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C and D MINERALS, Inc.
Precious Metals Properties

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303-247-1092

David Blake
P.O. Box 431
Nucla, CO 81424
303-864-7875

PROPERTY LIST
Congress-Stanton-Yarnell Area

C and D Minerals Co. controls the following properties in the Congress-Stanton-Yarnell Area.

I. Patented Mining Claims

Six claims along the Leviathan vein which are held by lease and option by Charles Butler

II. Unpatented Mining Claims

- a. Six Mountain View claims which are held by lease and option by Charles Butler
- b. Hunter North claim owned by Charles Butler
- c. Two Butler claims owned by Charles Butler
- d. Eleven Levi claims northerly from the Leviathan vein owned by Charles Butler

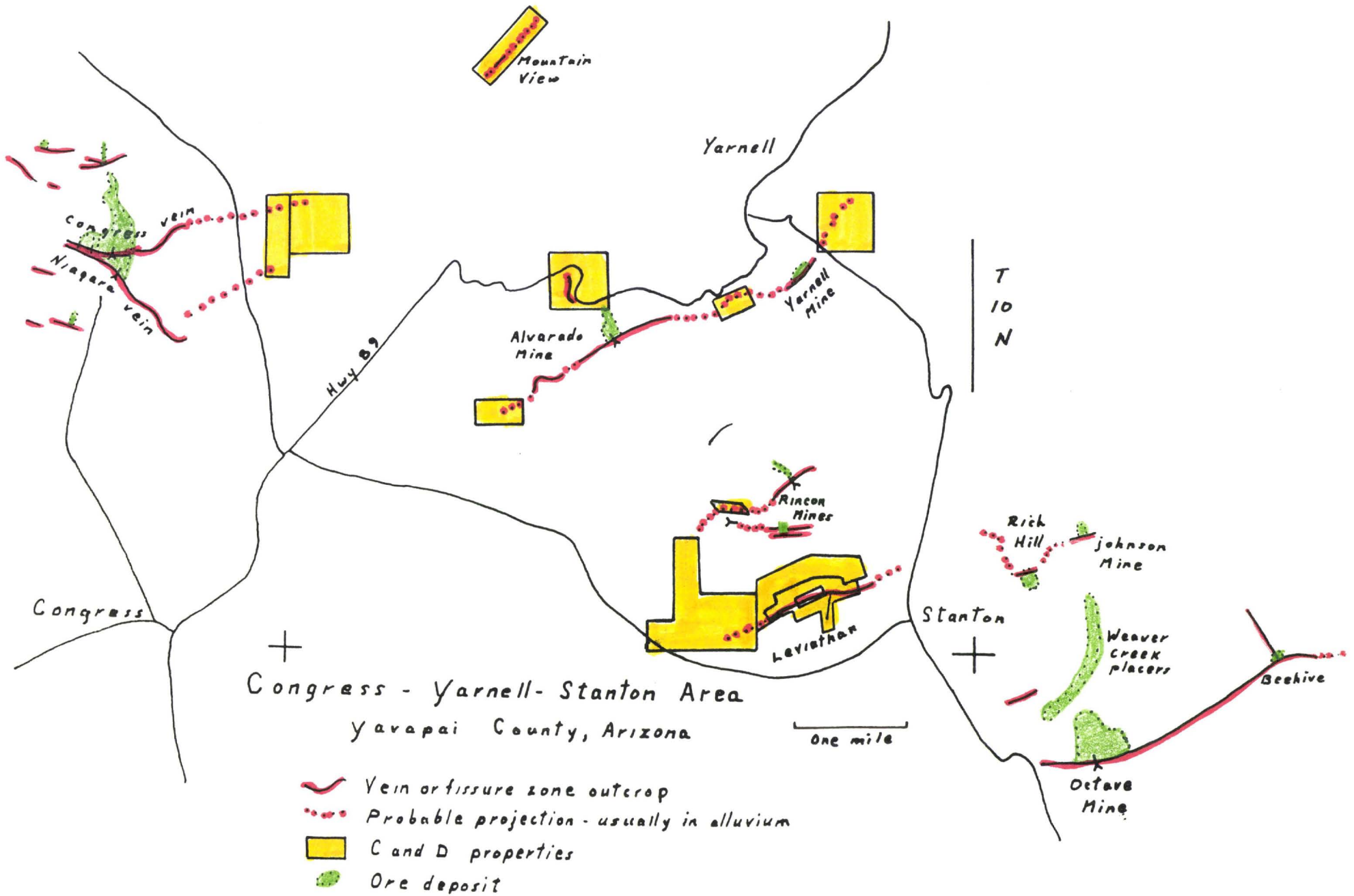
III. Arizona State Leases

Six leases totaling 1040 acres owned by Charles Butler.

Note: All Butler claims and leases are subject to assignment to C and D Minerals Co.

R 6 W

R 5 W



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March 9, 1984

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Mountain View Prospect

The Mountain View prospect consists of six unpatented claims about three miles westerly from Yarnell. The claims have been owned by Henry Breidenbach since the 1930's and are presently controlled by C and D Minerals.

A mineralized trend in granitic rocks has been noted which strikes northeasterly and dips about 35° to the northwest. Although evidences of possible mineralization such as shearing, quartz filling and hematitic discoloration occur for several hundred feet along this trend, the only actual strongly mineralized area noted is in the SW 1/4 SW 1/4 of Section 5 of T10N R5W. An inclined shaft has been sunk approximately 90' down the dip of a vein-like structure within a fine grained granitic host rock. The structure is characterized by quartz vein (?) fillings and red hematitic alteration. Massive pyrite occurs in portions of the vein-like structure and is said (personal communication from Henry Breidenbach) to comprise most of the structure at the bottom of the shaft. Inasmuch as the shaft is caved at about 30', this cannot be readily verified. Samples of the red altered rock and the pyritic rock show gold contents ranging from .2 to .5 ounces Au per ton.

This prospect appears to warrant two or three drill holes to test the extent and nature of the possible ore shoot which crops out as noted above. The costs of such a program (which would involve some road construction) would be in the general range of \$50,000.

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LEVIATHAN PROJECT

Introduction

The following reports are concerned with the Leviathan gold-silver prospect in Yavapai County, Arizona. C and D Minerals Co. controls six patented claims, eleven unpatented claims and 360 acres of nearby Arizona state lands along the Leviathan vein. The foregoing data is intended to compliment the other included reports and to set forth C and D's proposals for development of these properties.

Location

The claims and state lease are in Sections 34 and 35, T10N R5W. The included plat shows the location of the property in relation to known mines and veins in the Congress-Stanton-Yarnell area which comprise the Martinez and Weaver Mining Districts.

Geological Setting

A series of Tertiary quartz veins in Precambrian granitic and schistose rocks crop out within this area. Basic greenstone (aka diabase and diorite) dikes were intruded into the granites and schists at approximately the same time as the quartz veins. The veins generally strike east-westerly and dip northerly at angles ranging from twenty to fifty degrees. They are of a mesothermal, quartz-pyrite-galena type.

Mineral deposits occur within the quartz veins and in shear zones within the granitic and schistose rocks. The size of these deposits ranges from a few hundred tons to several hundred thousand tons. The thicknesses and grades of typical deposits range from two to ten feet and .2 to .7 ounces of gold per ton. The silver content of ore deposits is usually similar to the gold content.

Mineral deposits occur in a somewhat random manner within the quartz veins and shear zones. Factors which appear to influence favorably the formation of ore deposits in the subject area include the following:

1. Intersections of veins with other veins or greenstone dikes.
2. Changes in strike and/or dip of veins.
3. Occurrences of veins in fault zones.
4. Occurrences of veins along the contact of different rock types.
5. Continuity and strength of structures (i.e. veins several hundred feet in length and several feet in thickness).

Past Production

Yavapai County ranks No. 1 among the gold producing counties in Arizona. Over half of the gold produced in the county has come from the Congress-Yarnell-Stanton area.

Within the Congress-Yarnell-Stanton area several ore deposits have been developed and mined since the late 1800's. Although records are poor, the following list shows the approximate parameters of the major deposits developed in past years. Most of the production occurred from 1890 to 1910.

<u>Map Ref.</u>	<u>Name</u>	<u>*Size</u>	<u>Production/Tons</u>	<u>Grade/ton</u>
1.	Congress vein	4000' x 500' x 4'	400,000	.7 oz. Au
2.	Niagara vein	1000' x 1500' x 5'	300,000	.45 "
3.	Octave mine	2000' x 2000' x 3'	500,000	.4 "
4.	Yarnell mine	1000' x 500' x 10'	150,000	.25 "
5.	Alvarado mine	2000' x 1000' x 4'	200,000	.3 "
6.	Rincon mine	700' x 200' x 4'	20,000	.6 "
7.	Rich Hill	[±] 5 acres	+ 50,000 ounces of gold from residual placers	

* - The size dimensions indicate the approximate zone within which the ore deposits occurred. The continuity of the deposits within such zones varies from mine to mine.

In addition to the above, a deposit of over 300,000 tons containing .3 oz Au/ton was delineated during a 1981-82 exploration project in the Niagara vein.

Leviathan Property

The Leviathan vein is one of the strongest in the subject area and forms a highly visible outcrop for several thousand feet. Mineralization has been noted at many places along the outcrop, but past production has been minor.

The history of the property is not known completely, but apparently the Leviathan was located in the late 1800's and prospected by several shallow shafts and inclines. A few small high grade deposits were reportedly mined and concentrated by arrasters during this period. The claims were later acquired by Daniel Sayer, a prominent Colorado mining engineer and patented in 1912 in the name of the Denver-Arizona Gold Mining Company. No actual mining and milling operations were ever undertaken, and the Company properties were acquired by Sayer's widow in 1945. They have been owned by Sayer heirs ever since.

Although some of the included reports by the owner and others, written in the 1920's and 1930's, conclude that mineable ores in large quantities are exposed by outcrop pits and a few short incline shafts, it is the writer's opinion that such exposed ores do not exist in large quantities. However, the following factors make the property an outstanding prospect for the discovery and delineation of one or more deposits comparable to those produced in the subject area during the turn of the century.

1. The length and thickness of the vein along its outcrop exposures make it one of the strongest in the area.
2. The presence of numerous zones of gold-bearing pyrite, galena and hematite within exposed portions of the vein indicate that ore bearing solutions permeated the vein structure.
3. Dips of the vein vary from 24° on the Chester claim to 37° on the Grantley claim. Variations in dip and strike are considered a guide to ore deposits because they create larger void spaces during movement along fault zones. The presence of extensive fault gouge along both the hanging and foot walls of the Leviathan vein indicates that the vein is in a fault zone.
4. The Leviathan vein is in contact with both granitic and schistose rocks as well as intrusive greenstone masses, and at times appears to be along the contact of different host rock types. Ore deposits often occur in those portions of a vein where changes in the host rock create either chemical or physical conditions which result in increased deposition from mineral bearing solutions.
5. The intersection of a northerly trending steeply dipping vein with the Leviathan vein on the Grantley claim is a favorable locus for an ore deposit.

The Leviathan claim, which covers 1500 feet of the Leviathan vein, is controlled by the Los Suertes Mining Company of Scottsdale, Arizona. The company has conducted intermittent bull dozing, geophysical and drilling operations, but has apparently not encountered any significant ore grade mineralization. Mr. William Mir, president of the company, states that the vein contains an average of .1 oz Au per ton along the outcrop on the dip slope.

The included reports by Sayer and others indicate that selected zones along the outcrop and within some of the inclines and shafts contain mineralization in the range of .1 to .5 oz Au per ton. The primary purpose of the proposed exploration program is to determine if any of these mineralized zones are actually contiguous to a significant ore deposit. The included plat of the proposed Stage 1 exploration program shows the portion of the Leviathan vein that can be explored by moderate depth drill holes.

The principal of extralateral rights applies to the patented claims on which the Leviathan vein crops out. Therefore, an ore deposit discovered on this vein can be followed down the dip of the vein in a northerly direction to its termination as long as it is within the extended end lines of the claim.

This property was assigned to the Homestake Mining Company in November, 1983. Homestake conducted a surficial sampling and mapping program on portions of the property but did not follow up with other types of direct exploration such as drilling or drifting. The assignment to Homestake was relinquished in late February 1984. The maps and sample data generated by Homestake have been furnished to Charles Butler, and can be made available to prospective developers or venture partners.

Proposed Stage 1 Exploration Program

1. Analyse the data generated by the Homestake program.
2. Conduct such additional surficial investigations as may appear to be justified on the basis of the Homestake data. Such investigations may include additional sampling along the outcrop and Chester shaft areas as well as fluid inclusion studies to determine estimates of the depth at which mineralization occurred as well as evidence of boiling of hydrothermal fluids.
3. Determine drill targets on the basis of available surficial data. Such targets shall be given priorities and shall be based on specific anomalous features such as changes in the dip and strike of the vein, intersections of "feeder?" veins with the Leviathan vein, changes in rock types along the hanging and foot walls, and the presence of observed mineralized trends.
4. Drill exploratory core holes. Although the actual placement of drill hole sites would not be made until after completion of the above surficial studies, provision should be made for 14 holes ranging in depth from 150 feet to 500 feet, Figure 1 shows the general area where exploratory drilling would be conducted. Estimates of drill hole depths are shown within the area about 1500 feet down dip from the vein outcrop.

Cost Estimates

Phases 1-3	\$10,000
Phase 4	
4340 feet percussion drilling	65,100
700 feet core drilling	<u>17,500</u>
Total costs	\$92,600

Proposed Stage II Exploration and Development Program

A Stage II program to delineate an ore deposit (assuming one is discovered as a result of the Stage I Program) will be designed after completion of Stage I. Such a program would include a combination of drilling and extension of underground drifts and inclines. The costs of such a program would be offset, in part, by the mining and stockpiling of mineralized vein material.

A valid estimate of Stage II costs can not be made until the results of the Stage I program have been evaluated and the Stage II program has been designed. However, such a Stage II program would probably be in the range of \$1,000,000 to \$1,500,000.

Stage III Capital Developments

Stage III would consist of development of mine and mill facilities. Estimates for these costs can be made only after determining the size and grade of the ore deposit. However, assuming that Stage II results in the delineation of 300,000 tons with a grade of .4 oz Au and an average thickness of 4', the following capital development costs would be applicable.

Mill (200 tpd)	\$3,000,000
Mine development	2,000,000
Other	<u>500,000</u>
	\$5,500,000

Risk Factors and Profit Potential

The writer assumes that this presentation is being reviewed by persons with experience and knowledge about the mining business. On a basis of the observed occurrences of ore shoots within other similar veins in the Congress-Yarnell-Stanton area, the odds of finding a large ore shoot (in excess of 100,000 tons) as a result of the proposed Stage I exploration program appear to be about one to five.

In view of the past production history of this area, and the nature of the ore shoots which have been previously discovered and exploited, the profit potential for this project is very good. The following variables are applicable to the Leviathan situation and would have to be evaluated and estimated in developing ROI's and cash flow projections.

<u>Variable</u>	<u>Probable range for Leviathan project</u>
Size of ore deposit	50,000 to 500,000 tons
Grade of ore deposits	.15 to .70 oz Au/t .3 to 1.00 oz Ag/t
Ore deposit-exploration and development costs	\$2 to \$10 per ton
Mine capital development costs	\$5 to \$20 per ton
Mine operating costs	\$15 to \$40 per ton
Mill recovery rate	80% to 95%
Mill capital costs	\$7500-\$20,000 per ton/day capacity
Mill operating costs	\$15 to \$30 per ton
Overhead costs	\$1 to \$5 per ton
Rate of mining and milling	50 to 500 tons/day
Commodity price of gold	\$300 to \$600 per ounce
Commodity price of silver	\$5 to \$25 per ounce

The depletion rate for gold and silver is 15%. Arizona levies an excise tax of 2 1/2% on gross sales of mineral products. The Arizona property assessment rate ranges from 44% (1983-1985) to 25% (after 1992) of the full cash value of capital improvements. Ore reserves are assessed on the basis of the present value of projected annual net proceeds. The assessed valuation is then taxed at a rate equal to the sum of state, county and municipal rates. The Arizona corporate income tax rate is 10.5% of net income after consideration of deductions for depreciation, depletion and federal taxes.

May 26, 1983

Title Memorandum

Patented Mining Claims: Chester, Grately (aka Grantley), Denver, Katherine, Marguerite and Germanic. MS 2888.

Located in the Weaver Mining District, Yavapai County, Arizona

Chain of Title

8-1-12 Patent from US - to - Denver-Arizona Gold Mining Co.
Recorded in Book 95 of Deeds Page 465.

Gap (not searched)

9-1-45 Treasurer's Deed from J.H. Baldwin, Treasurer of
County of Yavapai - to - State of Arizona. Recorded
in Book 185 of Deeds Page 218.

2-18-46 Supervisor's Deed from the Board of Supervisors,
Yavapai County, (by C.C. Jackson, Chairman) - to -
Margaret K. Sayer. Recorded in Book 186 of Deeds
Pages 134-135.

Note: The Supervisors are authorized to act as Agent for the
State of Arizona in disposing of properties acquired by
reason of non-payment of taxes. Therefore the lack of
a Deed from the State of Arizona to the Board of
Supervisors does not create a gap in the chain of title.

6-19-48 Quit Claim Deed from Margaret K. Sayer - to - Ruth S.
Bunce and Mildred S. Costello, Joint Tenants with Right
of Survivorship. Recorded in Book 190 of Deeds Page 525.

Note: Bunce and Costello were daughters of Sayer. Bunce died
in 1971.

5-17-74 Quit Claim Deed from Mildred S. Costello - to - Ramoncita
Patricia O'Connor and John D. O'Connor, brother and sister
as joint tenants.

Conclusion: Title to the subject claims is vested in Ramoncita
Patricia O'Connor and John D. O'Connor as joint tenants.

June 17, 1983

LEVIATHAN PROJECT
Principle Lease Terms1. Arizona State Lease

Butler presently holds a prospecting permit which provides for exclusive rights to conduct exploration as well as a preferential right to apply for a mineral lease. Arizona mineral leases provide for a royalty of 5% of net smelter returns less costs of processing and transportation.

2. O'Connor Patented Claims Lease

Term: 5 years and as long thereafter as property is in production.

Royalty: 5% of net smelter returns less costs of milling, transportation and refining.

Minimum Royalty: \$500 per month commencing at the end of the first year (June, 1984). This amount increases to \$1,000 per month at the end of the second lease year.

Work requirements: \$5,000 per month for exploration, development and mining purposes, commencing September, 1983. After the primary 5 year term this requirement may be waived during periods of adverse economic conditions.

Option: The property may be purchased for \$500,000 at any time during the primary five year term. 75% of all royalties previously paid are a credit against the purchase price.

June 1983

The following reports were written during the period 1928-1937. Although they appear to be written by competent engineers in a professional manner, it should be pointed out that such reports sometimes tend to be overly optimistic.

Many of the sample-assay results are reported in dollars per ton. A conversion to ounces per ton requires that the dollar figures be divided by the prevailing prices of gold and silver. The price of gold was \$20.76 per ounce in 1928 when the Sayer and Haynes reports were written, and \$35.00 per ounce in 1937 when the McLauren and Neill reports were written. The price of silver averaged about 50¢ per ounce during this period.

Thus the ore values reported on page 4 of the Sayer report actually reflect assay values in the range of about .44 oz gold/t(\$9.50) to .63 oz gold/t(\$13.40).

The average value of \$16.85 as reported in the McLauren letter of 6-15-37 would equate to a gold content of about .47 oz gold/t.

The Haynes report lists the value of concentrates, but states neither the source of the ores or the ratio of concentration. The only conclusion that I can draw from his statistics on page 3 is that the ores can be concentrated by gravity methods but that recoveries by this method are not very good. A combination of gravity concentration and cyanidization of the tailings should result in net recoveries in excess of 90%.

Numerous additional reports and maps about properties within the Congress-Yarnell-Stanton area as well as detailed land status maps are available for examination in my office.

Such data can be made available to interested parties on some equitable basis.



Charles R. Butler

Sayer report - 1928

LOCATION AND CLAIMS

The property is situated in the Weaver Mining District, Yavapai County, five miles west of Congress Junction, a station on the Santa Fe, Prescott R.R., a branch of the Santa Fe which runs from Ash Fork on the main line, to Phoenix. It consists of the following lode claims: Chester, Grantley, Catherine, Margaret, Denver, and Germanic, Patented, and the O'Connor Placer of 40 acres, and Ramona Lode Claim, not patented, containing in all about 200 acres.

HISTORICAL

The property has been locally known as the "Leviathan" owing to the large outcrop on the main or Leviathan Ledge. It has been located since "Early Days in Arizona", and was worked more or less by "Arrasthe" at that time when water was available. It is located on a spur of the Weaver Mountains which consists of "Yavapai Granite" and which are intersected in places by DIORITE DYKES, at times accompanied by QUARTZ CONTACT VEINS. The main Quartz vein on this property undoubtedly owes its gold content to extent to one or more of the DYKES, which run through the claims in a Northeast and Southwest direction. The main vein is a fine strong body of Quartz, striking N. 65 degrees E. and dipping in the main shaft about 25 degrees from the horizontal N. 25 degrees W. It outcrops very boldly and can be traced for a distance of about two miles, of which about one mile is within the limits of this property. Within a distance of five miles and in the same district, are located such well-known mines as the CONGRESS, OCTAVE, and ALVARADO. The "CONGRESS" has been operated for a period of twenty-eight years and to a depth on the dip of the vein of 4300 feet. The "OCTAVE" was operated for a period of from ten to twelve yeats and to a depth of 2200 feet, when the original company sold it to

a Chicago promoter for \$ 750,000.00. The "ALVARADO" has been developed to a depth of 1120 feet and has more than 200,000 tons of ore blocked out. This property is tied up owing to the death of the principal owner. I have referred to these, especially, to call attention as to what may be expected as to the permanency of this main vein, as it is about twice the size-width of the veins in the other properties referred to.

ACCESSIBILITY

As stated in a previous paragraph, the property is five miles from railroad the station over a fine road with little grade. The altitude at the mine is 3333 feet above sea level and at the railroad 3032 feet. No snow falls in this region as a consequence the climate is mild and the roads are always in good condition. The haul is comparatively cheap from the station to the mine.

CHARACTER OF ORE

The ore consists of a white to a brown Quartz, carrying a small per cent of Iron Pyrites, not to exceed 2 per cent. One ore shoot carries a very small per cent of lead. The Sulphides are high grade, making a concentrate carrying one hundred and sixty dollars per ton and up. About sixty per cent of the gold is free. The silver content is low and will average about one-half ounce per ton in the raw ore.

DEVELOPMENT AND ORE

The principal amount of development has been done on the CHESTER Claim. On the western end a 50 foot shaft is sunk on the dip of the vein, exposing the ore from five to six feet in thickness between walls of granite. Near the eastern end of the claim and within 150 feet of the end line, a shaft 430 feet has been sunk on the dip of the vein, which is, at this point

25 degrees from the horizontal. The vein varies in thickness from $4\frac{1}{2}$ feet to 10 feet in this shaft. At a point 300 feet down the shaft, a level has been started and driven 128 feet easterly. On the LEVIATHAN, two shafts 95 feet each were driven some years ago by previous owners but are not accessible. A short cross-cut tunnel at the center of the claim cuts the ledge at about 20 feet below the surface and some 50 feet or more of drifting has been done, exposing the ore for the full length of the drift. On the GRANTLEY CLAIM, one shaft is sunk on the tip of the vein which at this point is about 37 degrees from the horizontal, exposing the ore from three to four feet in thickness throughout the shaft. Two more shallow shafts, one 10 and the other 20 feet, expose the vein as of about the same thickness as in the 70 foot shaft. A two compartment shaft, timbered with Oregon fir, has been sunk on the CATHERINE. This is a perpendicular shaft to a depth of 190 feet. Its only immediate use is as a well, as it usually contains about 150 feet of water. On the other claims only the necessary amount of development has been done to secure the patents. Numerous open cuts and quarries have been opened along the outcrop in compiling and making various mill tests. The total development is approximately 2000 feet and the equipment consists of two complete hoisting plants. More than thirty thousand dollars has been expended by the present company.

WATER

One main shaft when sinking was being done had a flow of from 12,000 to 15,000 gallons per day. In the 190 foot shaft of the CATHERINE CLAIM, the water generally stands at the 150 foot point; then, if the mine will not make enough water for its own use, additional water can be secured from Antelope Creek, about three-fourths of a mile distant.

FUEL AND POWER

California crude oil, heretofore, has been used entirely in this part of Arizona and costs, laid down, from \$1.25 to \$1.60 per barrel.

depending upon market conditions, three barrels of oil being equivalent to one ton of coal for power purposes. The coal available at this point is mined at Gallup, New Mexico, and is a high grade Lignite, and costs F.O.B. Congress Junction, \$6.00 per ton. Since the above was compiled a power line has been built within the past three months to the Monte Cristo Mine, east of Wickenburg and is within one mile of this property, which gives one a choice of power for operating and a favorable rate for power is now available by building a branch line of about one mile.

TIMBER AND SUPPLIES

Timber for stulls is comparatively cheap and is shipped from Flagstaff, Arizona. Lumber such as Oregon Fir will cost from \$22.00 to \$27.00 per thousand F.O.B. Congress Junction. Powder, fuse and caps cost slightly less than in most mining camps, as the freight on power to this point is about one cent per pound less than in Colorado mining sections.

ORE AND VALUES

About 300 tons of ore at different times and in varying amounts have been milled from the different open cuts, shafts and quarries, to determine the values of the ore shoots as exposed on the surface. No mill test of less than seven tons has been considered.

- Lot No. 1 from 50 foot shaft on CHESTER ----- \$ 9.50
- Lot No. 2 from Quarry # 1 on LEVIATHAN ----- 10.00
- Lot No. 3 from Quarries #2 & 3 on LEVIATHAN ----- 13.00
- Lot No. 4 from Tunnel and Drift on LEVIATHAN ----- 9.50
- Lot No. 5 from 60 foot shaft on DENVER -----10.20
- Lot No. 6 from open cut near east end LEVIATHAN ----- 13.40

The above mill tests were made at the OCTAVE MILL, and consisted of seven tons each. A second test of same quality was made and confirmed

the above result. Some time later, several tests were sent to Los Angeles and again the above results were verified. When sinking the main shaft on the CHESTER CLAIM one ore shoot was passed through. This was encountered at 140 feet down the shaft and was passed through at a depth of 300 feet. Owing to a slight step faulting, there is a crushed zone carrying from 6 to 10 feet in width. At these faults or crushed zones the values are more or less leached and washed out, owing to the percolating of ground waters, but where the Quartz is undisturbed, it carries good mill values; in fact, where it is not leached or oxidation has not taken place the values are \$21.00 per ton. This ore shoot was passed through at a depth of 300 feet. This shoot on the surface I have not paid much attention to as it was lower in grade and somewhat spotted due to oxidation. The ore shoots, as far as determined, have a pitch to the west of about 45 degrees and this has been proven by the shoot passed through in sinking. The next ore shoot should be encountered within 10 feet in the shaft; in fact, where the last workers left off in the face of the shaft, it showed signs of nearing the ore shoot. The last assay from the face of the shaft returned \$ 3.25 across 6 1/2 feet showing more or less brown Hematite in the Quartz.

The vein is so large that it is hard to sample and I believe much more satisfactory results are obtained by large samples than small ones, as proven by mill tests. The average of all mill tests has been \$ 9.63 per ton, but I believe, however, this is less than what can be expected owing to the leached conditions prevailing from the surface and extending to an approximate depth of 400 feet. I take an average of the several tests obtained at the OCTAVE MINE and at Los Angeles which amounted to about 30 tons each. The average of the ten different lots was \$ 9.63 per ton, net \$ 8.86. The loss in milling on this class of ore should not be over 5 per cent, but at the OCTAVE MILL, when operating on ore somewhat similar, made a saving of 92 per cent. Assuming that as a basis, then 92 per cent of \$9.63 would give a net saving of \$8.86 per ton. Working charges in this

district on a 200 ton plant, which with proper development could easily be supplied, would be as follows:

Cost of mining, tromming and hoisting per ton - - - - -	\$ 1.50
Cost of development fo keep ore ahead of extraction - - - - -	.30
Cost of milling and crushing - - - - -	.50
Cost of cyaniding - - - - -	.65
Cost of management, superintendence and office - - - - -	.15
Cost of insurance and taxes - - - - -	.038
Cost of maintenenance and depreciation - - - - -	.135
Making a total charge against the ore per ton of - - - - -	<u>\$3.27</u>

On this basis, the net earnings per months of thirty days, would be \$ 33,540.00 or \$ 402,480.00 per year. If for any reason it would seem advisable to start with a plant of 100 tons capacity, then the operating cost would be materially increased as the fixed charges would be ablut the same, and on a plant of this capacity the increase would be about 20¢ per tone. The working charges then would be \$3.47 leaving a net per ton of \$5.39 which would be \$ 539.00 per day, or \$ 16, 170.00 per month of thirty days, or \$ 194.040.00 per year. To prove my esitmate conservative, I would call your attention to an article by Walter Harvey Weed on the Kingman Mining District of Arizona, published in the Mining World in the issue of June 4th., 1910, pages 1113 and 1114, wherein their total working charges including mining, milling and administration, are a little less than \$3.00 per ton. I wish to add that the GOLD ROAD MINE is twenty-four miles from the railroad and therefore my estimate of working charges is conservative. I might also call your attention to working charges obtained by myself of \$2.25 per ton at the BUTTERFLY MINE in San Miguel County, Colorado, for the yeats 1911 and 1912. See Engineering and Mining Journal, issue of September 14th, ~~page~~ 1921, page 497.

CONCLUSIONS

When taking into consideration the many natural advantages which prevail in this district, such as the ideal climatic conditions, low altitude, nearness to transportation, excellent roads, comparatively cheap power and supplies, low cost of mining, owing to the large vein and comparatively cheap labor — labor in this section has been about 10 per cent lower than in Colorado, or in fact other mining camps in Arizona — the prevailing cost of common labor such as shovelers and roustabouts (Mexican Labor) in this district ranging from \$2.00 to \$2.50 per day, considering these facts, the earnings from the necessary capital to complete development and to equip the mine with a milling plant should be attractive, and I have no hesitancy in recommending it with full assurance of earning not less than 32 per cent per annum on a 100 ton capacity and on a 200 ton basis the earnings would be 67 per cent on the capitalization.

Respectfully submitted,

D.J. Sayer

Mining Engineer.

Denver, Colorado
October 11th, 1928

D. CHASE RICH
 ATTORNEY AT LAW
 SUITE 925 AT 639 SOUTH SPRING STREET
 LOS ANGELES, CALIFORNIA
 TUCKER 1324

	<u>OZ. AU.</u>	<u>VALUE</u>	<u>WIDTH</u>	<u>PLACE TAKEN.</u>
1.	0.16	3.30	5.5 ft.	Face #2 Shaft.
2	1.50	31.00	4.3 "	W-face of Tunnel Drift
3	2.94	60.77	4.5 "	Open Quarry Leviathan Claim
4	2.23	46.09	4 "	70 ft. shaft on Grantley
5	0.04	.82	1.5 "	Denver Claim
6	0.42	8.68	2.4 "	Roof of Tunnel
7	0.08	1.65	5 "	242' Down Main Shaft
8	4.50	93.43	5 "	232' " " "
9	0.13	2.68	4.5 "	222' " " "
10	0.05	1.03	7.5 "	212' " " "
11	Trace	---	8.3 "	202' " " "
12	0.04	0.82		192' " " "
13	0.03	0.62	7 "	182' " " "
14	0.18	3.72	8.5 "	172' " " "
15	0.60	12.40	7.6 "	162' " " "
16	0.16	3.30	3.2 "	152' " " "
17	0.68	14.05	5.6 "	142' " " "

*J H Cowley
 - 1010 Park Blvd / 13th St X
 TR 5811 X*

*Mr. Joseph Hill
 430 W. Colo - Pasadena. tel. 26523*

1928

THE DENVER-ARIZONA GOLD MINING COMPANY

The property of the Denver-Arizona Gold Mining Company is situated in the Weaver Mining District, Yavapai County, Arizona. The nearest railroad point is Congress Junction, situated on the Santa Fe Railroad, five miles west of the property.

The property consists of the KATHERINE, MARGARET, CHESTER, ^{DENVER} LEVIATHAN, GRANTLEY, GERMANIC, ^{PATENTED} and the RAMONA LODGE claim, which is unpatented but held by-right of location.

The total area of the property is approximately two hundred acres, and covers all the territory that will be needed to economically mine and operate this deposit.

The essential feature of the property is a large quartz vein outcropping for a distance of nearly two miles. This vein is located on a spur of the Weaver Mountains which consists of Yavapai Granite and in places is intersected by Diorite dykes. While the outcropping of this vein is approximately two miles long, there is only forty-five hundred to five thousand feet that is wide enough for economical operation and this entire distance is covered by the CHESTER, LEVIATHAN, and GRANTLY lode claims. The further extension of the vein not only decreases in width but apparently also decreases in value, while on the above claims it is wider and richer.

One of the Diorite dykes comes to the walls of the vein on the LEVIATHAN lode, but is older than the vein, so that the



vein crosses the dyke. However, the effect of the dyke on the vein is very apparent and has resulted in a shattered condition of the vein and is undoubtedly the cause of the increased mineralization. This disturbed condition is evident for a distance of several hundred feet on the vein.

The main quartz vein has a strike North 65° East and dips to the West approximately 25° . There are numerous small quartz veins breaking off from the main vein and covered by other locations, owned by the same company. These cross veins undoubtedly also had their effect on the mineralization of the main vein.

The vein is similar to other productive veins in the same mining district notably on such properties as the Congress, located five miles west and the Octave and Alvarado lying east. These mines have all produced profitable ore over a long period of time and have operated as deep as four thousand feet.

In the forty-five hundred feet of the vein owned by the Denver-Arizona Gold Mining Company, I find a great deal of surface workings, showing ore was removed at a very early date. At one point early miners had erected an arraster but there is no record as to who did this work. Due to the cross veins and dykes there are numerous ore shoots along this vein that show commercial value in gold and silver. Due to the size of the outcropping, which apparently indicates a vein of six to twelve feet in width, large masses are exposed due to the erosion of the hanging walls, and it is almost impossible to obtain hand samples that are reliable.

The following are typical hand cut samples at various points on

the outcrop.

Test made Elpass mill and New Standard Concentrater, Los Angles, Quarry No. 1

\$10.70 Tailings \$2.95. Recovery \$7.75

Test made Elpass Mills and New Standard Concentrater, Quarries No. 4, 5, and 6, \$9.00

Test made Elpass Mills and New Standard Concentrater, quarries No. 3, 4, 5, 6, and drift,
\$6.78 Tailings \$2.37. Recovery \$4.41, saved 65%

Test made Elpass mill and new Standard Concentrater from crift.

\$6.28. Tailings \$2.07. Recovery \$2.17

Assays.

Concentrates taken from Mill run at Octave,	\$173.87
" " " Elpass Mill	87.07
" " " Fools Gulch	43.14
" " " Elpass Mill	148.46
" " " Elpass Mill	167.50
" " " Fools Gulch Mill	57.04

These mill runs show that the ore concentrates to a high grade concentrate, and no metallurgical difficulties should be encountered.

Due to the almost ideal condition for mining where the climate is favorable, the altitude low (3300 feet) fuel and timber costs reasonable, economical production is easily obtained. The total cost of mining and milling including overhead will not exceed \$3.50 per ton. The simple metallurgical treatment required will allow an extraction that can be safely figured at 90% and means that an ore carrying a value of \$3.90 per ton or over will be profitable when handled on a basis of 100 tons per day or more.

While it is not possible to place a sound value on this property based on ore reserves, with ore definitely developed and blocked out, there is no question but that the mine warrants fur-



4

ther development. When profitable ore is found at the surface of a vein as wide as shown on this property, the development of the vein, at depth should proceed immediately. For economical mining it is necessary to sink and drift under these ore shoots. This work will at the same time develop the mine at depth and will probably disclose much greater values below the four hundred foot level. This is the natural water level, and the best ore should be found at this point and lower.

November 30, 1928

Justin H. Haynes
Valuation Engineer



Oct. 26th, 1928	Gold $\frac{oz}{\%}$ per ton	Silver per ton	Total Value per ton
Leviathan Quarry #1	1.61	4.70	36.00
" " #2	0.12	0.30	2.65
Grantley	0.18	0.50	4.01
Chester	2.83	0.55	58.81

Nov. 25th, 1928

Leviathan Drift 6' wide	2.00	1.00	40.08
Leviathan Quarry #1, 6' wide	1.08	.90	22.12

A better indication of the value of this outcrop is the following mill runs representing five to seven tons each which were shipped to various plants and sampled.

7 ton lots made at Octave Mill, taken from six different places cutting through ledge.

Lot 1	\$ 9.50
2	10.00
3	13.00
4	9.50
5	10.00
6	13.14

41½ tons taken from six different places cutting through ledge.

Average for lot \$11.36

Test made at Penn Mill.

\$11.10 Plated 74%. Recovery by plating and concentrating 86%.

Test made at Fools Gulch Mill. Quarry No. 1.

\$11.31 Plated \$7.44. Recovery by plating and concentrating 83%.

Test made at Fools Gulch ^{Mill} Quarry #3 and drift

\$4.07 Tailings \$.82.

Test made at Fools Gulch same places

\$3.75 Tailings \$.54 Recovery \$3.24



C O P Y

H. KELLY MCLAUREN
Mining Engineer

Los Angeles, Calif. 6/15/37

Mr. D. Chase Rich
925 L.A. Stock Exchange Building,
Los Angeles, California

Dear Mr. Rich;

At your request, I examined your property, the Leviathan group, consisting of seven patented claims, in the Weaver Mining District, 5 miles east of Congress Junction, Yavapai County, Arizona. The geological and metalurgical conditions are very ably covered by Messrs. Sayer and Haynes, Mining Engineers of high repute. Mr. Sayers developed and sampled the property over a long period of years, and had numerous mill tests made. These tests were corroborated by Mr. Haynes and average value found to be \$16.85 gold per ton.

Mr. W.O. Woodbury, E.M., of Phoenix, and an associate, secured a lease on one of the claims in 1936, and operated on a small scale for four months. He shipped 150 tons to the smelter, did considerable sampling, and his values ran slightly higher than those obtained by the above mentioned engineers.

The vein is an intrusion from great depth, and very prominent the entire length of the property, and can be seen for at least two miles. The district is noted for its deep mines and the ore is characteristically the same in all properties. The vein in your property is substantially stronger than the vein in neighborhood mines, both in width and values. On the Leviathan claim the ore is uncovered for one thousand feet, and I roughly estimate about 400,000 tons are exposed on the surface. Two miners can easily mine 100 tons daily from the deposit. The roads are excellent except about one-half mile from highway to the property, and about two days in rehabilitating will put this in very good shape.

The smelters are close to Congress Junction and freight rates are low; The smelter charges are nominal; and the venture will be very profitable.

You should develop the 438 ft. shaft on the Chester as soon as possible.

Water is at the 180 ft. level; the vein at collar of shaft is 8 feet in width and at the water level is 12 feet wide. Mr. Sayer reported entering sulphide zone, and this zone is proven to have considerable more values than at the surface in all mines in the district.

There is sufficient water in shaft that can be pumped into a storage tank for all camp and machinery usages.

There is no question but that you have a very valuable property. Everything necessary for profitable mining is available; and you high average values and vast tonnage of ore reserves insure a long period of dividends. About the only thing the mine needs is machinery and equipment; and I recommend it as an exceptional opportunity for an investor who desires security with high profits.

YVT, H. Kelly McLauren E.M.

C O P Y

JAMES WILSON NEILL
430 West Colorado Street
Pasadena, California

Mining Engineer, Geologist, Metallurgist

August 14, 1937

Mac Millan Petroleum Corp.
530 West Sixth Street
Los Angeles, California

Gentlemen:

Herewith beg to hand you my findings and opinion regarding the properties near Congress Junction, Arizona, which I visited this week at your request. To save duplication, I am referring to the several reports, by others, now in your possession.

PROPERTY: About five miles over good roads from Congress Junction and the A.T. & S.F. Ry. Elevation about 500 ft. above Congress Junction, or about 3500 ft. above sea.

Seven claims in the group, all patented, some outside ground held under locations for mill site and dump. In all about 200 acres.

The Chester, Leviathon and Grantley claims cover the apex of the main vein; the Germanic and Denver cover the apex of smaller N-S veins which will intersect the main vein. The Margaret and Katherine claims cover the area above the vein on its dip. The course of the veins is such that underground rights on the vein in its dip are uncontestable. The locations are old ones; their history, the usual one of contest between owners and neighbors, etc.

GEOLOGY AND GENERAL: The veins are essentially quartz deposits, carrying sulphide minerals, and these produce concentrates which the other reports show assay from \$175 to \$525.

The veins are deposited in shists and granite, and associated with porphyry intrusions, which at places make the foot wall, and at others also penetrate the quartz of the vein. Shists comprise the hanging wall in the eastern section and granite in the western. These geological conditions are general in the district, and obtain in the Alvarado (Fools Gulch) two miles north, in the Congress six miles N-W and in the Octave three miles S-E.

The Alvarado is opened to the 1100, the Congress to the 4000 and the Octave to the 2300 ft. levels; thus demonstrating the persistency of the mineralization to depth. These known facts regarding the habit of the ore deposits give us assurance that the values in the Leviathon group will also persist. On none of these other properties is the outcrop as strong as at the Leviathon.

LOCAL DETAILS: The main vein has a strike of closely S 65° W and dips to the North at about 25 degrees from the horizontal. It outcrops along and forms the crest of a ridge of the same course. The north slope of this ridge is covered by the vein itself, practically all overburden having been eroded. This condition gives this hill the appearance of a solid mass of ore: Into this many openings have been made, in form of quarries, shafts and tunnels, and considerable ore has been extracted for shipment to the smelters or for testing purposes. Near the east end of the Chester claim a shaft has been sunk on the vein to a (stated) depth of 438 feet, on an incline of 24 degrees. At the 300 level there is a drift 125 ft. long to the east. This shaft is now full of water to within 175 ft. of the surface. It follows down a well defined vein of quartz from 6 to 10 ft. in thickness, under a hanging wall of granite. There is no equipment on hand.

In all the openings visited the conditions are alike: the vein-mass is a white glassy quartz, carrying in spots and seams sulphides of iron and some lead. These are found right at the outcrop. There has been considerable oxidation, but to what depth or what effect on values is not disclosed. There has apparently been some step-faulting of the vein, the west side going down, but not sufficiently to break the continuity of the vein. These faults may have altered the values somewhat, by dilution and breakage, with subsequent leaching, etc.

VALUES AND TONNAGE: As it was obviously impracticable to cut a sufficient number of samples by hand from this large ore body in the limited time to establish the values of the mass, I did not attempt to do so. You already have reports by Mr. J.D. Sayer, Mr. J.H. Haynes, Mr. Holbert and others, which give you results of many samples and test mill runs of materials from this ground. Mr. Sayer is

endorsed by Mr. J.D. Ryan, President of Anaconda Mng. Co. His report is more in detail and the values obtained by his mill tests deserve consideration. His results are corroborated by the others, and all indicate valuable ore in the group, so that sampling by myself was unnecessary and not desired. These various tests give assurance of values to be found in the vein.

As an indication of the persistence of values in these veins in depth, I give you results obtained by me, in the Alvarado Mine, which at that time was opened to the 1000 ft. level. Block "A" at the "C" shaft, from surface to the 100 level gave an average value of \$11.42; and Block "D" same shaft, from 1000 to the 900 level gave an average of \$13.84; an increase in values of 21%.

TONNAGE, exposed on the Leviathon and Grantley surfaces may be estimated at $\frac{1000 \times 300 \times 6}{12}$ ft., or 150,000 tons. This material, if found to carry commercial values can be mined and transported to an adjacent mill for 50¢ per ton.

Calculating possible ore to be developed by shaft sinking and drifting, we would have $\frac{4500 \text{ ft.} \times 6 \text{ ft.}}{12}$, or 2250 tons per foot of shaft sunk. However, it is the habit of ore deposition in all veins for the values to be concentrated in "ore-shoots" of greater or lesser length, (the longest I ever measured was 2500 ft.), and between these shoots the vein material is either low grade or entirely barren. No doubt, such shoots exist in these properties, but their extent, location and value must be developed by sinking and drifting. Sayer mentions one such ore-shoot in the deep shaft.

Some mention should be made of the narrower N-S veins shown on the Denver and Germanic claims. These veins show out-crops of from one to three feet of quartz; they stand nearly vertical, and are shown by shafts and holes for long distances down the ridge. In places they have been prospected to depths of fifty and sixty feet.

They deserve further development and testing, and form a real asset to the group. In most other localities they would be considered as very promising prospects. The intersections of these N-S veins with the main vein should form the locations for valuable shoots of ore.

8/17/37

I have marked in colors on the "assay map", which was submitted to me, and which is merely a rough sketch, the approximate position of the outcrop and gulches; the black lines given in the map show the vein at the several openings, not at the outcrop, which is at the top of the ridge.

CONCLUSION AND RECOMMENDATIONS:

MY INTIMATE ACQUAINTANCE

WITH THE DEPOSITS IN THIS NEIGHBORHOOD OBTAINED BY AN EXHAUSTIVE EXAMINATION OF THE ALVARADO, QUALIFIES ME TO OFFER THE OPINION THAT THIS LEVIATHON GROUP HAS SHOWINGS WHICH PROMISE THE MAKING OF A VALUABLE MINE.

The actual value must be determined by future developments and testing, and not based upon the results in the reports submitted.

I WOULD RECOMMEND THAT YOU EXERCISE YOUR OPTION TO PROCEED WITH THIS DEVELOPMENT.

The start should be made at the deep shaft on the Chester, as specified in your agreement. During the period of this development, you can prove the values of the surface ores, which are so cheaply mineable.

The Chester shaft is full of water to within 175 feet of the surface, a vertical depth of 78 ft. only; Sayer reports this shaft to have produced about ten gallons of water per minute; hence, only a small pump will be needed. The shaft should be widened some two or three feet to give room for water and air pipes and a manway. When unwatered, the shaft should sunk, and at stated distances drifts run east and west, to prove up the ore-shoots.

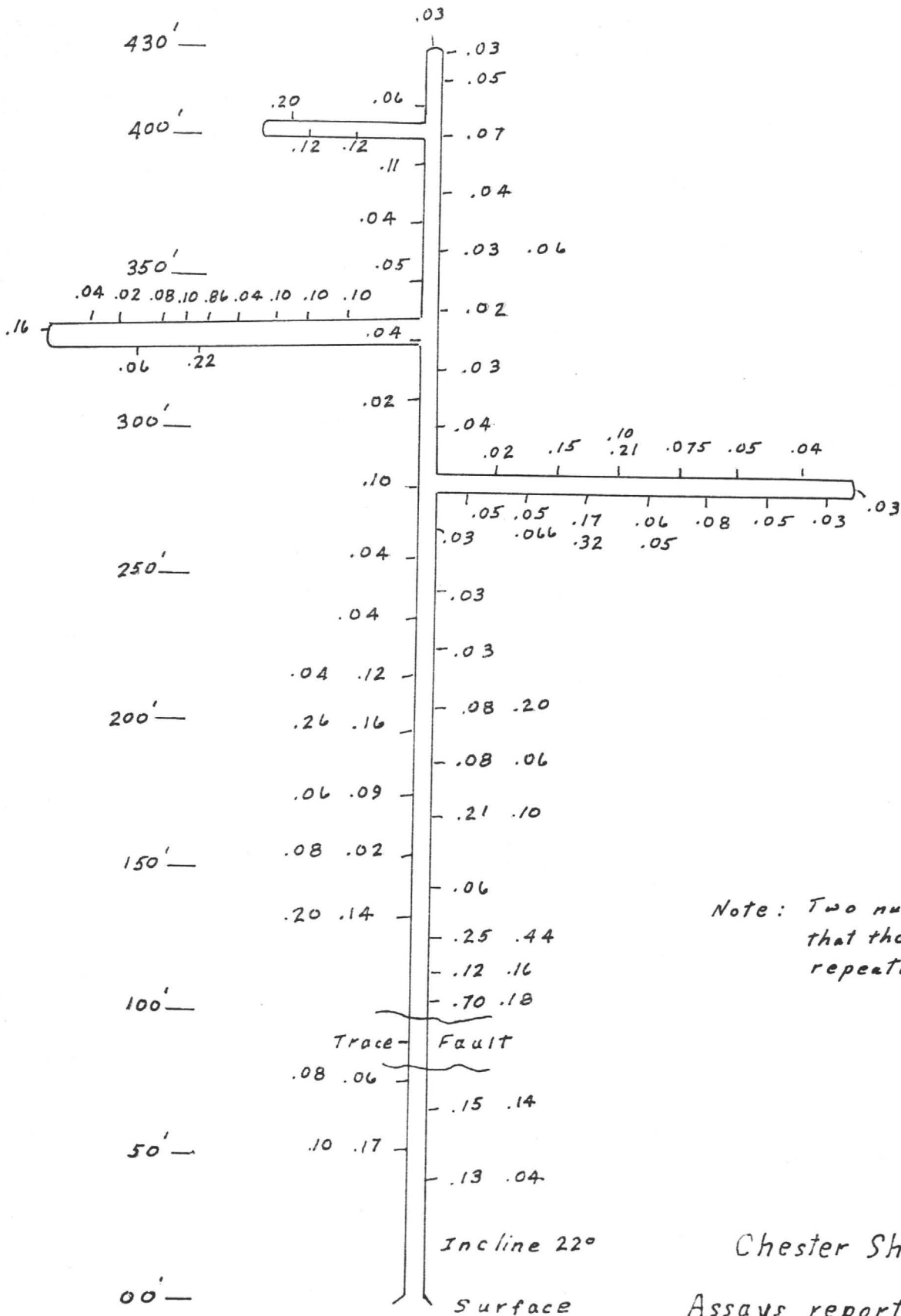
I believe a mill for the treatment of this ore will have a very simple method, probably amalgamation and flotation only; this, however, must be decided by careful tests by engineers before any plans are made.

Water for this operation will come partly from the mine, partly by pumping over the ridge from Stanton on Antelope Creek, a distance of less than a mile, and lift of about 400 feet. Electric power line runs through Stanton.

Respectfully submitted,

JAS. W. NEILL

Consulting Mining Engineer.



Note: Two numbers means that the assay was repeated.

Chester Shaft

Assays reported by J.W. Neill

12-1-37

oz. Au per ton

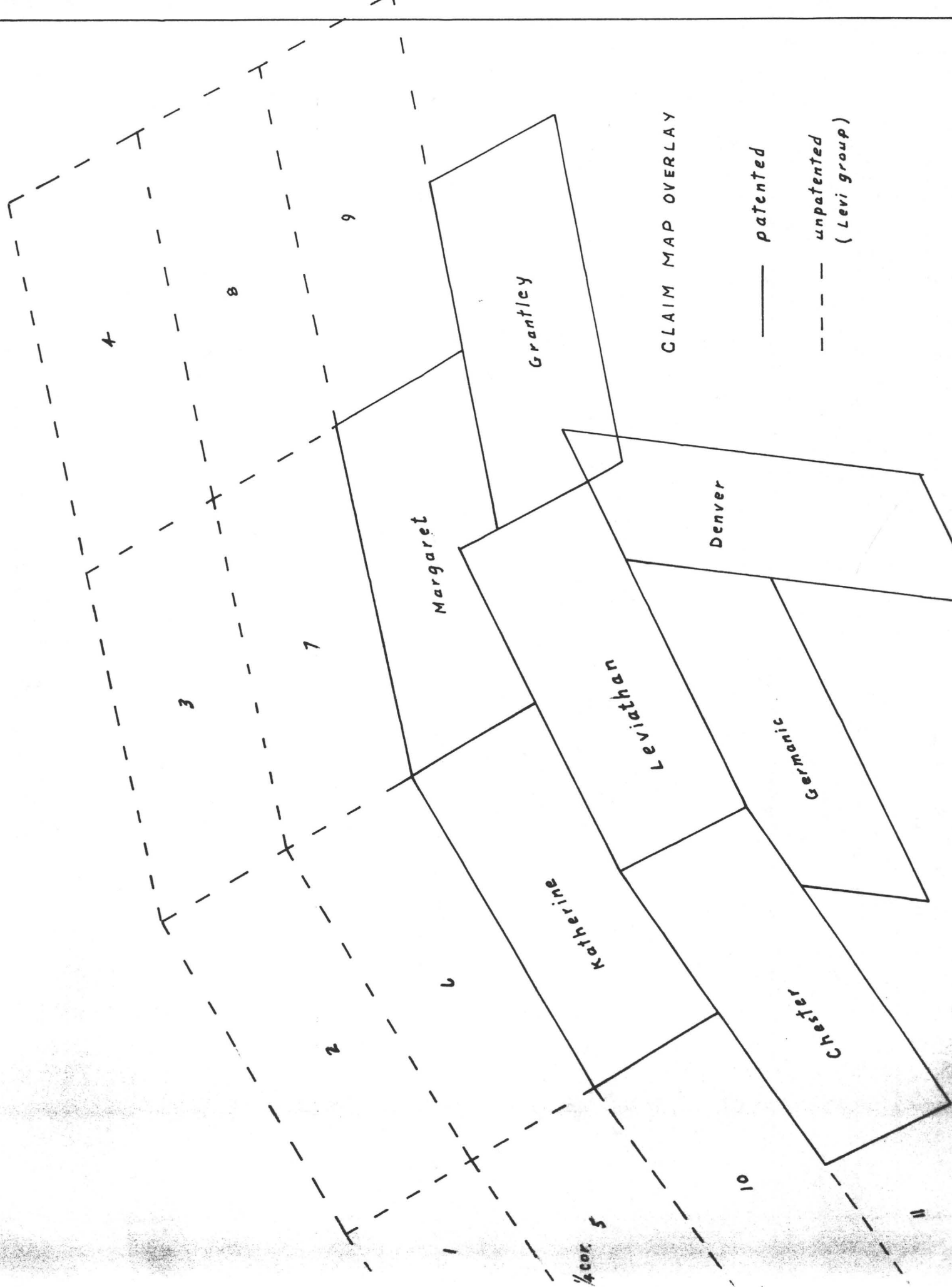


Leviathan Project

Figure 1

1" = 1000 feet

o Estimated drill hole depth



CLAIM MAP OVERLAY

— patented

- - - unpatented (Levi group)

CHARLES R. BUTLER

GEOLOGIST
P. O. BOX 435

DURANGO, COLORADO 81301

PHONE 247-1092

WEST BUILDING

R E S U M E

Personal Age 60 - Married - Good health

Education B.S. and M.S. Degrees - University of Colorado
Major - Geology

Experience

1950 6 months - U.S.G.S.

1950-1960 Manager - Walter Duncan Mining Co. - A mining organization was gradually built up in the early 50's to investigate uranium properties in Western U.S. Mining operations were conducted on the Navajo reservation from 1952 thru 1956. A discovery was made in 1957 in Red Canyon near Blanding, Utah, which resulted in the development of the Markey Mine. This property was in continuous operation from 1958 through 1981. Butler was responsible for the land acquisition and exploration phases of this project, and has continued as consultant to the Duncan organization after the ore deposit was leased to another company for actual mining operations.

1960-present Consultant to the Mining Industry - Consulting practice consists of evaluation of mining properties and determination of the status of private and public lands. During the period 1965 - 1983, a major client (approximately 1/2 time) has been Ranchers Exploration and Development Corporation of Albuquerque, New Mexico. Other clients have included Exxon Corporation, Magic Circle Energy Corporation, the James Buckley family Corporations and Walter Duncan Oil Properties. Areas of work include U.S. (including Alaska), Canada and Mexico.

In 1980-81, Butler was primarily responsible for the promotion of a purchase-option agreement whereby Magic Circle Energy Company explored a property near Congress, Arizona. As a result of this program (in which Butler assisted Alan Bird in the actual geological evaluation and drilling activities) a deposit containing several hundred thousand tons of mineable grade gold ores was delineated. Magic Circle subsequently exercised it's option to acquire the property.

Professional Organizations

Butler has been a Director of the Colorado Mining Association for about 25 years and in 1970 received the President's Award for "Outstanding Service to the Association". Butler is a licensed Real Estate Broker in the State of Colorado.

Comment

Butler considers that his major attributes, as a result of over 30 years of experience in the mining industry, are an ability to search out and evaluate viable mining prospects, and to make proper business and operational judgements concerning the exploration and development of such properties.