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D.K.M.  
APR 27 1987

  
**ARIZONA SILVER  
CORPORATION**

Suite 1140-625 Howe Street  
Vancouver, B.C. V6C 2T6  
(604) 689-5588  
*U.S. Subsidiary — Corval Development Inc.*

April 1, 1987



Doug Martin  
D.K. MARTIN & ASSOCIATES  
4728 North 21st Avenue  
Phoenix, Arizona 85015

Dear Doug:

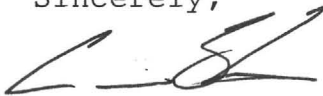
As per our telephone conversation I have enclosed a copy of Huskinson's report on the Hibernia Mine.

We presently have one other outfit reviewing this data, but to date nothing has materialized.

This property could be bought outright for thirty thousand dollars (\$30,000) U.S. or alternatively, a deal could be worked whereby a company could earn an interest through the expenditure of a certain amount of money on the property and some cash up front.

Call me if you have any questions.

Sincerely,



Corwin Coe

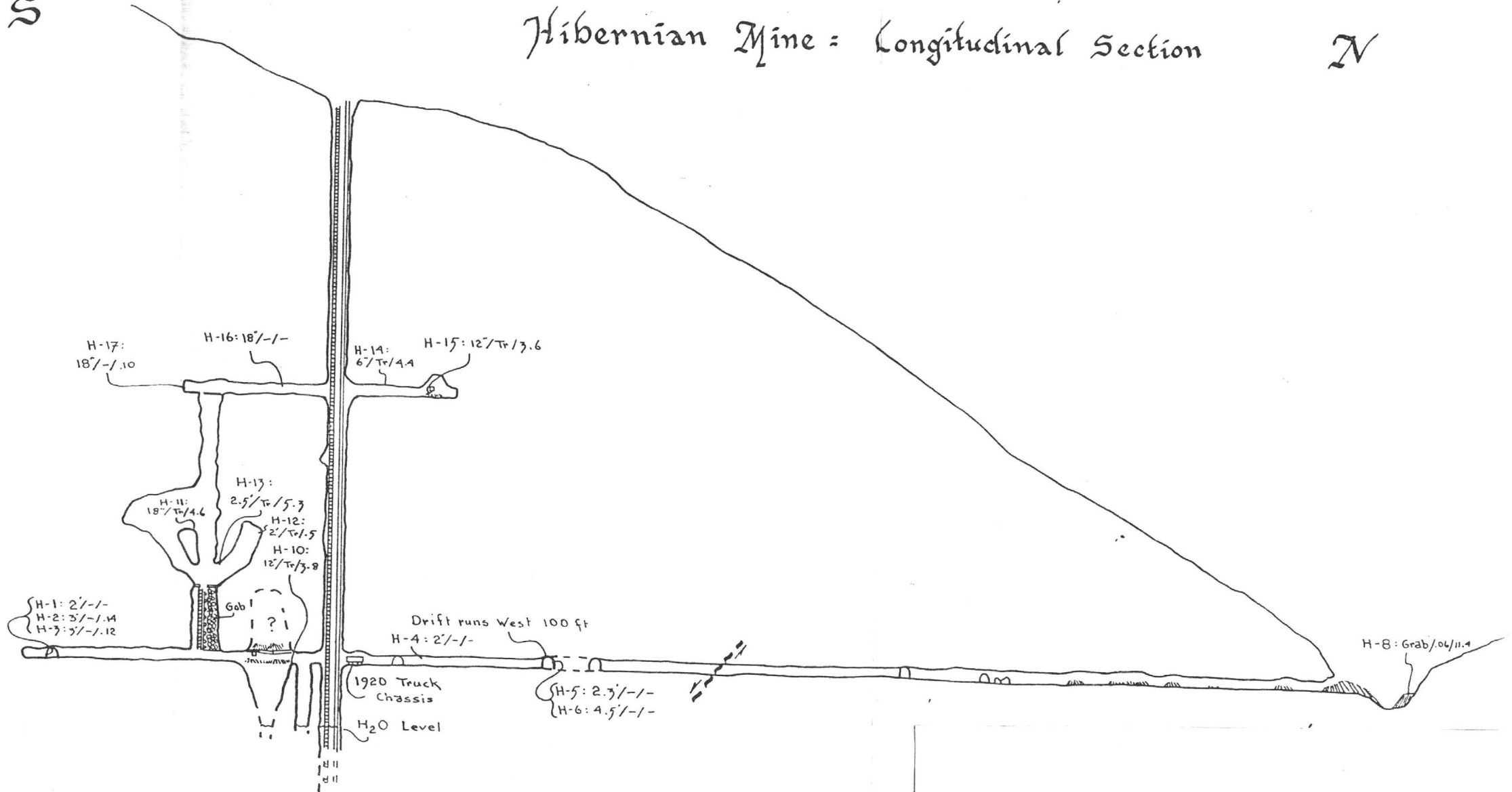
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S

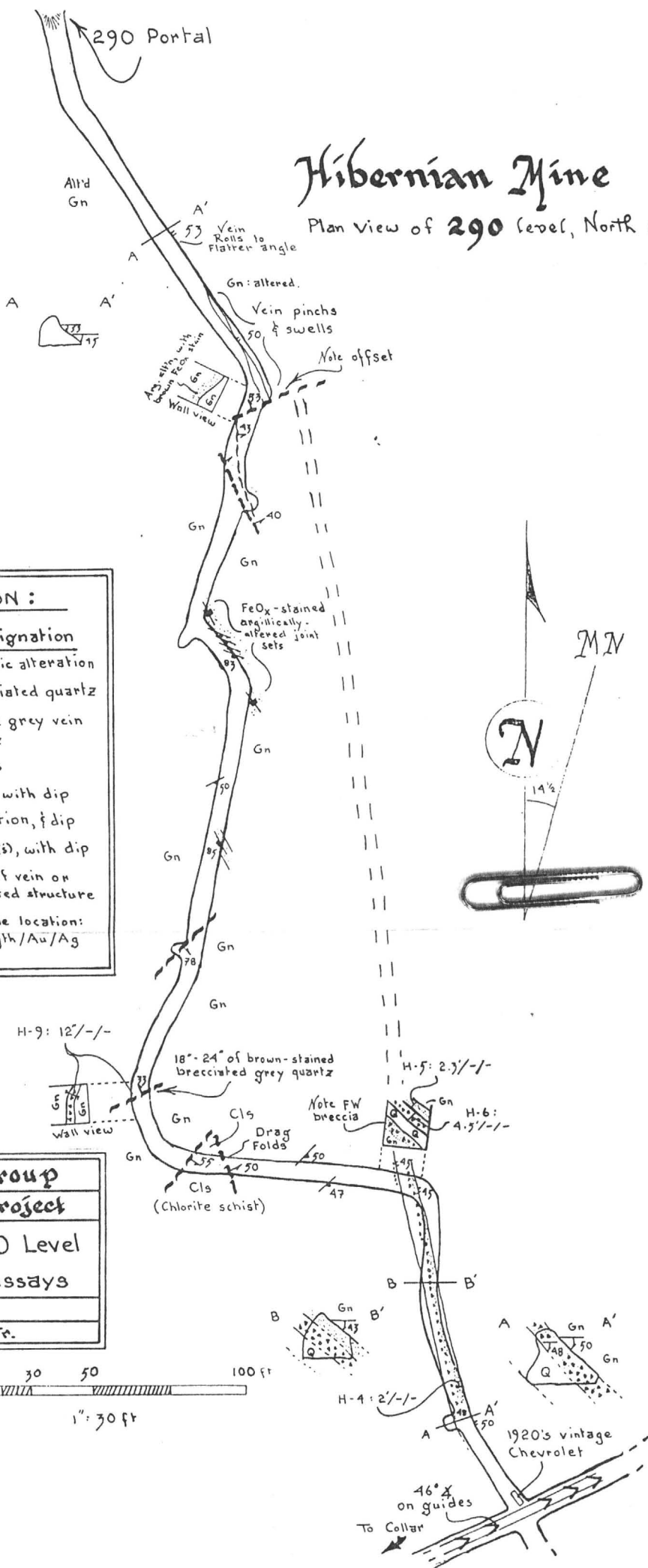
# Hibernian Mine = Longitudinal Section

N



# Hibernian Mine

Plan view of 290 level, North adit/drift



## EXPLANATION :

Symbol	Designation
	: Argillic alteration
	: Brecciated quartz
	: Dense grey vein quartz
	: Gneiss
	: Fault, with dip
	: Foliation, f dip
	: Joint(s), with dip
	: Dip of vein or related structure
H-17: 18°/55°/5.7	: Sample location: #: length/Au/Ag

Arizona Group  
Hibernian Project

Fig. 6 290 Level  
Geology & Assays

Nov., 1986

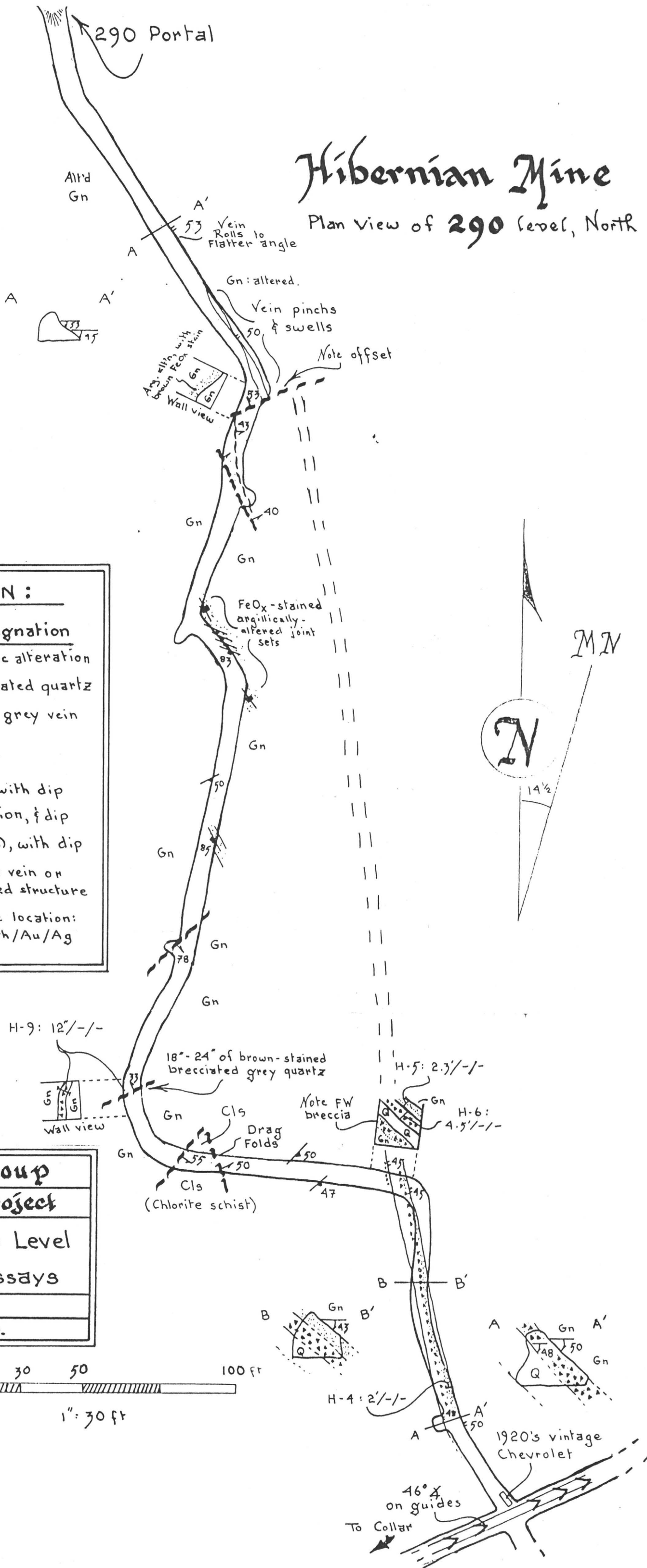
Ed Huskinson, Jr.

0 10 30 50 100 ft

1" = 30 ft

# Hibernian Mine

Plan view of 290 level, North adit/drift



## EXPLANATION :

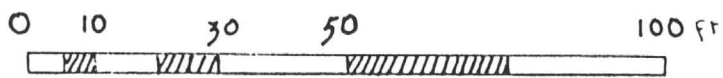
Symbol	Designation
	: Argillic alteration
	: Brecciated quartz
	: Dense grey vein quartz
	: Gneiss
	: Fault, with dip
	: Foliation, with dip
	: Joint(s), with dip
	: Dip of vein or related structure
H-13: 18"/Tr/5.3	: Sample location: #: length/Au/Ag

## Arizona Group Hibernian Project

Fig. 6 290 Level  
Geology & Assays

Nov., 1986

Ed Huskinson, Jr.

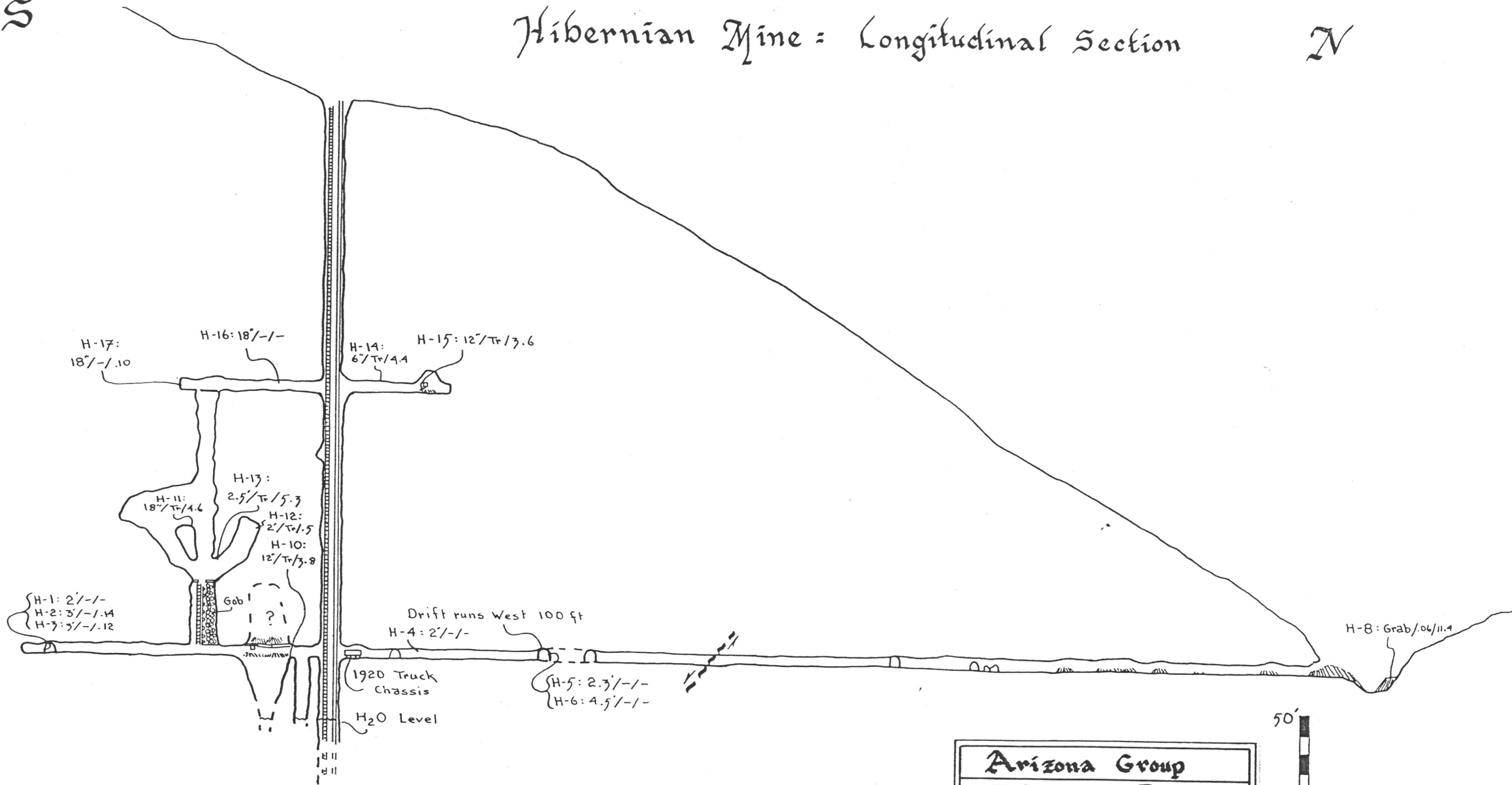


1" = 30 ft

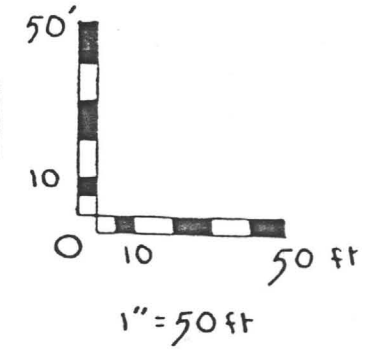
S

# Hibernian Mine = Longitudinal Section

N



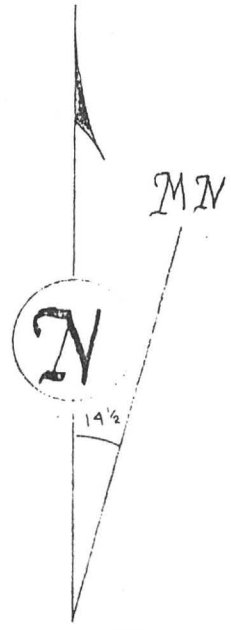
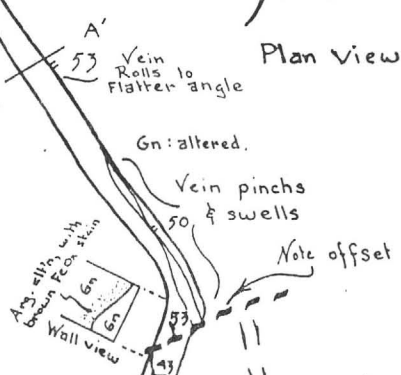
Arizona Group
Hibernian Project
Fig. 4 Hibernian Mine Long. Section
October, 1986   Rev.
Ed Huskinson, Jr.



# Hibernian Mine

Plan view of 290 level, North adit/drift

290 Portal



## EXPLANATION :

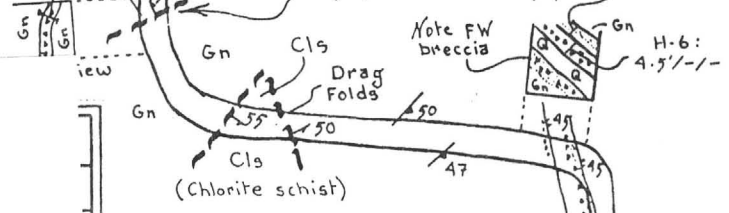
Symbol	Designation
	: Argillic alteration
	: Brecciated quartz
	: Dense grey vein quartz
Gn	: Gneiss
	: Fault, with dip
	: Foliation, & dip
	: Joint(s), with dip
	: Dip of vein or related structure
H-13: 18"/T/5.3	: Sample location: #: length/Au/Ag

H-9: 12°/-/-

18°-24° of brown-stained brecciated grey quartz

H-5: 2.3°/-/-

H-6: 4.5°/-/-



B - B'

GEOLOGY AND ECONOMIC POTENTIAL OF THE

HIBERNIAN MINE

MAYNARD/CEDAR MINING DISTRICT

MOHAVE COUNTY, ARIZONA

Ed Huskinson, Jr  
845 Ridgecrest  
Kingman, Arizona

-86401-

(602) 757-8228



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GEOLOGY AND ECONOMIC POTENTIAL OF THE  
HIBERNIAN MINE  
MOHAVE COUNTY, ARIZONA

INTRODUCTION

PURPOSE AND METHOD OF INVESTIGATION

This report was commissioned by Mr. Cory Coe of Vancouver, B. C., who represents the current owner(s) of the Hibernian mining claim, Mohave Co., Arizona. The property was evaluated by mapping and sampling not only the surface expression of the Hibernian vein, but also the underground workings developed therein. A standard Brunton compass, topofil and surveyor's chain were used as control during the five field days spent on the groundwork. The surface maps were tied in to the section/range corner west of the portal and to the location monument erected more than 110 years ago when the claim was surveyed for patent in 1873 (Fig.1).

LOCATION

The property is in south-central Mohave County, approximately 9 miles west of the Cane Springs crossing on Highway 93, 17 miles northwest of Wikieup, Arizona. To reach the property, turn west at milepost 108 3/4, just north of the

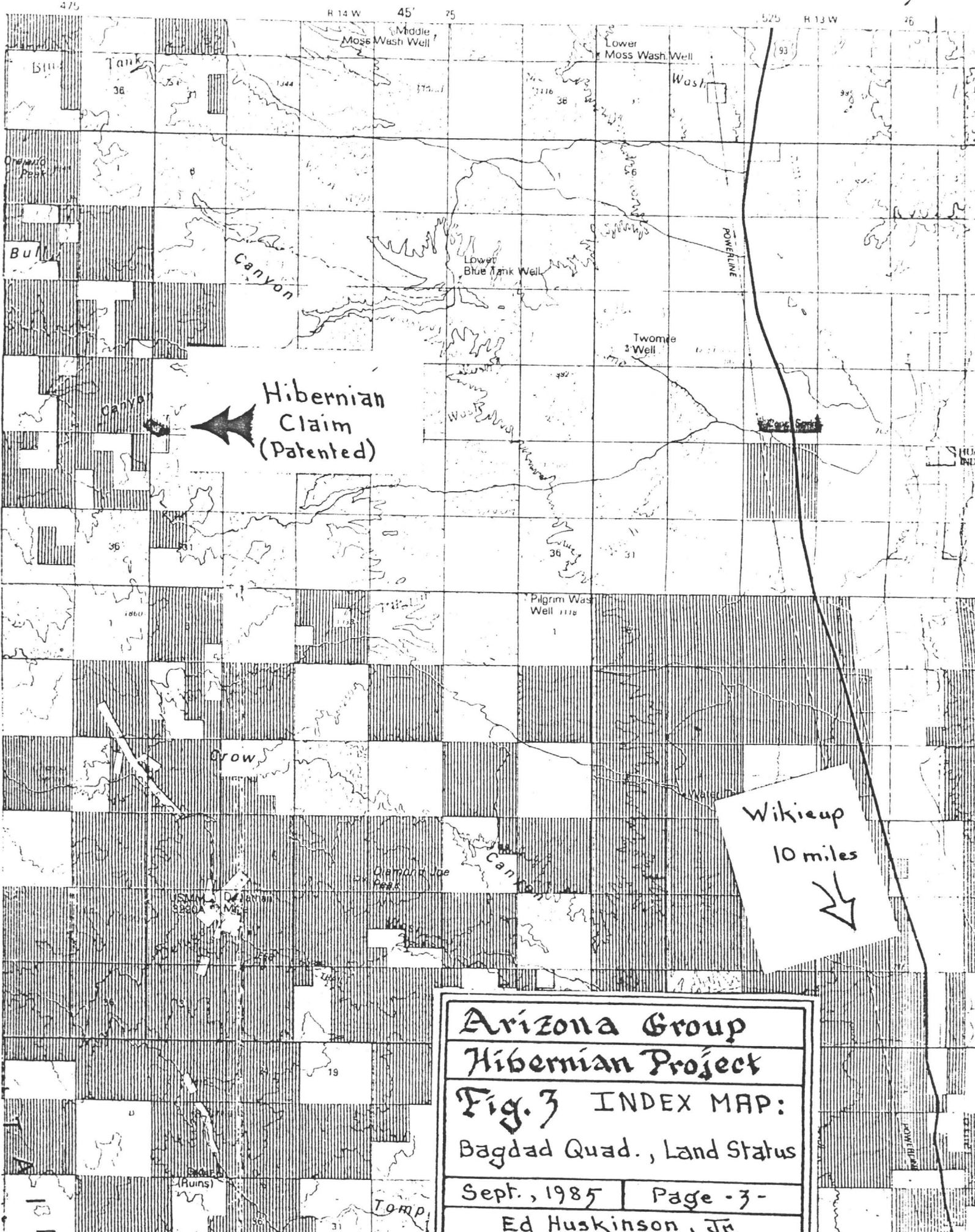
Cane Springs bridge. Turn left at the ranch house (about 1/4 mile), cross the wash to the first gate (at .5 mile from Hwy 93: there is a 230 KV powerline there). Pass through the gate and follow along the meandering ridge toward the Hualapai Mountains. In 6.6 miles there will be another gate beside a small corral. The road is badly deteriorated from this point on. The Silverado Mine lies 3.3 miles westward, and the Hibernian mine is reached by hiking north along the road from the Silverado shaft. The mine lies at the end of the road, about 1 mile north of the Silverado Mine (Fig. 2).

A patented mining claim (Lot 27, map 2, Book 204, Mohave County Assessor's office), the Hibernian claim lies mostly in sections 19 and 30, T18N, R14W. Portions of the property extend onto section 24, T18N, R15W (Fig. 2 & 3 ). Most of the ground surrounding the patent was open for location and has been staked by numerous parties.

The BLM 1:100 000 scale surface minerals management map of the Bagdad Quadrangle (Fig. 3) shows the access best while the USGS 7.5 minute (1:24 000 scale) Hibernia Peak Quadrangle has good detail of the area. The 1 mile downhill hike in to the property is not bad; however, the climb out can be arduous, particularly if one is packing out samples for assay.

#### PHYSIOGRAPHY AND CLIMATE

The minesite is at an elevation of 4315', on the south



Hibernian  
Claim  
(Patented)

Wikieup  
10 miles

Arizona Group	
Hibernian Project	
Fig. 3 INDEX MAP:	
Bagdad Quad. , Land Status	
Sept. , 1985	Page - 3 -
Ed Huskinson, Jr.	

side of Hibernia Canyon, which drains eastward from the imposing ridgecrest of the Hualapai Mountains about 3 miles west. Temperatures vary from below 0 C (32 F) during the short winter to more than 40 C (104 F) in the summer. There is no source of water in the area except for the flooded workings below the 290 level.

The terrain is moderately steep, covered with sparse to thick chapparal, and in the summer is very snakey, particularly in the early morning and late evening. There are no trees on the property. The rough road in to the mine could easily be upgraded for year-round access with a small bulldozer (D-6 or equivalent).

#### PREVIOUS WORK

Between 2500 and 3000 tons of ore have been mined here. According to Cedar Mineral Company's 1976 report:

"In the late 1800's one lense of high grade oxide silver ore was mined, packed by burro train to the Colorado River and shipped by water to Swansea, Wales, for reduction; the ore assaying from 100 ounces to several hundred ounces per ton. This shipment of ore is reported to have brought the shippers a return of about \$125,000."

At present (October, 1986), the workings consist of a 45 degree inclined shaft sunk on the vein for about 350 feet. Headings have been run out along the vein from this decline at the 150 and 290 (probably the 300) levels. The north drift on the 290 level was taken all the way out to the draw above Hibernia Canyon (USGS designation). Because of this, ventilation is good throughout the mine. This is fortunate, as the old-timers used a 1920's vintage Chevrolet truck chassis and engine to sink the decline below the 290 level (Fig. 4).

All of the ore removed from the mine has been drawn from stopes developed south of the decline (Fig. 4). A manway/raise driven through the largest stope connects the 290 and 150 levels. The guides, timbers and lagging are all in good shape: however, the portal of the 290 level has caved almost shut.

On the surface, a flattened wooden cabin and the rusted remains of a 20 HP hoist (Western Gas Engine Co., L.A.) and draw-works are the only evidence of the old-timers' endeavors. This machinery sits in a state of desuetude about 100 ft. northwest of the shaft, directly in line with the collar. A 15 ft. tram tower remains standing about halfway between the shaft and draw-works.

As an interesting note, the Hibernian is also known as "The Bootlegger's Mine". Kingman's first millionaire, Mr. Tony Melles, made his fortune there by operating a still using water from the creek below (Jack Owen, personal communication, Kingman, AZ, 1986).

## GEOLOGY

### HOST ROCKS

The Hibernian Vein occurs in Precambrian gneiss that has a pronounced foliation direction of N 30-50 E, with a variable steep dip to the southeast. Numerous elongate pods of coarse subpegmatitic granite cut these rocks, as do smaller bodies of amphibolite, diabase, and rhyolite with irregular shape and orientation (Fig. 2). The foliation direction does not appear to have had any affect on the direction of the vein or the ore shoots within it.

### HIBERNIAN VEIN

#### Setting

This prominent structure can be traced for more than a mile, from the hill south of the Silverado Mine northward through the Hibernian Mine and beyond. Indeed, the Silverado Mine was once known as the "Hibernia Extension" (Arizona Department of Mineral Resources: Owners Mine Report, June 1, 1940). The vein trends a few degrees west of north and dips to the east at 45 degrees. Surface exposures of the vein range from practically non-existent to very prominent.

The northerly orientation of the vein holds true until it crosses the arroyo at the 290 level portal, where it makes an abrupt bend westward (Fig. 2).



### Mineralogy

The vein varies from a few inches to more than fifteen feet in width. It consists of massive white to grey quartz which contains variable amounts of barite, cerar-gyrite (silver chloride), galena, linarite (lead/copper sulphate) velvet malachite, pyrite, hematite, and chalco-pyrite, with trace amounts of gold. This mineralization is restricted to the hanging wall: the vein itself is barren. The highest silver values and the most discernible mineralization (i.e., copper carbonates, galena, etc.) are found where the vein and/or host rock contains barite.

The presence of the barium- and copper-sulphate minerals (barite and linarite) suggests that the ore-forming solutions were sulphur-rich. It may be that conditions of pH variance effected the localization of the ore. Without detailed mineralogical study, to determine such possible influence is beyond the scope of this report.

### Alteration

A zone of intense argillic alteration extends into the hanging wall country rock for about two feet, and this ground hosts the bulk of the ore. The small "Glory Hole" that can be seen south of the vein at the collar of the decline was developed in hanging wall mineralization (Fig. 5).

The alteration halo is characterized by moderate to

SW

ENE

Open pit on  
HW mineralization

Top of decline

100

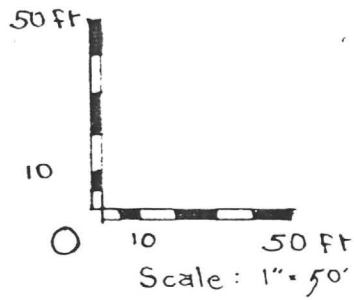
150 Level

200

290 Level

300

327 H<sub>2</sub>O Level



Cross section through Hibernian shaft

Arizona Group	
Hibernian Project	
Fig. 5 Cross Section through decline	
October, 1986	
Ed Huskinson, Jr.	

abundant earthy-brown iron-oxide stain, and the affected rocks are generally pulverulent or gritty. Manganese oxide dendrites and blebs often fill fractures in the altered zone.

### Structure

As can be seen in Fig. 6, the vein has been offset in a few places by faults of diverse orientation. Most of the cross-cutting features in the mine are minor.

There is evidence for post-emplacment movement along the vein. A section through the vein, from footwall to hanging wall, would be as follows:

- 1) The two- to three-foot thick dense grey quartz vein is overlain by
- 2) a two- to four-foot thick section of brecciated, poorly cemented grey quartz, mineralized (galena and barite) in some areas, above which is a
- 3) two- to three-foot thickness of iron-stained, argillically-altered, variably mineralized, Precambrian gneiss and/or schist.

This last unit is the principal host for the silver mineralization at the mine. In a few places, a 2 foot breccia has been developed in the footwall rocks below the vein (Fig. 6, wall view #1). No mineralization was found in the footwall breccias during the field examination.

### Ore Control

The Hibernian decline was sunk where the vein displays a slight convex change in strike from almost due north to just east of north (Fig. 2). The steep topography results in an apparent strike direction that is more easterly than the true strike.

At any rate, this change in direction produced an area of low pressure (or possibly even a void zone) which was favorable to mineralization and the ore was concentrated there. A similar feature was noted just north of the Silverado shaft by Vanderwall (1984, p.2).

That the Hibernian vein itself is barren is noteworthy. It consists of dense grey quartz, and the ore is concentrated in the hanging wall. The ore-forming solutions were obviously late-stage, passing along the barren quartz/hanging wall interface. Therefore, the vein itself acted as an aquaclude: ore solutions traveled along it, producing the mineralization found in the overlying hanging wall.

It is also probable that the dense grey quartz acted as a buttress. As the hanging wall moved downward along this block, it was shattered and altered, providing the conditions of permeability necessary for ore emplacement. In places the vein footwall is as smooth as poured concrete.

The best guides to ore in the area then, are a change in strike of the vein, intense hanging wall alteration, and the

presence (in decreasing order) of barite, galena, and copper carbonates in the vein.

## HIBERNIAN MINE

### WORKINGS

The workings consist of an inclined shaft that is at least 350 feet deep, and probably more; from the shaft, headings have been run out along the vein at the 150 and 290 levels. There may be more workings beneath the water table, which stands at 327 feet below the collar at present (1986).

All of the stoping in the mine has taken place between the 290 and 150 levels south of the decline. There are neither stopes nor raises above the 150 level, and there are none on the 290 level north of the decline (Fig. 4).

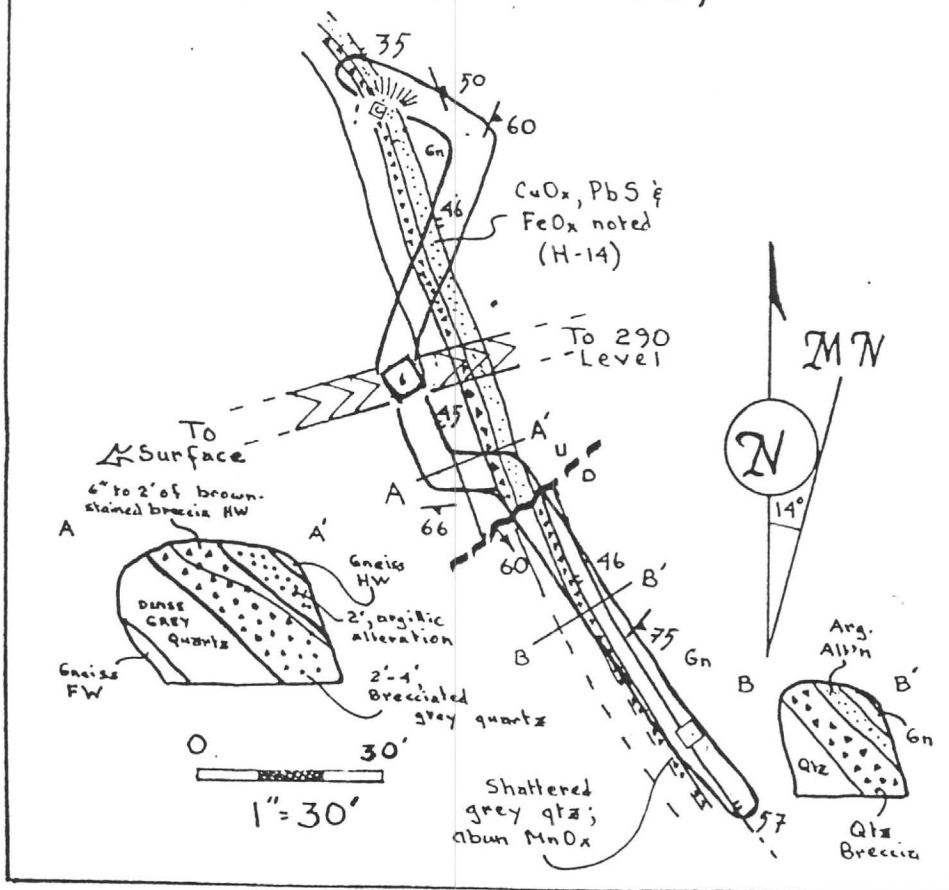
The mine is open throughout; however, the back has come down for about the first two hundred feet in from the 290 portal, and access from this direction entails some stooping and crawling over the high spots.

### 150 LEVEL

As can be seen in Figures 5 and 7, the decline was sunk in the wall rocks at the footwall of the Hibernian vein. The massive grey quartz makes a strong hanging wall for the workings throughout the mine.

# Hibernian Mine

Plan View, 150 Level. GEOLOGY



## EXPLANATION :

Symbol	Designation
	: Argillic alteration
	: Brecciated quartz
	: Dense grey vein quartz
Gn	: Gneiss
	: Fault, with dip
	: Foliation, & dip
	: Joint(s), with dip
	: Dip of vein on related structure
H-13: 18"/T/53	: Sample location: #: length/Au/Ag

Arizona Group  
Hibernian Project

Fig. 7 150 Level  
GEOLOGY

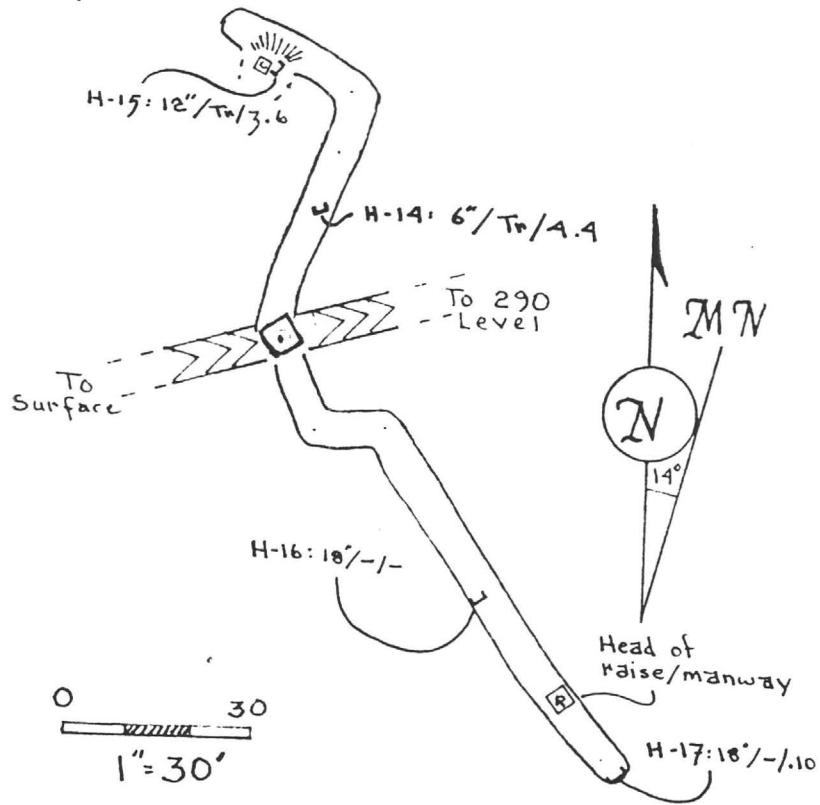
Nov. , 1986

Ed Huskinson, Jr.

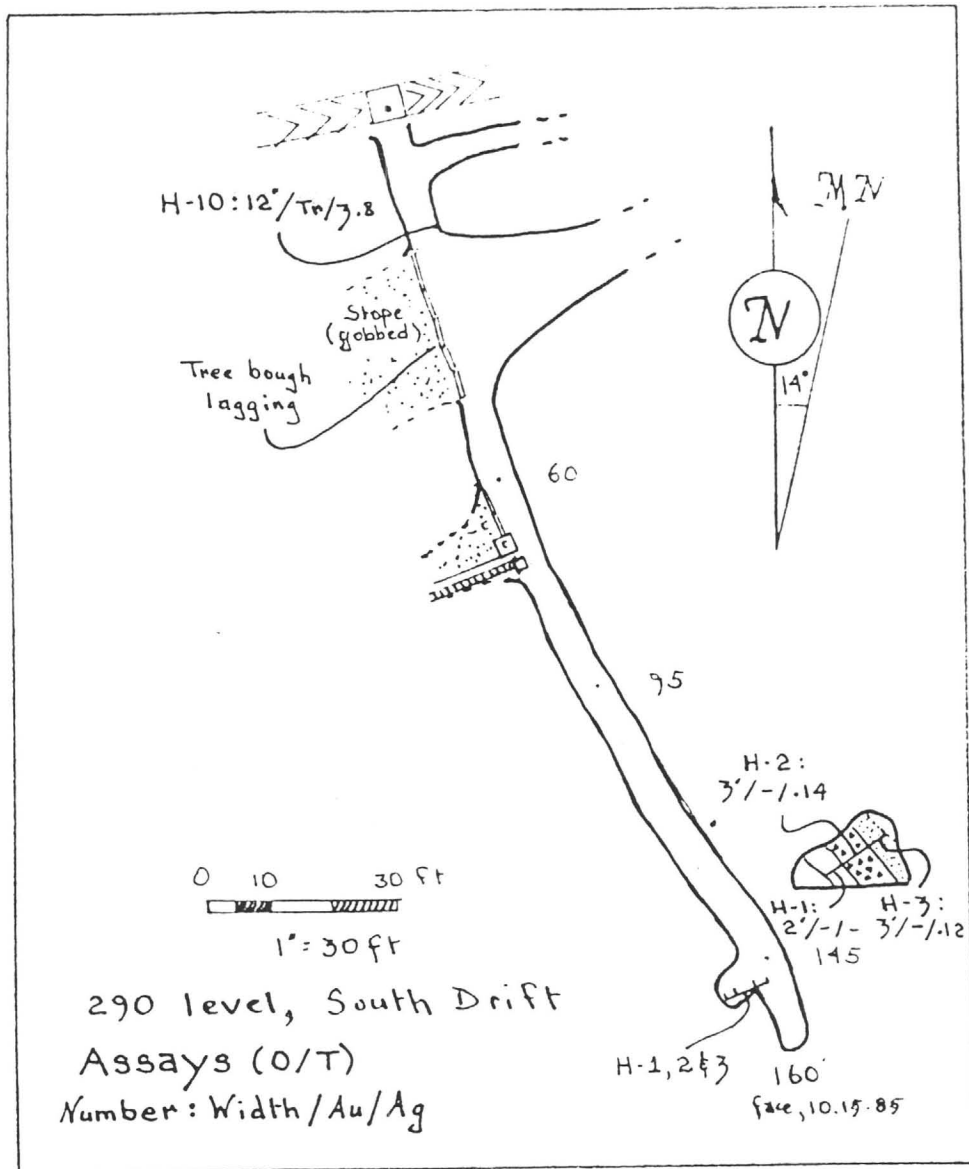
# Hibernian Mine

Plan View,  
150 Level.

Assays (O/T)  
Number: Width/Au/Ag



Arizona Group	
Hibernian Project	
Fig. 8 150 Level	
ASSAYS	
Oct., 1986	Rev.:
Ed Huskinson, Jr.	



Arizona Group	
Hibernian Project	
Fig. 10 290 Level	
ASSAYS	
Oct. 1986	
Ed Huskinson, Jr.	



the result of their attempt to drive a drainage/ventilation/ exploration heading south along the footwall of the vein toward the shaft from the arroyo. After losing the vein where it is cut by a low-angle fault about 140 feet in from the portal (Fig. 6), they may have drifted along in barren rock toward the shaft for 250 feet before they finally realized their mistake and crosscut eastward to regain the vein.

The few assays cut in this drift are all dusters, carrying no values in gold or silver.

#### HIBERNIAN MINE DUMP

The main dump was not sampled, only the pile of obvious high-grade left near the portal (H-7 [Fig. 2] ran 0.02 oz/ton Au and 14.44 oz/ton Ag). There are about 2500 tons of material contained in this dump, most of which is probably footwall waste.

#### CONCLUSION

It may be possible to develop a small mine at the Hibernian claim, provided ore bodies can be located using the criteria listed above (i.e., convex bends in the vein and so forth). It is not inconceivable that pods of ore ranging up to 5,000 tons or more could be found. The ore probably will grade between 14 and 25 oz/ton Ag, accompanied by variable amounts of gold.

On the claim itself, the obvious target is near the mine, at depth below the 290 level, south of the decline. Additional targets in the mine vicinity should come to light through the exploration program.

But the best potential probably lies to the northwest, along strike of the vein. The highest assay on the property (H-18 : 206 oz/ton Ag and .28 oz/ton Au) was collected from the dump of a small prospect pit on the vein about 900 feet west of the 290 portal (Fig. 2). The true potential of the Hibernian vein may be realized from this area.

Before any exploration is carried out at the Hibernian, a thorough land take-off should be completed to establish title and determine the exact status of the surrounding ground that might be open for mineral location.

## RECOMMENDATIONS

### LAND POSITION

In compiling the geologic map, claim posts for the following claims were encountered:

- 1) Ida Louise claims 1 through 15, staked in January of 1981. It appears that a good portion of these claims is invalid, in that they have been staked in section 30. T18N, R14W. This is a State section,

most of which is held under State Prospecting Permits 08-37516 and 08-37349, issued to Corval Development Corp. of Vancouver, B.C. .

- 2) Blue Silver claims (status unknown)
- 3) Big AB claims, filed in September of 1981 (status also unknown)
- 4) Homestead Mining claims (again, status unknown).
- 5) Various unmarked posts, some as white 2x2s of fairly recent origin and others as red-topped 4x4s that are probably 6 or 8 years old, indicate that there must be other claims filed in the area.

The status of the open (?) land in section 19, T18N, R14W must be established by courthouse title search. If it is indeed open (and this ground probably is, as no evidence of recent assessment activity was noted), then the SW 1/4 of section 19 should be staked, along with the SE 1/4 of section 24 T18N, R15W. Thus, the WNW extension of the Hibernian Vein will be brought under control and a proper exploration program can ensue without worry of nuisance interference.

#### EXPLORATION PROGRAM

To find the ore will entail developing a program of geological, geochemical, and perhaps geophysical exploration to delineate targets. A second phase would consist of testing these targets with a diamond drill or reverse circulation rotary (RCR) rig.

### Target Identification

A methodical sampling program to assess the extended strike length of the Hibernian Vein is called for. Channel samples at right angles across the vein must be cut and assayed. Concurrently, a detailed geologic map along strike must be made, and a series of cross-sections through the vein drawn up where the best assays or geologic criteria for ore are encountered.

Because the ore zones are sulphide-rich, an E-M survey might prove useful, perhaps if coupled with simultaneous VLF. To test the vein from just south of the Silverado Mine to a point past the Hibernian Mine should take about 3 man-days at most.

### Target Testing (Drill Program)

The target near the flooded bottom of the Hibernian decline is best tested by drilling a hole or series of holes into the vein from the hanging wall block. To do so would require building about 900 feet of access road to a drill pad/station east of the collar of the shaft (Fig. 2). From there, a "fan" of holes could be drilled to test the vein at various depths and/or distances from the shaft.

The holes would be from 400 feet to 500 feet deep, at various angles. It might be possible to drill shorter holes from a station closer to the shaft, although building such a pad would be more difficult (and hence, more costly) because of the rugged topography.

Ideally, the drill program would consist of two phases:

1) A preliminary phase of diamond drilling to test the stratigraphy and establish alteration halos. etc.

This would be followed by

2) A secondary phase of cheaper rotary drilling to test the vein in as many places as cheaply as possible.

#### COST ESTIMATES

##### Existing access

The present road in to the mine from the Silverado is in terrible condition: only motorcycles or all-terrain vehicles can be driven to the end of the road overlooking the mine. To bring it up to grade would entail approximately two to three ten hour days (depending on the operator) of cat work.

25 hrs @ \$75.00 per hour..... \$1875.00

##### Drill pad and new access

20 hrs @ \$75.00 per hour..... \$1,500.00

SUBTOTAL..... \$3,375.00

##### Mine Survey

Before the mine area is drilled out, an accurate survey of the surface and underground workings must be obtained. This survey should be run in through the collar and out the 290

portal, then tied in to the section/range corner to the west.

20 hrs @ \$40.00 ..... \$ 800.00

Target Identification (Geology and Geochemistry)

Geologic mapping, sample collection, etc.

20 days @ \$250.00 ..... \$5,000.00

Mileage and other expenses ..... \$ 200.00

Assays: 150 @ \$12.00 ..... \$1,800.00

Sample bags: 150 @ .17 ..... \$ 25.00

Assess data: 2 days @ \$250.00 ..... \$ 500.00

SUBTOTAL..... \$7,525.50

Target Identification (Geophysics)

Field work: 3 days @ \$250.00 ..... \$ 750.00

Data assessment: 5 days @ \$250.00 ..... \$1,250.00

SUBTOTAL ..... \$2,000.00

Target Testing (Diamond Drill Program)

This preliminary phase should consist of two or three holes drilled to familiarize the project geologist with the host rock stratigraphy, hanging wall alteration and mineralization, vein thickness, footwall alteration, etc.

Drilling: 1500 ft. @ \$20.00 ..... \$30,000.00

Supervision: 25 days @ \$250.00 ..... \$ 6,250.00

Assays: 25 @ \$12.00 ..... \$ 300.00

Contingencies (Shipping, etc.) ..... \$ 3,600.00

SUBTOTAL ..... \$40,150.00

Target Testing (RCR Program)

If the results from the diamond drill program are encouraging, then the ore bodies can be blocked out and reserves estimated by drilling a multitude of holes with a highly mobile (probably track-mounted) reverse circulation rotary rig. These machines are fast, accurate, readily available, and are much cheaper than core rigs.

Drilling: 3,000 ft. @ \$8.00 .....	\$24,000.00
Supervision: 15 days @ \$300.00 .....	\$ 4,500.00
Assays: 125 @ \$12.00 .....	\$ 1,500.00
Sample bags: 150 @ .17 .....	\$ 25.50
Shipping: .....	\$ 150.00
Contingencies .....	<u>\$ 3,000.00</u>
SUBTOTAL .....	<u>\$33,175.50</u>
TOTAL, ALL PROGRAMS .....	\$86,901.00

#### BIBLIOGRAPHY AND REFERENCES

- Jacobsen, R. C., 1926, untitled correspondence regarding the Hibernian Vein and Silverado Mine (w/ attachments).
- Jones, Melvin H., 1978, "Preliminary Geological Evaluation, Silverado Mine, Cedar Mining District, Mohave County, Hualapai Mountains, about 50 miles South of Kingman, Arizona" (sic): 3 pages.
- Jones, S.S., 1937, untitled evaluation report on the property: 2 pages, with attachments.
- Smith, T. Mac, 1940, Owner's Mine Report (on the Silverado Mine) in Department of Mineral Resources File MS-41.
- Ward, C. R., 1976, "Parcel #186" (Evaluation report written for the Cedar Mineral Company, Phoenix, AZ): 22 pages.
- Vanderwall, W., 1984, Geological Investigation Silverado-Hibernia Vein System Mohave County Arizona (written for D. K. Martin dba Conar Resources): 10 pages, with 24"x36" topographic enlargement.

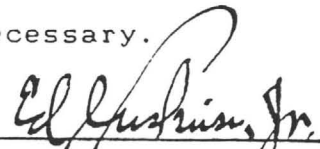


STATEMENT OF QUALIFICATIONS

I, Edward J. Huskinson, Jr., residing in the City of Kingman, Arizona, hereby certify that:

- 1) I am a consulting geologist with offices at 845 Ridgecrest, Kingman, Arizona 86401, telephone: (602) 757-8228 ;
- 2) I have a B.A. degree in geology from West Texas State University, Canyon, Texas, 1971;
- 3) I have a Master's Degree in geology from the University of Texas at El Paso, El Paso, Texas, 1975;
- 4) I have been practicing my profession as a geologist since 1968, having been employed by mining companies and others as a consulting geologist since that time;
- 5) I have no interest, direct or indirect, in the properties or securities of the Arizona Group; and
- 6) The attached report on the Hibernian Mine is based on my personal examination of the property in September of 1985, with subsequent evaluation carried out in October of 1986.

I hereby consent to the use of this report for filing with the appropriate agencies or for inclusion in such documents as the Arizona Group may deem necessary.

  
Ed Huskinson, Jr

0-11

## ARIZONA SILVER

MFD 10-31-85

LAB #	SAMPLE # & DESCRIPTION	ING	ADDED	GROSS	NET	AU	AG			
B	BLANK	Ag	2.03	2.01		—	-0.02			
1	H-1	—	—	0.00		0.00	0.00			
2	H-2			0.07		0.00	0.14			
3	H-3			0.06		0.00	0.12			
4	H-4			0.00		0.00	0.00			
5	H-5			0.00		0.00	0.00			
6	H-6			0.00		0.00	0.00			
7 <sup>y</sup>	H-7			7.23		0.02	14.44			
8 <sup>y</sup>	H-8			5.71		0.06	11.36			
9	H-9			0.00		0.00	0.00			
10	H-10			1.92		T	3.84			
11 <sup>y</sup>	H-11			2.29		T	4.58			

## ARIZONA SILVER

LAB #	SAMPLE # & DESCRIPTION	ING	ADDED	GROSS	NET	AU	AG			
12	H-12			0.27		0.00	0.54			
13	H-13			2.63		T	5.26			
14	H-14			2.20		T	4.40			
15	H-15			1.83		T	3.66			
16	H-16			0.00		0.00	0.00			
17	H-17			0.05	0.05	0.00	0.10			
18 <sup>★</sup>	H-18			103.31	103.31	0.26 <sup>+</sup>	206.33 <sup>★</sup>			
19	TAILS + CN <sup>-</sup> TEST HEADS	—	—	3.10		0.00	6.20			
B	BLANK	Ag	2.03	2.00		—	-0.03			

#7, 8, 11 → DARK LEAD BOTTOM (Before cupellation. i.e. trace Cu or Mn)

#18 → Ben silver (Cu)<sup>+</sup> Beautiful sponge gold -27-

★ H-18 Bead had a frosted appearance. Poss. Pt ag.

Phone 802-966-7874

SILAS C. BROWN & ASSOCIATES

GEOLOGICAL CONSULTANTS

2401 W. Southern Ave. B-78  
Tempe, Arizona 85282

D. K. Martin  
4728 N. 21st Avenue  
Phoenix, Ariz. 85015

6/19/84

STATEMENT

ASSIGNMENT:

Deliniate major vein systems and fault zones of the Silverado and Hybernia Mines. Secs 30, T18N, R14W.

COMPLETION:

Obtain and prepare base maps and data  
Conduct field geological investigation  
Locate, sample and map major vein system  
Assay samples for lead and silver  
Interpret field and research data  
Suggest drilling locations  
Install lock on gate & submit extra keys  
prepare maps and report, submit same

TOTAL: \$3780.60

Advance Payment : -2000.00

BALANCE: \$1780.60

ADDITIONAL ASSIGNMENT:

Obtain two Continuance D & R Bonds  
Prepare two Prospecting Permit Affidavits

TOTAL: 175.00

BALANCE DUE : \$1955.60

*Paid in full 7-6-84* →

Thank you for allowing us to be of service to you, it has been a pleasure.

Silas C. Brown  
Silas C. Brown

C. COE - CONAR PROJECT

			1		2		3	
Recd - 2000 from C. Coe - 5-24-84 - Dgmt 5-25-84			2000.00				2000.00	
			EXPENSE		CREDITS			
			ch <sup>#</sup>					
1	5-21	D.K.M. Trip to Kingmin 400 mi x .40 =	13 16	160 -		160 -		
	5-23	Phx Blue Print - Base Maps - Mylbr V Prints		41 34				
3	5-24	ic .. .. .		41 34				
4	5-24	Wm. Vanderwall - 1/2 y <sup>8</sup> 1600 - Advance	13 15	800 -		800 -		
5	5-25	BIM - Maps		18 -				
6	5-25	<del>DKM - Trip for WARS - Trip to Phx Blue</del>		<del>25 -</del>				
7	5-22 ps	<del>SCA - Working on Power Language</del>		<del>25 -</del>				
8	5-24	Phx Blue Print		41 98				
9		✓ ✓ ✓ CREDIT				10 17		
11	6 5	WM VANDERWALL		804 89		804 99		1987 55
12	<del>5 5</del>	<del>Wages for (Vanderwall) (DKM)</del>		<del>267 00</del>				
13	6-30	Phx Blue		300				1990 55
14		Bond						
15		Activities						
25		D.K.M. Time						
33		SCA Time						

Phone 602-966-7874

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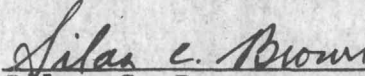
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\_\_\_\_\_  
Silas C. Brown

Phone 802-966-7874

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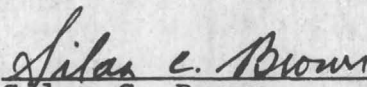
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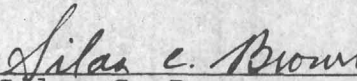
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Silas C. Brown

Phone 602-966-7874

**SILAS C. BROWN & ASSOCIATES**  
GEOLOGICAL CONSULTANTS

2401 W. Southern Ave. B-78  
Tempe, Arizona 85282

GEOLOGICAL INVESTIGATION

SILVERADO - HIBERNIA VEIN SYSTEM  
Mohave County, Arizona

for

D. K. Martin  
dba  
Conar Resources

16 June 1983



GEOLOGICAL INVESTIGATION  
SILVERADO - HIBERNIA VEIN SYSTEM  
Mohave County, Arizona

LOCATION:

The Silverado - Hibernia prospect consists of one patented mining claim, the Hibernia, located primarily in the southwest corner of Section 19, Twp. 18 N., Rge. 14 W., and two Arizona State Prospecting Permits (86502 and 86533) encompassing the Silverado Mine located in the southwest corner of Section 30, Twp. 18 N., Rge 14 W., G&SRB&M, Maynard Mining District, Mohave County Arizona.

The two mines are situated approximately one mile apart in fairly rugged terrain on the eastern slope of the Wallapai Mountains. The property is accessible from U.S. Highway 93 at Cane Springs via 10 miles of an unimproved, unmaintained road.

SCOPE OF REPORT:

Facts and opinions contained in this report are based on data gathered during a detailed field investigation of the vein system described below. Land status, regional geology, history and production from the property are beyond the scope of this report.

## GEOLOGY:

The Silverado - Hibernia Vein outcrops intermittantly for the full one mile distance between the two mines. In areas of steep relief and heavy alluvial cover, the vein location can be inferred by trailing vein fragments up-slope to the point of origin. By utilizing the outcrop location by direct examination and the inferred locations from talus termination, the vein appears to be a continuous structure from the Silverado Mine to the Hibernia Mine. (See Map #1)

A true fissure vein exists where quartz occupies the open spaces along a fracture in the granite country rock. The Silverado - Hibernia Vein strikes between North  $12^{\circ}$  West at the Silverado Mine, to North  $5^{\circ}$  East in the vicinity of the Hibernia Mine. This indicates a slight curve in the vein trend and suggests the possibility of radial fracture. Dips vary from  $64^{\circ}$  West to  $85^{\circ}$  West at the Silverado Mine, to  $61^{\circ}$  East to  $69^{\circ}$  East at the Hibernia Mine. Rollover of vein dip occurs 800 to 900 feet north of the Silverado shaft, as would be expected, the dip increases as the point of rollover is approached. Only true dips at clear contacts are plotted on Map #1. Questionable measurements were omitted.

Coincidentally, in the vicinity of the dip rollover and the main flexure in the vein, is the location of a significant quartz spur off the main vein. This assemblage of structural and physical anomalies warrants further examination.

## Geology (continued)

Vein widths vary from 23 feet at the Silverado open cut to 15 feet at the Hibernia shaft. Between the two, widths generally pinch and swell, but average nearly 11 feet where measurable on the outcrop. Widths may possibly narrow where the vein does not outcrop and its location is inferred by float.

Vein mineralogy, as evidenced at the Silverado and Hibernia Mines, consist primarily of quartz with galena, chalcopyrite and pyrite occurring as veinlets and blebs within the quartz. Calcite, siderite and barite(?) were observed at the Hibernia and copper carbonates were observed at both mines. No minerals, other than quartz and minor iron oxides were noted in the outcrop or float in the remainder of the vein. The vein quartz is primarily white to blue-grey, very fine grained with occasional drusy cavities. An exception to note is in the vicinity of the vein spur where float and outcrop of the main vein contains abundant iron oxide staining and limonite filled cavities. The spur itself is atypical in texture and mineralogy being more characteristic of a pegmatite with large, euhedral, pink feldspar crystals in white amorphous quartz.

CONCLUSIONS AND RECOMMENDATIONS:

On the basis of field observations, ore deposits appear to be limited to pods, although, all assays show some silver and lead mineralization. Favorable loci for ore deposition in fissure veins appears to be at flexures, vein junctions and vein rollover.

While the old workings at the Silverado and Hibernia Mines appear to be pods, the existence of vein flexure, rollover and the quartz spur, plus the favorable assay results, justifies a drilling program.

Three drill holes are proposed as shown on Drawing #2, which should adequately test the anomalous zone of the quartz spur and the major vein.

Suggested Drilling Program

<u>DH</u>	<u>Depth</u>	<u>Angle</u>	<u>Bearing</u>
#1	200'	37°	N 67° W
#2	180'	41.5°	N 90° W
#3	200'	39.5°	S 66° W

Alternative Drilling Program

#1	110'	70°	N 67° W
#2	110'	70°	N 90° W
#3	100'	68°	S 66° W

Conclusions (continued)

The alternative program may be preferable. The total depths are considerably less and the angles more towards vertical. No extensive road building would be necessary for this plan. Any final program within the limits of the above suggestions would be acceptable. If stream gravels present a problem, this can be solved by either dozing the gravels from the drilling site to bedrock or moving adjacent to the wash, still testing the anomalous zone.

If one or two of the drill holes indicate acceptable ore, it would be advisable to test the vein at a depth of plus or minus 200 feet. This will determine the extent of the ore body and the water table. Additional test holes at or near the sample locations #4 and #6, which are near the Silverado Mine, will assist in the evaluation.

Respectfully submitted,



William Vanderall  
Geologist  
Az. Reg. No. GIT34

16 June 1984  
Inclusions:  
Map #1  
Drawing #2  
Composit Topographical Map  
Sample Descriptions  
Assay Report

## SAMPLE DESCRIPTIONS

Quartz and gouge zone at Silverado Open Cut. West to East across vein. Total 23':

- 1) Fractured quartz with minor FeOx, CuCO<sub>3</sub> stain, small chalcopyrite and pyrite blebs. 5' channel  
Assay Results: Ag 0.986 oz/tn Pb 106 ppm
- 2) Mostly gouge, red-brown, friable clay. 5' channel with granite inclusions.  
Assay Results: Ag 0.557 oz/tn Pb 98 ppm
- 3) Quartz - same as #1. 5' channel  
Assay Results: Ag 0.493 oz/tn Pb 26 ppm
- 4) Quartz - same as #1. 5' channel  
Assay Results: Ag 10.150 oz/tn Pb 167 ppm
- 5) Quartz with very fine grain clay gouge. 3' channel  
Assay Results: Ag 0.284 oz/tn Pb 21 ppm

Area North of Silverado Mine:

- 6) Fracture quartz with 50% clay gouge. 19' channel  
Assay Results: Ag 5.626 oz/tn Pb 50 ppm

Area Near Vein Rollover:

- 7) Quartz, white to blue-grey, minor vugs with limonite. 13' channel  
Assay Results: Ag 7.250 oz/tn Pb 3210 ppm

Approximate mid point between Silverado & Hibernia:

- 8) Quartz, white to blue-grey, drusy vugs. 11' channel  
Assay Results: Ag 0.345 oz/tn Pb 148 ppm

Fractured quartz, heavy FeOx stain at Hibernia Shaft. West to East across vein. Total 15':

- 9) Quartz, FeOx stain. 5' channel.  
Assay Results: Ag 0.383 oz/tn Pb 229 ppm
- 10) Quartz, FeOx stain. 5' channel.  
Assay Results: Ag 0.142 oz/tn Pb 186 ppm
- 11) Quartz, FeOx stain. 5' channel.  
Assay Results: Ag 0.177 oz/tn Pb 133 ppm

Area Near Hibernia Stockpile:

- 12) Grab sample of quartz with Ca(?), chalcopyrite, pyrite blebe and veinlets all stained with CuCO<sub>3</sub>. Some Copper Carbonite and barite(?).  
Assay Results: Ag 8.990 oz/tn Pb 23000 ppm

# NORTH AMERICAN ASSAY COMPANY

1022 West 23rd Street  
 Tempe, Arizona 85282  
 (602) 894-0919

Job Number MA-1449

Page 1 Of 1

Date June 13, 1984

## ANALYTICAL REPORT

<u>Client I.D.</u>	<u>Lab #</u>	<u>Geochemical Analysis</u>	
		<u>Ag</u> <u>(ppm)</u>	<u>Pb</u> <u>(ppm)</u>
1	1	34.0	106
2	2	19.2	98
3	3	17.0	26
4	4	350.0	167
5	5	9.8	21
6	6	194.0	50
7	7	250.0	3210
8	8	11.9	148
9	9	13.2	229
10	10	4.9	186
11	11	6.1	133
12	12	310.0	23000

These analysis opinions or interpretations are based on observations and materials supplied by the client to whom and for whose exclusive and confidential use this report is made. The interpretations or opinions expressed represent the best judgements of North American Assay Company, all errors or omissions excepted; but North American Assay Company and its officers and employees assume no responsibility and make no warranty or representations as to the productivity, proper operations, or profitability of any mineral deposit in connection with which such report is used or relied upon.

Client Name: D.K. Martin & Associates  
 Address: 4728 N. 21st Avenue  
Phoenix, AZ 85015  
 Telephone: 246-9573

Samples Submitted By: D.K. Martin  
 Date Received: June 7, 1984



CONAR  
 c/o CORWIN COE

5/21 INITIAL ORIENTATION TRIP

Duplication & Photo work		81.68	✓	✓
3 days field work		1502.00	✓	✓
4 days office work		1200.00	✓	✓
BLM maps		18 <sup>00</sup>	✓	✓
TRAVEL TIME - CITY		50 <sup>00</sup>	✓	✓
Mileage - CITY	42	14 <sup>70</sup>	✓	✓
Mileage - Field	28 14 14 -11	361 <sup>00</sup>	✓	✓
King - 400	WIKIEOP 140	CAME SPRGS 4 = 112	Pbx 140	PROP 12 = 804
3 days motel		132 <sup>00</sup>	✓	✓
4 days meals		120 <sup>00</sup>	✓	✓
Sample Prep		30 <sup>00</sup>	✓	✓
ASSAYS - 12 @ 15		180 <sup>00</sup>	✓	✓
BLUE PRINTS		8 <sup>00</sup>		3387 <sup>68</sup> ✓
SECRETARY		35 <sup>00</sup>		3430 ✓
overhead		12.15		4073 <sup>75</sup> ✓
LOCK - 12.15	✓			12.15 ✓

Assignment -

delimitate Vein Sys between Silverado & Hibarnia Mines  
 obtain base maps, enlarge Topo Maps - conduct field  
 geological investigation, sample system - suggest drill  
 locations - prepare maps & report

TOTAL mileage field	- 804 @ .45	361 <sup>00</sup>
CITY	42 @ .35	14 <sup>70</sup>



Phone 602-966-7874

SILAS C. BROWN & ASSOCIATES  
GEOLOGICAL CONSULTANTS

2401 W. Southern Ave. B-78  
Tempe, Arizona 85282

D. K. Martin  
4728 N. 21st Avenue  
Phoenix, Ariz. 85015

6/19/84

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BALANCE: \$1780.60

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TOTAL: 175.00

BALANCE DUE : \$1955.60

Thank you for allowing us to be of service to you, it has  
been a pleasure.

---

Silas C. Brown

Wm. Vanderwall  
P.O. Box 9006 KS  
Bullhead City  
Arizona 86430

D.K. Martin & Associates  
4728 North 21st Avenue  
Phoenix, Arizona 85015

INVOICE

For Professional Services:

Silverado-Hibernia project, contract price.....\$1500.00

Misc. travel and auto expenses.....\$ 104.89

TOTAL DUE \$1604.89

Paid in full

Thank you for this opportunity to be of service.

Sincerely,



Wm. Vanderwall

STATEMENT  
**PHOENIX BLUE PRINT CO.**

4141 N. 7th STREET  
 PHOENIX, ARIZONA 85014  
 PHONE 602-264-6871

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 PHOENIX, ARIZONA 85014  
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1547000 D. K. MARTIN & ASSOCIATES  
 4728 N 21ST AVENUE  
 CUSTOMER PHOENIX, AZ 85015

5/31/84  
 DATE

1547000 5/31/84  
 CUSTOMER DATE

*RETURN THIS PORTION  
 WITH YOUR PAYMENT*

DATE	TRANSACTION		AMOUNT	INVOICE	AMOUNT
	PREV BAL		15.90	PBL	15.90
5/03/84	PAYMENT		15.90-		15.90-
5/23/84	INVOICE	42076	41.34	42076	41.34
5/24/84	INVOICE	42184	41.98	42184	41.98
5/25/84	INVOICE	42334	18.02	42334	18.02
5/30/84	CR MEMO	42525	10.18-	42525	10.18-
.00	.00				
90 & OVER	OVER 60				
.00	91.16			TOTAL	91.16
OVER 30	CURRENT		91.16		

PLEASE PAY ▶

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PHOENIX, ARIZONA 85014  
01547000 PHONE 264-6871

DATE 6/20/84

INVOICE # 44388

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D. K. MARTIN & ASSOCIATES  
4728 N 21ST AVENUE  
PHOENIX, AZ 85015

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*CONAR Project*

P.O. NO.	JOB	ORDERED BY
----------	-----	------------

CODE	QUANTITY			DESCRIPTION	SQ/FT EA.	TOTAL SQ. FT.	PRICE	EA. UNIT	AMOUNT
	ORIG.	NO. WANTED	ORD.						
221	1	3	3	BLACKLINE MINIMUM					3.00
				WAITING					

TERMS: NET 30 DAYS

**ORIGINAL INVOICE**  
**PLEASE PAY FROM THIS INVOICE**

SUB TOTAL	3.00
TAX	.18
FREIGHT	
<b>TOTAL</b>	<b>3.18</b>

# PHOENIX BLUE PRINT

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PH. 994-5520

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4141 NORTH 7th STREET  
PHOENIX, ARIZONA 85014  
PHONE 264-6871

DATE 6/12/84

INVOICE # 43634

01547000

**S** D. K. MARTIN & ASSOCIATES  
**O** 4728 N 21ST AVENUE  
**L**  
**D** PHOENIX, AZ 85015

**S**  
**H**  
**I**  
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**T**  
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P.O. NO.

JOB

ORDERED BY

DKM

CODE	QUANTITY			DESCRIPTION	SQ/FT EA.	TOTAL SQ. FT.	PRICE	EA. UNIT	AMOUNT
	ORIG.	NO. WANTED	ORD.						
220	4	1	4			25.00	.100		2.50
				WITH INVOICE #43610					

TERMS: NET 30 DAYS

**ORIGINAL INVOICE**  
**PLEASE PAY FROM THIS INVOICE**

SUB TOTAL	2.50
TAX	.15
FREIGHT	
TOTAL	2.65

# PHOENIX BLUE PRINT

**BRANCH**  
3202 N. SCOTTSDALE  
SCOTTSDALE, ARIZ.  
PH. 994-5520

**MAIN OFFICE**  
4141 NORTH 7th STREET  
PHOENIX, ARIZONA 85014  
PHONE 264-6871

DATE 6/12/84

INVOICE # 43610

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D. K. MARTIN & ASSOCIATES  
4728 N 21ST AVENUE  
PHOENIX, AZ 85015

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P.O. NO.

JOB

ORDERED BY

DKM

CODE	QUANTITY			DESCRIPTION	SQ/FT EA.	TOTAL SQ. FT.	PRICE	EA. UNIT	AMOUNT
	ORIG.	NO. WANTED	ORD.						
261	3	1		32080 VELLUM	6.0	18.00	1.500	SF	27.00
261	1	1		12080 VELLUM	7.0	7.00	1.500	SF	10.50

TERMS: NET 30 DAYS

**ORIGINAL INVOICE**  
**PLEASE PAY FROM THIS INVOICE**

SUB TOTAL	37.50
TAX	2.25
FREIGHT	
TOTAL	39.75

# PHOENIX BLUE PRINT

**BRANCH**  
3202 N. SCOTTSDALE  
SCOTTSDALE, ARIZ.  
PH. 994-5520

**MAIN OFFICE**  
4141 NORTH 7th STREET  
PHOENIX, ARIZONA 85014  
PHONE 264-6871

DATE 5/30/84

INVOICE # 42525

01547000

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D. K. MARTIN & ASSOCIATES  
4728 N 21ST AVENUE  
PHOENIX, AZ 85015

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P.O. NO.	JOB	ORDERED BY
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CODE	QUANTITY			DESCRIPTION	SQ/FT EA.	TOTAL SQ. FT.	PRICE	EA. UNIT	AMOUNT
	ORIG.	NO. WANTED	ORD.						
242	1	1		1PHOTO MYLAR	2.0		4.500		9.00-
221	1	3		3BLACKLINE	2.0		.100 SF		.60-
CREDIT FOR INVOICE 42184, DATED 5/24/84									
<b>CREDIT MEMO</b>									

TERMS: NET 30 DAYS

**ORIGINAL INVOICE**

**PLEASE PAY FROM THIS INVOICE**

SUB TOTAL	9.60-
TAX	.58-
FREIGHT	
TOTAL	10.18-

# PHOENIX BLUE PRINT

**BRANCH**  
3202 N. SCOTTSDALE  
SCOTTSDALE, ARIZ.  
PH. 994-5520

**MAIN OFFICE**  
4141 NORTH 7th STREET  
PHOENIX, ARIZONA 85014  
01547000 PHONE 264-6871

DATE 5/24/84

INVOICE # 42184

**SOLD TO**  
D. K. MARTIN & ASSOCIATES  
4728 N 21ST AVENUE  
PHOENIX, AZ 85015

**SHIP TO**

P.O. NO.  
0154700

JOB

ORDERED BY

CODE	QUANTITY			DESCRIPTION	SQ/FT EA.	TOTAL SQ. FT.	PRICE	EA. UNIT	AMOUNT
	ORIG.	NO. WANTED	ORD.						
240	1	1		1FILM NEGATIVE	1.0	1.00	6.000	SF	6.00
242	1	1		1MYLARS	7.0	7.00	4.500	SF	31.50
221	1	3		3BLACKLINES	7.0	21.00	.100	SF	2.10
WILL CALL 12:00									

TERMS: NET 30 DAYS

**ORIGINAL INVOICE**

**PLEASE PAY FROM THIS INVOICE**

SUB TOTAL	39.60
TAX	2.38
FREIGHT	
<b>TOTAL</b>	<b>41.98</b>



# PHOENIX BLUE PRINT

**BRANCH**  
3202 N. SCOTTSDALE  
SCOTTSDALE, ARIZ.  
PH. 994-5520

**MAIN OFFICE**  
4141 NORTH 7th STREET  
PHOENIX, ARIZONA 85014  
PHONE 264-6871

DATE 5/23/84

INVOICE # 42076

01547000

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D. K. MARTIN & ASSOCIATES  
4728 N 21ST AVENUE  
PHOENIX, AZ 85015

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P.O. NO.	JOB	ORDERED BY
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CODE	QUANTITY			DESCRIPTION	SQ/FT EA.	TOTAL SQ. FT.	PRICE	EA. UNIT	AMOUNT
	ORIG.	NO. WANTED	ORD.						
240	1	1	1	FILM NEGATIVE	1.0	1.00	6.000	SF	6.00
242	1	1	1	MYLARS	4.0	4.00	4.500	SF	18.00
101	6	1	1	TOPO MAPS			2.500	EA	15.00

TERMS: NET 30 DAYS

**ORIGINAL INVOICE**  
**PLEASE PAY FROM THIS INVOICE**

SUB TOTAL	39.00
TAX	2.34
FREIGHT	
TOTAL	41.34

**NORTH AMERICAN ASSAY COMPANY**

No 2050

1022 West 23rd Street  
 Tempe, Arizona 85282  
 (602) 894-0919

Client Name: D.K. Martin & Associates  
 Address: 4728 N. 21st Avenue  
Phoenix, AZ 85015

Date: June 13, 1984  
 Job No.: MA-1449

INVOICE

Quantity	Description	Unit Cost	Total Cost
12	Geochemical Analysis (Ag)	3.50	42.00
12	Geochemical Analysis (Pb)	3.00	36.00
9	Sample Preparations	1.25	11.25

**PAID**  
 CK# 1304 \$89.25  
 6/13/84

Total Due: 89.25

Please Note: All accounts are net 10 days. Accounts thirty days past due are subject to an interest charge of 1.5% per month or 18% per annum.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

*Quinn  
Job  
Dogg*

### COPY FEE STATEMENT

D K MARTIN AND ASSOC  
4728 W 21ST AVE  
PHOENIX AZ 85015

FOR QUESTIONS REGARDING THIS STATEMENT  
PLEASE CALL

602-241-5547  
ARIZONA STATE OFFICE  
P. O. BOX 16563  
PHOENIX, AZ 85011

THIS IS NOT A BILL

WHEN MAKING A DEPOSIT OR ADDRESS CHANGE, PLEASE RETURN TOP PORTION OF STATEMENT.

STATEMENT DATE	ACCOUNT NUMBER	BALANCE FORWARD
05/31/84	1133	\$43.45

DATE	DESCRIPTION	AMOUNT			
05/31/84	COPY WORK	\$18.00			
NAME	D K MARTIN AND ASSOC	\$25.45			
ACCOUNT NUMBER	1133	STATEMENT DATE	05/31/84	CURRENT BALANCE AVAILABLE	↑

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

*CONAR Proj*

Reference Number

270579

Date

*5-25-84*

COPY WORK REQUEST

Name *Rouq Martin*

Address (include zip code)

Telephone (include area code)

Waiting  Pick up  Mail

FOR BLM USE ONLY

PREPAYMENT REQUIRED

Paid by:  Check  Money order \$ \_\_\_\_\_  
(Payable to BLM)

Cash \$ \_\_\_\_\_

Prepaid account Account No. *1133* Balance \$ \_\_\_\_\_

DOCUMENT OR RECORD (Type)	CERTIFIED		NUMBER		COPIES (Total)	UNIT PRICE	TOTAL
	YES	NO	PAGES	COPIES			
<i>Maps</i>					<i>5</i>	<i>3.25</i>	<i>16.25</i>
<i>Copy } done</i>					<i>1</i>		<i>.25</i>
<i>M.S. 37</i>					<i>1</i>		<i>1.50</i>

*OK Martin*

Over payment of \$ \_\_\_\_\_ to be refunded by United States Treasury check - allow 30 days

Completed by: \_\_\_\_\_ Grand Total \$ *18.00*

Refunds of Less Than \$1.00 Upon Request Only

Date \_\_\_\_\_ New Balance \$ \_\_\_\_\_

Remarks

**NORTH AMERICAN ASSAY COMPANY**

No 2050

1022 West 23rd Street  
 Tempe, Arizona 85282  
 (602) 894-0919

Client Name: D.K. Martin & Associates  
 Address: 4728 N. 21st Avenue  
Phoenix, AZ 85015

Date: June 13, 1984  
 Job No.: MA-1449

INVOICE

Quantity	Description	Unit Cost	Total Cost
12	Geochemical Analysis (Ag)	3.50	42.00
12	Geochemical Analysis (Pb)	3.00	36.00
9	Sample Preparations	1.25	11.25

**PAID**  
 CK# 1304 \$89.25  
 6/13/84

Total Due: 89.25

Please Note: All accounts are net 10 days. Accounts thirty days past due are subject to an interest charge of 1.5% per month or 18% per annum.



STATEMENT

STATE OFFICE SUPPLY

4828 North 16th St.

Phone 264-6466

PHOENIX, ARIZONA 85016

• OFFICE SUPPLIES

• XEROX COPY SERVICE

• PRONTO PRINTS

MARTIN, D.K. & ASSOC.  
 4728 N. 21ST AVE.  
 PHOENIX, ARIZONA 85015

STATEMENT  
DATE

ACCOUNT  
NO.

06-01-84

001 3168

GROSS \_\_\_\_\_

DISCOUNT \_\_\_\_\_

NET \_\_\_\_\_

AMOUNT PAID \_\_\_\_\_

PLEASE DETACH AND RETURN THIS STUB WITH YOUR REMITTANCE

STATEMENT DATE	CURRENT	31 - 60	61 - 90	91 AND OVER
06-01-84	27.11	.00	.00	.00*
DATE	REFERENCE NO.	CHARGES	CREDITS	BALANCE
PREVIOUS BALANCE				.00
05-02-84	INVO 0073343	27.11		27.11*
	BALANCE DUE			27.11 *

TERMS: 2% TEN DAYS E.O.M. ACCOUNTS 60 DAYS PAST DUE  
 WILL BE PLACED ON C.O.D.

STATE OFFICE SUPPLY  
 4828 North 16th St. Phone 264-6466  
 PHOENIX, ARIZONA 85016



SILVERADO/HIBERNIA

ASSIGNMENT:

Delimitate Vein System between the Silverado and Hibernia Mines

Obtain <sup>&amp; prepare</sup> base maps, <del>enlarge top maps</del>	99.68
Conduct field geological investigation	2113.30
Sample <sup>Vein</sup> System, assay & map	210.00
Suggest drill locations & map	64.70
Interpret field & research data Prepare maps & report	1243.00
Install lock on gate	12.15

Obtain & Prepare Base Maps & Data	102.15
Conduct field geological investigation	2113.30
Sample Vein System & <sup>assay for Pb &amp; Ag</sup> <del>collect samples</del>	210.00
Interpret field & research data & )	
Suggest drill locations	
Install lock on gate	12.15
Prepare maps & report	1243.00

} Prepared <sup>two</sup> State Permit affidavits	3680.60	40.50
		<del>175.00</del>
} Obtain Continuance Damage & Restoration Bonds		125.00

additional

check \$2000.00  
 10 ready return

~~Ready~~ Concar Resources  
 Tom

07-247 345

Vanderwall	4 fields	150	600
Helper	4	80	320
Vander	1 office		150
4 days hotel		20	80
4 days food			100
Supplies			40
Sample Prep			125
Van			

280  
 40  
 240  
 400  
 \$4000  
 1000

\$1600.00

920  
 1507.00  
 125  
 1632

3  
 85  
 7  
 595

Trip	125
Buss	300
Truck	270
essay	510
Map	200
Duplica	60
See	30
Postage	10
delin Samp	25
topo	10
truck maint	30
Gasoline	30

300  
 3200  
 960  
 \$460 vs 3220

Vanderwall  
 Typo 754-2608  
 Home 754-4481

3/21 - to Kuyper

1600.00



GEOLOGICAL INVESTIGATION  
SILVERADO-HIBERNIA VEIN SYSTEM  
MOHAVE COUNTY, ARIZONA

by: D.K. MARTIN & ASSOCIATES  
Wm. VANDERWAL, GEOLOGIST

~~CONAR CO.~~  
FOR: ~~ARIZONA SILVER, INC.~~  
CORWIN EDE - CONAR PROJECT

JUNE 1, 1984

GEOLOGICAL INVESTIGATION  
SILVERADO - HIBERNIA VEIN SYSTEM  
MOHAVE COUNTY, ARIZONA

LOCATION:

THE SILVERADO-HIBERNIA PROSPECT CONSISTS OF ONE PATENTED MINING CLAIM, THE HIBERNIA, LOCATED PRIMARILY IN THE SOUTHWEST CORNER OF SECTION 19, Twp 18N; Rge 14W, AND TWO ARIZONA STATE MINERAL LEASES ENCOMPASSING THE SILVERADO MINE LOCATED IN THE SOUTHWEST CORNER OF SECTION 30, Twp 18N; RAGE 14W; Q4SRM, MOHAVE COUNTY ARIZONA.

THE TWO MINES ARE SITUATED APPROXIMATELY ONE MILE APART, <sup>IN FAIRLY RUGGED TERRAIN</sup> ON THE EASTERN SLOPE OF THE WALLADAI MOUNTAINS. THE PROPERTY IS ACCESSIBLE FROM U.S. HIGHWAY 93 VIA 10 MILES OF <sup>an</sup> UNIMPROVED, <sup>and</sup> UNMAINTAINED ROAD.


SCOPE OF REPORT:

FACTS AND OPINIONS CONTAINED IN THIS REPORT ARE BASED ON DATA GATHERED DURING A DETAILED FIELD INVESTIGATION OF THE VEIN SYSTEM DESCRIBED BELOW. FOUR MAN DAYS WERE SPENT IN THE FIELD COLLECTING DATA AND TWO DAYS WERE REQUIRED TO INTERPRET FIELD OBSERVATIONS, DRAFTING AND REPORT COMPILATION. LAND STATUS, REGIONAL GEOLOGY, HISTORY AND PRODUCTION FROM THE PROPERTY ARE BEYOND THE <sup>SCOPE</sup> PURPOSE OF THIS REPORT.

Geology:

NOTWITHSTANDING, EXTENSIONS OF THE VEIN NORTH AND

SOUTH OF THE AREA INVESTIGATED, THE SILVERADO - HIBERNIA VEIN OUTCROPS INTERMITTANTLY FOR THE FULL ONE MILE DISTANCE BETWEEN THE TWO MINES. IN AREAS OF STEEP RELIEF AND HEAVY ALLUVIAL COVER THE VEIN LOCATION CAN BE INFERRED BY TRAILING VEIN FRAGMENTS UPSLOPE TO THE POINT OF ORIGIN. BY THESE METHODS, OUTCROP LOCATION BY DIRECT EXAMINATION AND INFERRED LOCATION FROM TALUS TERMINATION, THE VEIN APPEARS TO BE A CONTINUOUS STRUCTURE FROM THE SILVERADO MINE TO THE HIBERNIA MINES (SEE MAP #1).

 It is ~~probably~~ a true fissure vein, where quartz occupies the ~~open~~ open spaces along a fracture in the granite country rock. The Silverado - Hibernia vein strikes between  $N12^{\circ}W$  at the Silverado mine to  $N5^{\circ}E$  in the vicinity of the Hibernia. This amounts to a slight curve in the vein trend and suggest the possibility of radial fracture. Dips vary from  $64^{\circ}W$  to  $85^{\circ}W$  at the Silverado to  $61^{\circ}E$  to  $69^{\circ}E$  at the Hibernia. Rollover of vein dip occurs 800' to 900' north of the Silverado shaft and, as would be expected, dips steepen as the point of rollover is approached. Only true dips at clear contacts are plotted on map #1, questionable measurements were omitted.

Coincidentally, in the vicinity of <sup>the</sup> dip rollover, ~~also occurs~~ the main flexure in the vein ~~and~~ is the location of a

SIGNIFICANT QUARTZ SPUR OFF THE MAIN VEIN. THIS ASSEMBLAGE OF STRUCTURAL AND PHYSICAL ANOMALIES WARRANTS FURTHER EXAMINATION.

VEIN WIDTHS VARY FROM 23' AT THE SILVERADO OPEN CUT TO 15' AT THE HIBERNIA SHAFT; BETWEEN THE TWO, WIDTHS GENERALLY PINCH AND SWELL BUT AVERAGES NEARLY 11' WHERE MEASURABLE <sup>ON THE</sup> ~~THE~~ OUTCROP. ~~THE~~ ~~COURSE~~ WIDTHS MAY ~~BE VERY~~ <sup>POSSIBLY</sup> NARROW WHERE THE VEIN DOES NOT OUTCROP BUT IS INFERRED BY FLOAT.

VEIN MINERALOGY, AS EVIDENCED AT THE SILVERADO ~~AND~~ ~~THE~~ HIBERNIA MINES CONSIST, PRIMARILY OF QUARTZ WITH GALENA, CHALCOPYRITE AND PYRITE OCCURRING AS VEINLETS AND BLEBS WITHIN THE QUARTZ. CALCITE, SIDERITE AND BARITE (?) WERE ALSO OBSERVED AT THE HIBERNIA AND COPPER. CARBONATES WERE OBSERVED AT BOTH MINES.

NO MINERALS, OTHER THAN QUARTZ, <sup>AND</sup> MINOR IRON OXIDES, WERE NOTED IN THE OUTCROP OR FLOAT IN THE REMAINDER OF THE VEIN. VEIN QUARTZ IS PRIMARILY WHITE TO BLUE-GRAY, VERY FINE GRAINED WITH OCCASIONAL DRUSY CAVITIES. AN EXCEPTION TO NOTE IS IN THE VICINITY OF THE VEIN SPUR WHERE FLOAT AND OUTCROP OF THE MAIN VEIN CONTAINS ABUNDANT IRON OXIDE STAINING AND LIMONITE FILLED CAVITIES. THE SPUR ITSELF IS ATYPICAL IN TEXTURE AND MINERALOGY BEING MORE CHARACTERISTIC OF A PEGMATITE WITH LARGE, Euhedral, PINK FELDSPAR CRYSTALS IN WHITE AMORPHOUS QUARTZ.

SAMPLE DESCRIPTIONS

1-5) QUARTZ AND GOUGE ZONES AT

SILVERADO Open Cut - W. to E across Vein - Total 23'

Assay results  
Ag 0.986

1) FRACTURED QUARTZ w/ MINOR FeOx, CuCO<sub>3</sub> STAIN, SMALL ccp & py BLEBS. 5' CHANNEL

2) MOSTLY GOUGE, RED-BROWN, FRIABLE CLAY. 5' CHANNEL WITH GRANITE INCLUSIONS.

3) QUARTZ - SAME AS 1. 5' CHANNEL

4) QUARTZ - SAME AS 1. 5' CHANNEL

5) QUARTZ w/ VERY FINE GRAIN CLAY GOUGE. 3' CHANNEL

Av. 3.0465

North of Silverado mine

6) FRACTURE QUARTZ w/ 50% CLAY GOUGE. 19' CHANNEL near area of vein roller

7) QUARTZ, WHITE TO BLUE-GRAY, MINOR VUGS w/ Limonite 13' CHANNEL   
 ~~sample from point between Silverado & Hibernia~~

8) QUARTZ, WHITE TO BLUE-GRAY, DRUSY VUGS. 11' CHANNEL

9-11) FRACTURED QUARTZ, HEAVY FeOx STAIN AT HIBERNIA SHAFT - W to E across Vein - Total 15'

9) QUARTZ, FeOx STAIN. 5' CHANNEL

10) QUARTZ, FeOx STAIN. 5' CHANNEL

11) QUARTZ, FeOx STAIN. 5' CHANNEL

Ag 8.9902  
Pb 2.30%

12) HIBERNIA STOCKPILE (PROBABLY LOW GRADE ORE)

CIRAB SAMPLE OF QUARTZ w/ G<sub>2</sub>, ccp, py BLEBS AND VEINLETS ALL STAINED w/ CuCO<sub>3</sub> SOME CC AND BARITE (?).

~~45~~

Conclusions and Recommendations:

ON THE BASES OF FIELD OBSERVATIONS, ORE DEPOSITS APPEAR TO BE LIMITED TO PODS OR LENSES LOCATED ALONG THE VEIN AT RANDOM INTERVALS. TYPICALLY, FAVORABLE LOCI FOR ORE DEPOSITION ALONG FISSURE VEINS IS AT FLEXURES, VEIN JUNCTIONS AND OTHER LOCI, SUCH AS DIP ROLLOVER. WHILE THE EXISTING WORKS AT THE SILVERADO AND THE HIBERNIA APPEAR TO BE RANDOM PODS, THE EXISTANCE OF A COINCIDENTALLY OCCURRING VEIN, FLEXURE, ROLLOVER AND SPUR IS SUFFICIENT TO WARRANT DRILLING.

Insert 1

PROPOSED DRILLING, AS SHOWN ON DRAWING NO. 2, WILL ADEQUATELY TEST THE ANOMALOUS ZONE FOR ECONOMIC QUANTITIES OF ORE.

DRILL HOLE DATA:

DH	<sup>Depth</sup> <del>LENGTH</del>	DIP	BEARING
1	200'	37°	N67°W
2	180'	41.5°	N90°W
3	200'	39.5°	S66°W

COMPLETE DRILLING PLAN; ACCESS ROAD, DRILL PAD AND DRILL CROSS SECTIONS ARE DIAGRAMED ON DRAWING NO. 2.

FINALLY, IT SHOULD NOT BE OVERLOOKED THAT ADDITIONAL ORE MAY BE DEVELOPED AT THE SILVERADO MINE AND THE HIBERNIA MINE.

Respectfully Submitted

Wm. VANDERWALL, Geologist  
Az. Reg. No. GIT 34

ASSAYS OF SILVERADO HIBERNIA VEIN

Sample No.	Ag		Pb	
	ppm	Oz	ppm	%
1	34.0	0.9860		
2	19.2	0.5568		
3	17.0	0.4930		
4	350.0	10.150		
5	9.8	0.2842		
6	194.0	5.6260		
7	250.0	7.250	3210	0.321%
8.	11.9	0.3451		
9	13.2	0.3828		
10	4.9	0.1421		
11=	6.1	0.1769		
12	310.0	8.990	23000	2.30%

Conclusions & Recommendations

On the basis of field observations, ore deposits appear to be limited to pods, although, all assays showed some silver <sup>& lead</sup> mineralization. Favorable loci for ore <sup>in fissure veins</sup> deposition appears to be at flectures, vein junctions and vein rollovers.

While the existing works at the Silverado and Hibernia Mines appear to be pods, the existence of vein flecture, rollover and the quartz spur, ~~as~~ plus the favorable assay results, justifies a drilling program.

<sup>Rewrite</sup>  
~~Three ~~holes~~ <sup>drill holes</sup> are proposed, as shown in Drawing No. 2) should adequately test the Quartz Spur as well as the main Vein. The drill holes should be placed as near to the Spur and Vein as possible so that the holes will be drilled 20° to 30° off vertical.~~

(over)



Holes drilled at higher angles are generally more costly & unreliable, although a hole cutting perpendicular to the vein is desirable, the additional thickness of the vein may be calculated and evaluated

If one or two of the drill holes show good ore, it would probably

be advisable to test the vein at a depth of  $\pm 200'$  to determine the water table - the probable oxide-sulfide contact. Additional holes

at or near sample locations #4 + 6 near the Silverado mine and #12

near the Hibernia mine.

Additional sampling along the exposed parts of the vein are also

in order.

(2)

Three drill holes are proposed as shown in Drawing No. 2.

Which will Adequately test the Anomalous Zone of the Quartz spur and

The Main Vein.

Drill Hole Program

DH	Depth	Angle	Bearing
1	200'	37°	N 67° W
2	180'	41.5°	N 90° W
3	200'	39.5°	S 66° W

Alternative Program

1	110'	70°	N 67° W
2	110'	70°	N 90° W
3	100'	68°	S 66° W

The alternative program seems preferable because of the

total depths are considerably less and the more vertical angles of

the holes. No more road building would be necessary for the

alternative plan. Any final program within the limits of the above

plans would be acceptable. If stream gravel may be a problem, but

This can be solved by either Dozing the gravels out of the wash  
to bedrock or moving adjacent to the wash - still testing the anomalous  
zone.

If one or two of the drill holes <sup>indicate</sup> show good ore, it would be  
advisable to test the vein at a depth of  $\pm 200$  to determine the extent  
of the ore body and the water table. Additional holes at or near  
Sample locations #4 and #6 near the Silverado mine, and Sample  
Location #17 near the Hispania mine

GEOLOGICAL INVESTIGATION

SILVERADO - HIBERNIA VEIN SYSTEM  
Mohave County, Arizona

LOCATION:

The Silverado - Hibernia prospect consists of one patented mining claim, the Hibernia, located primarily in the southwest corner of section 19, Twp. 18 N., Rge 14 W., and two Arizona State Prospecting Permits (86502 & 86533) encompassing the Silverado Mine located in the southwest corner of Section 30, Twp. 18 N., Rge 14 W., G&SRB&M, <sup>Maynard Mining District</sup> Mohave County Arizona.

The two mines are situated approximately one mile apart in fairly rugged terrain on the eastern slope of the Wallapai Mountains. The property is accessible from U.S. Highway 93, <sup>at Cane Springs</sup> via 10 miles of an unimproved, unmaintained road.

SCOPE OF REPORT:

Facts and opinions contained in this report are based on data gathered during a detailed field investigation of the vein system described below. ~~Four man-days were spent~~ <sup>expended</sup> ~~in the field collecting data and two days were required to interpret field observations, drafting and report compilation.~~ Land status, regional geology, history and production from the property are beyond the scope of this report.

GEOLOGY:

(Notwithstanding) extensions of the vein north and south of the area investigated, the Silverado - Hibernia Vein outcrops intermittantly for the full one mile distance between the two mines. In areas of steep relief and heavy alluvial cover, the vein location can be inferred by trailing vein fragments upslope to the point of origin. By ~~these~~ <sup>UTILIZING THE</sup> methods, outcrop location by direct examination and <sup>THE</sup> inferred locations from talus termination, the vein appears to be a continuous structure from the Silverado Mine to the Hibernia Mine, (See Map #1).

It <sup>A</sup> is a true fissure vein, <sup>EXISTS</sup> where quartz occupies the open spaces along a fracture in the granite country rock. The Silverado - Hibernia Vein strikes between N. 12° ~~deg~~ W. at the Silverado Mine to N. 5° ~~deg~~ E. in the vicinity of the Hibernia Mine. This <sup>INDICATES</sup> ~~amounts to~~ a slight curve in the vein trend and suggests the possibility of radial fracture. Dips vary from 64° ~~deg~~ W. to 85° ~~deg~~ W. at the Silverado Mine to 61° ~~deg~~ E. to 69° ~~deg~~ E. at the Hibernia Mine. Rollover of vein dip occurs 800' to 900' north of the Silverado shaft, and as would be expected, <sup>THE DIP INCREASES</sup> dips ~~steepen~~ as the point of rollover is approached. Only true dips at clear contacts are plotted on Map #1. Questionable measurements were omitted.

Coincidentally, in the vicinity of the dip rollover ~~and~~ the main flexure in the vein, is the location of a significant quartz spur off the main vein. This assemblage of structural and physical anomalies warrants further examination.

Vein widths vary from 23' at the Silverado open cut to 15' at the Hibernia shaft. Between the two, widths generally pinch and swell, but average~~s~~ nearly 11' where measureable on the outcrop. Widths may possibly narrow where the vein does not outcrop, <sup>& its location</sup> but is inferred by float.

Vein mineralogy, as evidenced at the Silverado and Hibernai Mines, consist primarily of quartz with galena, chalcopyrite and pyrite occurring as veinlets and blebs within the quartz. Calcite, siderite and barite(?) were ~~also~~ observed at the Hibernia <sup>and</sup> Copper carbonates were observed at both mines. No minerals, other than quartz and minor iron oxides were noted in the outcrop or float in the remainder of the vein. <sup>THE</sup> Vein quartz is primarily white to blue-gray, very fine grained with occasional drusy cavities. An exception to note is in the vicinity of the vein spur where float and outcrop of the main vein contains abundant iron oxide staining and limonite filled cavities. The spur itself is a typical in texture and mineralogy being more characteristic of a pegmatite with large, enedral, pink feldspar crystals in white amorphous quartz.

CONCLUSIONS AND RECOMMENDATIONS:

On the basis of field observations, ore deposits appear to be limited to pods or lenses located along the vein at random intervals. Typically, favorable loci for ore deposition along fissure veins is at flexures, vein junctions and other loci, such as dip rollover. While the existing works at the Silverado and Hibernia appear to be random pods, the existance of a coincidentally occuring vein flexure, rollover and spur is sufficient to warrant drilling.

On the basis of field observations, ore deposits appear to be limited to pods, although, all assays show some silver and lead mineralization. Favorable loci for ore deposition in fissure veins appears to be at flex<sup>x</sup>ures, vein junctions and vein rollover.

While the <sup>OLD WORKINGS</sup> existing works at the Silverado and Hibernia Mines appear to be pods, the existence of vein flexure, rollover and the quartz spur, plus the favorable assay results, justifies a drilling program.

Three drill holes are proposed as shown on Drawing #2, which <sup>should</sup> will adequately test the anomalous zone of the quartz spur and the major vein.

Suggested Drilling Program

<u>DH</u>	<u>Depth</u>	<u>Angle</u>	<u>Bearing</u>
#1	200'	37 <sup>o</sup> deg.	N.67 <sup>o</sup> deg W.
#2	180'	41.5 <sup>o</sup> deg.	N 90 <sup>o</sup> deg W.
#3	200'	39.5 <sup>o</sup> deg.	S 66 <sup>o</sup> deg W

A

Alternative Drilling Program

<u>DH</u>	<u>Depth</u>	<u>Angle</u>	<u>Bearing</u>
#1	110"	70° <del>deg</del>	N 67° W
#2	110'	70° <del>deg</del>	N 90° W
#3	100'	68° <del>deg</del>	S 66° W

The alternative program <sup>MAY BE</sup> seems preferable, <sup>because of the</sup> total depths are considerably less and the <sup>ANGLES TOWARDS</sup> more vertical, angles of the holes. No <sup>EXTENSIVE</sup> more road building would be necessary for <sup>THIS</sup> ~~the~~ alternative plan. Any final program within the limits of the above plans would be acceptable. If stream gravels <sup>PRESENT</sup> ~~may be~~ a problem, ~~but~~ this can be solved by either <sup>FROM THE DRILLING SITE</sup> dozing the gravels ~~out of the wash~~ to bedrock or moving adjacent to the wash - still testing the anomalous zone.

If one or two of the drill holes indicate good ore, it would be advisable to test the vein at a depth of +/- 200' to determine the extent of the ore body and the water table. Additional <sup>TEST</sup> holes at or near the sample locations #4 & #6 near the Silverado mine <sup>WILL ASSIST IN THE EVALUATION.</sup>

Respectfully submitted,

Wm. Vanderwall, Geologist

Az. Reg. No. GIT 34

~~Edited by S. C. Brown, Sr. Geologist~~

~~19 June 1984~~

u



SAMPLE DESCRIPTIONS

Quartz and gouge zone at Silverado Open Cut. W. to E. across vein. Total 23':

- 1) Fractured quartz with minor FeOx, CuCO<sub>3</sub> stain, <sup>Chalcoprite - Brite</sup> small ccp & py blebs. 5' channel

ccp  
Probably  
from chalcoprite →

Assay Results: Ag 0.986 oz/tn Pb 106 ppm

- 2) Mostly gouge, red-brown, friable clay. 5' channel with granite inclusions.

Assay Results: Ag 0.557 oz/tn Pb 98 ppm

- 3) Quartz - same as #1. 5' channel

Assay Results: Ag 0.493 oz/tn Pb 26 ppm

- 4) Quartz - same as #1. 5' channel

Assay Results: Ag 10.15 oz/tn Pb 167 ppm

- 5) Quartz with very fine grain clay gouge. 3' channel

Assay Results: Ag 0.284 oz/tn Pb 21 ppm

~~Area near vein rollover~~ North of Silverado Mine:

- 6) Fracture quartz with 50% clay gouge. 19' channel

Assay Results: Ag 5.626 oz/tn Pb 50 ppm

Area near vein rollover:

- 7) Quartz, white to blue-grey, minor vugs with limonite  
13 ' channel

Assay Results: Ag 7.250 oz/tn Pb 3210 ppm (0.321%)

Approximate mid point between Silverado & Hibernia:

- 8) Quartz, white to blue-grey, drusy vugs. 11" channel

Assay Results: Ag <sup>0.345</sup> ~~11.9~~ oz/tn Pb 148 ppm

Fractured quartz, heavy FeOx stain at Hibernai Shaft.

West to East across vein . Total 15'.

9) Quartz, FeOx stain. 5' channel.

Assay Results: Ag 0.383 Pb 229 ppm

10) Quartz, FeOx stain. 5' channel.

Assay Results: Ag 0.142 Pb 186 ppm

11) Quartz, FeOx stain. 5' channel.

Assay Results: Ag 0.177 Pb 133 ppm

Hibernia Stockpile:

12) Grab sample of quartz with Ca(?), Ccp, Py blebs and veinlets all stained with  $\text{CuCO}_3$ . Some CC and barite(?).

Assay Results: Ag 8.990 Pb 23000 ppm (2.30%)

*Probably  
Copper Carbonate*

*csp - Chalcopyrite  
cc - Copper Carbonate*

# NORTH AMERICAN ASSAY COMPANY

1022 West 23rd Street  
 Tempe, Arizona 85282  
 (602) 894-0919

Job Number MA-1449

Page 1 Of 1

Date June 13, 1984

## ANALYTICAL REPORT

Client I.D.	Lab #	Geochemical Analysis	
		Ag (ppm)	Pb (ppm)
1	1	34.0	106
2	2	19.2	98
3	3	17.0	26
4	4	350.0	167
5	5	9.8	21
6	6	194.0	50
7	7	250.0	3210
8	8	11.9	148
9	9	13.2	229
10	10	4.9	186
11	11	6.1	133
12	12	310.0	23000

These analysis opinions or interpretations are based on observations and materials supplied by the client to whom and for whose exclusive and confidential use this report is made. The interpretations or opinions expressed represent the best judgements of North American Assay Company, all errors or omissions excepted; but North American Assay Company and its officers and employees assume no responsibility and make no warranty or representations as to the productivity, proper operations, or profitability of any mineral deposit in connection with which such report is used or relied upon.

Client Name: D.K. Martin & Associates

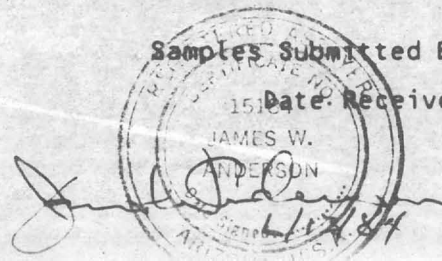
Address: 4728 N. 21st Avenue

Phoenix, AZ 85015

Telephone: 246-9573

Samples Submitted By: D.K. Martin

Date Received: June 7, 1984



## Silverado

The best silver ore apparently occurs in the  
Pegmatite dikes which appear to occur at the Otz spur  
where the drilling is recommended. (

Silverado Prospect  $\pm 175,000$  Ag from its upper level.

Assays results definitely justify more exploration & a drilling prog.

Hibernia - Sulfide ore at water level - very good -  
? Where is water level?  $\pm 175'$

Paid to Eleanor Davis

Cancelled checks

1-16 841	150 <sup>00</sup>	# 1271	X
2-6	75 <sup>00</sup>	1278	X
3-4	75 <sup>00</sup>	#1290	X
4-7 (4-24)	75 <sup>00</sup>	# 1300	X
5-11	75 <sup>00</sup>	#1309	20



# Cedar Mineral Co.

4728 North 21st Avenue  
Phoenix, Arizona 85015

(602) 242-8345

## PARCEL # 186

### LOCATION:

The property is located in Maynard Mining District, Mohave County, Arizona; Sections 19, 30 and 31; Twnshp 18 N., Rnge 14 W., of the G&SRB&M, in the Hualapai Mountain Range, 9 miles due west of the Cane Springs Road and State Highway #93. From Kingman or Phoenix, State Highway #93 is paved. A dirt and graded road from Cane Springs has been maintained for approximately 6 miles. The next 6 miles has had no improvements or maintainance for the past 5 years. The road and property now will need approximately 3 weeks of dozer work for exploration development and haulage access to all points of the property.

### HISTORY & GEOLOGY:

In the late 1800's one lense of high grade oxide silver ore was mined, packed by burro train to the Colorado River and shipped by water to Swansea, Wales, for reduction; the ore assaying from 100 ounces to several hundred ounces per ton. This shipment of ore is reported to have brought the shippers a return of about \$125,000. The ore was so rich there was but little cobbings left on the dumps; the ore being readily detected by the greenish and black stain.

Only a small amount of ore has been shipped from the property since that time. This mine is known as one of the rich silver properties of Mohave County.

The last owners restaked this property in 1964 and shipped ore from their exploration cuts while continuing to sink the main shaft from 68 feet to 110 feet.

At the 100 foot level, a drift approximately 470 feet was driven along the vein. Due to the high smelter and shipping cost (as shown on the attached smelter receipts), shipping was discontinued.

As stated before, mining in the past was done for surface or oxide ores, and the starting of a double compartment shaft to reach the sulfide zone at water level. At 60 feet, sulfide ore was encountered that assayed 470 ounces of silver per ton.

At the portal of a short tunnel, 18 to 30 inches of good ore can be seen. The work performed as assessment showed this particular shoot of ore to go down as evidenced in the bottom of the shallow winze which was sunk.

The Hibernia Vein is a quartz filled fissure in the Precambrian granite and most persistant in length, being traceable for several miles.

Superficial cuts, pits and two short tunnels expose several very rich shoots of typical oxidized silver ore over an intermitent length of this vein. The major outcrop stands boldly above the surface, often showing twenty feet in width.

The Hibernia mine has proved, almost without exception, a high grade zone of enriched sulfide ore at water level, invariably directly below identical oxidized shoots. The silver ores are associated with the quartz pegmatite veins.

Mr. T. MacSmith, in his 1940 report states,  
 "Every indication points to a big producer with further development in the right way - sinking and drifting."

#### AREA GEOLOGY:

It is also Mr. S. Jones' observation, while operator and consultant for several properties in the Hualapai Mountains, that the silver bearing veins are in the great majority of instances associated with pegmatite veins such as are noticed on this property, and at other points in the immediate vicinity.

These pegmatites represent segregations of massive quartz and coarse feldspar crystals from a molten intrusion of granitic rock into the greatly older Precambrian rocks of the neighborhood. These pegmatite dykes are usually roughly tabular in shape and represent the filling fissure develops along lines of weakness of a contracting cooling magma. Any subsequent earth movement would have a tendency to re-open the old fissures with a consequent shattering of the pegmatite veins occupying them. Owing to the brittle nature of the minerals, quartz and feldspar, the pegmatite veins readily yield to shattering forces. In the open spaces in the pegmatite veins the primary silver bearing minerals were deposited. In the next stage, the veins were affected and altered by oxidation and an erosion the period of secondary enrichment.

The general area is underlain by granitic gneiss rocks of older Precambrian type. At the mine there are apparently discontinuous quartz veins or lenses of milky to bluish quartz, considerably mineralized with silver and lead.

The Silverado vein is undoubtedly fissure and the southerly extension of the Hibernia Vein which produced approximately \$175,000 in rich silver ore from its upper levels.

The vein is quartz and its harder portions crop several feet above the surface of the granite and schist. Some faulting is shown at the surface and frequent crushed zones would indicate vein movements. Mineral is present in both the solid and crushed portions of the vein.

Only the top ore that was left in the raise where the rich silver was mined to ship to Swansea, is in sight at the present time, but that shows very plainly what can be expected with development, for the vein is wide, the ore rich, and the quartz vein a true fissure.

#### PROCESSING:

The sulfide ores of this district are very easily treated by floatation, usually giving a rich concentrate and high ratio of concentration with an exceptional clean tailing, 95% to 98% extraction, of silver value is not unusual.

#### COMMENTS AND REMARKS:

It is probable that sufficient ore would be taken out of the Silverado during the three or four months period of exploration to

meet the expenses incurred, while there is a good possibility of taking out ores having similar values to those taken from the same vein on the adjoining Hibernia Property, which would make the initial expense of exploiting this property seem infinitely small in comparison.

Mr. L. V. Root states,

"I can say that in my four years of scouting in Mohave County, I have visited no property which shows such possibilities of quick results with such a small investment."

Mr. R. C. Jacobson states,

"I consider the prospect most promising. The vein outcrop is very strong and of good width, the little development done so far, has been confined to prospecting for high grade shipping ore. Two hundred ounces or over; with some success; but I believe a very profitable ore shoot is likely to result from deeper development, if projected into the sulfide zone."

"Judging from the surface showing, you may expect to open upwards of four to ten feet of vein filling over a length of some one thousand feet, and if not continuous, the several shoots will be very closely associated over this length."

Mr. S. S. Jones states,

"I conclude this report with the statement that I consider the property merits further extensive development."

#### THE MILL:

The Hayden Mill was first constructed in the late 1940's as a 50 ton per day tabling concentration mill owned and operated by Mr. Hayden and his son.

Due to the low value of their ore and the low prices paid for concentrates, Mr. Hayden ceased mining and subsequently closed the mill.

In 1974, Mr. Robert Burnside negotiated a lease-purchase with Mr. Hayden for the mill. In 1975, the mill was subleased to the Solomon Mines to process ore from the Signal, Arizona area. These people updated the mill into a six cell floatation type.

Due to mismanagement and legal entanglements, the Solomon Mines defaulted, forcing Mr. Burnside to again take possession of the mill.

Presently it will be necessary to complete the milling cycle and sophisticate the grinding cycle for economical operation.

Negotiations are in process with Mr. Burnside to purchase the Mill and the 20 acres it is situated on. The cost of same has been estimated in the Schedule under "Property Leases".

Therefore at 50 tons per day and a very very conservative recovery ratio of 85%, Exhibit "B" shows the approximate net value to be recovered in relation to the ounces of silver per ton of head ore excluding all other minerals present and recoverable such as gold, from the ore.



An advantage to owning the Mill and making it operational will establish the second such facility of this type in the State. The Tonto Mill is the only operational custom mill in the State at this time. That is, if perhaps difficulties are encountered, the Hayden Mill can always operate as a custom mill.

Mr. Vernon Dale, engineer for the Arizona State Department of Mineral Resources stated in an Arizona publication,

"Yet Mohave County has been absolutely one of the largest producers of Gold, Silver, Lead, Copper and Zinc in the State. The increase in prices of all those minerals gives us an entirely new economical perspective with regards to those deposits."

REFERENCE:

The above comments and factual representations have been extracted from the following reports and interviews:

Root, L. V.  
Mine Manager  
Colorado River Gold Mines, Inc.  
September 1, 1927

Woolley, M. W.  
Ore Buyer  
United States Smelting Refining & Mining Company  
Midvale Smelter and Mills  
January 9, 1929

Jacobson, R. C.  
Mining Engineer and Chemist  
Mohave Assay and Engineering Office  
June 14, 1926

Jones, S. S.  
Engineer of Mines  
July 27, 1937

Department of Mineral Resources, State of Arizona  
T. Mac Smith  
June 1, 1940

Rogers, M. S.  
Mining Engineer  
no date

Ward, C. R.  
Field Engineer  
Cedar Mineral Company  
3 February, 1976

Hatch, R. T.  
Mining Contractor  
10 May, 1976

Martin, D. K.  
Staff Engineer  
Alpha Management Corporation  
June 1, 1976

EXHIBIT A

SILVERADO PROJECT

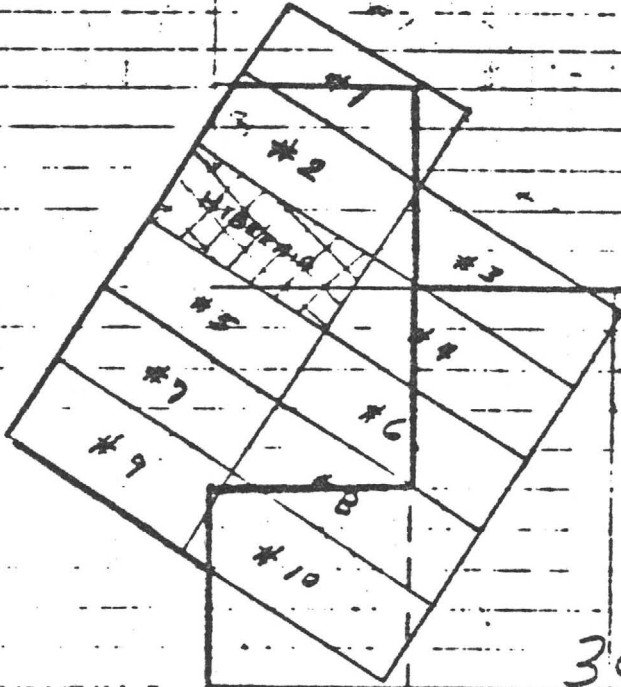
Unpatented Lode Claims located on United States (Federal)  
Property:

	<u>BOOK</u>	<u>PAGE</u>
Silverado #1	326	58
Silverado #2	326	60
Silverado #3	326	62
Silverado #4	326	64
Hibernia #1	326	66
Hibernia #2	326	68
Hibernia #3	326	70
Hibernia #4	326	72
Hibernia #5	326	74
Hibernia #6	326	76
Hibernia #7	326	78
Hibernia #8	326	80
Hibernia #9	326	82
Hibernia #10	326	84

Arizona State Land Lease:

PP# 08-37516	SW $\frac{1}{2}$ 30,	18N	14W	160 acres
PP# 08-37349	Lot 2	30 18N	14W	36.56 acres
	NE $\frac{1}{2}$ 30	18N	14W	160 acres
	E $\frac{1}{2}$ NW $\frac{1}{2}$ 30	18N	14W	80 acres

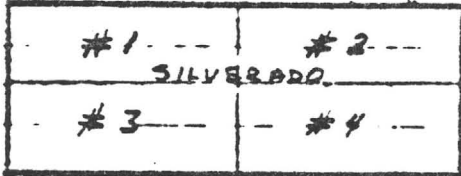
19



STATE PP 8 08-37849

30

STATE PP 5 37810

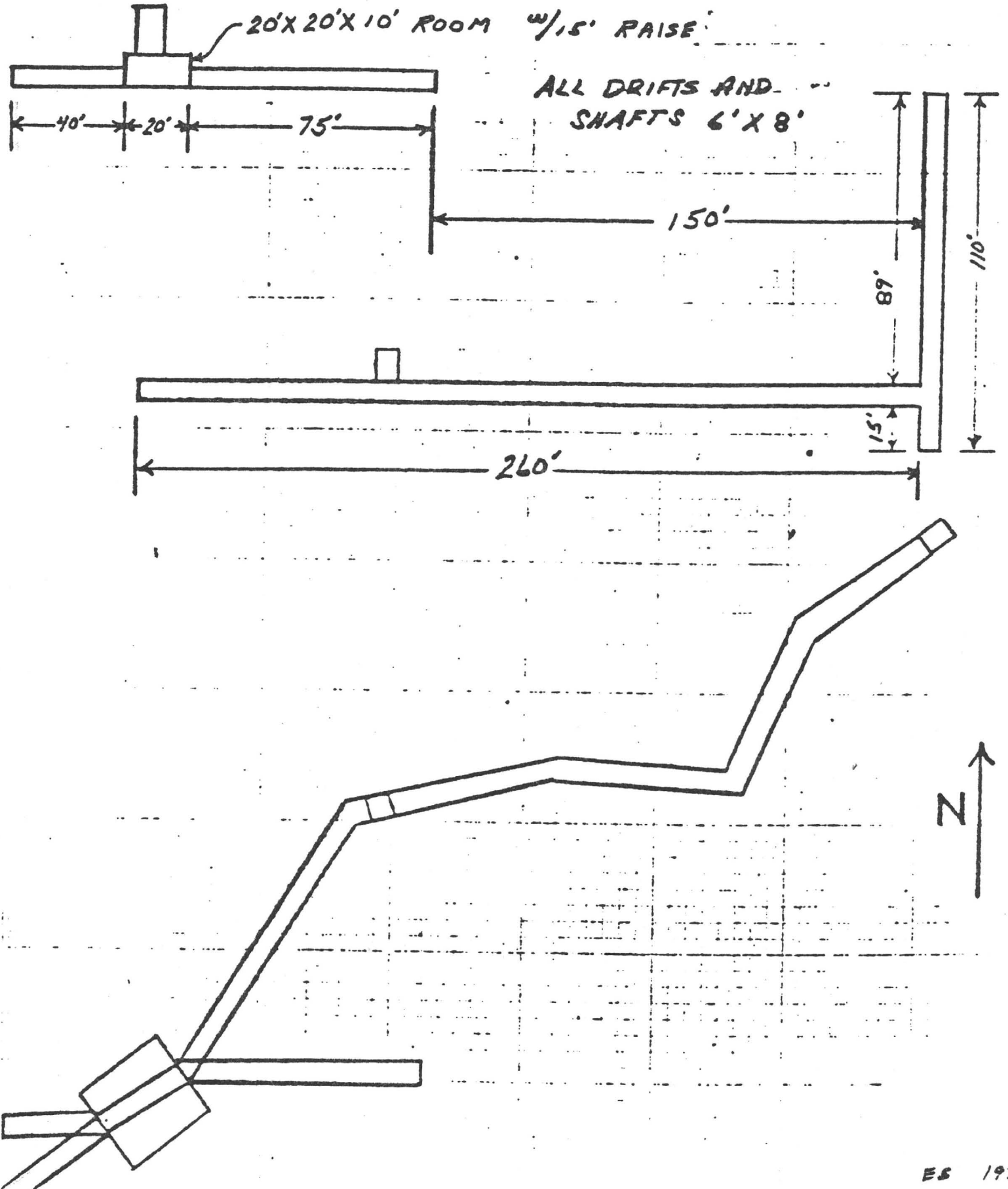


31

R-15-W  
R-14-W

T. 10 NORTH

SILVERADO  
UNDERGROUND SKETCH



# HAYDEN HILL PROPOSED SCHEDULE & EXPENDITURES

5/8/76

WEEKS

- LEGAL & ACCT
- SUPV & OVRHD
- FUEL
- CONTINGENCY (welder)
- LABOR
- INSURANCE
- PROPERTY LEASES
- UTILITIES
- HILL BALLS
- CHEMICAL & LAB
- ELECT WRK
- PLMB WRK
- CLASSIFIER
- JAW CRUSHER
- DRYER-SEPARATOR
- SETTLING TANK
- CONVEYOR
- PRIMARY BIN
- HOUSING
- WELL
- TOOLS & MISC
- MAINTENANCE
- SUPPLIES
- LOADER RENTAL
- TRUCKING
- FIRST RETURNS

	287	150	180	150	150
	600	2000	2000	2000	2000
	240	320	400	400	400
	4370	50	2920-200	3810-200	3710-200
	3000	4000	4000	4000	4000
	100	2000	2000	2000	2000
	1000	4000	4000	4000	4000
	1030	300	500	500	500
	2000				
	250	200			
	1000	200			
	600	600			
	1000	1000			
	3000	0			
	6000	0			
	3000	0			
	700	0			
	1500	0			
	3000	2000			
	1000	1200			
	250	200			
		00	80	90	140
		100	700	100	100
		1375	2500	2500	2500
		4000	9600	9600	9600

34,000	23,800	30,700	30,210
118,710			

# C O M B I N E D HAYDEN HILL & SILVERADO MINE Proposed Schedule & Expenditures

- LEGAL & ACCHT
- SUPV & OVRHD
- FUEL
- CONTINGENCY
- PROPERTY LEASES
- INSURANCE & COMP
- UTILITIES
- EQUIP PURCHASE
- EQUIP RENTAL
- LABOR
- SUPPLIES
- PLUMB WRK
- ELECT WRK
- HOUSING
- GEOLOGIST
- WELL DRILLING
- MAINTAINENCE
- TRUCKING
- LAND SURVEY
- TOOLS & MISC.
- SUBCONTRACTOR
  
- MILL RETURNS
- MINE RETURNS

	1976	1977	1978	1979	1980
LEGAL & ACCHT	380	110	150	190	190
SUPV & OVRHD	970	3120	3120	3120	3120
FUEL	120	470	1450	1010	1010
CONTINGENCY	5770	7170	8170	8650	8650
PROPERTY LEASES	4200	4000	4000	4000	4000
INSURANCE & COMP	3100	2260	2260	2330	2260
UTILITIES	1090	680	580	580	580
EQUIP PURCHASE	17750	7300	60	100	100
EQUIP RENTAL	1250	3675	4912	4900	4900
LABOR	8720	5450	4400	4100	4800
SUPPLIES	530	2400	750	750	750
PLUMB WRK	400				
ELECT WRK	600				
HOUSING	3000	6000			
GEOLOGIST	200	600			
WELL DRILLING	1000	1200			
MAINTAINENCE		80	80	80	140
TRUCKING		11550	17400	17600	17600
LAND SURVEY		2500			
TOOLS & MISC.		750			
SUBCONTRACTOR			20000	20000	20000
MILL RETURNS					
MINE RETURNS					
<b>TOTAL</b>	<b>44310</b>	<b>53,755</b>	<b>65,330</b>	<b>67,350</b>	<b>67,350</b>
		<b>234,795</b>			

HAYDEN MILL

Recovery Projection

1	2	3	4	5	6	7
HEAD ORE SILVER/OZ	85% mill RECOVERY	SILVER @ 0.425/oz PER TON	DAILY 24 Hr. Production @ 50 TONS	MONTHLY GROSS	ANNUAL MILL OPERATING EXPENDITURES	APPROXIMATE NET
1						
2	16	13.6	57.70	2870	80920	16580
3						
4	17	14.45	61.41	3070	85960	16380
5						
6	18	15.30	65.02	3251	91028	24448
7						
8	19	16.15	68.64	3432	96096	79516
9						
10	20	17.00	72.25	3612	101136	84566
11						
12	21	17.85	75.86	3793	106204	89624
13						
14	22	18.70	79.48	3974	111272	94692
15						
16	23	19.55	83.09	4154	116312	99732
17						1416
18	24	20.40	86.70	4335	121380	104800
19						
20	25	21.25	90.31	4516	126448	109868
21						
22	26	22.10	93.92	4696	131488	114908
23						
24	27	22.95	97.53	4876	136528	119948
25						
26	28	23.80	101.15	5057	141596	125016
27						
28	29	24.65	104.76	5237	146636	130056
29						
30	30	25.50	108.37	5418	151704	135124
31						
32	31	26.35	111.99	5598	156744	140164
33						
34	32	27.20	115.60	5779	161812	145232
35						
36	33	28.05	119.21	5959	166852	150272
37						
38	34	28.90	122.82	6140	171920	155340
39						
40	35	29.75	126.44	6320	176960	160390

*4 li Black Queen*

# IRON KING ASSAY OFFICE ASSAY CERTIFICATE

BOX 14 — PHONE 632-7410  
HUMBOLDT, ARIZONA 86329



ASSAY  
MADE  
FOR

CHARLES R. WARD CORP.  
4706 E. Alta Vista  
Phoenix, Ariz. 85040

March 3, 1976

Ref no.	DESCRIPTION	oz/ton Au	oz/ton Ag		% Fe	% Pb	% Zn	% Cu
12-11-1,	D Queen 20-50, #1 hole #7	.008	0.75	(Before roasting)				
"	" "	.020	0.10	(After " )				
12-11-2,	Black Queen 20-50, #3 hole 5	Tr	0.40	(Before roasting)				
"	" "	.010	0.59	( After " )				
12-11-3	Woods 20-50 #2 hole #5	Tr	0.22	(Before roasting)				
12-11-3	" " "	Tr	Tr	(After " )				
12-11-4	B. Queen 3-5 Sample #2 hle 5	Tr	0.48	(Before roasting)				
"	" " "	T005	Tr	(After " )				
12-11-5	Woods 30-5- Sample #3 hole #1	Tr	0.20	(Before roasting)				
"	" "	.010	0.59	After "				

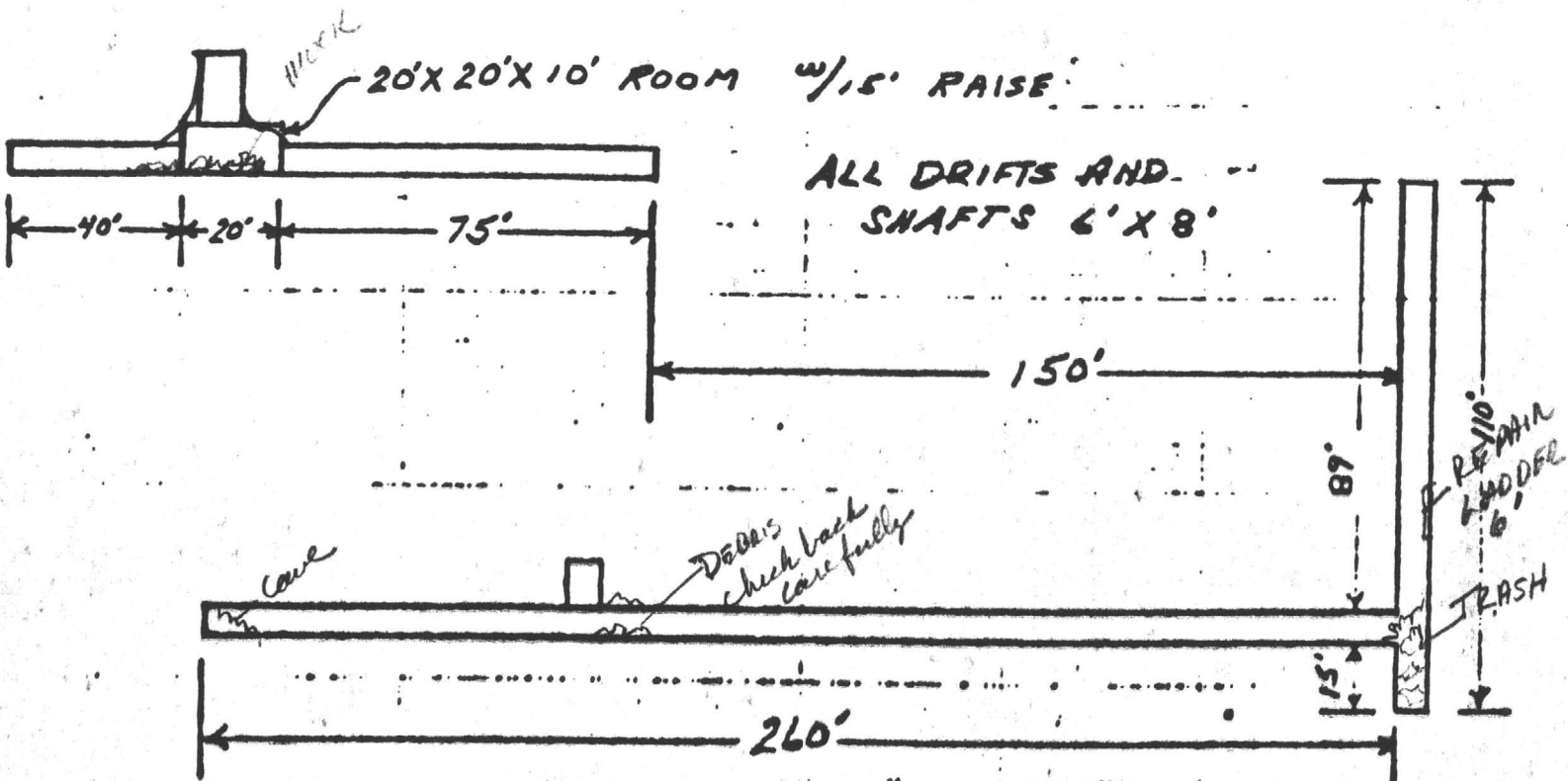
*Silvado*

CHARGES \$45.00

ASSAYER

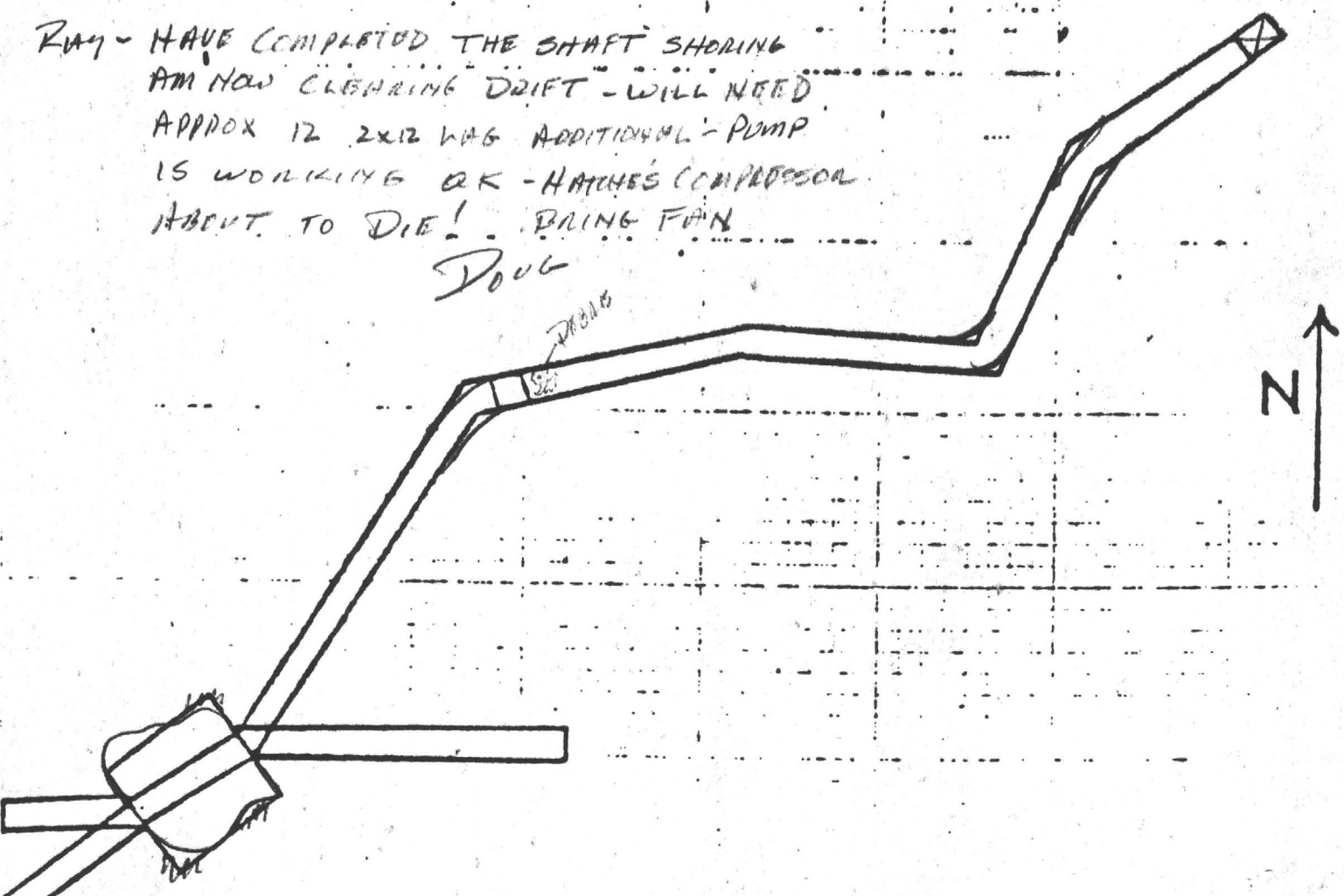


# SILVERADO UNDERGROUND SKETCH



RAY - HAVE COMPLETED THE SHAFT SHORING  
 AM NOW CLEARING DRIFT - WILL NEED  
 APPROX 12 2X12 WAG ADDITIONAL - PUMP  
 IS WORKING OK - HATCHES COMPRESSOR  
 ABOUT TO DIE! BRING FAN

DOUG



Continental Silver Corp.  
315 W. Monterosa  
Phoenix, Az.  
85013

Statement

D. K. Martin  
4728 North 21st Avenue  
Phoenix, Arizona 85015

July 10, 1985

Geological reconnaissance and Verification of Vanderwall report -  
Sample and assay vein outcrops and supporting structures.

Suggest alternative drilling targets

Arizona State Prospecting Permit #08-96533  
N 2 Lot 2, E2W2, Sec 30 T18N, R 14W

Total Balance Due

\$1,800.00

### STRIKE AT ARIZONA BUTTE

#### KINGMAN—

One of the best strikes of silver ore in the county was made a few days ago in the winze from the tunnel level of the Banner mine of the Arizona Butte property. The ore body was entered at a depth of 50 feet below the tunnel level and about 250 feet below the apex of the vein. The winze was sunk on a good body of lead ore, the average being about 30 ounces silver, \$10 gold and 35 per cent lead, when a round of holes disclosed ore that will run into the hundred of ounces in silver and heavy in lead. Specimens from this strike are on exhibition at the offices of the company in Kingman and the shop of M. M. George. These specimens are beautiful wire silver with big masses of native plastered all over the rock. The ore also shows heavily in silver sulphide. The ore body is three feet in width and shows every evidence of permanency. The strike was made 1500 feet from the portal of the tunnel and in one of the heaviest mineralized parts of the big vein. Shipments are going out from this part of the property daily, the big truck being unable to handle all the ore that is being produced.

The Arizona Butte has its big tunnel in shape and will have three shifts at work on it by the first of the month. This bore will reach the Banner about 1000 feet below the present depth of that property.

#### FORCE OF MEN WORKING C. O. D.

A good sized force of men are at work on the C. O. D. mine putting in a new collar set and resetting the hoist and other machinery. The shaft will be pumped out and connection made with the 300 level as soon as possible.

With the opening of the mine to the 300 level it is expected that big bodies of ore will be brought to light. The ore bodies on that level were not extracted, the drift having been run through the ore body a distance of about 1000 feet, and through this body a few raises were carried in the old part of the mine. The hard quartz part of the vein was allowed to remain without either crosscut or other opening, the management at the time believing it to be too low grade to handle. Later assays were taken from the quartz that gave as high as \$90 in gold. Should this part of the vein prove as important as miners who have worked in it believe it to be, the property will be a producer within the next few months.

#### RICO OPENS GOOD ORE ON 300

The crosscut from the 300 level of the Rico mine to the vein has opened a body of ore five feet in width that is well mineralized. Drifts are being carried along the level on the vein and the ore body will be thoroughly exploited. Samples taken from the vein give excellent results, showing it to have good mill values. The vein is somewhat broken up, due, no doubt, to the heavy movement of the vein and is similar to the C. O. D. in that respect, the Rico being on the same vein or a portion of it.

With further development the Rico should be in a position to supply a good sized concentrating plant with ore.

#### SINKING WINZE ON THE TWINS MINE

The raise on the Twins mine, of the Daisell company, at Cerbat, has been connected with the shaft and timbered up. The winze is now being sunk below the

a connection with the drift on the 300 level. The winze is going down on the ore body and a survey of the lower level will disclose how far the lower drift is away from the ore. It was the failure to locate the ore body on the 300 level that caused the abandonment of the property by the company that was operating it a few years ago, but the working out of the fault system by Superintendent Elickson, makes it possible to now take advantage of the extensive work that was done on the 300 level.

#### SILVER JACK HITS HIGH GRADE

The old Hibernia mine, which is now in the hands of the Silver Jack Mining company, has been entered by a 200-foot tunnel and a crosscut made to pick up the vein. This crosscut shows that the vein at that point is 10 feet wide and a small streak in it gave values of 1500 ounces silver. The large part of the vein carries big mill values.

In the early life of the Hibernia, which is patented under the name of the locator—the Hope—shipped large tonnage of ore that ran well into the thousands of dollars to the ton. We have seen shipments from the property that gave results of between 3000 and 4000 ounces silver. Part of the vein carries high grade lead ore. Owing to the isolation of the property and the inability to ship the lower grade ores at a profit, the mine has been idle more than 20 years. Now that roads are gradually being built into that country and the cheapening of haulage by the use of trucks, it is possible that ore running 100 ounces may be shipped out profitably. By the opening of the mine a milling plant may be demanded to handle the big low grade bodies of ore that are sure to be opened up.

The mine is being developed under contract, the tunnel to be driven 300 feet by the contractors, which will bring operations close to the old works.

#### PROGRESS MADE BY CHLORIDE

##### CHLORIDE—

Superintendent Rhea of the Chloride Queen states that work is progressing very satisfactorily at that mine. Drifting on the 200-foot level has progressed to about 150 feet and every foot now is making greater depth. Ore is now being taken out for shipment and continues to run very high grade. The Chloride Queen is destined to become one of the rich producers in the district. Development work will continue and ore blocked out and the property entirely proven when a mill will be erected capable of treating the ore in the most economical manner.

#### CONCERNING CHLORIDE

(By Prof. F. C. Smith.)

Chloride, during the past two months, has been much busier in cussing out the hot weather, the H. C. of L. and the railroad strike, which has interrupted mails and supplies, than in opening up any new mines. All of the old ones are pegging away as usual; new people are coming and hunting houses every day, and we have a new newspaper—the Chloride Chronicle—whose advent we hail with applause. It is edited and published by Mr. G. A. Sterling, and in make-up and editorials is far and away ahead of anything in the county. Our former paper, the Herald, was printed in Kingman, and the results were not always satisfactory, but floor of the drift and will be carried to

the Chronicle has its own very complete plant, much to its advantage.

Chloride has immediate promise of other new enterprise, in the possible event of something long needed—a custom mill. This matter has been agitated a number of years, and one or two companies have been organized for the purpose of installing such a plant; but have been side-tracked by reason of insufficient capitalization, and, very probably, by reason of the fact that some past mill installations have failed of efficiency for reasons which to financiers, have been more or less obscure. In a nut-shell, there is a splendid opportunity here for a sensible custom mill, with the accent on the word "sensible". There is, primarily, an ever-salient need for an outlet for vast quantities of "mill ore" which is not sufficient high grade to stand the costs of haulage, freights (especially when 50 per cent above normal), smelter charges and deductions, and still yield a profit; whereas, if these ores might be locally concentrated, so as to cut the costs even in the middle, hundreds of mines would take activity which are now idle. No small 50-ton affair can expect to handle this proposition efficiently; nor can a sufficiently large installation expect to "jump right in" and clean up 100 per cent profits from the start; for the ore is complex, and require the attention of real metallurgists (not mill men), during a period of careful concentration tests on a large scale; thus predicated the necessity for sufficient capital to handle the matter in a business-like way. It is understood the new mill is to be financed in Washington, D. C., and we may say that the fact lends additional weight to the proposition, since, if all reports be true, some of our big men down there are worried by lack of vault-room for their war profits. The enterprise will benefit the whole country in another way, very probably; since, if it enables some of our federal legislators to contract their necks somewhat, and draw their heads below the clouds, to the end that they may see even a very little of the practical business end (instead of the political end), of the affairs of the United States, a "much better time will be had" by all.

#### DEVELOPMENT AT THE AZTEC

##### OATMAN—

Development of the vein at the 500-foot level of the Aztec mine of the Tom Reed company at Oatman has disclosed high grade ore and at the same time the vein has widened considerably. The vein is a strong one and will materially increase the ore reserves and increase the production of gold ore from the Tom Reed group. The mill of the company is now running on ores from the Aztec and Bald Eagle shafts while sinking is in progress at the Red Cloud, where the shaft is down close to the 700-foot point and is to be continued to a depth of 800 feet. The United American is sinking with two shifts and making about five feet daily. The shaft is now down about 100 feet, and is equipped with a modern mine plant. Oatman United is prosecuting development work at the 600-foot level and Superintendent Hammond reports results satisfactory. The shaft is to be sunk to the 800-foot point. Operations have been resumed on the Record Lode property and the management is crosscutting the ledge at the 500 level to establish values. Sinking has been resumed by Superintendent Rogers of the Road Bonanza and the shaft, now

COPY

UNITED STATES SMELTING, REFINING & MINING COMPANY

MIDVALE SMELTER AND MILLS

Downie D. Muir, Jr. General Manager.  
W. H. Eardley, Assistant Manager.  
E. R. Gibson, Cashier  
M. W. Woolley, Ore Buyer

Salt Lake City, Utah

January 9, 1929

Mr. K. G. Pulliam, Jr.  
555 Roosevelt Building  
Los Angeles, California

Dear Mr. Pulliam:

The sample that you recently forwarded to us has been received and assayed with the results shown on the enclosed certificate.

This sample shows an especially high silver content, and is a very desirable shipping ore. Based upon present metal prices, using  $57\frac{1}{2}$ ¢ for silver this ore would net about \$95.25 per ton, f.o.b. the Smelter.

The freight rate from Kingman on direct smelting ores of \$100 value is \$13 per ton, which would leave \$82.25 net after all smelting and freight charges were deducted.

I would suggest that it would be to our mutual advantage to have a contract covering any shipments you might be making, and while it would not obligate you to ship a definite tonnage it would protect you with a favorable rate on any shipments you might make.

The figures above mentioned are arrived at by using a flat maximum treatment charge which we would be willing to incorporate in a contract proposition from that district. If this suggestion meets with your approval we will be very glad to forward papers for your consideration.

Wishing you every success there, we remain

Yours very truly,

(SIGNED) M. W. Woolley.

**INSPIRATION CONSOLIDATED COPPER CO.**  
**SMELTING DEPARTMENT**

Lot 8677 Shipper Lot 12

DATE June 8, 1967  
Date Received May 21, 1967

SHIPMENT OF W. H. Russell

5821 West Glenrosa City Phoenix, Arizona

CAR Number	WET WEIGHT	Molsture %	DRY WEIGHT	N. Y. QUOTATIONS
921	9,640	2.80	9,270	Copper (per lb.) <u>38.182¢</u> Less <u>4.85¢ = 33.332¢</u> Silver (per oz.) <u>129.700¢</u> Gold (per oz.) _____

ASSAY ANALYSES	Copper %	Silver Oz.	Gold Oz.	Silica %	Alumina %	Iron %	Lime %	Sulphur %
	.33	20.26	.610	92.4	.8	1.9	.9	Tr.

PAYMENTS PER TON				DEBITS	CREDITS	Valuation For Freight
Lbs. per ton, less	%	Lbs. at	per Lb.	\$	\$	\$
20.26	5%	19.25	129.700¢		24.97	
Ozs. per ton, less	%	Ozs. at	per Oz.			
Silica Credit 92.4 - 10.8 = 81.6 units @ 6¢					6.53	
Copper Deficiency 10.00 - 6.60 = 3.40 @ 33.332¢				1.13		
Less Metal Values $24.97 - 15.00 = 9.97 @ 10\%$				1.00		
Treatment Charge				6.00		
<b>TOTALS</b>				<b>8.13</b>	<b>31.50</b>	
Net Value per ton					<b>23.37</b>	

Net Value for Freight Charges, per wet ton \_\_\_\_\_ \$

Loyalty to be paid to	4.685	Dry tons at \$	23.37	\$	109.49
Sampling	5.315	tons at	2.00		10.63
Freight					
Trucking					
<b>AMOUNT DUE SHIPPER</b>					<b>98.86</b>
Less					
<b>NET AMOUNT DUE SHIPPER</b>					<b>98.86</b>

147.72

Correct [Signature]

Approved [Signature]

**INSPIRATION CONSOLIDATED COPPER CO.  
SMELTING DEPARTMENT**

Lot 8705 Shipper Lot 13

DATE June 14, 1967  
Date Received June 5, 1967

AGENT OF W. H. Russell

Address 5821 West Glenrosa City Phoenix, Arizona

CAR Number	WET WEIGHT	Moisture %	DRY WEIGHT
ICC 924	9,360	2.80	9,098

QUOTATIONS	
Copper (per lb.)	38.1331
Less 4.854 =	33.2791
	1.7159 less 146.46
Silver (per oz.)	1.6951
Gold (per oz.)	

ANALYSES	Copper %	Silver Oz.	Gold Oz.	Silica %	Alumina %	Iron %	Lime %	Shipper
	35	17.00	.010	72.4	1.7	1.6	1.2	-

PAYMENTS PER TON			
Lbs. per ton, less	%	Lbs. at	per Lb.
17.00			
Ozs. per ton, less	5 %	16.15	Ozs. at 1.69571
Silica Credit	92.4 - 21.8 = 70.6 units @ 3¢		
Copper Deficiency	10.0 lbs. less: 7.0 lbs. = 3.0 lbs @ 25.25¢		
Metals Values	\$27.39 - 15.00 = \$12.39 @ 10%		
Treatment Charge			

DEBITS	CREDITS	Valuation, For Freight
	27.39	
1.60		5.65
1.24		
6.00		
<b>TOTALS</b>	<b>27.39</b>	
		<b>24.80</b>

Net Value for Freight Charges, per wet ton		
to be paid to	4.547	Dry tons at \$ 24.80 \$ 112.82
Sampling	5.451	tons at \$2.00 10.90
Freight		
Trucking		
<b>AMOUNT DUE SHIPPER</b>		<b>161.92</b>
Less % Royalty		
<b>NET AMOUNT DUE SHIPPER</b>		<b>161.92</b>

*[Signature]*

Approved *[Signature]*

203.8

**INSPIRATION CONSOLIDATED COPPER CO.**  
**SMELTING DEPARTMENT**

Lot 8561 Shipper Lot 10

DATE May 17, 1967  
Date Received May 9, 1967

By W. N. Russell

From W. Glanville City Phoenix, Arizona

Number	WET WEIGHT	Moisture %	DRY WEIGHT
924	16,300	4.00	15,648

N. Y. QUOTATIONS

Copper (per lb.)	38.170¢
Less 4.85¢	33.320¢
Silver (per oz.)	128.900¢
Gold (per oz.)	

Copper %	Silver Oz.	Gold Oz.	Silica %	Alumina %	Iron %	Lime %	Sulphur %
.32	19.56	.020	93.0	1.4	1.1	.9	.2

**PAYMENTS PER TON**

Lbs. per ton, less \_\_\_\_\_ % \_\_\_\_\_ Lbs. at \_\_\_\_\_ per Lb.  
19.56 Ozs. per ton, less 5 % 18.58 Ozs. at 128.900¢ per Oz.  
 Ozs. per ton, less \_\_\_\_\_ % \_\_\_\_\_ Ozs. at \_\_\_\_\_ per Oz.  
 Silver Credit 92.0 - 16.0 = 76.0 units @ 8¢  
 Copper Deficiency 14.00 lbs - 6.40 lbs = 7.60 lbs @ 33.320¢

DEBITS	CREDITS	Valuation For Freight
	23.95	
	6.03	
1.20		
.90		
6.00		
<b>8.10</b>	<b>30.03</b>	
	<b>21.93</b>	

**TOTALS**

Net Value per ton \_\_\_\_\_

Net Value for Freight Charges, per wet ton \_\_\_\_\_

to be paid to	7.824	Dry tons at \$	21.93	\$	171.50
Sampling	2.176	tons at	2.00		4.35
Freight					
Trucking					
<b>AMOUNT DUE SHIPPER</b>					<b>167.23</b>
Less					
<b>NET AMOUNT DUE SHIPPER</b>				\$	<b>167.23</b>

*W. N. Russell*

Approved *R. J. Matlock*

## ASSAY CERTIFICATE

SMITH - EMERY COMPANY.  
Assayers Metallurgical Engineers  
Los Angeles, California.

M. S. Rogers,  
225 Mills Building,  
San Francisco, California.

Gold @ \$20.67 per oz.  
Silver @ .50 per oz.

December 19, 1929

	Silver		Lead
	Oz.	Value	
115503 (No Mark)	2.00	\$ 1.00	None
115504 1-A	452.70	226.35	None
115505 2-A	115.00	56.50	None
115506 2-B	261.60	130.80	None
115507 2-C	8.64.	4.32	None
115508 3	.30	.15	None
115509 3-A	26.80	13.40	None
115510 4	.40	.20	None

SIGNED,  
SMITH - EMERY COMPANY



ASSAY CERTIFICATE

Silverado Mine  
Kingman, Arizona

Beaverstock & Payne  
552 South Figueroa St.  
Los Angeles, California

A COMPLETE ANALYTICAL TESTING LABORATORY

No. 3720  
Dec. 20, 1928

	Gold per Ton		Silver per Ton	
	Oz. Troy	Value	Oz. Troy	Value
No. 3720				
High-grade streak			457.1	\$260.55
No. 3708				
Bromides	.08	\$1.65	253.3	144.40
Gold @ 20.67				
Silver @ .57				

SIGNED,  
Beaverstock & Payne.

# ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.  
PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemists... Engineers*

For: Mr. Buddy Hale  
2836 West Camelback  
Phoenix, Arizona

Date: June 30, 1966

Lab. No.: C-718

Sample: ORe

Marked:

No Mark

Received: ----

Submitted by: Same

## Report of Laboratory Tests

### REPORT OF QUALITATIVE SPECTROGRAPHIC EXAMINATION

<u>Element</u>	<u>Approximate Percent</u>
Boron	0.006
Silicon	Major Constituent
Aluminum	3.0
Manganese	0.02
Magnesium	0.3
Lead	0.3
Iron	1.0
Calcium	0.5
Copper	0.5
Silver	0.5
Titanium	0.08

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean, Jr.*  
Claude E. McLean, Jr.

HEMICAL  
RESEARCH  
ASSAY  
ON TESTING  
PHYSICAL TESTING

# ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.  
 PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineer.*

For Mr. Buddy Hale  
 2836 West Camelback Road  
 Phoenix, Arizona

Date May 1, 1967

Sample of Ore

Received: ---

Submitted by: Same

## ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce

Silver figured at \$ 1.29 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE	COPPER	
1353	No Mark	0.18	\$6.30	246.60	\$318.11	1.45%	

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean, Jr.*  
 Claude E. McLean, Jr.

# ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.

PHONE 254-6181    817 WEST MADISON ST.    P. O. BOX 1888    PHOENIX 85001

*Chemist... Engineers*

For Russell Construction Company  
5821 West Glenrosa  
Phoenix, Arizona 85031

Date July 14, 1966

Sample of Ore

Received: 7-13-66

Submitted by: Same

### ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce

Silver figured at \$ 1.29 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
754	No Mark  MAIN DRIFT			11.60	\$14.96		

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean, Jr.*  
Claude E. McLean, Jr.

# ARIZONA TESTING LABORATORIES



A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.

PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineers*

200

For **Russell Construction Company**  
**5821 West Glenrosa**  
**Phoenix, Arizona**

Date **February 16, 1965**

Sample of **Ore**

Received: **2-15-65**

Submitted by: **Sams**

## ASSAY CERTIFICATE

Gold figured at \$ **35.00** per ounce

Silver figured at \$ **1.29** per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
158965				18.40	\$23.74		
158966				9.60	12.38		
158967				17.60	22.70		
158968				752.80	971.11		



Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean

# ARIZONA TESTING LABORATORIES



A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.

PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineer*

For **Mr. Buddy Hale**

Date **May 9, 1967**

Sample of **Ore**

Received: **----**

Submitted by: **Same**

## ASSAY CERTIFICATE

Gold figured at \$ **35.00** per ounce

Silver figured at \$ **1.29** per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE	COPPER	
1381	Sample #1	0.02	\$0.70	111.80	\$144.22	0.85 %	
	Sample #2	N11		2.10	\$ 2.71	N11	

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean, Jr.*

Claude E. McLean, Jr.

# ASSAY CERTIFICATE

SMITH - EMERY COMPANY.  
Assayers Metallurgical Engineers  
Los Angeles, California.

M. S. Rogers,  
225 Mills Building,  
San Francisco, California.

Gold @ 226.57 per oz.  
Silver @ .50 per oz.

December 19, 1929

	<u>Silver</u>		<u>Lead</u>
	Oz.	Value	
115503 (No Mark)	2.00	\$ 1.00	None
115504 1-A	452.70	226.35	None
115505 2-A	113.00	56.50	None
115506 2-B	261.60	130.80	None
115507 2-C	8.64.	4.32	None
115508 3	.30	.15	None
115509 3-A	26.80	13.40	None
115510 4	.40	.20	None

SIGNED,  
SMITH - EMERY COMPANY

## ASSAY CERTIFICATE

Silverado Mine  
Kingman, Arizona

Beaverstock & Payne  
552 South Figueroa St.  
Los Angeles, California

A COMPLETE ANALYTICAL TESTING LABORATORY

No. 3720  
Dec. 20, 1928

	<u>Gold per Ton</u>		<u>Silver per Ton</u>	
	Oz. Troy	Value	Oz. Troy	Value
No. 3720 High-grade streak			457.1	\$260.55
No. 3708 Bromides	.08	\$1.65	253.3	144.40

Gold @ 20.67  
Silver @ .57

SIGNED,  
Beaverstock & Payne.

Shop No. 1756

Date 8 DEC 1965

File No. 1318 RW

VALUES  
Latest Quotation

1 oz. Gold.....

1 oz. Silver.....

1 lb. Copper.....

1 lb. Lead.....

1 lb. Zinc.....

THIS CERTIFIES  
Samples submitted for assay  
contain as follows:

# Arizona Assay Office

815 NORTH FIRST STREET

Phone: 253-4001

MR. W. H. RUSSELL

5821 W. GLEN ROSA  
PHOENIX ARIZONA

Phoenix, Arizona 85001

P. O. BOX 1148

Short Ton ..... 2000 Lbs.

Short Ton Unit ..... 20 Lbs.

Long Ton ..... 2240 Lbs.

Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON		VALUE PER TON	GOLD PER TON		VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE				REMARKS
	Ozs.	Tenths		Ozs.	100ths							
SURFACE #1 (wet) CUTS	34.1		\$48.62									SVEAR QUMATZ
#2 BLUE	1.1		\$1.37									



Charges \$ 5.00 PAID

Assayer Jack E. A. Stone



Shop No. 1743  
 File No. 1199 HA

Date 18 DEC 1966

VALUES  
 Latest Quotation

- 1 oz. Gold.....
- 1 oz. Silver.....
- 1 lb. Copper.....
- 1 lb. Lead.....
- 1 lb. Zinc.....

THIS CERTIFIES  
 Samples submitted for assay  
 contain as follows:

# Arizona Assay Office

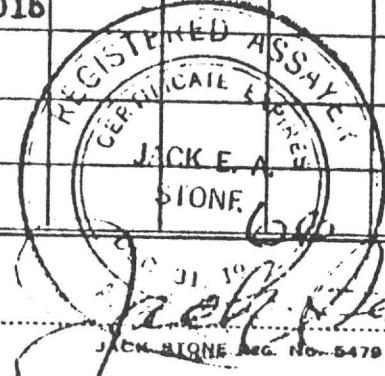
815 NORTH FIRST STREET  
 Phone: 253-4001

MR. H. T. HATCH  
 5881 W. OLENROSA  
 PHOENIX

Phoenix, Arizona 85001  
 P. O. BOX 1148

Short Ton ..... 2000 Lbs.  
 Short Ton Unit ..... 20 Lbs.  
 Long Ton ..... 2240 Lbs.  
 Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON		VALUE PER TON	GOLD PER TON		VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE				REMARKS
	Ozs.	Tenths		Ozs.	100ths							
DIKE #1	9.1		\$11.37					COPPER				
VEINS #2	260.4		\$385.50									
#3	186.4		\$333.00									
#4	42.8		\$ 53.50									
#5	90.0		\$112.50									
#6	.4		\$ .60									



Charges \$ 30.00

ANDY CHUKA, PRINT

Assayer.....

JACK STONE REG. NO. 5478

Shop No. 1738

Date 3 DEC 1965

File No. 1199 H

VALUES  
Latest Quotation

1 oz. Gold.....

1 oz. Silver.....

1 lb. Copper.....

1 lb. Lead.....

1 lb. Zinc.....

THIS CERTIFIES  
Samples submitted for assay  
contain as follows:

# Arizona Assay Office

815 NORTH FIRST STREET

Phone: 253-4001

MR. R. T. HATCH  
3910 W. INDIAN SCHOOL ROAD  
PHOENIX

Phoenix, Arizona 85001  
P. O. BOX 1148

Short Ton ..... 2000 Lbs.

Short Ton Unit ..... 20 Lbs.

Long Ton ..... 2240 Lbs.

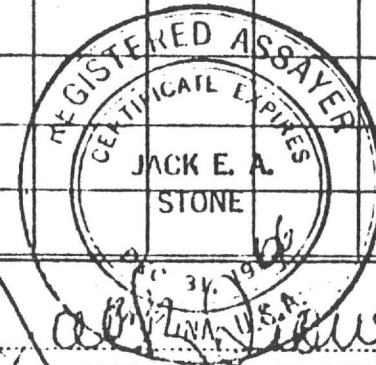
Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON		VALUE PER TON	GOLD PER TON		VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE				REMARKS
	Ozs.	Tenths		Ozs.	100ths							
NUGGET 30 pounds			18,100.0			22,825.00						

Charges \$ PAID.

ANDY CHUKA, PRINT

Assayer.....



JACK STONE REG. No. 5479

Shop No. 700H  
 File No. 1154 HA

Date 7 DEC 1984

**VALUES**  
 Latest Quotation

- 1 oz. Gold.....
- 1 oz. Silver.....
- 1 lb. Copper.....
- 1 lb. Lead.....
- 1 lb. Zinc.....

**THIS CERTIFIES**  
 Samples submitted for assay  
 contain as follows:

# Arizona Assay Office

815 NORTH FIRST STREET

Phone: 253-4001

MR. R. T. HATCH

Phoenix, Arizona 85001  
 P. O. BOX 1148

Short Ton ..... 2000 Lbs.  
 Short Ton Unit ..... 20 Lbs.  
 Long Ton ..... 2240 Lbs.  
 Long Ton Unit ..... 22.4 Lbs.

MARKS	SILVER PER TON		VALUE PER TON	GOLD PER TON		VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE				REMARKS
	Ozs.	Tenths		Ozs.	100ths			COPPER				
<u>SURFACE</u>	<u>236.6</u>		<u>\$295.75</u>	<u>.05</u>		<u>\$1.75</u>		<u>0.40</u>				

Charges \$ 5.50 PAID.

Assayer.....

*Handwritten signature: Jack Stone*  
 JACK STONE REG. NO. 1479

Shop No. **8115** Date **24 AUG 1966**  
 File No. **1942 HA**

**VALUES**  
 Latest Quotation  
 1 oz. Gold.....  
 1 oz. Silver.....  
 1 lb. Copper.....  
 1 lb. Lead.....  
 1 lb. Zinc.....

# Arizona Assay Office

815 NORTH FIRST STREET  
 Phone: 253-4001

**MR. R. T. BAICH**

Phoenix, Arizona 85001  
 P. O. BOX 1148

Short Ton ..... 2000 Lbs.  
 Short Ton Unit ..... 20 Lbs.  
 Long Ton ..... 2240 Lbs.  
 Long Ton Unit ..... 22.4 Lbs.

**THIS CERTIFIES**  
 Samples submitted for assay  
 contain as follows:

MARKS	SILVER PER TON		VALUE PER TON	GOLD PER TON		VALUE PER TON	TOTAL VALUE PER TON of Gold & Silver	PERCENTAGE		REMARKS
	Ozs.	Tenths		Ozs.	100ths					
MAIN DRIET	32.5		40.62							

Charges \$ **8.50 PAID**

Assayer *Jack Stone*  
 REGISTERED ASSAYER  
 CERTIFICATE NUMBER  
 JACK STONE  
 JACK STONE REG. NO. 6479

# ARIZONA TESTING LABORATORIES



A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.

PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineers*

For **Russell Construction Company**  
5821 West Glenrosa  
Phoenix, Arizona

Date **March 9, 1965**

Sample of **Ore**

Received: **3-8-65**

Submitted by: **Same**

## ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce

Silver figured at \$ 1.29 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
159051	#1			4.20	\$ 5.42		
159052	#2			10.40	\$13.42		



Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean

# ARIZONA TESTING LABORATORIES



A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.

PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineers*

For **Russell Construction Company**  
**5821 West Glenrosa**  
**Phoenix, Arizona**

Date **February 8, 1966**

Sample of **Ore**

Received: **2-7-66**

Submitted by: -----

## ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce

Silver figured at \$ 1.29 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
156403	Blue Sample	SHAFT, MAIN		16.40	\$21.16		
	Green Sample			6.60	\$ 8.51		

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean, Jr.*  
 Claude E. McLean, Jr.

# ARIZONA TESTING LABORATORIES



A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.

PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineers*

For **Russell Construction Company**  
**5821 West Glenrosa**  
**Phoenix, Arizona**

Date **March 1, 1965**

Sample of **Ore**

Received: **3-1-65**

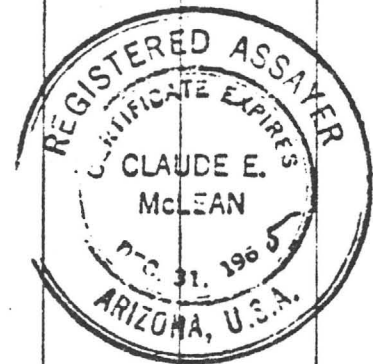
Submitted by: **Same**

## ASSAY CERTIFICATE

Gold figured at \$ **35.00** per ounce

Silver figured at \$ **1.29** per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
158994	#1			74.80	\$96.49		
158995	#2			10.40	\$13.42		
158996	#3			15.80	\$20.38		



Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean

# ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.  
 PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineer*

For Mr. Buddy Hale  
 2836 West Camelback Road  
 Phoenix, Arizona

Date May 9, 1966

Sample of Ore

Received: ---

Submitted by: Same

## ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce

Silver figured at \$ 1.29 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE	PLATINUM	
610	No Mark	0.08	\$2.80	866.80	\$1,118.17	Nil	

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean, Jr.*  
 Claude E. McLean, Jr.



# ARIZONA TESTING LABORATORIES



A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.

PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineers*

For **Russell Construction Company**  
**5821 West Glenrosa**  
**Phoenix, Arizona**

Date **March 1, 1965**

Sample of **Ore**

Received: **3-1-65**

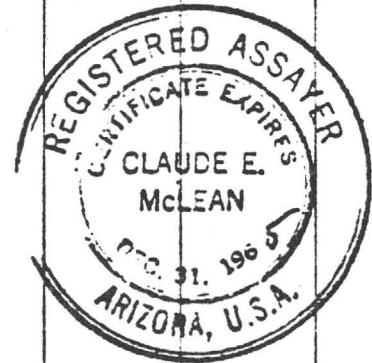
Submitted by: **Sama**

## ASSAY CERTIFICATE

Gold figured at \$ **35.00** per ounce

Silver figured at \$ **1.29** per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
158994	#1			74.80	\$96.49		
158995	#2			10.40	\$13.42		
158996	#3			15.80	\$20.38		



Respectfully submitted,

ARIZONA TESTING LABORATORIES

Claude E. McLean

# ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.

PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineers*

For Russell Construction Company  
5821 West Glenrosa  
Phoenix, Arizona 85031

Date July 14, 1966

Sample of Ore

Received: 7-13-66

Submitted by: Same

## ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce

Silver figured at \$ 1.29 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
754	No Mark MAIN DRIFT			11.60	\$14.96		

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean, Jr.*  
Claude E. McLean, Jr.

# ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.  
 PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineer*

For Mr. Buddy Hale  
 2836 West Camelback Road  
 Phoenix, Arizona

Date May 1, 1967

Sample of Ore

Received: ---

Submitted by: Same

## ASSAY CERTIFICATE

Gold figured at \$ 35.00 per ounce

Silver figured at \$ 1.29 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE	COPPER	
1353	No Mark	0.18	\$6.30	246.60	\$318.11	1.45%	

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean, Jr.*  
 Claude E. McLean, Jr.

PHYSICAL SCIENCE

# ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.  
 PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineers*

For **Royce T. Hatch Fence Company**  
**Mr. Royce Hatch**  
**3910 West Indian School Road**  
**Phoenix, Arizona**

Date **October 8, 1964**

Sample of **Ore**

Received: **10-7-64**

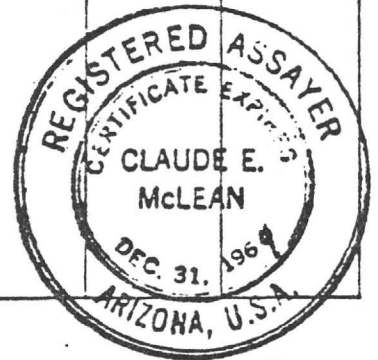
Submitted by: **Same**

## ASSAY CERTIFICATE

Gold figured at \$ **35.00** per ounce

Silver figured at \$ **1.29** per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE	COPPER	MOYEDENTUM
158205	No Mark TOP OF OLD RAISE	0.01	\$0.35	986.40	\$1272.45	2.90	#11



Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean*

Claude E. McLean

# ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.  
 PHONE 254-6181    817 WEST MADISON ST.    P. O. BOX 1888    PHOENIX 85001

*Chemist... Engineers*

For **Mr. Buddy Hale**  
**Citizens Realty & Trust Company**  
 2836 West Camelback Road  
 Phoenix, Arizona

Date **June 7, 1966**

Sample of **Ore**

Received: **----**

Submitted by: **Same**

### ASSAY CERTIFICATE

Gold figured at \$ **35.00** per ounce

Silver figured at \$ **1.29** per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE		
679	No Mark MAIN DRIFT			10.60	\$13.67		

Respectfully submitted,

ARIZONA TESTING LABORATORIES

*Claude E. McLean, Jr.*  
 Claude E. McLean, Jr.

# ARIZONA TESTING LABORATORIES

A DIVISION OF CLAUDE E. McLEAN & SON LABORATORIES, INC.

PHONE 254-6181 817 WEST MADISON ST. P. O. BOX 1888 PHOENIX 85001

*Chemist... Engineers*

Mr. Royce Hatch  
For 3910 West Indian School Rd.  
Phoenix, Arizona

Date October 13, 1964

Sample of Ore

Received: October 12, 1964

Submitted by: Same

## ASSAY CERTIFICATE

Gold figured at \$ per ounce

Silver figured at \$ 1.29 per ounce

LAB. NO.	IDENTIFICATION	GOLD		SILVER		PERCENTAGES	
		OZ. PERTON	VALUE	OZ. PERTON	VALUE	Copper	
158209	#1 GENERAL AREA			6.20	7.99	0.20	
158210	#2			108.80	140.35	0.45	
158211	#3			.20	0.26	0.15	



Respectfully submitted,

ARIZONA TESTING LABORATORIES

*[Handwritten Signature]*