts involved in Mr. Pitt's claim of alleged jumping of several of the Newsboy claims. The Newsboy group of unpatented mining claims ~~are~~ situated about four miles from Morristown across the Hassayampa river and ~~is~~ are easily accessible by a good dirt road. They adjoin the Montezuma mine (now called the Arizona Lead mine) and cut that property off from the river. The dispute seemed to be chiefly centered around the ownership of a river claim used as a millsite and on which had been drilled a deep well making ample water. On this claim in question as on two others in dispute both parties had sunk a shaft to the required depth for a discovery shaft. But in none of these shafts or prospect holes was any valuable mineral found in place, nor was there any evidence of a vein or lode within the limits of the claims in dispute. It is my opinion that this ground would be declared open ground in a court of law.

It should be pointed out that ^{the} drilled well mentioned above was installed by the Arizona Lead Co. and that their pipeline from this well to the Montezuma property crosses claims now held by Mr. Pitt. It was to the end of protecting their rights in this well and in the pipeline, chiefly, that the Arizona Lead people had lode claims staked over the property in question. This was ill-advised, in my opinion. The ground that the well is situate upon cannot be held as a lode claim without first demonstrating the mineral nature of the land by exposing the vein or lode in place. The ground can however be held as a five acre mill site. That is advisable in this case. As far as the pipeline is concerned, it has already established its own right of way or lien by having been in service this length of time -- it cannot be touched by any conflicting interest.

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B. W. Brown

NEWSBOY GROUP SHIPMENTS, CLARKDALE SMELTER, 1940 - 1941 - 1942

Tons Dry Wt.	Oz. Au	Oz. Ag	% Cu	Insol	Sil.	Al	Iron	Lime	Pay per Ton
203.9105	0.04	5.91	0.13			10.1		10.1	4.17
100.772	0.06	10.23	0.30					11.4	9.15
102.287	0.04	7.85	0.16					11.6	5.54
173.6075	0.09	8.45	0.16					8.4	8.86
200.73	0.076	6.19	0.25					16.6	6.81
260.972	0.07	7.23	0.26					11.5	7.36
209.9415	0.066	5.50	0.18					9.4	6.00
211.86	0.06	5.76	0.13					9.4	6.00
155.1315	0.06	5.835	0.26					10.0	6.05
285.5850	0.0675	6.59	0.48					8.7	6.82
277.7905	0.095	13.395	0.19						12.51
288.6910	0.074	9.51	0.27					8.2	9.10
296.7035	0.0925	12.50	0.32						11.80
350.1785	0.07	8.45	0.46						8.22
428.2375	0.037	5.84	0.13					9.9	5.19
266.4765	0.0605	5.7795	0.35					13.6	6.02
171.6265	0.095	10.555	0.29					9.5	10.50
276.196	0.06	5.995	0.32					8.2	6.16
276.2225	0.06	9.305	0.23						8.50
168.4785	0.07	7.93	0.39						7.85
433.5395	0.06	5.33	0.22						5.69
324.369	0.04	4.56	0.32						4.28
269.466	0.044	5.31	0.29						5.07
220.1285	0.0545	7.165	0.28					11.3	6.81

Tot. Tons 5676.616 Av. Oz Au 0.063 Av. Oz. Ag 7.54 Av. Val per ton \$ 8.61

CLARKDALE SMELTER, 1942

59.574	0.044	8.075	0.05	67.40		2.80	3.2	11.3	7.02
59.350	0.037	8.085	0.037	67.80		2.40	3.1	11.9	6.78
49.660	0.035	5.405	0.04	68.40		2.00	2.9	11.1	4.83

Tot. Tons 168.584 Av. Oz Au 0.038 Av. Oz Ag 7.19 Av. Val. per ton \$7.44

RECAPITULATION:

Tot. Tons Dry Wt. 11066.069 Av. Value per ton \$ 9.27 (1947 price schedules)

NEWSBOY GROUP SHIPMENTS, MAGMA SMELTER, 1940 - 1941

Tons Dry Wt	Oz. Au	Oz. Ag	% Cu	Insol.	Sil.	Al	Iron	Lime	Pay per T.
111.0685	0.10	7.20	0.37		74.20	4.40	3.70	6.30	8.0422
108.553	0.08	5.70	0.30		74.00	.59	7.60	5.90	6.3936
114.5825	0.08	8.40	0.35		68.80	3.0	4.00	6.90	8.2019
105.9855	0.09	7.70	0.25		77.00	3.50	3.00	4.20	8.0551
104.8113	0.07	6.30	0.25		74.40	4.30	4.00	6.10	6.4734
114.9423	0.06	8.40	0.20		66.80	3.90	4.00	7.70	5.5487
56.316	0.06	11.50	0.50		68.60	0.40	3.40	8.10	9.8018
155.262	0.06	8.30	0.25		76.20	2.60	3.10	9.90	7.4909
104.633	0.06	8.70	0.20		66.60	1.60	3.20	9.80	7.7588
109.197	0.06	8.70	0.40		69.80	1.80	3.20	8.80	5.5074
59.3605	0.14	17.50	0.15		70.40	1.60	3.90	8.30	16.2286
51.6085	0.13	15.30	0.15		71.60	1.30	3.20	8.30	14.4332
111.3255	0.06	7.00	0.20		70.40	3.60	3.00	10.10	6.6205
56.747	0.04	6.30	0.15		70.20	2.80	3.20	6.00	5.5074
101.762	0.06	8.30	0.20		70.80	2.60	3.60	10.00	7.4909
55.1725	0.07	8.40	0.20		72.00	2.60	3.60	6.30	7.8799
99.792	0.12	10.70	0.22		73.40	2.40	3.40	7.40	11.0303
52.219	0.10	8.70	0.25		68.60	1.70	3.70	7.90	9.0468
108.2465	0.10	7.50	0.20		66.40	2.50	3.90	10.20	8.2431
55.8855	0.13	15.20	0.30		74.00	1.50	3.10	8.20	14.3862
43.1935	0.10	10.40	0.25		75.60	2.90	3.50	5.60	10.1854
113.177	0.10	11.20	0.20		75.00	1.40	3.90	6.60	10.7212
113.634	0.14	8.80	0.40		68.40	2.60	3.30	9.20	10.4018
102.4095	0.10	7.40	0.25		67.20	1.40	4.10	9.80	8.6762
120.118	0.08	7.00	0.26		65.40	2.20	4.00	8.90	7.2643
101.943	0.08	6.60	0.25		64.20	2.20	4.20	10.10	6.9964
52.0555	0.05	6.60	0.45		64.80	.90	4.60	7.90	6.1231
58.361	0.08	9.00	0.40		66.20	2.80	3.80	10.30	8.6038
102.7415	0.06	4.40	0.25		66.00	1.90	3.60	10.30	4.3789
110.682	0.07	6.80	0.40		70.40	1.30	4.20	7.50	6.8035
101.6805	0.07	6.50	0.40		73.20	1.50	4.00	5.80	6.6074
113.1635	0.09	9.40	0.25		73.60	3.90	3.60	7.50	9.1937
105.3585	0.09	11.40	0.30		74.20	1.50	3.60	7.80	10.5332
115.237	0.08	7.80	0.30		73.20	1.00	3.60	3.20	7.8001
115.0705	0.10	8.40	0.30		73.60	2.40	3.50	6.60	8.8459
121.525	0.12	12.10	0.30		75.00	2.00	4.00	6.20	11.9680

Tot. Tons 3425.985 Av. Oz. Au 0.085 Av. Oz. Ag 8.58 Av. Val. per ton \$10.37

NEWSBOY GROUP SHIPMENTS, A S & R PLANT, HAYDEN 1940 - 1941

Tons Dry Wt.	Oz. Au	Oz. Ag	% Cu	Insol.	Sil.	Al.	Iron	Lime	Tot. Pay.
103.877	0.06	8.12		85.1	81.6	2.8	2.8	3.8	\$ 7.21
112.7815	0.03	5.70		77.0	71.4	2.8	3.0	8.7	4.56
147.1175	0.055	8.06		80.9	76.5	2.6	4.6	6.6	7.01
57.4795	0.072	11.75		73.3	71.2		3.2	10.6	10.05
151.668	0.035	11.95		74.1	71.3	2.0	3.0	9.4	10.60
109.969									10.93
52.480	0.035	4.35		77.2	72.6	3.8	5.3	11.0	3.79
104.356	0.041	10.10		75.0	72.1	2.0	3.0	9.8	7.96
104.657	0.09	8.70		72.7	69.5	2.0	3.1	10.4	8.58
100.3365									3.74
92.8025	0.041	6.80		75.6	73.5	2.9	2.9	8.4	5.68
102.2375	0.065	10.15		75.3	75.0	1.9	3.0	10.0	8.77
100.228	0.065	9.60		74.1	70.3	1.4	3.7	9.2	8.39
107.9395	0.05	7.63		74.3	70.4	2.0	4.3	10.2	6.55
107.9795	0.048	5.70		72.6	72.1		2.8	9.3	5.14
170.9135	0.035	4.78		74.3	72.5	2.1	3.3	9.8	4.09
167.3965	0.085	9.70		74.0	72.6	3.0	3.6	9.1	9.11
112.995	0.073	9.10		75.5	73.8		3.3	10.3	8.30

Tot. Tons 2007.319 Av. Oz Au 0.057 Av. Oz. Ag 8.70 Av. Val. per ton \$9.50

GENOME

PM LABS

Assaying Chemical Analyzes
Consulting Ore Evaluation
560 E. AVE. J-1
LANCASTER, CA. 93534
(805) 942-5145

ASSAY REPORT

TO: Gerry Kirwan
611 W. Gibraltar Ln.
Phoenix, Arizona 85023

DATE: 11/1/75
ASSAY CHARGES: \$60.00 (PAID)

DESCRIPTION OF SAMPLES: #1: GENOME Head Ore, #2: Plated Metallics
from 10 lbs. of concentrates from Phoenix Head Ore. * not so,
ore was so-called cons on property in barrels which are
only slightly above crude head ore.

TYPE OF ASSAYS: Wet chemical analysis for gold, silver, and
platinum group.

OTHER INFORMATION: Each sample was ground to -200 mesh prior
to analysis.

ANALYSIS:

ELEMENT: NUMBER OF TROY OUNCES PER TON OF SAMPLE:

ELEMENT:	#1:	#2:
Gold	2.88	.5
Silver	6.90	.61
Pt Group	.54	.22

U.A.

SEE ALSO ASSAY BLACK MAG. SANDS 11/4/75

#1 was taken as being representative of a 50" vertical section through the placer supposedly representative of precious metals within the placer material unconcentrated as is in field.

Thanks,

#2 - Using 1% sodium cyanide solution, 7.5 Volts, 140° temperature, drawing about 15 amps on single plate, time being only 22 hours, material was so-called cons. which are only slightly above crude head ore. Total value equates to \$45.44/ton.

Willard A. Luegge
WILLARD A. LUEGGE

G.L. Kirwan, P.E.
G.L. Kirwan

GNOME

COPY

PM LABS
Assaying Chemical Analyses
Consulting Ore Evaluation
560 E. AVE. J-1
LANCASTER, CA. 93534
(805) 942-5145

ASSAY REPORT

TO: Gerry Kirwan
611 W. Gibraltar Ln.
Phoenix, Arizona 85023

DATE: 11/4/75
ASSAY CHARGES: \$ 50.00 (PAID)

DESCRIPTION OF SAMPLES: #1: Black magnetic sands from Globe prop-
erty head ore. #2: Mojave smelt No. 1 from 3 lbs. of crude head
ore.

TYPE OF ASSAYS: Wet chemical analysis for silver, gold and
platinum group.

OTHER INFORMATION: Weight of black sands = 372 grams. Weight of
residue from which black sands were removed = 12 lbs. Weight of
button from Mojave smelt No. 1 = 1.72 grams. 12:1 ratio

ANALYSIS:

ELEMENT:	NUMBER OF TRDY OUNCES PER TON OF SAMPLE:	
	#1:	#2:
Silver	6.96	.90*
Gold	3.32	.21* N.A.
Pt group	.72	.18*

* Per ton of the crude head ore.

THANKS,

CRUDE HEAD PLACER ORE VALUE/TON \$498.46
BLACK SANDS VALUE/TON: \$591.82
Black sands constitute only 1.5% of total head ore, thus it
would require 67 tons crude to produce one ton blacks.
In 67 tons crude, \$ value is 67 x \$498.46 = \$3,3396.82 - black
sands value of \$591.82 or \$3,2805.00/67 = \$489.00/ton crude.
The black sands portion of ton of crude is \$8.83

Each fraction would require different treatment.

G.L. Kirwan, P.E.

Willard A. Luegge
WILLARD A. LUEGGE

SOUTHWESTERN ASSAYERS & CHEMISTS, INC.

REGISTERED ASSAYERS

FELIX K. DURAZO
ARIZONA REG. NO. 8205
WIL WRIGHT
ARIZONA REG. NO. 8878

P.O. BOX 7517
TUCSON, ARIZONA 85725

710 E. EVANS BLVD.
PHONE 602-294-5811

Nordore Mining Company, Ltd.

Mr. R. B. Carson

153 Perrault

Val D' Or, Quebec, Canada CC: H. J. Grassie

JOB# 016972

RECEIVED 2-4-75

REPORTED 2-7-75

SAMPLE NUMBER	GOLD OZ.*	SILVER OZ.*	LEAD %	COPPER %	ZINC %		MOLYBDENUM %
G-							
1	.003	.51					
2	.008	.79					
3	.031	.94					
4	.070	1.78					
5	.140	3.00		.05			
6	.024	2.59		.03			
7	.021	.31					
NOTE: The above are A.A. results.							

CHARGE \$ 39.00

* Gold and Silver reported in troy oz. per 2,000 lb. ton.

INVOICE

SOUTHWESTERN ASSAYERS & CHEMISTS, INC.

REGISTERED ASSAYERS

FELIX K. DURAZO
ARIZONA REG. NO. 8208
WIL WRIGHT
ARIZONA REG. NO. 8875

P.O. BOX 7517
TUCSON, ARIZONA 85725

710 E. EVANS BLVD.
PHONE 602-294-5811

Nordore Mining Company, Ltd.
Mr. R. B. Carson
153 Perrault
Val D' Or, Quebec, Canada

CC: H. J. Grassie

JOB# 016945
RECEIVED 1-30-75
REPORTED 2-3-75

SAMPLE NUMBER	GOLD OZ.*	SILVER OZ.*	LEAD %	COPPER %	ZINC %		MOLYBDENUM %
G-1	Nil	.48					
2	.010	.90					
3	.028	.97					
4	.076	1.87					
5	.138	3.03					
6	.028	2.58					
7	.017	.23					
Grasshopper:							
1	.037						

CHARGE \$ 46.00

* Gold and Silver reported in troy oz. per 2,000 lb. ton.

INVOICE

1435 SOUTH 10th AVENUE
P.O. BOX 1889

Jacobs Assay Office

Registered Assayers



85702 Tucson, Arizona, *Jan. 24th*, 1975

Sample Submitted by Mr. *Gerry Kirwan*

Sample Marked	GOLD Ozs. per ton ore	GOLD Value per ton ore *	SILVER Ozs. per ton ore	COPPER Per cent Wet Assay	LEAD Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay	Per cent Wet Assay
<i>G-4</i>	<i>0.04</i>	<i>400</i>	<i>3.75</i>	}	<i>GNOME</i>	<i>OPEN PIT</i>	<i>1ST 100' DEPOSIT</i>	<i>OPEN PIT</i>
<i>G-5</i>	<i>0.04</i>	<i>400</i>	<i>1.80</i>					
<p>G-1 to G-3 samples taken elsewhere on the property by Kirwan (other than the open pit area) and to date Feb. 10/75 not assayed</p>								
<i>75</i>								

* Gold Figured \$ 100.00 per oz. Troy

Charges \$ *8.00*

Very respectfully,

Don P. Jacobs



Engineers Testing Laboratories, Inc.

1710 Arizona Avenue
20 Miles Park

703-5260
774-4881

Yuma, Arizona 85364
Flagstaff, Arizona 86001

423 South Olsen
2525 E. Indian School Road

622-3663
264-4781

Tucson, Arizona 85719
Phoenix, Arizona 85016

REPORT ON LABORATORY TESTS

Lab. No. 40-0478

G.W. MINING
1444 SOUTH 27TH STREET
PHOENIX, ARIZONA

Date 2-4-72

Date Rec'd 2-1-72

NO DATA

Location

NO DATA

NO DATA

ORES

Sampled By

EVERETT/U.S. BUREAU OF MINES

EVERETT

Requested By

ASSAYS

TEST RESULTS

SAMPLE	1 & 2	3
IDENTIFICATION	TUFF	BASIC ROCK
PLATINUM TROY OUNCES/TON	NIL	11.24
GOLD TROY OUNCES/TON	NIL	0.96
PALLADIUM TROY OUNCES/TON	NIL	1.46
SILVER TROY OUNCES/TON	0.02	0.22

Copies To: ADDRESSEE (3)
FLOYD D. EVERETT (1)
4/FJ

Respectfully submitted,
ENGINEERS TESTING LABORATORIES, INC.

Robert W. Clark

GNOME

PM LABS
 Assaying Chemical Analyses
 Consulting Ore Evaluation
 560 E. AVE. J-1
 LANCASTER, CA. 93534
 (805) 942-5145

ASSAY REPORT

TO: George Ramey
194 Evergreen Pky.
Oceanside, CA 92054

DATE: 11/25/75

ASSAY CHARGES: \$22.00 PAID

DESCRIPTION OF SAMPLES: #1: Hotshot #1 Mass. #2: Hotshot #2 Tails.
#3: Hotshot #3 Head Ore. #4: Hotshot #4 Panned Heavies from Mag
Tails.

TYPE OF ASSAYS: Wet chemical analysis for silver and gold.

OTHER INFORMATION: All samples ground to pass -200 mesh prior
to analysis.

ANALYSIS:

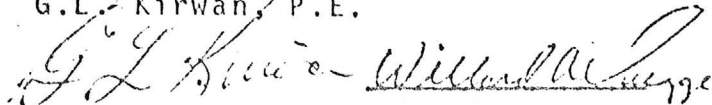
ELEMENT:	NUMBER OF TRDY OUNCES PER TON OF SAMPLE:	
	#1:	#2:
Silver	13.50	16.20
Gold	2.43	2.97
	#3:	#4:
Silver	32.40	29.70
Gold	2.70	1.08

GNOME PROPERTY: From 50 ft. cat cut

- 1) Magnetic fraction, only 1.5% of whole
- 2) Tails after removal of magnetic fraction
- 3) Crude Head Ore screened to house screen size (10 mesh)
- 4) Panned heavy fraction from No. 2 above (from 4 pounds got one ounce thus 1/64th by weight represents 40% of gold and 91.6% of silver)

THANKS

G.L. Kirwan, P.E.



WILLARD A. LUEGGE

PM LABS
Assaying Chemical Analyses
Consulting Ore Evaluation
560 E. AVE. J-1
LANCASTER, CA. 93534
(805) 942-5145

ASSAY REPORT

TO: Gerry L. Kirwan
611 W. Gibraltar Lane
Phoenix, Arizona 85023

DATE: 12/6/75

ASSAY CHARGES: \$30.00 (PAID) *

DESCRIPTION OF SAMPLES: 30 lb. smelt of Gnome Magnetite

TYPE OF ASSAYS: Wet chemical analysis for silver, gold, and platinum group.

OTHER INFORMATION: This was a "poor" smelt. All the metal was dispersed in small chunks and adhered to the slag. After crushing, I had to remove (one by one) each piece of metal prior to the analysis.

ANALYSIS: The metals weighed 48 grams.

ELEMENT: NUMBER OF TROY OUNCES PER TON OF SAMPLE:**

Silver	8.96	
Gold	.07	
Pt group	.05	** Gnome Magnetite

P.S. I trust these figures tell you something regarding a different selection of flux mix, temperature, time, etc. so as to improve the results on the gold and platinum group. Usually when the metals are not found in a "button", one can expect a poor analysis.

THANKS,

* You now have a credit of \$120 as of 12/6/75/.

GNOME PROPERTY: Using inorganic fluxes, a 15 pound furnacing of only magnetic fraction of the gnome crude head ore was done, and results confirm that essentially no precious metal values are contained in this fraction.

G.L. Kirwan

GNOME

PM LABS
Assaying Chemical Analyses
Consulting Ore Evaluation
560 E. AVE. J-1
LANCASTER, CA. 93534
(805) 942-5145

Aluminum
Antimony
Arsenic
Barium
Bismuth
Boron
Cadmium
Chromium
Cobalt
Copper
Gold
Iridium
Iron
Lead
Magnesium
Manganese
Mercury
Nickel
Osmium
Palladium
Platinum
Rhodium
Ruthenium
Silver
Sulfur
Tantalum
Tellurium
Thallium
Thorium
Tin
Titanium
Tungsten
Uranium
Vanadium
Zinc

January 1, 1976

Gerry L. Kirwan
611 W. Gibraltar Ln.
Phoenix, Arizona 85023

Re: Wet chemical analysis for silver, gold, and total Pt group on Gnome samples. Sizing test vs. recovery of total precious metals from composite of samples 2 - 7 inclusive via fire assay obtaining Dore buttons.

Results of Wet Chemical Analysis:

Sample Description:	Silver:	Gold:	Pt group:
2) Gnome Main Open Trench 0 - 15 ft. vertical	1.15	.30	.06
3) Gnome Main Open Trench 15 - 30 ft. Vertical	2.00	.76	.15
4) Gnome Pit 100 ft. South of Main Trench 1 - 5 ft.	.95	.51	.11
5) Gnome Placer 300 ft. Down- stream from Main Trench	.61	.40	.08
6) Gnome Placer 500 ft. Down- stream from Main Trench	.78	.17	.04
7) Gnome Placer 1000 ft. Down- stream from Main Trench	.86	.13	.03

AVE: 1.05 0.378 0.07 \$ 71.12

Results of Sizing Test vs. Recovery of Total Precious Metals:

Mesh Size:	Percentage by Weight:	Precious Metals Recovery:
Passing 1/4"	.3	Did not run
Passing 1/8"	1.6	.50
Passing 1 mesh	20.9	.52
Passing .5 mesh	34.1	.57
Passing -60 mesh	14.4	.60
Passing -140 mesh	20.6	.62
Passing -300 mesh	8.1	.56

* Troy Oz./Ton

100.0

Willard A. Luesag
Willard A. Luesag

GERALD L. KIRWAN, B.Sc., P.Eng.

CONSULTING GEOLOGICAL ENGINEER

611 W. Gibraltar Ln.
Phoenix, Arizona 85023
(602) 993-1852

CONSULTING
EXPLORATION
ENGINEERING



Sept. 9, 1975

Messrs. Jack Grassie,
George Ramey
10,110B 97th Dr.,
Peoria, Az.

Gentlemen:

Just for the record, I submit the following:

FLOW SHEET FOR PLACER ORE: (re Frank Haskit)

SLUICE BOX (to trap the heavies)

ROAST: heavies subject to 700° F heat in vat roast for 25 min

ROD MILL: Heavies now crushed to liberate gold. 18" rod mill suggested by Haskit. Screening suggested here also Reason?

** GOLD BOWL: Mercury amalgamation to capture gold. The rejects from bowl saved for high silver. Platinates are witnessed in rejects by Haskit.

NOTE: The above does not take into consideration free gold amounting to some \$2.00 per ton in raw head ore. Neglecting this free gold, Haskit recovers by above flow sheet about \$25.00/ton in gold processed.

** Furnacing to create dore bar as end product for sale.

RESULTS OVER \$300.00 IN GOLD ALONE PER TON CRUDE HEAD ORE



STATE OF ARIZONA
DEPARTMENT OF MINERAL RESOURCES
MINERAL BUILDING, FAIRGROUNDS
PHOENIX, ARIZONA 85007

Mr. Kirwan was in office September 9, 1975.

Stated he is opening up the Gnome, is working it as a placer. Sent samples to 21 different assay office. Highest came back .0015. Took sample to J. W. Wilson. Recovered button (micron gold) valued at \$200 per ton.

Trying to negotiate lease on Middle March from Mr. Birchfield. Has plenty of money to open up, having problems clearing title at this time.

Promised to send us up to date data on Gnome within 30 days.

He has a "Cully" mill he is going to erect on the property. It is equipped with a "micronizer", material is reduced in size to approximately 300 mesh by Sonies. Gold well be recovered in special amalgamation. See attached sketch. Mill is made in Washington.

CONSULTING
EXPLORATION
ENGINEERING



GERRY KIRWAN, B.Sc., P.Eng.
CONSULTANT TO THE MINERAL INDUSTRY
611 W. Gibraltar Ln., Phoenix, Arizona 85023
(602) 993-1852

GERRY KIRWAN & ASSOCIATES

- Mine Financing
- Contract Exploration Engineering
Geological, Geophysical, Geochemical Surveys
- Consulting, Reports

GNOME PROPERTY

FRANK HASKITT RESEARCH:

Took 50 pounds head raw placer ore and:

- 1) used gold bowl to separate black sands using riffle outwash.
- 2) Heated to 800° for 15 minutes. (cherry red) 1% salt S₂
- 3) Pulverized (Pistol and Mortar)
- 4) PROBABLY then screened and used gold bowl for extraction.

SECOND METHOD:

- 1) Separated the black sands.
- 2) Furnaced to 1800 to 2,000 for 15 min. with litharge
- 3) Assayed bead

NET RESULT: \$319.00 gold per ton black sands. ✓ ✓

??

GERALD L. KIRWAN, B.Sc., P.Eng.

CONSULTING GEOLOGICAL ENGINEER

611 W. Gibraltar Ln.
Phoenix, Arizona 85023
(602) 993-1852

CONSULTING
EXPLORATION
ENGINEERING



Nov. 6, 1975

PARZELL ASSAYERS AND ORE DRESSERS OF 1966 EAST 1ST STREET
PROCESSED (ie PLACED INTO SOLUTION SCREENED HEAD CRUDE ORE
TO 10 MESH FROM GNOME CAT CUT THEN FURNACED TO 2200 F.)
AND RECOVERED 3.88 OZ. GOLD PER TON ALONG WITH 169 OUNCES
SILVER PER TON.

G. L. Kirwan
G.L. KIRWAN

TELEPHONE
FACTORY
PHOENIX, ARIZONA

GILANALYTIC

SOURCE??

TELEPHONE
(505)
538-9734

GILA ANALYTIC AND RESEARCH LABORATORY, INC.

COMPLETE
ANALYSIS
OF:

REPORT TO: Jerome P. Mills

G. W. Mining and Minerals

LABORATORY NUMBER Research - 015

1444 South 27th Street

DATE RECEIVED November 28, 1972

ORE

Phoenix, Arizona 85034

DATE COMPLETED December 6, 1972

SOIL

Four Pails, 275 Pounds of Ground Ore
Buzbill 68042364 5, November 27, 1972

WATER

ANALYSIS REQUESTED:

LEAF
TISSUE

Gold and Silver
Platinum Family

LEACHING
SOLUTIONS

HYDROCHLORIC
SOLUTIONS

CERTIFICATE OF ANALYSIS: Methods: Wet Digestion - Fusion with Chemical
Fire Assay and Atomic Absorption Determinations Parting of Button

AIR

FERTILIZERS	Sample	Gold	Silver	Platinum	Palladium	Bead Weight
INSECTICIDES	Pail 1	1.24 oz	0.12 oz	0.34 oz	0.62 oz	9.015 mg
HERBICIDES	Pail 2	1.25 oz	0.13 oz	0.34 oz	0.61 oz	9.08 mg
BLOOD	Pail 3	1.19 oz	0.11 oz	0.32 oz	0.58 oz	9.02 mg
URINE	Pail 4	1.28 oz	0.16 oz	0.35 oz	0.64 oz	9.10 mg
	<u>Average</u>	<u>1.2425 oz</u>	<u>0.13 oz</u>	<u>0.3375 oz</u>	<u>0.6125 oz</u>	

Jay Wilson
ANALYST
P.D.

Fire Assay
. 2 Assay Ton
Beads Attached

BILL TO: Jerome P. Mills

G. W. Mining and Minerals

1444 South 27th Street

Phoenix, Arizona 85034

CHARGES: Payable Upon Receipt of Enclosed Invoice

GILA ANALYTIC AND RESEARCH LABORATORY, INC.

REPORT TO: Jerome P. Mills

COMPLETE
ANALYSIS
OF:

G. W. Mining and Minerals

LABORATORY NUMBER _____

1444 South 27th Street

DATE RECEIVED November 10, 1972

ORE

Phoenix, Arizona 85034

DATE COMPLETED _____

SOIL

WATER

ANALYSIS REQUESTED: Gold and Silver --- Platinum and Palladium

LEAF
TISSUE

Rock Sample mailed November 7, 1972

LEACHING
SOLUTIONS

Analyzed Per: George Coleman - November 4, 1972, November 16, 1972

HYDROPONIC
SOLUTIONS

CERTIFICATE OF ANALYSIS: Methods: Wet Digestion and Fusion
Atomic Absorption Determinations - *see*

AIR

FERTILIZERS

Silver 0.46 oz

Fire Assay
1/2 Assay Ton
Bead Attached } *TOO SMALL A SAMPLE*

INSECTICIDES

Gold 1.675 oz

HERBICIDES

Platinum 1.02 oz

BLOOD

Palladium 2.69 oz

URINE

Bead Weight 6.04 mg

Jay Wilson
ANALYST

BILL TO: Jerome P. Mills

G. W. Mining and Minerals

1444 South 27th Street

Phoenix, Arizona 85034

Copy To: George Coleman

CHARGES: Payable upon receipt of enclosed invoice.....



Engineers Testing Laboratories, Inc.

1310 Arizona Avenue
29 Elixes Pike

783-5280
774-4651

Yuma, Arizona 85364
Flagstaff, Arizona 86001

423 South Olsen
2525 E. Indian School Road

629-3663
764-4781

Tucson, Arizona 85719
Phoenix, Arizona 85016

REPORT ON LABORATORY TESTS

Lab. No. 40-516

Client: **G.W. MINING**
1444 SOUTH 27TH STREET
PHOENIX, ARIZONA

Date 3-2-78

Date Rec'd. 2-28-78

Project NO DATA Location NO DATA
 Source of Sample NO DATA
 Material ORES Sampled By NO DATA
 Submitted By DON WORKMAN Requested By DON WORKMAN
 Tested ASSAYS

TEST RESULTS

SAMPLE	1	2	3
PLATINUM TROY OUNCES/TON	0.09	1.87	5.85
GOLD TROY OUNCES/TON	--	--	1.11

Copies to: ADDRESSEE (3)
3/1 J

Respectfully submitted,
ENGINEERS TESTING LABORATORIES, INC.

Robert M. Omer
ROBERT M. OMER



Engineers Testing Laboratories, Inc.

1516 Arizona Avenue
29 Baker Park

761-5260
774-4881

Yuma, Arizona 85364
Flagstaff, Arizona 86001

423 South Olsen
2525 E. Indian School Road

622-2663
264-4781

Tucson, Arizona 85717
Phoenix, Arizona 85016

REPORT ON LABORATORY TESTS

Lab. No. 40 0361

Client: G. W. MINING
1444 SOUTH 27TH STREET
PHOENIX, ARIZONA 85034

Date 11-18-71

Date Rec'd 11-8-71

Project	<u>NO DATA</u>	Location	<u>NO DATA</u>
Source of Sample	<u>NO DATA</u>		
Material	<u>ORES</u>	Sampled By	<u>NO DATA</u>
Submitted By	<u>JERRY MILLS</u>	Requested By	<u>JERRY MILLS</u>
Tested	<u>ASSAYS AS BELOW</u>		

TEST RESULTS

SAMPLE NO.	1.42	3.78	5.41	6.73	0.82
PLATINUM, TROY OUNCES/TON	1.42	3.78	5.41	6.73	0.82
GOLD, TROY OUNCES/TON	0.38	0.95	1.06	1.14	0.23
SILVER, TROY OUNCES/TON	0.10	0.13	0.19	0.22	0.13
SILICON DIOXIDE (SiO ₂), %	---	---	---	---	59.36
ALUMINUM OXIDE (Al ₂ O ₃), %	---	---	---	---	2.20
COPPER, %	4.25	4.03	3.75	---	---

Copies To: ADDRESSES (3)
3/CH

Respectfully submitted,

ENGINEERS TESTING LABORATORIES, INC.

Robert W. Coe
ROBERT W. COE

Engineers-Testing Laboratories, Inc.

1110 American Avenue
20 P.O. Box 140

723-5210
724-4331

Yuma, Arizona 85364
Flagstaff, Arizona 86001

673 South Olsen
2525 E. Indian School Road

622-3003
764-4781

Tucson, Arizona 85719
Phoenix, Arizona 85016

REPORT ON LABORATORY TESTS

Lab. No. 40-549

Client: G.W. MINING COMPANY
1444 SOUTH 27TH STREET
PHOENIX, ARIZONA

Date 3-22-72

Date Rec'd 3-21-72

Project NO DATA Location NO DATA

Source of Sample NO DATA

Material ORE Sampled By NO DATA

Submitted By DON WORKMAN Requested By DON WORKMAN

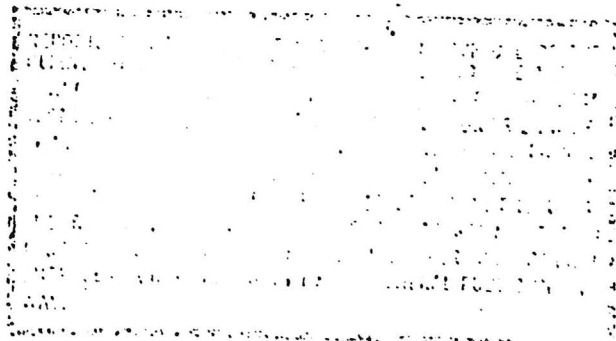
Tested CHEMICAL ANALYSES

TEST RESULTS

PLATINUM
TROY OUNCES/TON 5.26

GOLD
TROY OUNCES/TON 1.28

SILVER
TROY OUNCES/TON 0.13



Copies To: ADDRESSEE (3)
3/13

Respectfully submitted,

ENGINEERS-TESTING LABORATORIES, INC.

ROBERT W. CULLEN



Engineers Testing Laboratories, Inc.

1510 Arizona Avenue
25 Miles Pike

783-5280
774-4381

Yuma, Arizona 85364
Flagstaff, Arizona 86001

423 South Olsen
2525 E. Indian School Road

627-3653
264-4751

Tucson, Arizona 85719
Phoenix, Arizona 85016

REPORT ON LABORATORY TESTS

Lab. No. 40-0509

Client: **G.W. MINING COMPANY**
c/o **DON WORKMAN**
4127 EAST GARFIELD STREET
PHOENIX, ARIZONA 85008

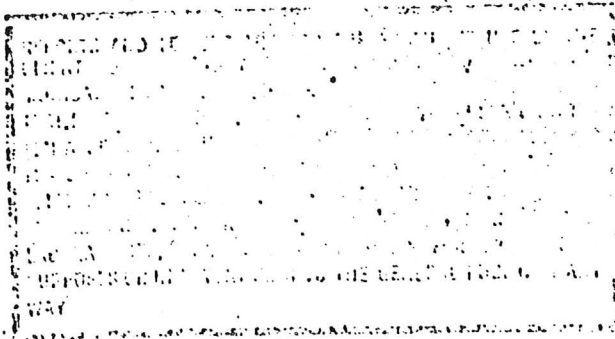
Date 2-18-72

Date Rec'd 2-17-72

Project	<u>NO DATA</u>	Location	<u>NO DATA</u>
Source of Sample	<u>NO DATA</u>		
Material	<u>ORES</u>	Sampled By	<u>NO DATA</u>
Submitted By	<u>WORKMAN</u>	Requested By	<u>WORKMAN</u>
Tested	<u>ASSAYS</u>		

TEST RESULTS

<u>SAMPLE</u>	<u>1</u>	<u>2</u>
PLATINUM TROY OUNCES/TON	4.83	4.96
GOLD TROY OUNCES/TON	0.94	1.86



Copies To: ADDRESSEE (3)
3/PJ

Respectfully submitted,
ENGINEERS-TESTING LABORATORIES, INC.

Robert W. Owen
ROBERT W. OWEN

Engineers Testing Laboratories, Inc.

515 Tucson Avenue
20 Bldg. 117

703-2583
724-6381

Yuma, Arizona 12063
Hogstoll, Arizona 12001

423 South Olsen
2525 E. Edison School Road

672-2663
254-4701

Tucson, Arizona 64717
Phoenix, Arizona 12016

REPORT ON LABORATORY TESTS

Lab. No. 40-0478

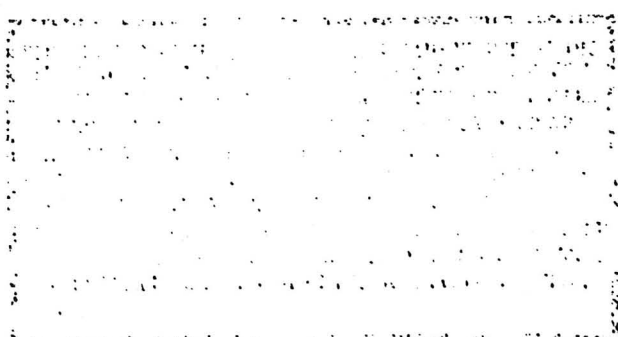
Client: **G.W. MINING**
1444 SOUTH 27TH STREET
PHOENIX, ARIZONA

Date 2-4-77
Date Rec'd 2-1-77

Project NO DATA Location NO DATA
Source of Sample NO DATA
Material ORES Sampled By EVERETT/U.S. BUREAU OF MINES
Submitted By EVERETT Requested By _____
Tested ASSAYS

TEST RESULTS

SAMPLE IDENTIFICATION	1 & 2 TUFT	3 BASIC ROCK
PLATINUM TROY OUNCES/TON	NIL	11.24
GOLD TROY OUNCES/TON	NIL	0.96
PALLADIUM TROY OUNCES/TON	NIL	1.46
SILVER TROY OUNCES/TON	0.02	0.22



Copies to: **ADDRESSER (3)**
FLOYD D. EVERETT (1)
4/13

Respectfully submitted,
ENGINEERS TESTING LABORATORIES, INC.

(Handwritten signature)

CHIEF ASSAYER

RESUME

November 26, 1975

I. Educational Background:

B.A. degree received from Indiana University in 1953

Graduate work in chemistry taken at the University of Louisville, 1956-57.

Graduate work in Secondary School Education taken at various colleges and universities including UCLA, San Fernando Valley State College, and Indiana University.... 1957 through 1963.

II. Work Experience:

1957 - 1960, employed as an analytical chemist and research chemist by Louisville Cement Co., Speed, Indiana.

1960 - 1961, employed as a quality-control chemist by California Portland Cement Co., Mojave, Calif.

1961 - present, employed as a chemistry instructor and chairman of the science department at Palmdale High School, Palmdale, Calif.

1973 - 1974, taught a course in Physical Science at Antelope Valley College during the extended day.

Summers of 1966, 1967, and 1968, I was employed as a research chemist at the Rocket Propulsion Lab, Edwards Air Force Base, Edwards, Calif.

1968 - 1970, I was technical consultant for Elements, Inc. a company working with the production of precious metals.

1971 - 1972, I was technical consultant for Scientific Metal Products, Inc. a company working with the production of precious metals.

1972 - present, I opened up my own lab facilities, PM LABS for the purpose of assaying, chemical analyses, ore testing, and consulting work.

P.S. I am 44 years old and am married.

Respectfully yours,
Willard A. Luegge
Willard A. Luegge
560 E. Avenue J-1
Lancaster, CA 93534
(805) 942 5145

GERALD L. KIRWAN, B.Sc., P.Eng.

CONSULTING GEOLOGICAL ENGINEER

4556 East Paseo La Casita
Tucson, Arizona 85718
(602) 299-1126

JANUARY 15, 1975

RESUME OF G.L. KIRWAN

1. BORN JANUARY 14, 1930, OTTAWA, CANADA, SON OF A MINING ENGINEER WHO DID AN EXCELLENT JOB OF INITIATING HIS SON INTO THE VARIED AND TECHNICAL ASPECTS OF GEOLOGY AND MINING ENGINEERING. ANCESTORY INCLUDES SIR RICHARD KIRWAN, "THE FATHER OF BRITISH MINERALOGY".
2. RECEIVED BACHELOR OF SCIENCE DEGREE, 1957, CARLETON UNIVERSITY, CANADA, AND TAUGHT BOTH CLASSROOM AND LABORATORY FOR THREE YEARS. WHILE ATTENDING UNIVERSITY, RECEIVED PROFESSIONAL EXPERIENCE AND KNOWLEDGE WITH UNITED STATES STEEL CORP., NEWMONT MINING CORPORATION, BRITISH PETROLEUM CORP., AND NORANDA MINES LTD. IN THE FIELDS OF GEOLOGY, ENGINEERING, GEOPHYSICS, AND GEOCHEMISTRY. PERFORMED SMALL AMOUNT OF POST GRADUATE WORK ALONG WITH INSTRUCTING AT UNIVERSITY OF MISSOURI.
3. 1960, BECAME CANADA'S YOUNGEST INDEPENDANT GEOLOGICAL ENGINEERING CONSULTANT AND ALSO OWNED AND CONTROLLED LARGEST CONTRACT ENGINEERING FIRM OF ITS KIND IN CANADA WITH COAST TO COAST OFFICES ESSENTIALLY ASSESSING FOR PRODUCTION BASE AND PRECIOUS METALS. UNDERGROUND EXPERIENCE WITH KERR ADDISON GOLD MINES IN CANADA, STOPE CONTROLS AND GENERAL MINING ENGINEERING, BUT DID SUCCESSFULLY LOCATE MILLIONS OF DOLLARS OF GOLD IN UNDERGROUND DEPOSITS.
4. I AM REGISTERED WITH THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF THE PROVINCE OF ONTARIO AS A PROFESSIONAL ENGINEER. I AM A FELLOW OF THE GEOLOGICAL ASSOCIATION OF CANADA, AND A MEMBER OF THE CANADIAN INSTITUTE OF MINING AND METALLURGY.
5. WITH INTEREST FOCUSSED ON REBELLIOUS TYPE ORES, I HAVE BECOME ACTIVELY ENGAGED OVER PAST SIX YEARS IN PROBLEMS

University of Arizona

TUCSON

5-4-47
May 22, 1947

COLLEGE OF MINES
ARIZONA BUREAU OF MINES

Mr. A. L. Flagg
P.O. Box 2345
Phoenix, Arizona

Dear Mr. Flagg:

Ore Test 1055

The ore which you sent to the Arizona Bureau of Mines is low grade but one cyanide test was made on it without grinding.

A sample was cyanided in a revolving bottle for 40 hours. The results are given in the following table:

	:Tons per 100:	oz. per ton	: Distribution, percent		
	:tons heads	: Gold	: Silver	: Gold	: Silver
Heads	:	: 0.025	: 2.35	:	:
Heads, calculated	: 100.0	: 0.029	: 2.49	: 100.0	: 100.0
Solution and washes	: 164.0	: 0.012	: 0.15	: 66.3	: 9.9
Tailing	: 100.0	: 0.01	: 2.25	: 33.7	: 90.1


The recovery by cyanidation was 66.3 and 9.9 percents of the total gold and silver respectively. The tailing assayed 0.01 oz. gold and 2.25 oz. silver per ton. The cyanide and lime consumptions were 0.7 and 2.0 pounds per ton respectively.

There are a number of silver ores that are refractory to both cyanidation and flotation. The tailings from these ores run often from one to six oz. per ton silver. This ore has the characteristics of such refractory silver ores.

The check you sent covers the cost of the test as the material was ready to test without grinding.

The two sacks of rejects of the previous test have been sent to you at Phoenix by express.

Yours very truly,



G.H. Roseveare
Metallurgist

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

INTERMOUNTAIN EXPERIMENT STATION

December 31, 1947

1600 East 1st South
SALT LAKE CITY, UTAH

Mr. Arthur L. Flagg
Consulting Engineer
P. O. Box 2345
Phoenix, Arizona

Received... 1-5-48
Answered... 1-8-48

Dear Mr. Flagg:

In accordance with my letters of October 28 and November 3, 1947, we have made the sulfur dioxide leaching and cyanidation tests on the sample of ore from the Newsboy group which you submitted. Reports on these tests are enclosed herewith.

To insure maximum extraction of manganese, 29 grams of sulfur dioxide was introduced per gram of manganese in the ore. This is about 10 times as much as was used in the tests reported in the enclosed Report of Investigations No. 4097, which summarizes the results obtained on several Arizona manganese-silver ores. About 73 percent of the manganese was extracted, leaving a residue assaying only 0.14 percent manganese.

Extraction of silver from the sulfur dioxide leach residue by cyanidation, although much higher than the 12.6 percent extraction from the raw ore, was only 46.6 percent. Leaching out most of the manganese increased the extraction of gold from 73.3 percent to 80.0 percent.

Very truly yours,

S. R. Zimmerley
S. R. Zimmerley, Chief
Salt Lake City Branch
Metallurgical Division

Encs.

*Sulphur and
ferric sulphate*

SULFUR DIOXIDE LEACHING TESTS ON MANGANESE-BEARING
SILVER ORE SUBMITTED BY MR. A. L. FLAGG

Test Conditions

Grind	Minus 65-mesh
Pulp Density (ore pulped with water)	25 percent
Percent SO ₂ in leaching gas	3.7 percent (remainder air)
Leaching time	2 hours
Grams SO ₂ introduced per gram Mn in ore	29.0
Leaching temperature	35° C.

Chemical Analysis

	Percent							Oz./ton	
	Mn	Cu	Zn	Pb	Fe	CaO	SiO ₂	Au	Ag
Ore	0.50	0.05	0.6	0.15	2.50	4.5	77.3	0.075	4.9
Leach residue	0.14	0.05	0.3	-	-	-	-	0.075	4.9

Test Results

Manganese extraction	73.2 percent
Dithionate formation	36.4 pounds per ton of ore

CYANIDATION TESTS ON MANGANESE-BEARING SILVER
ORE SUBMITTED BY MR. A. L. FLAGG

Cyanidation tests were made on both a sample of the ore and on a sample of residue from the leaching of the manganese with sulfur dioxide. The samples were minus 65-mesh as received and had the following composition:

Chemical Analysis

	Assay, percent			Oz./ton	
	Mn	Cu	Zn	Au	Ag
Ore	0.5	.05	0.6	0.075	4.9
Leach residue	0.14	.05	0.3	0.075	4.9

Test Conditions

Grind	Minus 65-mesh
Pulp Density	40 percent
Protective Alkalinity	15 lbs./ton ore; pH 11.8
NaCN	5 lbs. per ton ore
Leach Time	48 hours
Type of Leach	Open bottle agitation

Test Data

	Ore				Sulfur dioxide leach residue			
	Assay, Oz./ton		Distribution, percent		Assay, Oz./ton		Distribution, percent	
	Ag	Au	Ag	Au	Ag	Au	Ag	Au
Cyanide Residue	4.3	0.02	87.4	26.7	2.7	0.015	53.4	20.0
Pregnant Solution	-	-	12.6	73.3	-	-	46.6	80.0
Calculated Heads	4.9	0.075	100.0	100.0	4.9	0.075	100.0	100.0

The data given show that less than 15 percent of the silver in the ore was soluble in strong cyanide solution whereas over 70 percent of the gold was dissolved. After dissolving some of the manganese in the ore by the sulfur dioxide leaching and then cyaniding, silver extraction was increased to 46 percent whereas gold extraction was increased to 80 percent. The results obtained are similar to those obtained in testing of the Sheep Tanks ore from Arizona which was somewhat similar in composition.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

INTERMOUNTAIN EXPERIMENT STATION

November 3, 1947

1600 East 1st South
SALT LAKE CITY, UTAH

Received...11-6-47.....

Assured

Mr. Arthur L. Flagg
Consulting Engineer
P. O. Box 2345
Phoenix, Arizona

Dear Mr. Flagg:

This will acknowledge receipt of your letter of October 30. We shall proceed with the tests as rapidly as we can with our limited staff and shall inform you of the results as soon as the tests are completed.

Very truly yours,

S. R. Zimmerley
S. R. Zimmerley, Chief
Salt Lake City Division
Metallurgical Branch

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF MINES

1600 East 1st South
SALT LAKE CITY, UTAH
October 28, 1947

INTERMOUNTAIN EXPERIMENT STATION

Received 10-30-47
10-30-47

Mr. Arthur L. Flagg
Consulting Engineer
P. O. Box 2345
Phoenix, Arizona

Dear Mr. Flagg:

This is in reply to your letter of October 25 concerning the 80-pound sample of manganese-silver ore you shipped us on September 27.

We have received and assayed the sample. Its analysis is as follows:

Percent							Ounces per ton	
Mn	Cu	Pb	Zn	Fe	CaO	SiO ₂	Au	Ag
0.5	0.05	0.15	0.6	2.5	4.5	77.3	0.075	4.9

You will note that the manganese content is only half a percent, so that it is not likely that recovery of manganese would be feasible. Also, the silver content is considerably lower than that of the shipments to which you referred in your letter of September 27. In view of these low assays we would like to know whether you consider the sample sufficiently representative to warrant further testing. If so, we shall be glad to make a sulfur dioxide leach to remove the manganese and then make comparative cyanidation tests on the leach residue and on the raw ore. Otherwise, we suggest you send us a more representative sample.

We shall hold the sample pending word from you. In your reply kindly include the name and location of the property, since we are not permitted to work on samples unless we have such information.

Very truly yours,

S. R. Zimmerley
S. R. Zimmerley, Chief
Salt Lake City Division
Metallurgical Branch

Mount Bon.

ARIZONA TESTING LABORATORIES

ANALYTICAL AND CONSULTING CHEMISTS
ASSAYERS, MINING ENGINEERS
823 EAST VAN BUREN STREET

ASSAY CERTIFICATE

PHOENIX, ARIZONA, February 18 1947

Mr. D. W. Jaquays

Phoenix, Arizona

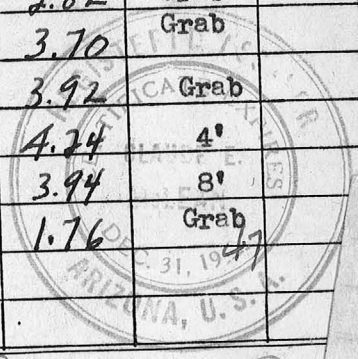
WE HAVE ASSAYED THE SAMPLES RECEIVED FROM YOU AND FIND THE RESULTS AS FOLLOWS:

GOLD FIGURED AT \$ 35.00 PER OUNCE.

SILVER FIGURED AT \$.50 PER OUNCE.

LAB. FORM 2

LAB. NO.	SAMPLE	GOLD		SILVER		PERCENTAGES		
		OZ. PER TON	VALUE	OZ. PER TON	VALUE	COPPER	LEAD	
63413	Lot 1333	0.048	1.40	0.20	0.18		1.58	42"
63414	" 1334	0.06	2.10 ✓	3.80	3.42		5.52	8'
63415	" 1335	0.06	2.10 ✓	6.40	5.76		7.86	6'
63416	" 1336	0.04	1.40	1.80	1.62		3.02	5'
63417	" 1337	0.04	1.40 ✓	3.00	2.70		4.10	8'
63418	" 1338	0.06	2.10	0.80	0.72		2.82	Grab
63419	" 1339	0.08	2.80	1.00	0.90		3.70	Grab
63420	" 1340	0.04	1.40	2.80	2.52		3.92	Grab
63421	" 1341	0.08	2.80	1.60	1.44		4.24	4'
63422	" 1342	0.02	0.70	3.60	3.24		3.94	8'
63423	" 1343	0.04	1.40	0.40	0.36		1.76	Grab



RESPECTFULLY SUBMITTED,
ARIZONA TESTING LABORATORIES

BY Claude E. McLean
ASSAYER

CHARGES \$ 11.00

Claude E. McLean

ARIZONA TESTING LABORATORIES

ANALYTICAL AND CONSULTING CHEMISTS
ASSAYERS, MINING ENGINEERS
823 EAST VAN BUREN STREET

ASSAY CERTIFICATE

PHOENIX, ARIZONA, August 18 1947

Mr. D. W. Jaquays
132 W. Granada Road
Phoenix, Arizona

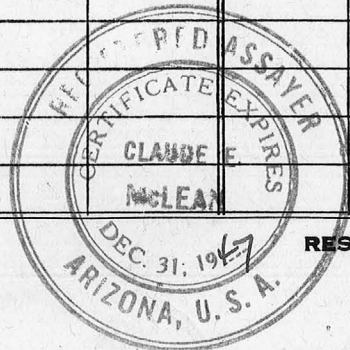
WE HAVE ASSAYED THE SAMPLES RECEIVED FROM YOU AND FIND THE RESULTS AS FOLLOWS:

GOLD FIGURED AT \$ 35.00 PER OUNCE.

SILVER FIGURED AT \$.90 PER OUNCE.

LAB. FORM 2

LAB. NO.	SAMPLE	GOLD		SILVER		PERCENTAGES		
		OZ. PER TON	VALUE	OZ. PER TON	VALUE	COPPER	LEAD	
65760	# 1	None	----	1.30	\$1.17	None	East Slope of	Butte.
61	# 2	Trace	----	1.10	0.99	None	Across 15' West of	Contact
62	# 3	Trace	----	0.40	0.36		Breccia in gulch	West of Contact.
63	# 4	0.04	\$1.40	1.30	1.17		X Cut	10 - 20
64	# 5	0.05	1.75	1.60	1.44		X Cut	20 - 30
65	# 6	0.04	1.40	1.10	0.99		X Cut	30 - 40
66	# 7	0.01	0.35	0.90	0.81		Riverside	



RESPECTFULLY SUBMITTED,
ARIZONA TESTING LABORATORIES
BY Claude E. McLean
Claude E. McLean ASSAYER

CHARGES \$ 9.00

ARIZONA TESTING LABORATORIES

ANALYTICAL AND CONSULTING CHEMISTS
ASSAYERS, MINING ENGINEERS
823 EAST VAN BUREN STREET

ASSAY CERTIFICATE

PHOENIX, ARIZONA, February 25, 1947

Mr. D. E. Jacquays

Phoenix, Arizona

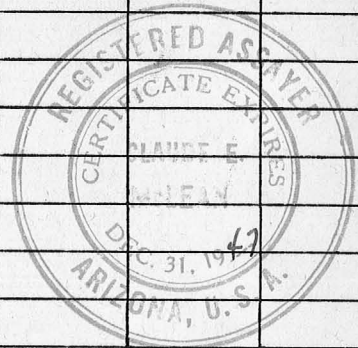
WE HAVE ASSAYED THE SAMPLES RECEIVED FROM YOU AND FIND THE RESULTS AS FOLLOWS:

GOLD FIGURED AT \$ 35.000 PER OUNCE.

LAB. FORM 2

SILVER FIGURED AT \$ 90 PER OUNCE.

LAB. NO.	SAMPLE	GOLD		SILVER		PERCENTAGES			
		OZ. PER TON	VALUE	OZ. PER TON	VALUE	COPPER	LEAD		
63573	# 1	0.02	\$0.70	0.20	\$0.18	0.88			
63574	# 2	0.02	0.70	0.60	0.54	1.24			
63575	# 3	0.04	1.40	0.80	0.72	2.12			
63576	# 4	0.02	0.70	0.20	0.18	0.88			
63577	# 5	0.04	1.40	0.80	0.72	2.12			
63578	# 6	0.02	0.70	0.20	0.18	0.88			
63579	# 7	0.02	0.70	0.40	0.36	1.06			
63580	# 8	0.02	0.70	0.40	0.36	1.06			
63581	# 9	0.04	1.40	0.80	0.72	2.12			
63582	# 10	0.06	2.10	2.60	2.34	4.44			
63583	# 11	0.04	1.40	0.40	0.36	1.76			
63584	# 12	0.04	1.40	0.60	0.54	1.94			
63585	# 13	0.04	1.40	0.60	0.54	1.94			



RESPECTFULLY SUBMITTED,

ARIZONA TESTING LABORATORIES

BY Claude E. McLean
ASSAYER

CHARGES \$ 10.50 (Includes crushing large

ARIZONA TESTING LABORATORIES

ANALYTICAL AND CONSULTING CHEMISTS
ASSAYERS, MINING ENGINEERS
823 EAST VAN BUREN STREET

ASSAY CERTIFICATE

PHOENIX, ARIZONA, March 11 1947

Mr. D. W. Jaquays

Phoenix, Arizona

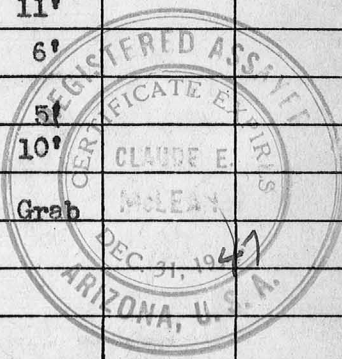
WE HAVE ASSAYED THE SAMPLES RECEIVED FROM YOU AND FIND THE RESULTS AS FOLLOWS:

GOLD FIGURED AT \$ 35.00 PER OUNCE.

SILVER FIGURED AT \$.90 PER OUNCE.

LAB. FORM 2

LAB. NO.	SAMPLE	GOLD		SILVER		Total	PERCENTAGES		
		OZ. PER TON	VALUE	OZ. PER TON	VALUE	COPPER	LEAD		
63835	14	0.04	\$1.40	4.40	\$3.96	5.36	10'		
63836	15	0.04	1.40	4.20	3.78	5.18	8'		
63837	16	0.04	1.40	0.40	0.36	1.76	5'		
63838	17	0.06	2.10	4.80	4.32	6.42	8'		
63839	18	0.06	2.10	1.60	1.44	3.54	10'		
63840	19	0.10	3.50	9.60	8.64	12.14	11'		
63841	20	0.06	2.10	5.40	4.86	6.96	6'		
63842	21	0.04	1.40	5.20	4.68	6.08	5'		
63843	22	0.04	1.40	3.80	3.42	4.82	10'		
63844	23	0.04	1.40	2.20	1.98	3.38	Grab		
63845	24	0.01	0.35	1.20	1.08	X 1.43			
63846	25	0.01	0.35	0.60	0.54	X 0.89			
63847	26	0.01	0.35	0.40	0.36	X tr			
63848	27	0.01	0.35	0.80	0.72	X tr			



RESPECTFULLY SUBMITTED,

ARIZONA TESTING LABORATORIES

BY Claude E. McLean

Claude E. McLean

ASSAYER

CHARGES \$ 14.00