MME Form 9
Rev. Nov. 65

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey

OFFICIAL DOCKET FILE Contract No. _____ Docket No. _____

Application
- [x] Denied
- [ ] Withdrawn

Contract
- [ ] Terminated - Not Certified
- [ ] Terminated - Certified
- [ ] Cancelled
- [ ] Royalty Agreement

The records contained in this file are marked (x) and arranged in this order:

Folder No. 1:

Left Side

- [ ] Royalty Audits
- [ ] Certification of Discovery
- [ ] Closing Letter
- [ ] Cost Audits
- [ ] Termination Notice or Agreement
- [ ] Recision Notice
- [ ] Assignment of Contract
- [ ] Contract Amendments
- [ ] Contract with all exhibits and annexes
- [ ] Owner's Consent to Lien and Subordination Agreement
- [ ] Application and Attachments

Right Side

- [ ] Project Summary (final)
- [ ] Work Completed Analysis (final)

All other material filed in chronological order including the following reports if checked:

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Final Field Team Report (Tab)
- [ ] Operator's Final Report (Tab)
- [ ] Interim Field Team Reports
- [ ] Operator's monthly reports and all attachments
- [x] On-site Exam. Report (Tab) 5/13/69
- [ ] Settlement Sheets
- [ ] Drill Logs

Additional Folders:

Left Side

Folders No. _____: Reports

- [ ] Analysis of Semiannual Inspection Reports
- [ ] Project Summary (Interim) by MME Engineers

Right Side

- [ ] Field Team Semiannual Report for Certified Project
- [ ] Field Team Interim Reports
- [ ] Operator's Monthly Reports with Transmittal, Narrative and Maps

Folders No. _____: Maps (Use pocket folder or envelope)

Folders No. _____: Settlement Sheets

Folders No. _____: Drill Logs

Folders No. _____: Royalty Material

72195-65

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California 94025

December 16, 1968

OFFICIAL COPY
O. M. E.
RECEIVED
DEC 19 1968
INITIALS CODE

Memorandum

To: Chief, Office of Minerals Exploration
Washington, D. C.

From: Field Officer
Region II

Subject: New Application (Silver-Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et al., Claims
Talkeetna Recording District, Alaska

Enclosed is one copy of an application for OME assistance in a two-stage project estimated to cost $86,888.00. A second copy is retained in our files.

Although the application is thoughtfully prepared and the proposed project seems reasonable, there are several omissions and deficiencies:

1(a) Letters to the banks are omitted.

2(a) Claim map is not included. Maps on p. 4 and p. 6 do not agree on location.

5(a) Phase I, item 5 is preliminary rehabilitation to make old workings accessible for examination. Items 6 and 7 appear to be prospecting since the buried outcrop is only "suspected."

Phase II, items 1 and 2 appear to be prospecting. Items 3 and 4 might be justified if Phase I, item 5, were done at Applicant's expense.

7(b) The rate of $200/day for consultants exceeds the OME limit.

(d) Equipment is included at full purchase cost.

(e) Repair of bulldozers appears high, two dozers seems unnecessary, and depreciation of Operator-owned equipment is omitted.

The work proposed north and south of the outcrop at "Apex" appears to be better justified than any other by samples 10-13. Exploration, laterally and in depth, of this ore-grade showing may be worth while in spite of the last sentence of the Recommendations. If a minable ore body is found here, more work along the vein might be justified.

R. M. Smith

for H. K. Stager

Enclosure

OFFICIAL
COPY
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DEC 19 1968
INITIALS | COMM

SILVER DOME MINING INC.

PROPOSAL FOR OME ASSISTANCE

ANCHORAGE, ALASKA

DECEMBER 1968

DAN RENSHAW P.E.
Consulting Engineer
519 Eighth Ave. Room 209
ANCHORAGE, ALASKA 99501

December 4, 1968

Office of Minerals Exploration
U.S. Geological Survey
345 Middlefield Road
Menlo Park, California
94025

Gentlemen:

This application for mineral exploration assistance has been prepared by the undersigned at the request of the Board of Directors of Silver Dome Mining, Inc. Attached to this letter is our authorization to act in behalf of the Corporation by way of a motion passed by the Board of Directors on October 22, 1968.

We have been associated with the Corporation for the past two years in the capacity of consulting mining engineers. As such we have convinced the Corporation that a detailed mineral evaluation is needed if the property is to realize its potential. Unfortunately the owners previous efforts have yielded little in the way of basic information due to an overly optimistic approach.

At the present time the property contains no ore reserves and no mining has taken place since the early 1920's. However, we believe that a definite potential does exist and that an exploration program is justified.

The Silver Dome Mine is situated in a geologically favorable area for other mineral occurrances. Although many prospects are known in the vicinity little serious mining has ever been undertaken. It is our sincere belief that an exploration program at Silver Dome would not only assist that prospect, but in addition encourage the developement of other properties in the area. Such a revival of interest would benefit the entire state.

Although difficult and expensive transportation problems are a deterrent to mining investment in Alaska, such is not the case in this area. The known mineralized region is traversed by the Federally owned Alaska Railroad; ten miles distant from the Silver Dome property.

Additionally, the new Anchorage - Fairbanks Highway is presently under construction farther to the west.

Your consideration of this application would be sincerely appreciated. If further information is desired we would remain ready to correspond with you; or if necessary to visit your offices.

Sincerely,

Dan Renshaw

Dan Renshaw, P.E.
Alaska License #1446-E

A. L. Renshaw Jr.

A.L. Renshaw, Jr., P.E.
Alaska License #1515-E

SILVER DOME MINING CO., INC. - Minutes of Meeting of October 22,1968

* *

Angus Johnson moved that we authorize A. L. Renshaw, Jr. and/or Daniel E. Renshaw to proceed in getting an OMF Loan for Silver Dome. Fred Bryant seconded and the motion carried.

Ralph R. Hillary 11/26/68
Ralph R. Hillary
Secretary

Wittnesses:

Katherine L. Renshaw 11/26/68

Charles F. Herbert

Present at meeting:

Charles Wille
James E. Walker
Julius E. Mely
Ralph R. Hillary
Marguerite Johnson
Fred Bryant
Ester L. Hillary
Charles Kramer

&

A. L. Renshaw, Jr., P.E.
Daniel E. Renshaw, P.E.

MME Form 40
Jan. 65

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R1306
Approval expires Dec. 31, 1968

APPLICATION FOR FINANCIAL ASSISTANCE IN MINERALS EXPLORATION

Pursuant to Public Law 85–701 (72 Stat. 700; 30 U.S.C. 641)

NAME OF APPLICANT *(Full legal name and mailing address as they should appear on contract if one is executed.)*

Silver Dome Mining, Inc.
8021 Brink Court
Anchorage, Alaska
99504

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER: 6766
DATE RECEIVED: 12/19/68
REGION: II
DIVISION CODE:

BUSINESS ORGANIZATION *(Check one)*

- INDIVIDUAL [ ]
- CORPORATION [X]
- PARTNERSHIP [ ]
- OTHER *(Specify)* [ ]

STATE IN WHICH FIRM IS ORGANIZED: Alaska

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
Charles E. Wille	8021 Brink Ct.	President
James E. Welker	4830 Denai	V. President
Ralph R. Hilleary	3110 W. Northern Lights	Secretary
All of Anchorage, Alaska	99501	

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE: Silver & molybdenum minerals

ESTIMATED COST OF PROJECT: $ 86,888

PROPERTY NAME	LOCATION COUNTY	STATE
Silver Dome Mine	Chulitna Area	Alaska

GENERAL INSTRUCTIONS

Before filling out this application, please read the *OME Regulations for Obtaining Federal Assistance in Financing Explorations for Mineral Reserves* (30 CFR Chap. III). To assure prompt action, your application must provide all applicable material and information specified on the back of this application form. Avoid unnecessary correspondence and delays by submitting complete and accurate information. *Please submit two copies of this application and all accompanying papers* except as otherwise noted. Place your name and address on each sheet. Each item of information, maps, and reports required as a part of this application is described on the back of this form. Identify each attached statement by the item number to which it applies. If an item does not apply to your application, show the item number on your statement and after it write "not applicable." Maps or sketches should be used to supplement narrative descriptions of the property location and boundaries in item 2, existing mine workings and geology in item 3, and the proposed exploration work in item 5. When this information is not too complex, all of it may be shown on one map or sketch. All documents and other attachments submitted as a part of this application, except those in item 3(g) which you mark to be returned, become the property of the Government and will not be returned to the applicant. Send true copies, *not originals*, of leases, contracts, and other documents which are an essential part of your business records. *File this application with the Office of Minerals Exploration, Department of the Interior,* Washington, D. C., 20242, or with the nearest OME Field Office.

CERTIFICATION

The undersigned, whether as an individual, corporate officer, partner, or otherwise, both in his own behalf and acting for the applicant, certifies that the information set forth in this form and accompanying papers is correct and complete, to the best of his knowledge and belief, and that he would not ordinarily undertake the proposed exploration under current conditions and circumstances at his sole expense.

12/12/68
DATED

James E. Welker
BY (Signature)

V. President
TITLE

A wilfully false statement or certification to any Department or Agency of the United States Government is a criminal offense. U. S. Code, Title 18, Sec. 1001.

1. Financial Eligibility

   a) Letter of refusal by local banks, attached.

   b) There are no affiliated, parent, or controlling companies or organizations.

   c) Silver Dome share of the cost of exploration will be funded through sale of stock, use of existing equipment and facilities, and labor of corporation stockholder.

2. Applicants Right to Land

   a) Silver Dome is the sole owner of the unpatented mining claims upon which the proposed exploration work will be conducted. Copies of all pertinent location notices and recent proof of annual labor are included. There are no liens, mortgages or other encumbrances on the claims. See attached sketch of claim location relative to proposed exploration work location.

   b) The property location notices were recorded at Palmer, Alaska. Copies of these documents are attached. A USGS quadrangle of the area shows general location of claims. The property was formerly known as the Mint Mine, and now as the Silver Dome Mine.

   c) Not applicable

3. Physical Description:

   During the early 1920's an exploration adit was driven to intersect the siver bearing vein near the level of Portage Creek. This adit is partially caved now so extent of development is not known. The records of production, if any are not available. See attached drawing of "Chinaman Adit."

   Since that time limited surface trenching has uncovered a vein system that roughly parallels Portage Creek and probably extends north from the point last uncovered to underlie the general camp area. The vein system was last uncovered during construction of an airstrip near camp.

Samples were gathered during this past summer at the various outcrops, trenches, and adit face. Results indicated the presents of silver but in non commercial quantities except for one location. The geology of the vein system is conducive to the formation of vein shoots, and the proposed exploration program is intended to pursue this possibility.

Attached is a copy of a report of investigation conducted by A.L. Renshaw, P.E. this past summer. It summarizes present conditions.

b) Silver Dome Mining, Inc. requested the examination performed by A.L. Renshaw and has expended considerable capital in the area developing roads, airstrips, and camp facilities. Silver Dome has sole ownership interest in the properties.

c) To the best of our knowledge there has been no past production from these mining claims.

d) There are currently no known ore reserves.

e) For geologic features of the property see the A.L. Renshaw report.

f) For sampling information see the A.L. Renshaw report attached.

g) All reports of investigation are included.

4. Accessibility of Property

a) To examine the property contact any of the corpation officers at the addresses shown on MMF form 40.

The property may be reached by any of a combination of the following two ways. 1) Train from Anchorage to Chulitna then via tote road 10 miles to claims. 2) Airplane from Talkeetna to Camp airstrip then 1 mile via tote road to camp.

b) All supplies come from Anchorage via airplane or train. Any mine product would be shipped via train from Chulitna station.

5. Exploration Work

a) Proposed Exploration Work

Phase I

1. Open cut apparent vein outcrop at south end of airstrip. An approximately 200'x50' excavation through gravel and till will verify attitude and character of this outcrop and its probable relationship to other vein outcrops found further south (location A.)

2. Construct approximately 2,000 feet of access road to the vein outcrops at the "Apex" location above the Chinaman Adit. (Location D)

3. Drill approximately 1,500 feet of diamond drill hole to crosscut the vein from locations near the "Apex". (Location B)

4. Verify possible vein segment outcrop beneath overburden on the north side of the "Apex" by hand trenching. (Location B)

5. Remove caved material from existing Chinaman Adit (with retimbering as required for safety) to determine extent of workings and tenor of the vein exposed. (Location E)

6. Construct trail from tramway crossing Portage Creek at the Chinaman Adit to apparent buried vein outcrop ½ mile to the south. (Location F)

7. Verify suspected vein outcropping ½ mile south of the "Apex" by hand trenching and determine tenor. (Location C)

Phase II

1. Extend exposure of vein outcrop at south end of airstrip to the NW by stripping along the outcrop or crosscutting with dozer trenches at 300' intervals. (Location A-1)

2. Drill approximately 1,500' of diamond drill hole from locations near the south end of the airstrip to determine location and tenor of the vein below talus on east canyon wall. (Location A)

3. Erect aerial tramway from knoll east of air-strip to Chinaman Adit for the conveyance of equipment, materials and supplies needed to perform #4 below. (3/4" cable 1,700 foot length from Location E-1 to E)

4. Extend Chinaman Adit to the south drifting along the vein for approximately 400 feet with crosscuts at 100' intervals to verify the extent and tenor of the vein beneath the "Apex" (Location E.)

5. Extend access road 1,500 feet south along the top of the canyon for access to drilling sites. (Location G)

6. Drill approximately 3,000 feet (5 holes 600 feet in length at 300 foot spacings) of diamond drill hole to determine tenor of the vein on to the south of the "Apex." (Location G)

7. Drill approximately 450 feet of diamond drill hole (3 holes 150 foot in depth at 300 foot intervals) from locations along the creek bed north of the Chinaman Adit to determine location and tenor of the vein beneath the talus and the creek. (Location H)

8. Establish a survey control triangulation net and bench marks for the property for the detailed correlation of exploration work and calculation of ore reserves.

Phase III

Detailed evaluation of ore shoots identified from Phase I and Phase II work by further tunneling, core drilling and other related work as may be justified to determine possible reserves.

b) Not applicable

c) Should we be successful in contracting with OME, exploration could commence by June 1 and progress until completed. Surface exploration would be completed by the end of summer and adit extension continued through the winter as necessary. (Phases I and II.)

When Phase I work has been completed a decision will be made as to the justification to proceed with Phase II. If it is decided to proceed with Phase II some adjustment in the scope of the work may be necessary.

When Phase II has been completed a thorough review of results will be made prior to any consideration of Phase III work.

6. Experience

Several participating stockholders in Silver Dome have had mining experience. An attempt will be made to retain a practical miner as a foreman for all exploration work. This person inturn will be supervised by the consulting engineers, A.L. Renshaw and/or Dan Renshaw who are joint venturing the necessary technical assistance.

Both of the Renshaws are graduate mining engineers and licensed by the State of Alaska. They each have a background of small scale lode gold mining and are experienced in mineral exploration and evaluation.

7. Estimate of Costs

	Phase I	Phase II
a) Independent Contracts		
Mineral assays (Gold & Silver)		
100 each @ $7.00	700	
200 each @ $7.00		1,400
b) Personal Services		
Consulting Engineers		
10 days @ $200/day	2,000	
20 days @ $200/day		4,000
Forman (one)		
45 days @ $60/day	2,700	
60 days @ $60/day		3,600
Workmen (four)		
45 days @ $40/day	7,200	
60 days @ $40/day		9,600
Mechanic/Equipment Operator (one)		
45 days @ $50/day	2,250	
60 days @ $50/day		3,000
Cook		
45 days @ $40/day	1,800	
60 days @ $40/day		2,400
Personnel for these positions are available.		
c) Operating materials and suppliles		
Fuel for dozers, drill, light plant, heating and cooking	500	700
Lubricants	50	100
Food,etc.	1,800	2,400
Small tools (picks, shovels, gloves etc.)	100	200
Explosives		
50 cases @ $50.00 (including fuse and caps)	0	2,500
Rock Drill bits		900
Miscellaneous	500	500

	Phase I	Phase II
d) Operating Equipment		
100 CFM air compressor		2,500
Jack Leg Rock Drill including drill steel, 500' of air pipe 100' of air hose, water tank, oiler, and spare parts.		2,300
Ore car, one ton capacity		400
Track for tunnel 1000 lineal feet @		1,000
Timber for ties and tunnel support		
5,000 bf @ $150/M	750	
10,000 bf @ $150/M		1,500
Diamond Drill complete with power, 700' steel diamond bits core trays, etc. (Primary unit will be leased if possible)	6,000	
Hoist for aerial tramway including engine		2,100
Tramway trolly and bucket		600
Tramway cable and accessorys 2,000'x 3/4"		4,000
Hoist line for tramway 2,000'x5/16"		700
e) Initial Rehabilitation & Repairs		
Overhaul and repair D-6 Caterpiller Bulldozer	2,800	
Overhaul and repair John Deere Bulldozer	1,200	
Overhaul and repair two 4 wheel drive trucks	800	

	Phase I	Phase II
f) New Buildings, fixtures, installations		
Improve camp water system and source	500	
g) Miscellaneous		
Insurance (Workmens Compensation)	200	500
Payroll taxes	1,450	1,950
Transportation	250	350
Sub-total	$33,550	$49,200
Contingency @ 5%	1,678	2,460
Phase I and II totals	$35,228	$51,660
Total	$86,888	

NATIONAL BANK OF ALASKA
Head Office • Box 600 • Anchorage, Alaska 99501

GORDON CATCHING
VICE PRESIDENT

November 15, 1968.

Silver Dome Mining Incorporated
Box 4-2163
Anchorage, Alaska 99503

Gentlemen:

In answer to your request for a loan in the amount of $30,000 to provide funds for exploration work, we are sorry to report that we are unable to provide this financing at the present time. We are unable to loan sufficient funds against your equipment to meet your loan request. The indefinite nature of terms needed is another reason for our inability to provide this loan at the present.

We thank you for your application and are sincerely sorry that we are unable to help you in this particular instance.

Sincerely,

Gordon Catching,
Vice President.

GC/ljb

THE FIRST NATIONAL BANK OF ANCHORAGE

P. O. BOX 720, ANCHORAGE, ALASKA

Main Office

November 18, 1968

Silver Dome Mining, Inc.
Mr. Ralph R. Hilleary, Secretary
P. O. Box 4-2163
Anchorage, Alaska

Dear Mr. Hilleary:

This letter is in reference to your application to our bank for a loan in the amount of $30,000 to be used for exploration work to mine. While I am sure that the equipment at the mine would be adequate collateral so far as a loan is concerned our committee has rejected the application since there does not appear to be an assured method of paying the loan back in the next year or so. On any of these loans that we do make on equipment we do insist that we have either monthly or quarterly payments and that they start within a short period of time after the loan is made. As I understand it you would be engaged in exploratory work only for the next year or two and, consequently, would not have an assured income. I am sorry that we are not able to help you with your request.

Sincerely,

W. M. MURRAY
Senior Vice President

WMM/ml

REPORT OF MINERAL INVESTIGATION

FOR

SILVER DOME CORPORATION

By

ANSON LEVAKE RENSHAW, Jr., P.E.
Consulting Engineer
2229 Spenard Road
Anchorage, Alaska

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Appendix A - Sample Assay Results
Appendix B - Division of Mines & Minerals, Geologic Report 3 (reproduced in part)

Not Included and not applicable

SUMMARY

Based on the results of field observations and sampling during September 1968, general conclusions were reached. At present the silver property contains no known reserves of economic value, and a phased exploration program must be undertaken. This work should be assigned to a person qualified to undertake such a program with full authority and responsibility to act for the corporation within approved and properly budgeted plan. The molybdenum property at present contains no known mineralization of economic intrest although a definite potential must be realized. An exploration program should be undertaken that would cover the greatest possible area at minimum cost. It is recommended that a combination of geobiological and soil sampling be undertaken for this purpose. An outline of recommended exploration work is presented for both properties.

INTRODUCTION

The investigations for this report were conducted during the period of September 5th through 15th, 1968, by the writer.

Basically the report is presented in two parts. The first part deals with the investigation of silver occurrences at the Silver Dome Mine on the western side of Portage Creek. The second part consists of an investigation of molybdenite occurrences to the east of Portage Creek.

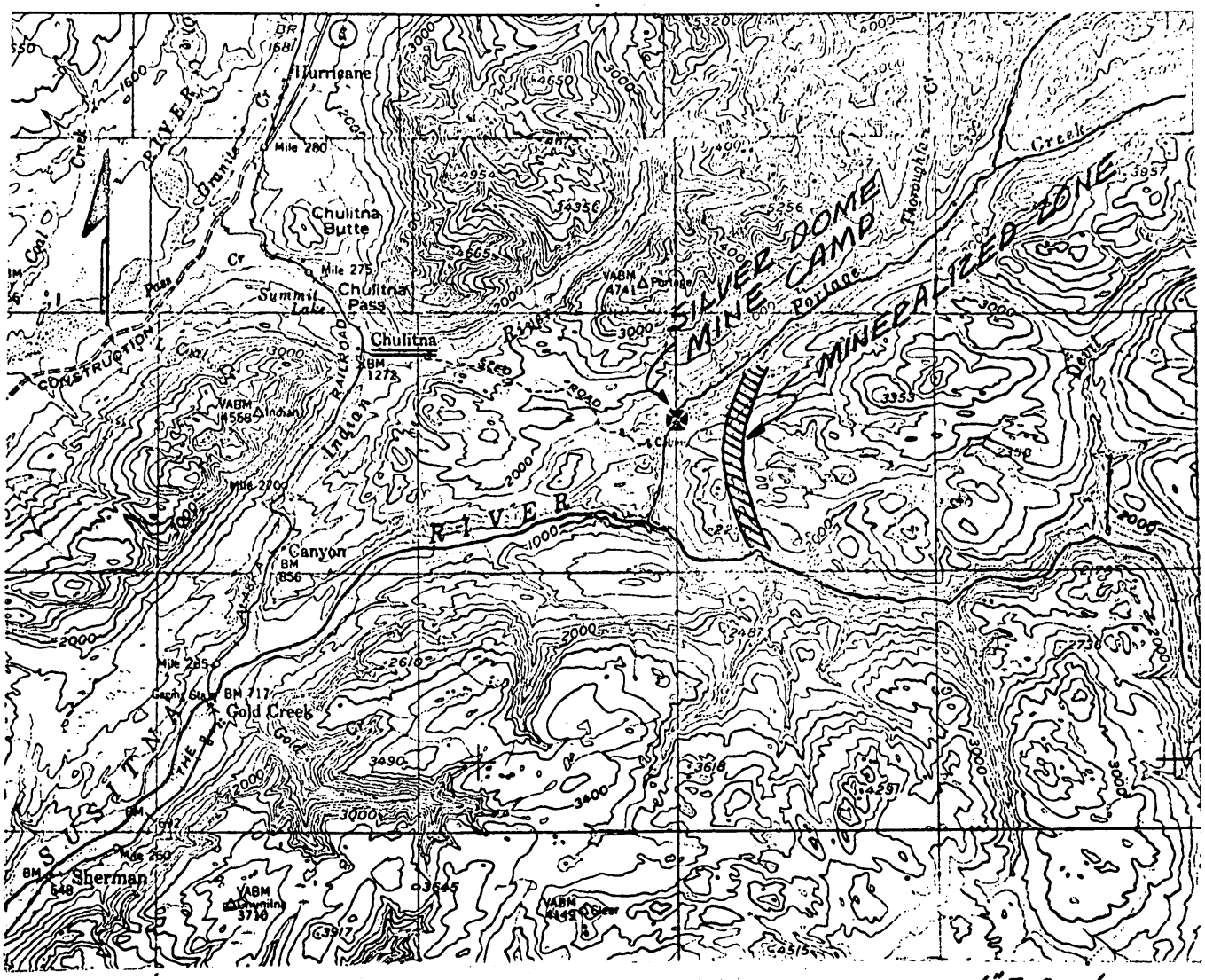
During the period of investigation, Mr. Fred Bryant of the Silver Dome Mining Company, Inc. provided guidance, assistance and direction.

LOCATION

Mineral properties belonging to the Silver Dome Mining Company are centered about eight miles east of Chulitna on Portage Creek, and approximately three miles north of the confluence of Portage Creek and the Susitna River. The Seward Principal Meridian passes through the mine camp area.

For some distance along the western wall of Portage Creek a strong northerly trending shear zone containing silver mineralization has been staked. These claims comprise the Silver Dome Mine Property.

About two miles to the east an apparent northward trending zone showing molybdenite mineralization is exposed in several locations. This property has also been staked by representatives of the Silver Dome Mining Company. It appears that this mineralized zone extends from the Susitna River above the Portage Creek Confluence northward approximately four miles to Treasure Creek, an eastern tributary of Portage Creek.



1" = 4 miles

LOCATION MAP

PART I - SILVER OCCURRENCE

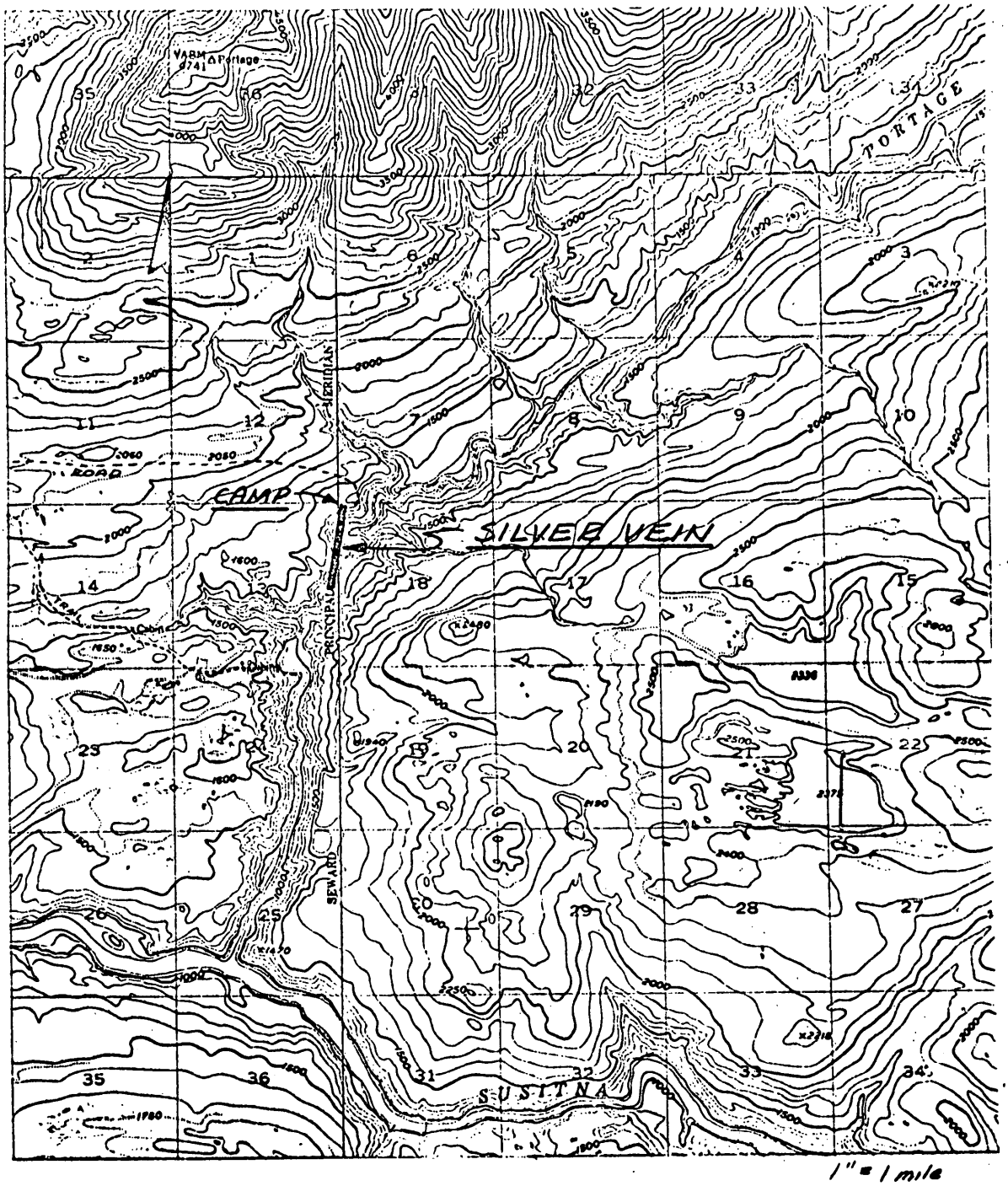
HISTORY

" In the 1920's a ruby-silver lode was worked at the Mint Mine---, about nine miles east of Chulitna. The Country rock at the mine is brecciated slate cut by at least one intensely altered andesite dike that evidently was intruded along a shear zone. The lode is about 25 feet wide and consists of quartz-sulfide venlets in the breccia and dike and of stockworks on both sides of the dike. The sulfide minerals consist of about equal parts of pyrargyrite and arsenopyrite, lesser miargyrite and pyrite, and rare chalcopyrite, galena, and tennantite (?). A picked sample of ore assayed 117.9 ounces of silver per ton, but a series of channel samples showed only 1.20-32.2 ounces per ton. Development work consisted of two short tunnels and an opencut; an unknown but probably small amount of ore was shipped"[1]

No known exploration or development work has taken place since the reported original work. During the past several years the present owners have erected several building on the property, cleared two small airstrips, and started construction of a mill. However, little exploration or development work has yet been attempted. In 1967 several short channel samples were taken from within the Chinaman Adit (southerly tunnel) by Dan Renshaw, Consulting Engineer, but the assay results were discouraging.

PRESENT WORK

During the period of September 6-11, Mr. Fred Bryant, three workmen and the writer were at the mine camp. During that time the workmen were engaged in the task of cleaning out and retimbering the entrance to the Chinaman Adit, and of erecting a small tramway across Portage Creek near the tunnel entrance. While this work was in progress the writer inspected and sampled all known outcrops in the vicinity with the purpose of determining the continuity, tenor, and geologic structure of the mineralization.

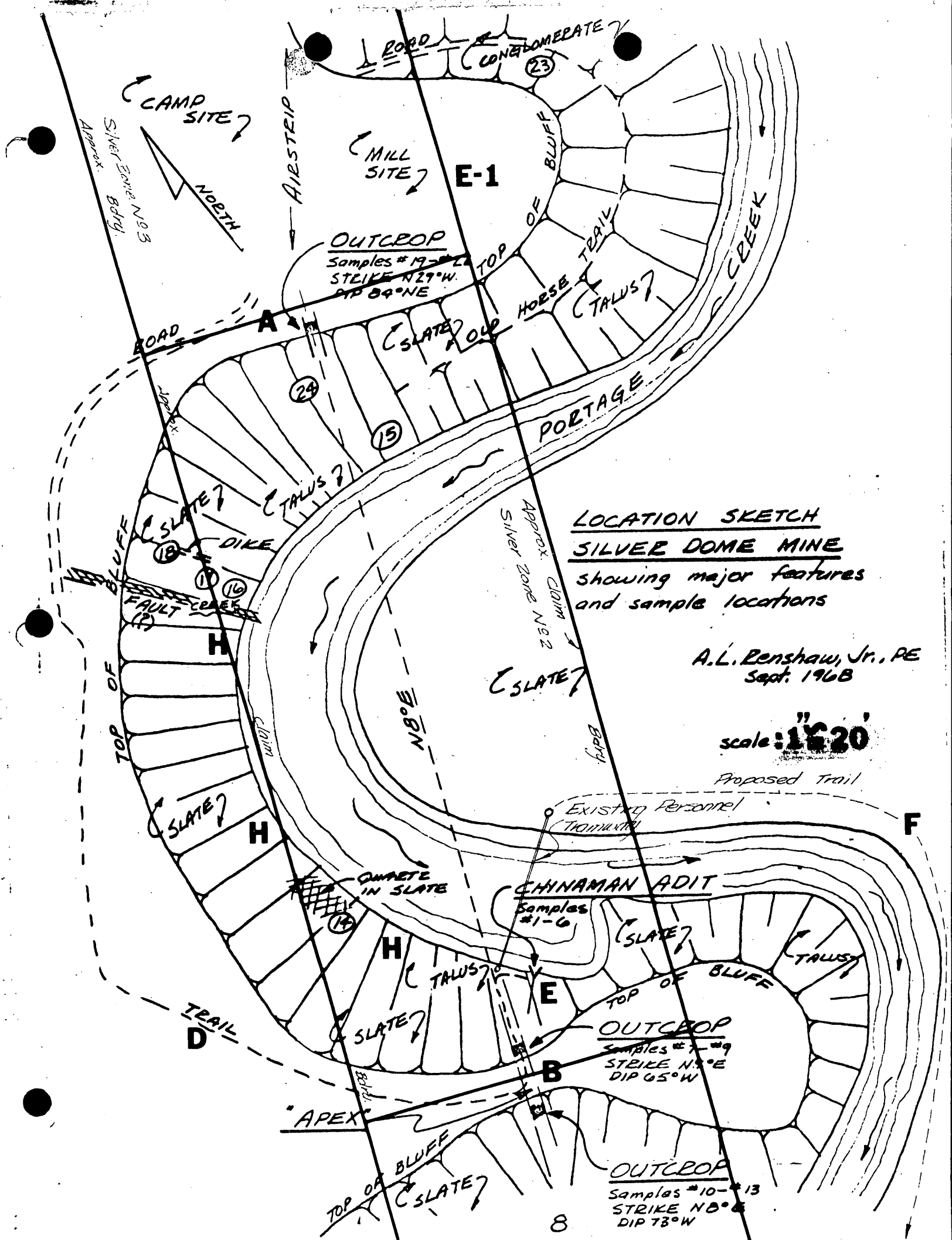


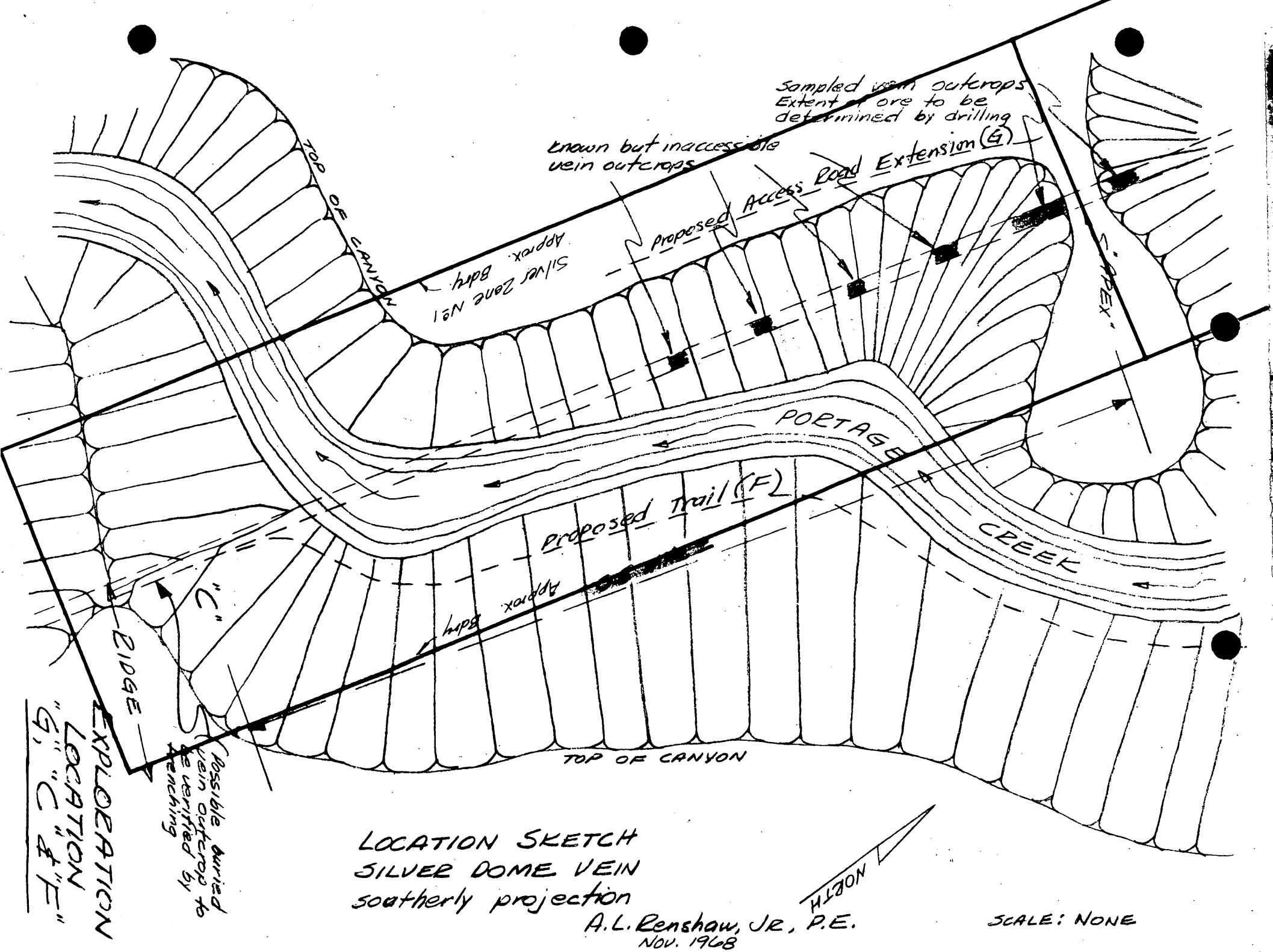
LOCATION ~ SILVER DOME VEIN & CAMP

The country rock consists of steeply inclined black slate, with localized sections of interbedded altered graywacke, grading into a somewhat gneissic conglomerate north and west of the mine camp. The slate in the vicinity of the "Apex" and Chinaman Adit on northward to an apparent fault (see map) has a strike of about N35°E and dips of 40° to 55° SW. Some minor warping and faulting was noted that cause local variations. A primary jointing structure striking S85°E and dipping 85°SW is found to the south of the apparent fault. North of the apparent fault the structure strikes N02°E and dips 45°W; with the primary jointing striking S50°E and dipping 70°NE.

The attitude of the apparent fault could not be recorded due to talus but it would appear to strike WNW with a steep dip. A small stream enters Portage Creek from the west along what is thought to be the fault depression in the canyon wall. It is by no means conclusive that this fault actually exists or that it may represent a displacement to the mineralization; however, the recorded variation in the slate structure and the more contorted appearance of the slate near the suspected location strongly indicate its existence.

What is ordinarily referred to as the "vein" is actually an erratically mineralized zone adjacent to a severely altered apalite ("andesite"[1]) dike. The dike is yellow-white in color and of a sugary texture. Locally it has black powdery lense shaped inclusions an inch or more in thickness and several tens of inches in length parallel to the dike structure. At each location inspected this dike has a consistent strike of N8°-9°E and dips 65°-75°W. Its attitude does not appear to have been controlled by the structural features of the enclosing slate. The width varies along both strike and dip and at the south side of the "Apex" splits with a "horse" of brecciated slate. The observed width varies between 4 and 30 feet.


LOCATION SKETCH
SILVER DOME MINE
showing major features
and sample locations
A.L. Renshaw, Jr., PE
Sept. 1968
scale: 1" = 20'
ROAD
CONGLOMERATE
CAMP SITE
NORTH
Approx. Silver Zone N93 Bdry.
AIRSTRIP
MILL SITE
E-1
TOP OF BLUFF
OUTCROP
Samples #19-#22
STRIKE N27°W.
DIP 84°NE
TRAIL
OLD HORSE
TALUS
CREEK
A
SLATE
PORTAGE
TALUS
SLATE
DIKE
BLUFF
FAULT
CREEK
H
TOP OF BLUFF
Approx. Silver Zone N92 Claim
SLATE
N8°E
Claim
Bdry.
Proposed Trail
Existing Personnel Tramway
F
SLATE
H
QUARTZ IN SLATE
CHINAMAN ADIT
Samples #1-6
SLATE
TALUS
H
TALUS
E
TOP OF BLUFF
TRAIL
D
SLATE
OUTCROP
Samples #7-#9
STRIKE N5°E
DIP 65°W
B
Bdry.
"APEX"
TOP OF BLUFF
SLATE
OUTCROP
Samples #10-#13
STRIKE N8°E
DIP 73°W

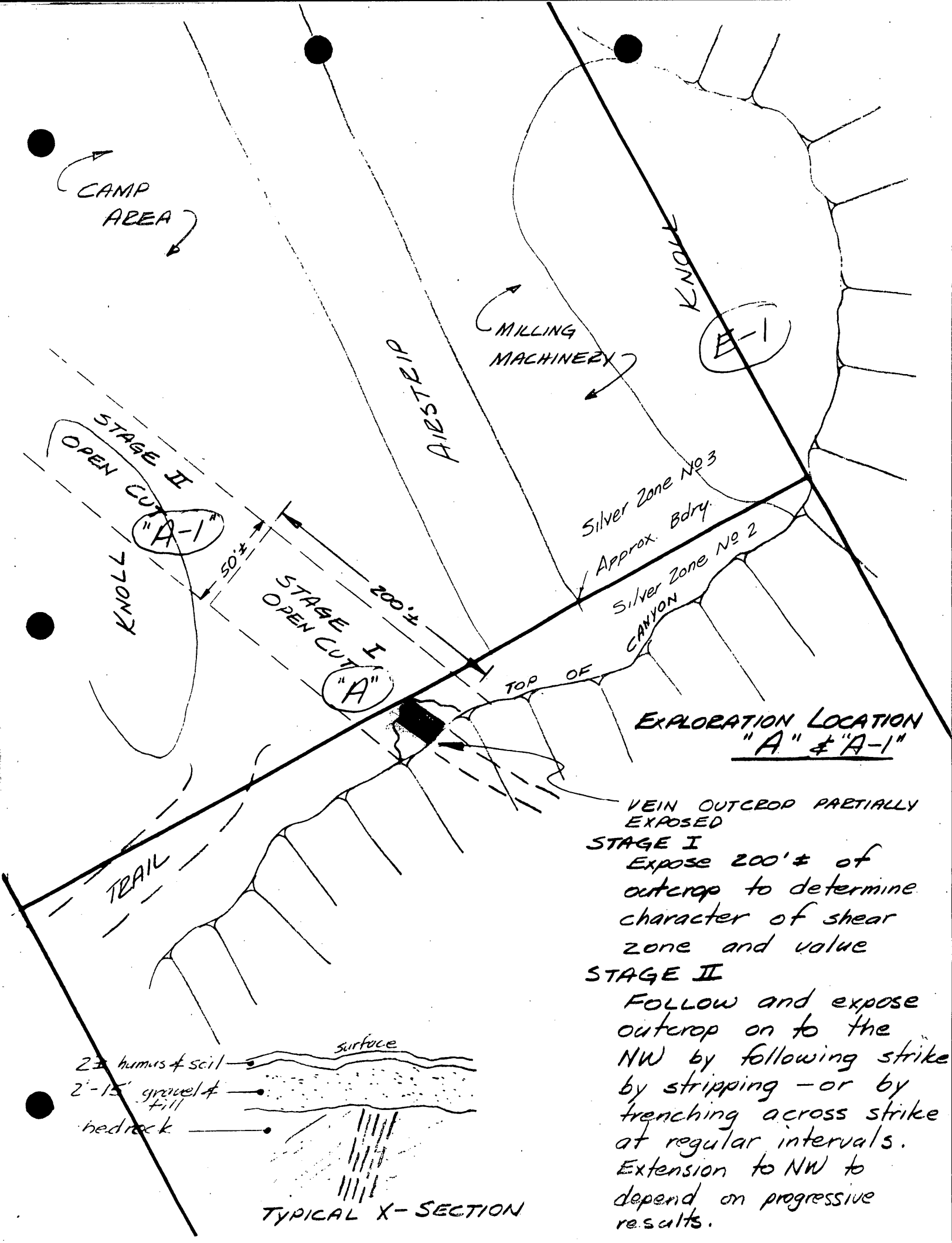


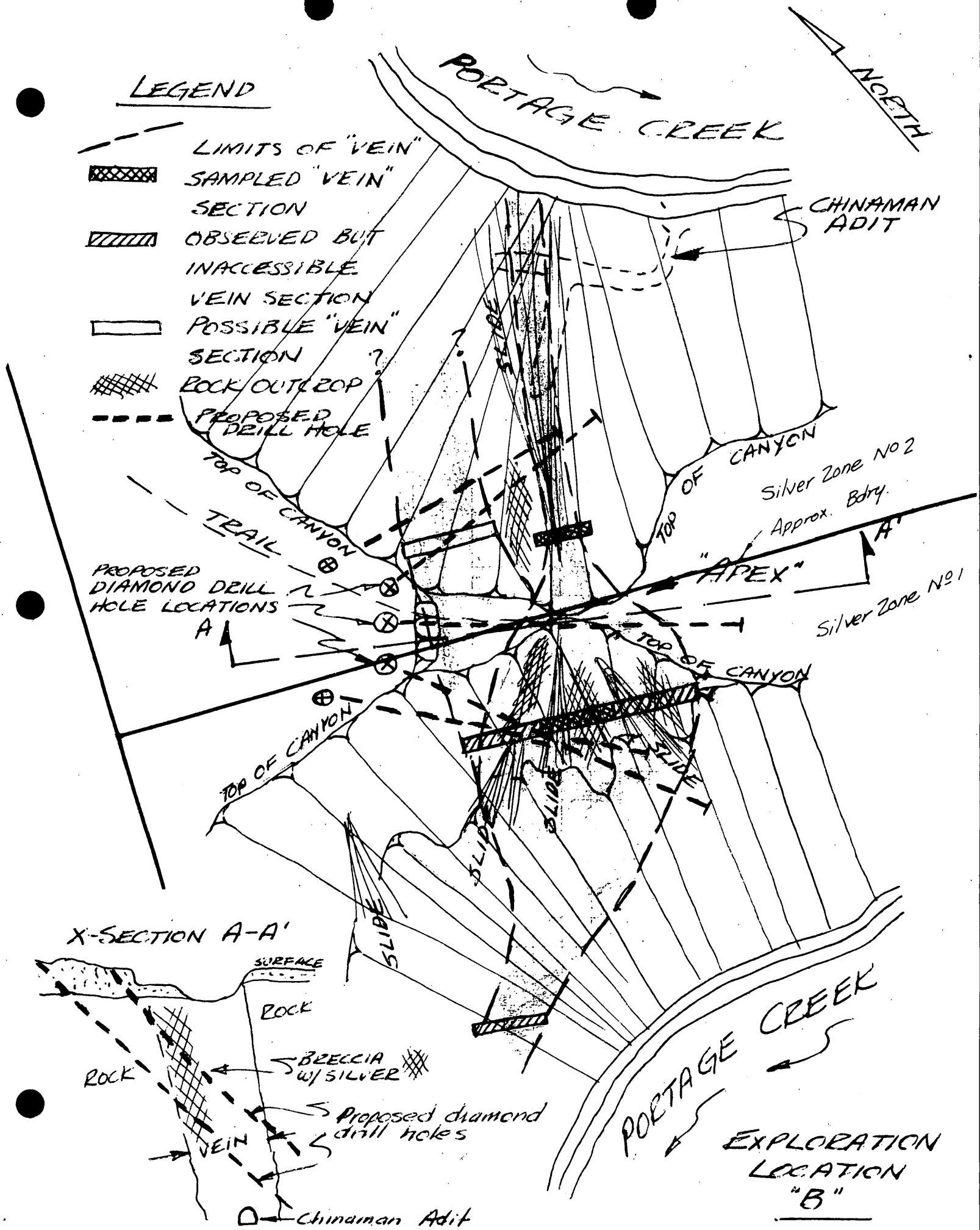
LOCATION SKETCH
SILVER DOME VEIN
southerly projection

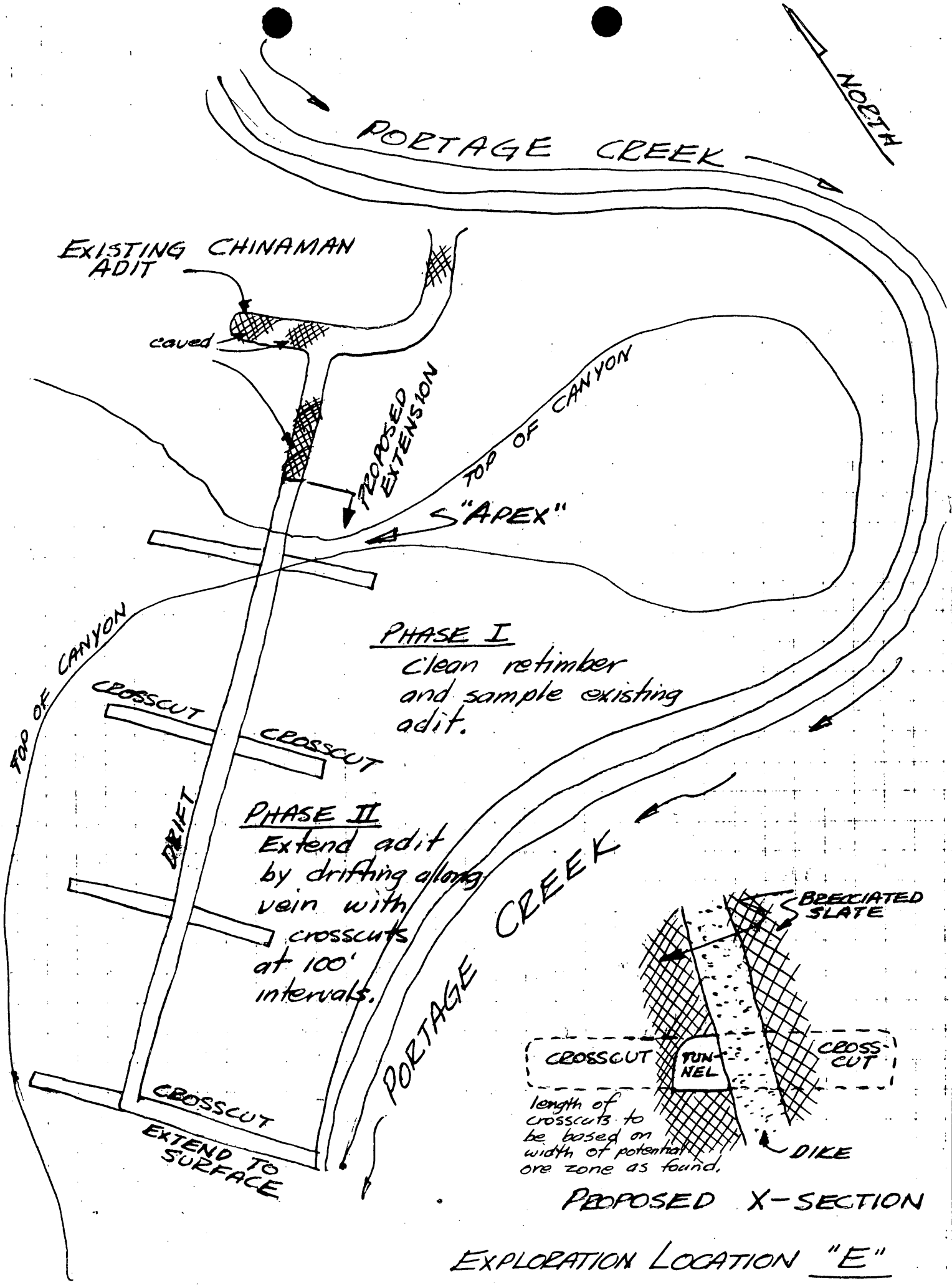
A.L. Renshaw, Jr., P.E.
NOV. 1968

SCALE: NONE

EXPLORATION
LOCATION
"G", "C" & "F"


CAMP AREA
MILLING MACHINERY
AIRSTRIP
KNOLL
"B-1"
STAGE II OPEN CUT
"A-1"
50'±
KNOLL
STAGE I OPEN CUT
"A"
200'±
Silver Zone No 3
Approx. Bdry.
Silver Zone No 2
CANYON
TOP OF
TRAIL
EXPLORATION LOCATION "A" & "A-1"
VEIN OUTCROP PARTIALLY EXPOSED
STAGE I
Expose 200'± of outcrop to determine character of shear zone and value
STAGE II
Follow and expose outcrop on to the NW by following strike by stripping — or by trenching across strike at regular intervals. Extension to NW to depend on progressive results.
surface
2± humus & soil
2'-15' gravel & fill
bedrock
TYPICAL X-SECTION


LEGEND
LIMITS OF "VEIN"
SAMPLED "VEIN" SECTION
OBSERVED BUT INACCESSIBLE VEIN SECTION
POSSIBLE "VEIN" SECTION
ROCK OUTCROP
PROPOSED DRILL HOLE
PORTAGE CREEK
NORTH
CHINAMAN ADIT
TOP OF CANYON
TRAIL
Silver Zone No 2
Approx. Bdry.
"APEX"
A'
A
PROPOSED DIAMOND DRILL HOLE LOCATIONS
Silver Zone No 1
SLIDE
X-SECTION A-A'
SURFACE
ROCK
BRECCIA w/ SILVER
Proposed diamond drill holes
VEIN
Chinaman Adit
EXPLORATION LOCATION "B"



EXPLORATION LOCATION "E"

The dike occupys what must be termed a shear zone. Paralleling the dike at varying distances of up to 15 feet are found a number of narrow slippage planes. On either side of the dike itself, a half foot thickness of gouge is found. Movement along these planes subsequent to the dike emplacement is readily apparent.

The slate country rock adjacent to the dike has been injected with quartz and quartz bearing sulfides (primarily pyrite). The distance away from the dike over which this condition exists is apparently controlled by the slip planes; although a definite decrease in the percentage of quartz comprising the injected rock is found with increasing distance away from the dike. The highest silver values observed and assayed occur in a quartz-slate breccia where the quartz comprised fifty or more percent of the rock. It is significant also that the quartz is drussy and vuggy with significant silver values, but otherwise, compact and solid. Pyrite is abundant with the compact variety but nearly lacking in the silver bearing quartz.

Only four outcrops of the shear zone are available for inspection and sampling. These are at the south side of the "Apex" near its crest, at the north side of the "Apex" near its crest, inside the Chinaman Adit, and at the top of the bluff at the south end of the camp airstrip. Although the airstrip outcrop is on the strike projection of the shear zone, taken from the "Apex", its local orientation and character differ. Rather than the obvious apalite dike the center ~~of~~ the airport outcrop merely exhibits an oxidized zone of slate. At that location its strike was taken as N30°W with a dip of 84°NE. It is somewhat questionable therefore that this is the same "vein" as is found 1500 feet away at the Chinaman Adit. There are no intervening outcrops.

South of the "Apex" the "vein" can be seen outcropping along the west wall of the canyon at progressively lower elevations, but those outcrops are inaccessible. About a half mile downstream the canyon curves to the west and then again south. Opposite this bend a sloping ridge juts out from the east canyon wall. Although heavily covered with vegetation, a depression can be seen extending over this ridge directly in line with a projection of the "vein" strike. Verification of the existence of the vein at that location would not be difficult since the east canyon wall is much less precipitous than the westerly wall, and could easily be negotiated on foot. Portage Creek may be crossed at anytime via the small tramway at the Chinaman Adit.

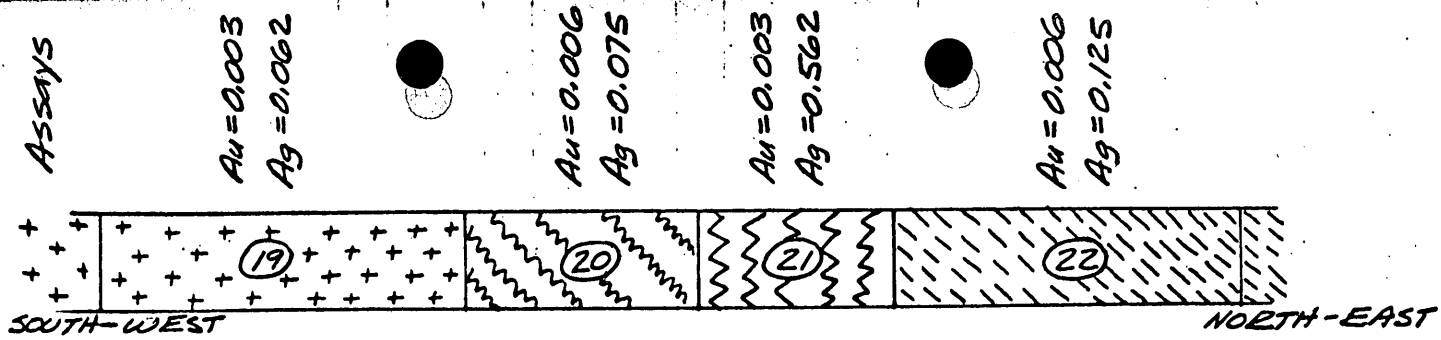
Samples were taken at a number of locations to determine the tenor of ore, if any, and as a possible indication of proximity to ore where outcrops are obscured. Progressing from south to north these samples and their respective assays are as follows (see sketch map, and vein sections):

a. Samples #10-#13 are incremental channel samples across the accessible portions of the outcrop on the south side of the "Apex" and about 40 feet below the summit. With the exception of two increments on the extreme west side, the 22.6 foot wide section sampled assayes less than one ounce silver per ton. The shear zone is about fifty feet wide at this location but portions are inaccessible on either end. Of the two western increments comprising a width of three and a half feet, a 1.4 foot increment assayed 38.93 ounces (this compares with 32.2 ounces from apparently the same location mentioned in reference (1). A 2.0 foot increment contiguous on the west assayed 15.38 ounces and is believed to extend farther west but could not be reached. These represent the only significant values obtained from the entire property.

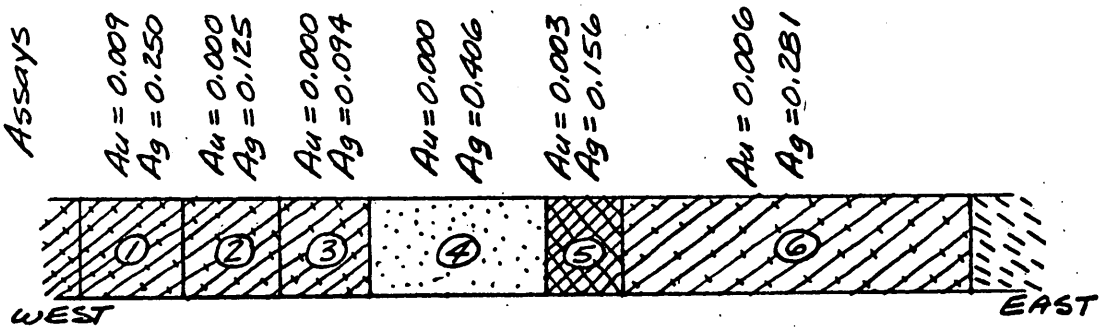
VEIN SECTIONS & ASSAYS

SILVER DOME PROPERTY

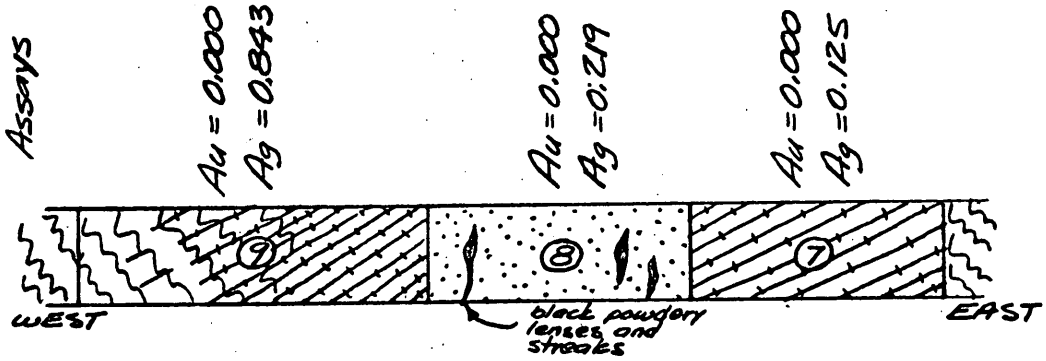
(all assays are in troy ounces per ton)



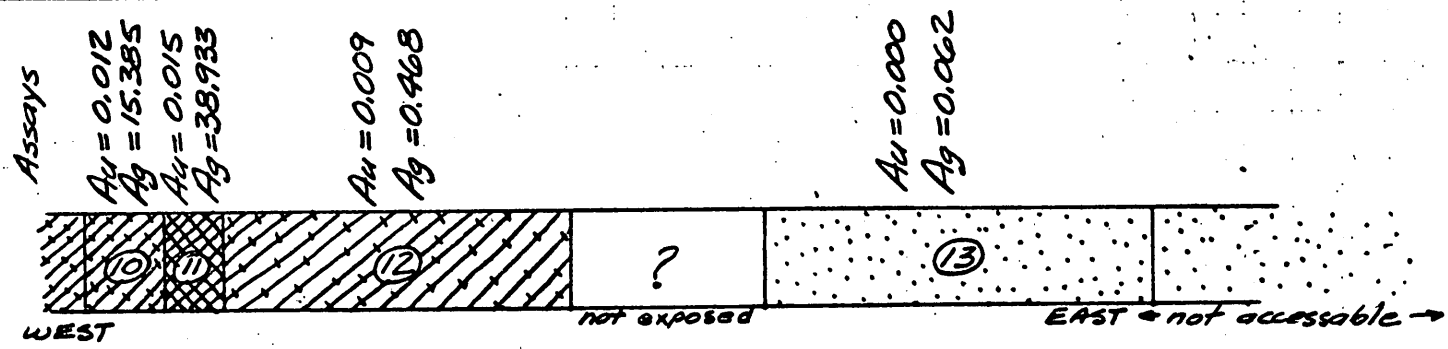
VEIN SECTION AT OUTCROP NEAR CAMP



VEIN SECTION IN CHINAMAN ADIT

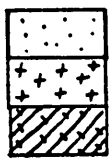


VEIN SECTION AT NORTH SIDE OF "APEX"



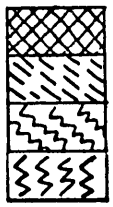
VEIN SECTION AT SOUTH SIDE OF "APEX"

LEGEND



- yellow altered dike material (Aplite)
- dark colored fine grained dike, slug-gray
- quartz injected slate w/ sulfides

(14) – Sample number



- breccia - quartz with slate fragments, sulfides
- limonite stained slate but no quartz
- slate with sulfides but no quartz
- limonite stained zone heavily altered

Scale: 1" = 5'

ALR
10/68

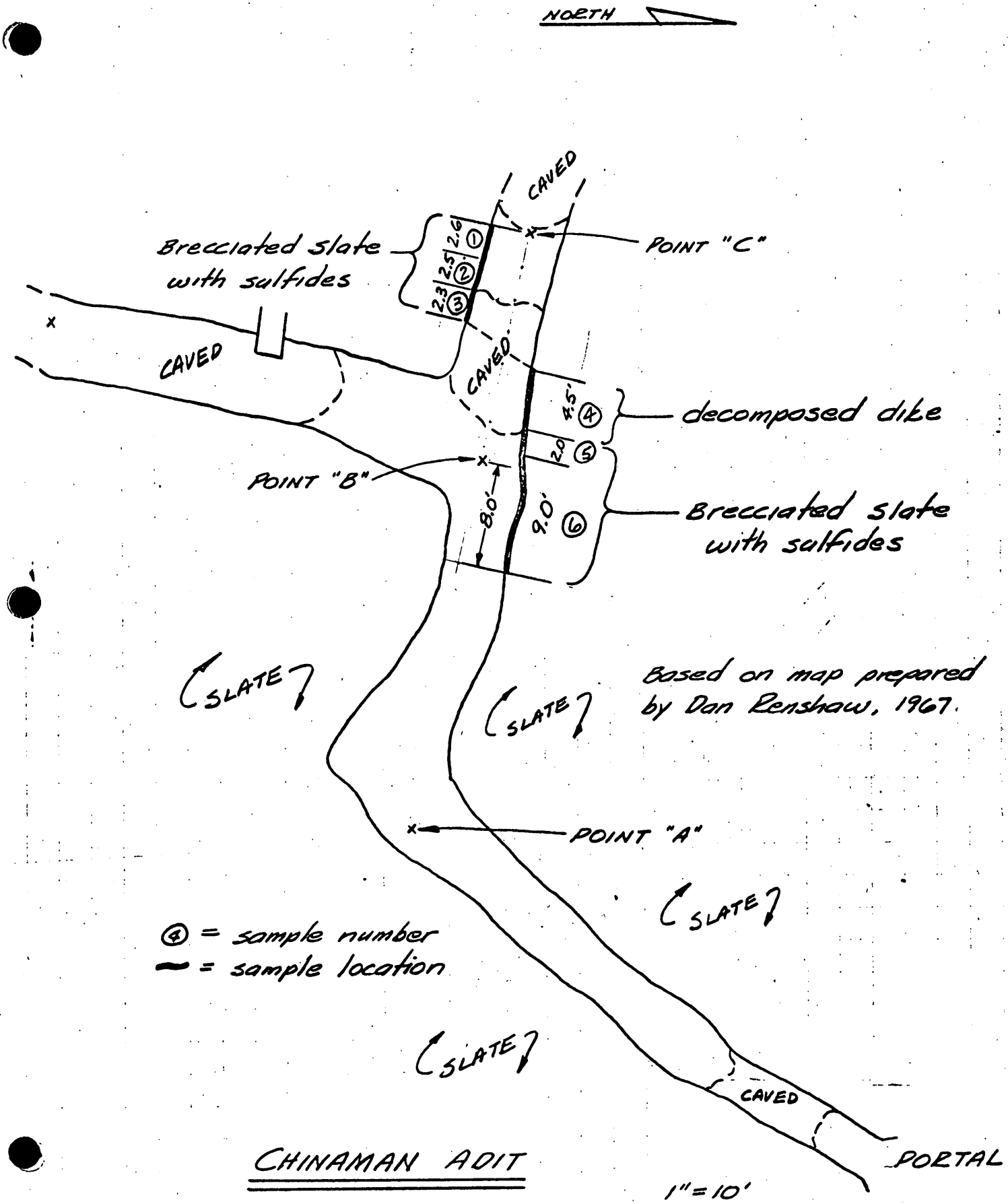
Apparently most samples taken by others in the past have all originated from this single small occurrence of ore. It would not be difficult to take a grab sample from this location that would assay several hundred dollars per ton.

b. Samples #7-#9 are incremental channel samples across the full vein section on the north side of the "Apex" about 40 feet below the summit. At this location the entire section sampled is only 22.5 feet in width. The samples were extended outward until unaltered slate was encountered on either side. All increments sampled assay less than one ounce per ton. The central dike section is much narrower than in the previous section 80 feet to the south (6.8 feet vs. more than 20 feet).

c. Samples #1-#6 are incremental channel samples representing a section of the vein where exposed underground in the Chinaman Adit. The total width of the section is 23.0 feet although sampling would have been carried further to the west had access been possible (tunnel caved full). The width of the central dike has decreased to 4.5 feet. All sample increments assayed less than one ounce per ton.

d. Sample #14 is a grab sample taken from an exposure of slate injected with quartz veinlets and carrying pyrite. It was speculated that the presence of quartz in this outcrop may indicate proximity to the vein which projects as being below the creek bed. The sample assays less than one tenth ounce per ton.

e. Samples #16, #17, and #18 were taken from separate outcrops on the canyon wall. #16 is a grab sample of slate-quartz breccia assaying less than one tenth ounce per ton.



CHINAMAN ADIT

SAMPLE LOCATIONS

1" = 10'

A. L. Renshaw, Jr, P.E.
Sept. 1968

#17 is a grab sample of slate with random quartz veinlets carrying pyrite. It assays about two tenths ounce per ton. Sample #18 is a grab sample of what was initially thought to be an altered dolerite dike. This rock may be altered graywacke with serpentine rather than dolerite but assays less than one tenth ounce per ton of silver. The highest gold assay (0.213 oz or about $7/ton) was obtained from Sample # 18.

f. Sample #15 was a piece of quartz veinlet in slate carrying pyrite taken from talus below the airstrip vein outcrop. It assayed a half an ounce of silver.

g. Sample #24 is a piece of dark greenish gray dike material (altered dolerite or graywacke?) taken from an outcrop below the airstrip vein. It assayed neither gold or silver.

h. Samples #19-#22 are incremental chip samples taken across the "vein" outcrop at the top of the bluff near the south end of the airstrip. The section sampled was 29 feet in width. The northerly end of the section was extended into unaltered black slate, but the southerly end in gray-green dike material (similar to #18 and #24, dolerite or altered graywacke) could not be extended further because of overburden. All incremental sections assayed less than one ounce per ton. As mentioned previously, both the appearance and attitude of the "vein" at this location differ from the previous three exposures. This vein may be nothing more than a pre-mineralization fault. If it is a fault, however, its intersection with the vein would be a possible location of ore. It is possibly such an intersection that the second old tunnel (now obscured) was driven to find.

i. Sample #23 is a grab sample of gneissic conglomerate showing pyrite. It was found to carry neither silver or gold.

CONCLUSIONS

1. It is an unfortunate fact that all of the faith and consequent justification for investment in camp facilities and equipment has been based on a single small occurrence of relatively rich silver ore.

2. All observations and assays to date have only served to indicate that the Silver Dome Mine Property at present contains no ore reserves, either proven or indicated, of economic value.

3. The Chinaman Adit was apparently driven to intersect ore at the lowest possible elevation below the "Apex". When rich ore was not encountered at the portal elevation a raise was driven in an attempt to encounter ore on above. Although some rock from this tunnel may have been shipped to a smelter, it is the writers belief that results were discouraging and the property abandoned. Because of the remoteness of the location and the difficulty of transportation further exploration at the time could not be justified. At the time in the 1920's when work was underway to develop this property, the increase in silver prices as a result of the First World War had peaked and the price was in steady decline from 1923 through 1927. In 1930 the price was still only $0.385 per ounce.[3]

4. The "vein" mineralization is of significant interest because of the strong structure along at least an observed thousand feet, and the possibility of large tonnage stockwork type deposits adjacent to the central apalite dike similar in nature to the single occurrence on the south side of the "Apex". Because of these factors further exploration is justified and should be conducted on a systematic basis.

5. Although the mine camp facilities were built prematurely for ore production, their presence offers an excellent base to conduct further work in the area.

RECOMMENDATIONS

1. No further time, effort, or money should be invested in additions to the camp facilities or equipment inventory until such time as a justifiable volume of ore has been developed.

2. Existing mobile equipment (trucks and dozers) should be repaired and reconditioned for use in exploration or for removal and disposal.

3. A phased exploration program should be adopted based firmly on the precept of progressively decreasing the element of any continuing financial risk. Such an exploration program should be budgeted in advance and successive steps taken only after careful evaluation of the results of each previous step.

4. The corporation should engage an engineer to supervise the exploration work and determine the best use of budgeted exploration funds. Corporation directors or stockholders should not attempt to assist the engineer unless requested by him to do so. He should be given full authority and responsibility for carrying out the approved exploration program. Each step he desires to take in the program should first be reviewed and approved by the directors and proper funding provided. It is only in this way that the funds of the corporation can most effectively be utilized with the hope of recovering previously invested money. However, it must be fully realized by each stockholder in advance that this endeavor is highly speculative at best and that any future return on their investment is doubtful although not necessarily impossible.

REFERENCES

(1) Metalliferous Lode Deposits of Alaska
Geological Survey Bulletin 1246 by Henry C. Berg and Edward H. Cobb
U. S. Government Printing Office, Washington, 1967
Pages 27 and 29

(2) Geology of the Portage Creek-Susitna River Area
Geologic Report 3
Division of Mines and Minerals
State of Alaska
By Donald H. Richter 1963

(3) Mineral Facts and Problems
U. S. Bureau of Mines Bulletin 556
by the Bureau of Mines Staff
U. S. Government Printing Office, 1956
Page 791

(4) Geochemistry in Mineral Exploration
By H. E. Hawkes and J. S. Webb
Harper and Row, Publishers, New York
and Evanston, 1962

See USGS Bull. 783
Mint Mine p. 27

68-310 38 143

MINING CLAIM LOCATION NOTICE

THE NAME OF THE CLAIM IS Silver Zone No 1

THE TYPE OF CLAIM (lode or placer) IS lode

THE NAMES AND MAILING ADDRESSES OF THE LOCATORS ARE:

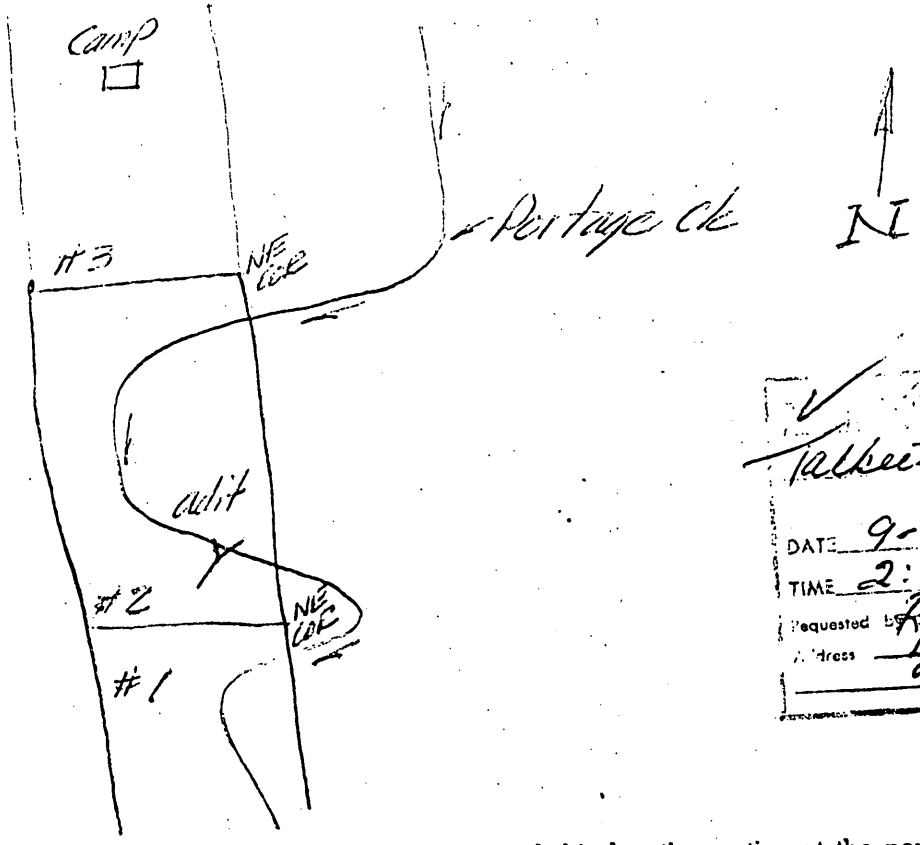
Charles E. Wills and Ray Smith dba Silver Zone Mining Inc. 8021 Brink St. Anchorage

THE DATE OF POSTING THIS NOTICE IS July 22, 1968

THIS CLAIM IS 1500 FEET LONG IN A North-South DIRECTION

AND 600 FEET WIDE IN A east-west DIRECTION.

THIS CLAIM AND ITS RELATION TO ADJACENT CLAIMS ARE SHOWN IN MY SKETCH BELOW.



Talkeetna DIST.
DATE 9-24 1968
TIME 2:30 P.M.
Requested by Ralph Dillaway
Address Box 42163
Anch 99503
Rec 119

I (we) hereby certify that I (we) have on this date posted this location notice at the northeast corner of the said claim, in the Talkeetna Recording District of Alaska, approximately 7000 ft. (miles) in a northerly direction to camp (survey monument, land corner, land mark).

The claim is on west bank of Portage Creek
(Describe the location with respect to a river, stream or tributary; glacier or mountain)

WITNESS (not required)
Dan Renshaw

SIGNED
Charles E. Wills
Raymond A. Smith

68-311 38 144

MINING CLAIM LOCATION NOTICE

THE NAME OF THE CLAIM IS Silver Zone No 2

THE TYPE OF CLAIM (lode or placer) IS lode

THE NAMES AND MAILING ADDRESSES OF THE LOCATORS ARE:

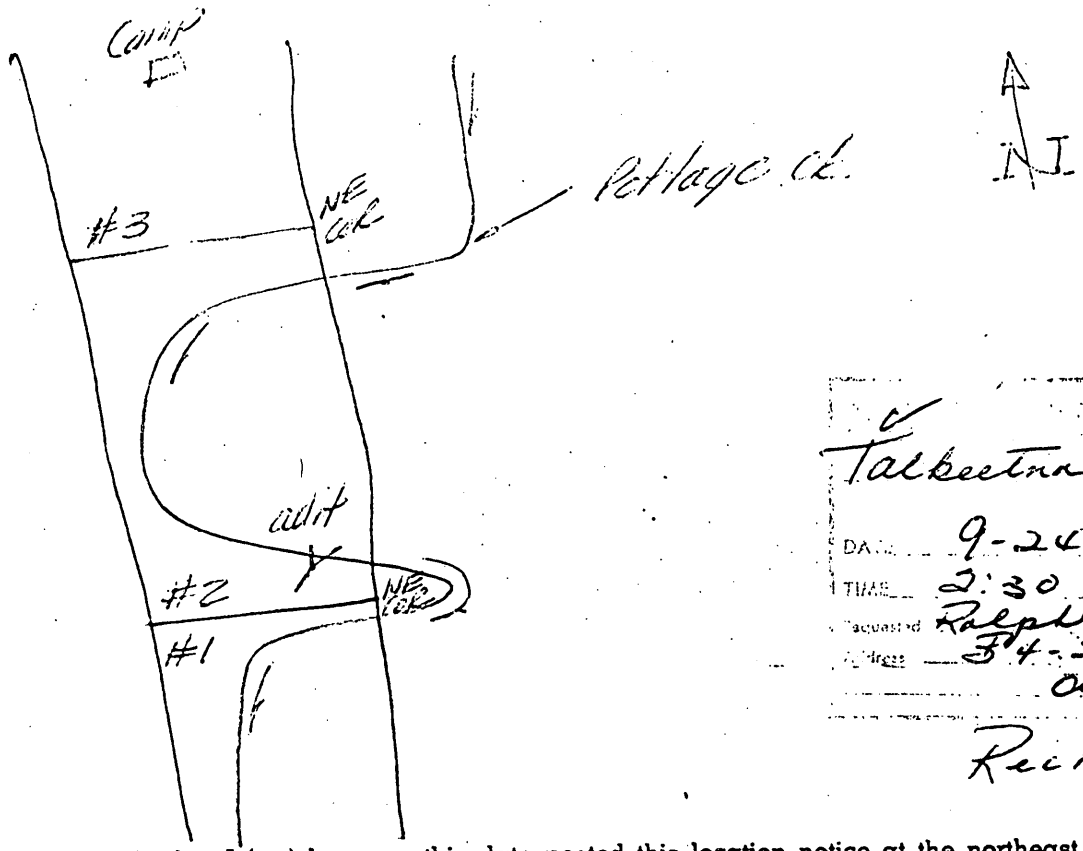
Charles E. Wells and Ray Smith for Silver Zone Mining Inc. 2021 Park St. Anchorage

THE DATE OF POSTING THIS NOTICE IS July 27, 1968

THIS CLAIM IS 1500 FEET LONG IN A north-south DIRECTION

AND 600 FEET WIDE IN A east-west DIRECTION.

THIS CLAIM AND ITS RELATION TO ADJACENT CLAIMS ARE SHOWN IN MY SKETCH BELOW.



Talkeetna
DATE 9-24 68
TIME 2:30 P.M.
Requested Ralph Hulleny
Address 344-2163
Ann D
9-30-3
Rec'd

I (we) hereby certify that I (we) have on this date posted this location notice at the northeast corner of the said claim, in the Talkeetna Recording District of Alaska, approximately 500 ft. (~~miles~~) in a northerly direction to camp (survey monument, land corner, land mark).

The claim is on West bank Portage Creek
(Describe the location with respect to a river, stream or tributary; glacier or mountain)

WITNESS (not required)
Don Kerstiaen

SIGNED
Charles E. Wells
Raymond A. Smith

TALKEETNA 68-312

Serial No.

MINING CLAIM LOCATION NOTICE

BOOK 38 PAGE 145

Talkeetna Recording District

THE NAME OF THE CLAIM IS Silver Lane No 3

THE TYPE OF CLAIM (lode or placer) IS lode

THE NAMES AND MAILING ADDRESSES OF THE LOCATORS ARE:

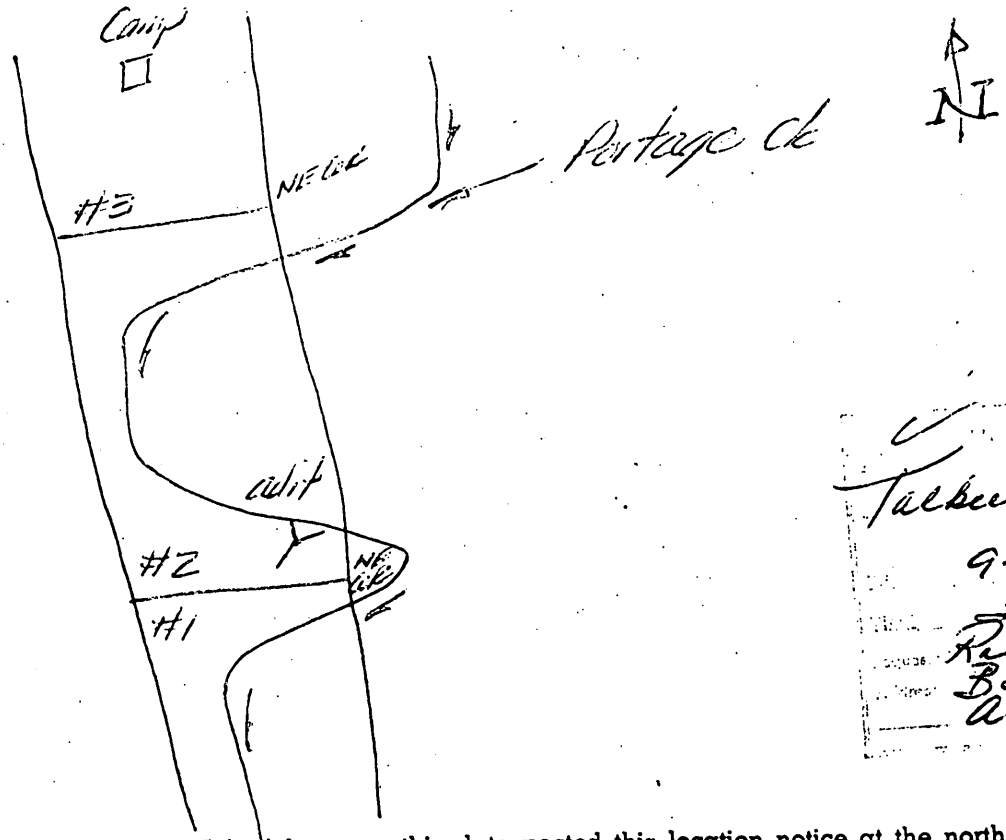
Charles E. Wille and Ray Smith for Silver Dome Mining Inc. Box Anchorage

THE DATE OF POSTING THIS NOTICE IS July 27, 1968

THIS CLAIM IS 1500 FEET LONG IN A north-south DIRECTION

AND 600 FEET WIDE IN A east-west DIRECTION.

THIS CLAIM AND ITS RELATION TO ADJACENT CLAIMS ARE SHOWN IN MY SKETCH BELOW.



Talkeetna
9-24 68
2:30 P
Ralph Hellman
Box 4-2163
Anch 99503
Rec 119

I (we) hereby certify that I (we) have on this date posted this location notice at the northeast corner of the said claim, in the Talkeetna Recording District of Alaska, approximately 1000 ft. (miles) in a southerly direction to camp (survey monument, land corner, land mark).

The claim is on west side Portage Creek
(Describe the location with respect to a river, stream or tributary; glacier or mountain)

WITNESS (not required)
Dan Renshaw

SIGNED
Charles E Wille
Raymond A. Smith

36 - 299

67-300

Affidavit of Annual Labor

UNITED STATES OF AMERICA,
STATE OF ALASKA, } ss.

ALFORD R. WATKINS being first duly sworn on his oath
Print name of person who did the work

deposes and says:

1. I am well acquainted with LODE claim(s) known as BDM # 5-60
Placer or lode — Name of claim

on Portage creek, a tributary to Susitna river in the Talkneetna
Name of stream, mountain, etc.

Mining District and Talkneetna Recording Precinct, Alaska, and I know that

Silver Dome Mining, Inc is the owner of said claim(s). The claim(s) lies
Print name of claim owner

10 miles east of Chulitna, Alaska (mile 274 ARR)
Describe location of claim with reference to a well known or easily found landmark or land survey

2. That I performed 120 days of work and labor for said claim doing
Upon or for

road construction, stripping and sampling
Describe actual work accomplished, amounts done, and time spent on each item.

; such work and labor is reasonably worth

the sum of $10,000; and the work was done at Claim 5-12
Actual location of work on or with reference to claim

3. Said work and labor was performed by me between the 1st day of
Sept, 19 66, and 1st day of Sept,
19 67, or upon the following days

4. Said work and labor was performed by me at the instance and request of said
Silver Dome Mining, Inc, owner of said claim, who did actually pay me
the sum of $ for said work and labor.

5. Said work and labor was done for and as assessment work for the benefit of said
claim for the assessment year ending at noon on the first day of Sept, 19 67.

SILVER DOME MINING, INC

Talkeetna

Alfred R Watkins
ALFORD R. WATKINS, President, Director, Treasurer, Director, the Voice Inc.

Subscribed and sworn to before me this 7th day of Oct, 19 67

Notary Public in and for Alaska

(Notarial Seal) BOX 325
Talkeetna, Alaska 99681
Commission expires

Rec 116569

Note: The affidavit may be sworn to before the local postmaster.

146

68-313

Affidavit of Assessment Labor

UNITED STATES OF AMERICA,
STATE OF ALASKA, } ss.

Ralph R. Hilleary (Print name of person who did the work) being first duly sworn on his oath deposes and says:

1. I am well acquainted with lode (Placer or lode) claim(s) known as Tie in Tunnel Site, Cheechako-Moose 1-31 (Name of claim) on Portage Creek (Name of stream, mountain, etc.), a tributary to Susitna River in the Talkeetna Mining District and Talkeetna Recording Precinct, Alaska, and I know that Silver Dome Mining, Inc. (Print name of claim owner) is the owner of said claim(s). The claim(s) lies Nine miles East of Chulitna, Alaska (Mile 274 ARR) (Describe location of claim with reference to a well known or easily found landmark or land survey)

2. That I performed 60 days of work and labor upon & for (Upon or for) said claim doing Road construction, stripping and sampling, airstrip construction, geologic mapping, mill construction and claim boundary maintenance (Describe actual work accomplished, amounts done, and time spent on each item.); such work and labor is reasonably worth the sum of $7,500.00; and the work was done at on claims 1 - 3 (Actual location of work on or with reference to claim)

3. Said work and labor was performed by me between the 1st day of September, 1967, and 31st day of August, 1968, or upon the following days.

4. Said work and labor was performed by me at the instance and request of said Silver Dome Mining, Inc., owner of said claim, who did actually pay me the sum of $1,500.00 for said work and labor.

5. Said work and labor was done for and as assessment work for the benefit of said claim for the assessment year ending at noon on the first day of September, 1968.

Talkeetna 9-24-68

SILVER DOME MINING, INC.
Ralph R. Hilleary (Signature of person who did the work)
Ralph R. Hilleary, Secretary

Subscribed and sworn to before me this 24 day of Sept, 1968

Ralph Hilleary
Exp 4-2-63
Anchorage
Alaska 99503
Tel. 279-1909

Notary Public in and for Alaska.
My commission expires 9-20-70

(Notarial Seal)

NOTE: The affidavit may be sworn to before the local postmaster.

67-218 36 297

Affidavit of Assessment Work

UNITED STATES OF AMERICA,
STATE OF ALASKA, } ss.

WILFORD P WATKINS (Print name of person who did the work) being first duly sworn on his oath deposes and says:

1. I am well acquainted with lode (Placer or lode) claim(s) known as Cheechako-Moose 1-31 (Name of claim) on Portage Creek (Name of stream, mountain, etc.), a tributary to Susitna River in the Talkneeta Mining District and Talkneetna Recording Precinct, Alaska, and I know that Silver Dome Mining, Inc (Print name of claim owner) is the owner of said claim(s). The claim(s) lies nine miles south of Chulitna, Alaska (mile 274, ARR)
(Describe location of claim with reference to a well known or easily found landmark or land survey)

2. That I performed 190 days of work and labor for (Upon or for) said claim doing road building, open cuts, bunk house construction, mill installation
(Describe actual work accomplished, amounts done, and time spent on each item.)
Using a crew of from 6 - 12 men.

; such work and labor is reasonably worth the sum of $ 20,000- ; and the work was done at on claims 1-7
(Actual location of work on or with reference to claim)

3. Said work and labor was performed by me between the 1st day of Sept, 19 66, and 1st, day of Sept, 19 67, or upon the following days

4. Said work and labor was performed by me at the instance and request of said Silver Dome Mining, Inc, owner of said claim, who did actually pay me the sum of $ for said work and labor.

5. Said work and labor was done for and as assessment work for the benefit of said claim for the assessment year ending at noon on the first day of Sept, 19 67.

SILVER DOME MINING, INC
Wilford P. Watkins
(Signature of person who did the work)
WILFORD P. WATKINS, Vice Pres

3 blank

RECORDED - FILED
Talkeetna REC. DIST.
10-3 67
TIME
Recorded by Wilfred P Watkins
Address Box 88 Chelsea Mine
Box 88 S
Lincoln 99501
Rec # 116 869

Subscribed and sworn to before me this 3 day of Oct, 19 67

Dorothy L Lofstrom
Notary Public in and for Alaska.
My commission expires 9-20-70

(Notarial Seal)

Note: The affidavit may be sworn to before the local postmaster.

This blank is guaranteed against successful alteration, which guaranty is insured in LLOYD'S, London - PAT. PEND.
Washington Blank Co., Seattle Form No. 1016 Printing Date 3-17-1965

16-329

BOOK 35 PAGE 129

Affidavit of Assessment Work

UNITED STATES OF AMERICA,
STATE OF ALASKA, } SS.

[illegible] Mining Inc being first duly sworn on his oath
(Print name of person who did the work)

deposes and says:

1. I am well acquainted with 31 LODE claim(s) known as CHUCHACH MASE (Placer or lode) (Name of claim)

on PORTAGE CREEK, a tributary to [illegible] in the TALKEETNA (Name of stream, mountain, etc.)

Mining District and TALKEETNA Recording Precinct, Alaska, and I know that SILVER DOME MINING INC is the owner of said claim(s). The claim(s) lies (Print name of claim owner)

East of G.N.R. TRACK AT CHULITNA AND ABOUT FOURTEEN MILES TO PORTAGE CREEK WHERE CLAIMS ARE LOCATED
(Describe location of claim with reference to a well known or easily found landmark or land survey)

2. That I performed 4 Months days of work and labor (Upon or for) said claim doing

Built a Road For 11 Miles and Mine Cook House, Hauled Ore, Mill Needed on Land Equipment Necessary to Operate Mine Etc.
(Describe actual work accomplished, amounts done, and time spent on each item.)

; such work and labor is reasonably worth the sum of $32,000.00; and the work was done at On and off Claims
(Actual location of work on or with reference to claim)

3. Said work and labor was performed by me between the 15th day of May, 19 66, and 1st day of Sept, 19 66, or upon the following days

4. Said work and labor was performed by me at the instance and request of said , owner of said claim, who did actually pay me the sum of $ for said work and labor.

5. Said work and labor was done for and as assessment work for the benefit of said claim for the assessment year ending at noon on the first day of Sept 1, 19 66.

[illegible]

Subscribed and sworn to before me this [illegible] day of [illegible] 19[illegible]

Reference to recordation of location notices and proofs of labor not copied herein. All recordings made at Palmer, Alaska, recording office for the Talkeetna Recording District.

Location Notices:

Date	By	Claim Name	Book	Page
28 June '47	G. George T. Mely J. George C. Logan C. Bates S. Klein	Cheechako-Moose Silverdome #1	15	215
7 Aug. '62	T. Mely W. Watkins	Cheechako-Moose #7 to #30 ind.	27	267- 290

Proof of Labor

Date	By	Claim Name	Book	Page
28 June '49	T. Mely	Cheechako-Moose #1 - #6 incl.	19	14
22 July '54	T. Mely	Cheechako-Moose #1 - #6 incl.	20	87
12 July '58	T. Mely	Cheechako-Moose #1 - #6 incl. Cheechako Silver Dome #1	23	84
2 Oct. '58	T. Mely	Cheechako-Moose #1 - #6 incl. Cheechako Silver Dome #1	24	25
1 July '60	T. Mely W. Watkins	Cheechako-Moose #1 - #6 incl. Cheechako Silver Dome #1	27	96
29 Nov. '63	T. Mely W. Watkins	Cheechako-Moose #1 - #30 incl. Cheechako Silver Dome #1	29	375

Date	By	Claim Name	Book	Page
19 Nov. '64	T. Mely W. Watkins	Cheechako-Moose #1 -#30 incl. Cheechako Silver Dome #1	31	290
5 April '66	T. Mely W. Watkins	Cheechako-Moose #1 -#30 incl.	34	82
3 Oct. '67	W. Watkins for Silver Dome Mining	Cheechako-Moose #1 -#31 incl.	36	297
24 Sept. '68	R. Hilleary for Silver Dome Mining	Cheechako-Moose #1 - #31 Incl.	38	146

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/16/69	Peterson	120
	(on leave)	120
	Emerick	120E
5/22	Kirksgaard	
5/22	Hyppa	
		220
		[illegible]

AIRMAIL

MAY 2 2 1969

Silver Dome Mining, Inc.
P. O. Box 4-2163
Anchorage, Alaska 99501

Re: OME-6766 (Silver-Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et al., Claims
Talkeetna Recording District, Alaska

Gentlemen:

A careful study of your application for financial assistance to explore the subject property and of other information available to us indicates that the probability of disclosing significant ore reserves on the property is not sufficiently promising to justify Government participation in the proposed exploration. Accordingly, we regret to inform you that your application for assistance is denied.

We wish to thank you for your interest in the minerals exploration program and for bringing your property to our attention.

Sincerely yours,

William L. Emerick

W. L. Emerick
For: Harold Kirkemo, Chief
Office of Minerals Exploration

cc: Director's Reading File
Economic Geology File
~~OME~~ Docket
OME Reading File
Region II
Mr. Peterson

ECPeterson/bsl 5/16/69

MME Form 7
(2/63)

OFFICIAL FILE COPY

Date	Surname	Code
5/20/69		120
	(on leave)	120
		120
		220

May 20, 1969

Memorandum

To: The File

From: Edward C. Peterson

Subject: OME-6766 (Silver-Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et al., Claims
Talkeetna Recording District, Alaska

Justification For Denial of Application

The Applicant proposes to explore the property with a two-stage project consisting of trenching, diamond drilling, underground drifting and crosscutting at a total estimated cost of $86,888.00.

A careful study and review of the available reports on the potential deposit indicate that the probable size and grade do not justify Government participation in an exploration project.

Sample and assay data submitted by the Applicant indicate that mineralization is erratic and low grade. There is no recorded production from the property, and no evidence to indicate the presence of minable silver-bearing ore bodies.

Under these circumstances, I concur with the OME Field Officer and recommend that the application be denied.

Edward C. Peterson

Edward C. Peterson

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Peterson

ECPeterson/bsl 5/20/69

UNITED STATES
DEPARTMENT OF THE INTERIOR

GEOLOGICAL SURVEY
Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California 94025

May 13, 1969

OFFICIAL COPY
O. M. E.
RECEIVED
MAY 15 1969

INITIALS	CODE
	30
	20
	20
	120

Memorandum

To: Chief, Office of Minerals Exploration
Washington, D. C.

From: Field Officer
Region II

Subject: OME 6766 (Silver-Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et al., Claims
Talkeetna Recording Precinct, Alaska

Enclosed is an Application Report on the subject property and a memorandum from D. H. Richter, Alaskan Geology Branch. Although Richter states that he believes a modest exploration program may be justified, I do not feel that the exposures described by A. L. Renshaw, and the width and grade of the samples listed, indicate the probable presence of a significant silver-bearing ore body. I recommend that the application be denied.

H. K. Stager

Enclosures

UNITED STATES

DEPARTMENT OF THE INTERIOR

WALTER J. HICKEL, SECRETARY

GEOLOGICAL SURVEY

OFFICE OF MINERALS EXPLORATION

REPORT OF EXAMINATION

REGION II

On-Site Exam Report

APPLICATION REPORT

OME-6766 (Silver-Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et al., Claims
Talkeetna Recording Precinct, Alaska

By

H. K. Stager
Field Officer
OME, Region II

May 13, 1969

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ILLUSTRATIONS

Figure 1. Index map of Alaska.

INTRODUCTION

Silver Dome Mining, Inc., 8021 Brink Court, Anchorage, Alaska 99504, applied to the Office of Minerals Exploration for Government assistance in an exploration project, Docket OME-6766, to explore for silver at the Silver Dome Mine (formerly known as the Mint Mine), Talkeetna Mining District, Talkeetna Recording Precinct, Alaska. The Applicant infers the presence of minable silver-bearing ore shoots, in brecciated slate along a steeply dipping shear zone, and wishes to explore the deposit by diamond drilling from surface sites and by other surface and underground work.

A review, and a field examination if warranted, was requested by the Office of Minerals Exploration. The docket was referred, by the Field Officer, to Mr. Donald H. Richter, geologist with the Branch of Alaskan Geology in Anchorage, Alaska. Mr. Richter discussed the application with Mr. Dan Renshaw and Mr. A. L. Renshaw, both consulting mining engineers retained by the Applicant, and wrote a memorandum containing his findings and recommendations. A copy of Mr. Richter's memorandum is attached to this report together with a copy of U.S.G.S. Bulletin 783, by Philip S. Smith and Others, that describes the geology of the subject deposit.

SUMMARY

The Silver Dome Mine contains a small silver-bearing ore shoot in a shear zone along a dike in metamorphic rocks of probable Mesozoic age. There has been no recorded production from the deposit or the surrounding area. The Applicant proposed to explore the deposit by surface and underground work at an estimated cost of about $87,000. A study and review of the available reports on the deposit indicate that the probable size and grade do not justify Government participation in an exploration project.

RECOMMENDATIONS

It is recommended that the application for financial assistance in an exploration project at the Silver Dome Mine be denied on the basis that the geologic probability of discovering minable silver-bearing ore reserves of significant tonnage and grade is too low to justify Government participation.

LOCATION, ACCESSIBILITY, AND LOCAL FACILITIES

The Silver Dome Mine is on Portage Creek, about 3 miles north of the confluence of Portage Creek and the Susitna River, in the Talkeetna Mountains at an altitude of about 1,100 feet.

To reach the property, that is about 150 miles north of Anchorage (the closest major town), take the Alaska Railroad north to Chulitna (Mile 273.8 from Seward), then drive east on a poor Jeep trail or sled road about 10 miles to the property. Access is also possible by airplane to a camp airstrip about 1 mile from the mine.

Mail, telephone, and railroad service is available at Chulitna, a station and siding on the Alaska Railroad. Labor, mining equipment, materials, and supplies are available in Anchorage. Timber and water are available on the property. Assaying service is available in Anchorage.

PROPERTY

History and Production

The deposit was discovered in July 1922 by Arthur Moose Johnson. Exploration and development work was undertaken by Johnson, and his partner Harry A. Wertz, in 1924. No production is reported and if any ore was shipped the quantity was small. Except for occasional relocation

and assessment work, nothing was done at the property until 1967 when the Applicant obtained control, erected several buildings, cleared two small airstrips, and started construction of a mill. Little exploration or development work has been done.

Ownership

The Applicant is the owner of the three unpatented lode mining claims, known as the Silver Zone Nos. 1, 2, and 3, that are recorded at Palmer, Alaska, in Book 38, pages 143-145. Copies of location notices for these claims were attached to the application and the Applicant later furnished a map of the claims.

Financial Eligibility

The Applicant furnished copies of letters to two banks requesting loans for the proposed work and also copies of letters denying the loans. The Applicant proposed to furnish its share of the exploration costs by use of equipment and facilities, labor of corporation stockholder, and cash to be raised by sale of stock in the corporation.

Development

The property is developed by the "Chinaman Adit," with about 150 feet of drifts and crosscuts, several shallow prospect pits, and several trenches. The underground workings are partly caved and inaccessible. Surface facilities consist of several small buildings, a personnel tramway across Portage Creek, two airstrips, and an unspecified amount of milling machinery, trucks, and bulldozers.

GEOLOGY

Geologic Setting

The Silver Dome Mine is in an area of sharp relief on a narrow neck of a U-shaped bend of Portage Creek. Rocks in the mine area are a dark-gray to black slate of probable Mesozoic age intruded by a dike of andesite or aplite, also of probable Mesozoic age.

The slate strikes about N. 35° E. and dips 40° to 55° NW.; locally contains thin interbeds of altered graywacke; and grades into a gneissic conglomerate to the northwest of the mine area. The dike rocks are intensely altered; are yellowish white in color; and have a sugary texture with small black powdery lens-shaped inclusions a few inches in thickness and about a foot in length parallel to the walls. The dike is from 4 feet to 30 feet in width, strikes about N. 8° E., dips 65°-75° W., and is bounded on both sides by a gouge zone about 6 inches in thickness. The slate wall rocks are fractured and contain abundant quartz seams localized along shear planes parallel to the dike walls. The silver-bearing minerals are most abundant near the dike and decrease outward into the brecciated wall rocks.

Ore Deposits

The silver-bearing deposit at the Silver Dome Mine occurs in a highly sheared fault zone that strikes about N. 10° E. and dips about 70° W. The width of the zone ranges from about 4 feet to 30 feet. Apparently no ore has been mined from the deposit, no ore is exposed by underground workings, and only one small surface exposure contains ore grade material.

Ore minerals are pyrargyrite, miargyrite, arsenopyrite, chalcopyrite, galena, and tennantite(?). Gangue minerals, in addition to quartz, are pyrite and fragments of the altered slate wall rock. The best material occurs in quartz-slate breccia, with quartz comprising more than 50 percent of the rock.

A picked sample of the highest grade ore assayed 117.9 ounces of silver per ton but samples across 3.4 feet of ore at the same point averaged only about 22 ounces of silver per ton. The ore is not persistent along the strike and does not extend to the adit level.

Sampling

The application includes a location map and descriptions of 24 samples taken by the consulting engineer. Of these samples six were from exposures in the Chinaman adit and contained only a trace of gold and less than 0.5 ounce of silver per ton. The remaining 18 samples were from surface exposures in the mineralized areas and 16 contained less than one ounce of silver per ton and a trace of gold. Only two samples contained significant amounts of silver. A sample 1.4 feet in width assayed 38.93 ounces of silver per ton and an adjacent sample 2.0 feet in width assayed 15.38 ounces of silver per ton, yielding a total width of 3.4 feet with an average grade of 22.1 ounces of silver per ton. These were stated to be the only significant values obtained from the entire property and apparently most samples taken by others in the past all originated from this single small occurrence of ore.

Ore Reserves

The Applicant stated that there are no known ore reserves and none were estimated. Mr. Richter in his memorandum states that the ore zone is

restricted to a zone about 30 to 50 feet in thickness, 250 feet in dip length, and from 60 feet in length at the surface to 400 feet in length at the "Chinaman" adit level. Assuming an average thickness of 5 feet of ore throughout this zone, the deposit may contain about 15,000 tons of ore with a potential value of about $600,000. He also points out that even this very optimistic figure may be too unprofitable to mine under the present economic conditions in Alaska. The average grade and thickness, of mineralized material sampled, do not justify a reserve estimate of this size.

EXPLORATION

The Applicant proposed a two-stage project consisting of trenching, diamond drilling, underground drifting and crosscutting at an estimated total cost of $86,888 and requiring about 4 months to complete.

A modification of this program to a single stage project consisting of 2,000 feet of tractor trail, 1,500 feet of diamond drilling in 6 holes, sample analyses, and technical supervision, was tentatively proposed by Mr. Richter after his review of the application. Such a project would probably cost about $35,000 and require about 3 months to complete.

The 6 holes proposed by Mr. Richter would only test a target area about 100 feet in strike length and 150 feet in dip length between the Chinaman adit level and the surface. Mineralization is too erratic and the target area is too small to justify the expense of the project. The probability of discovering minable ore reserves is too low to justify Government participation. There is no evidence to indicate the presence of minable silver-bearing ore shoots down dip or elsewhere on the property.

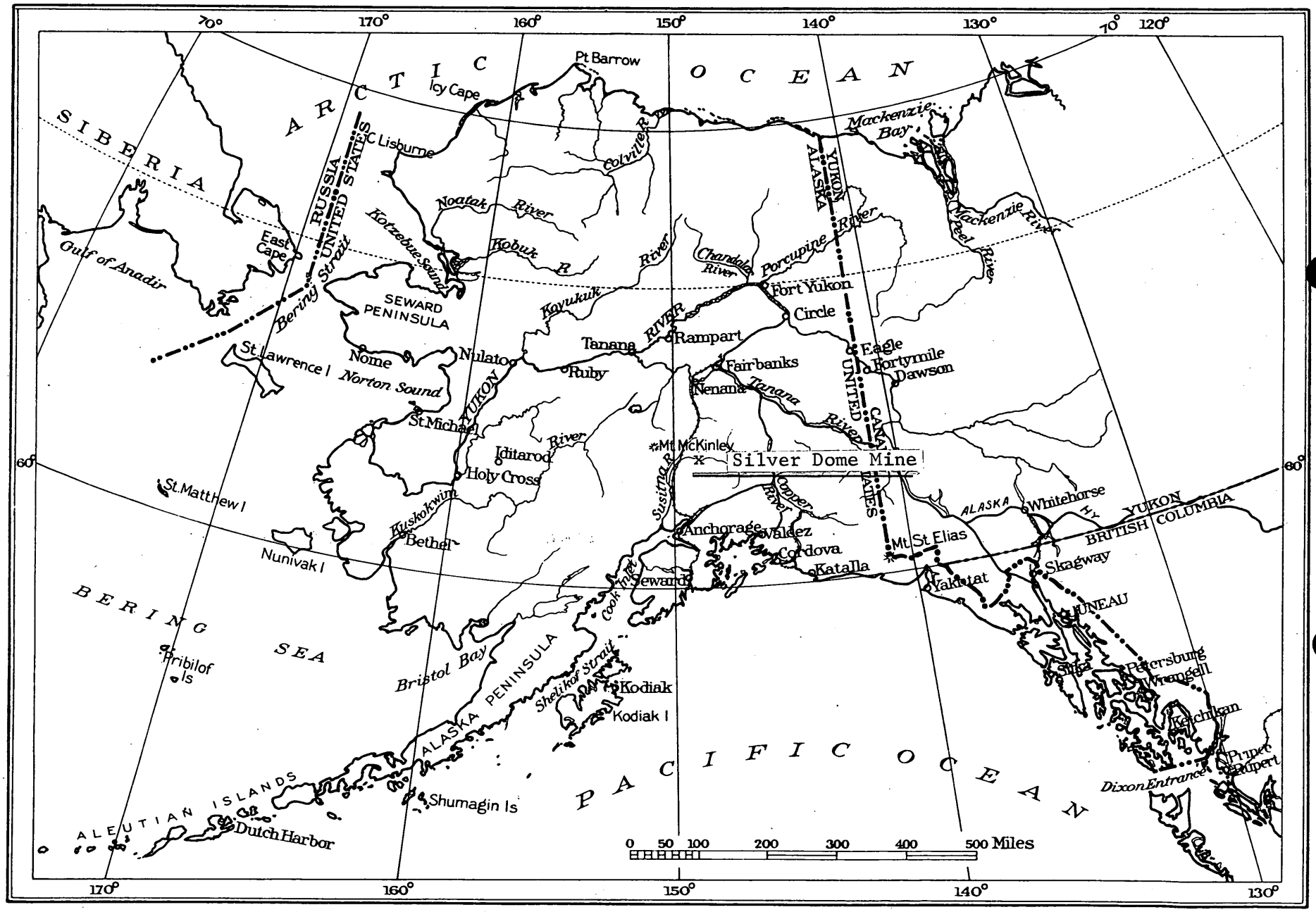


Figure 1.--Index map of Alaska

39602

H. K. Stager, Field Officer, OME, Region II
Menlo Park, California

April 24, 1969

D. H. Richter, Alaskan Geology Branch
Anchorage, Alaska

OME-6766 (Silver - Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et. at., Claims
Talkeetna Recording District, Alaska

I have reviewed the subject application for assistance and have discussed the proposed program with Dan Renshaw and A. L. Renshaw, both consulting mining engineers retained by the applicant. In summary, I believe that the proposed exploration is entirely out of proportion to the economic potential of the property, but that a modest exploration program may be justified.

A field examination of the subject property at this time does not seem warranted. S. R. Capps of the Geological Survey examined the property in 1924, when it was actively being explored and together with M. N. Short prepared a report on the geology and mineralogy which was published in the U. S. G. S. Bulletin 783 (a copy is attached to this memo). With the exception of some discrepancies in dike attitude and some minor differences in interpretative geology the applicant's report and this early report by Capps and Short are in general agreement. Moreover the sampling by the Renshaws appears to be thorough and careful and no need to be repeated. My own knowledge of the prospect area is limited. I have mapped immediately to the east but have never been on the subject property on the west side of Portage Creek.

In going over the applicant's report with A. L. Renshaw there is a mutual agreement that the only justifiable target, based on presently available data is in the Apex area (applicants location B). The Apex area is the only locality on the subject property where encouraging silver mineralization has been found and where a well-defined dike-brecciated slate ore control structure is exposed. To the north a location A, Renshaw now believes the altered zone sampled by him does not represent the continuation of the dike-breccia zone exposed at the Apex, and likewise prospecting at location C has failed to indicate a continuation of the structure to the south. In the "Chinaman" (lower) adit below the Apex area there is no evidence to indicate that the drift continues much beyond the present caved area. This

and the fact of the almost negligible silver content of the favorable zone in the accessible part of the adit has led Renshaw to suggest that mineralization may not extend to this depth - a suggestion not untenable in view of the apparent shallow low temperature-pressure origin of the deposit. Hence, the target is virtually restricted to a zone about 30 to 50 feet thick, 250 feet deep, 60 feet long at top and about 400 feet long at the bottom or "Chinaman" adit level. Optimistically, assuming a continuous 5-foot wide mineralized zone throughout this target, only on the order of 15,000 tons of ore may be present.

So we are talking about an orebody that at the most has a potential value of about $600,000, which even at this maximum figure may not be profitable to mine under the present economic conditions in Alaska. Neglecting local economics, however, I think that geologically there is a good possibility of discovering silver ore on the property and accordingly propose a modest single stage exploration program.

The program would consist of:

1) Constructing 2000 feet of tractor trail for access to the drilling site,

2) a maximum of 1500 feet of core drilling in 6 holes from one general drilling site, and

3) a maximum of 100 silver analyses.

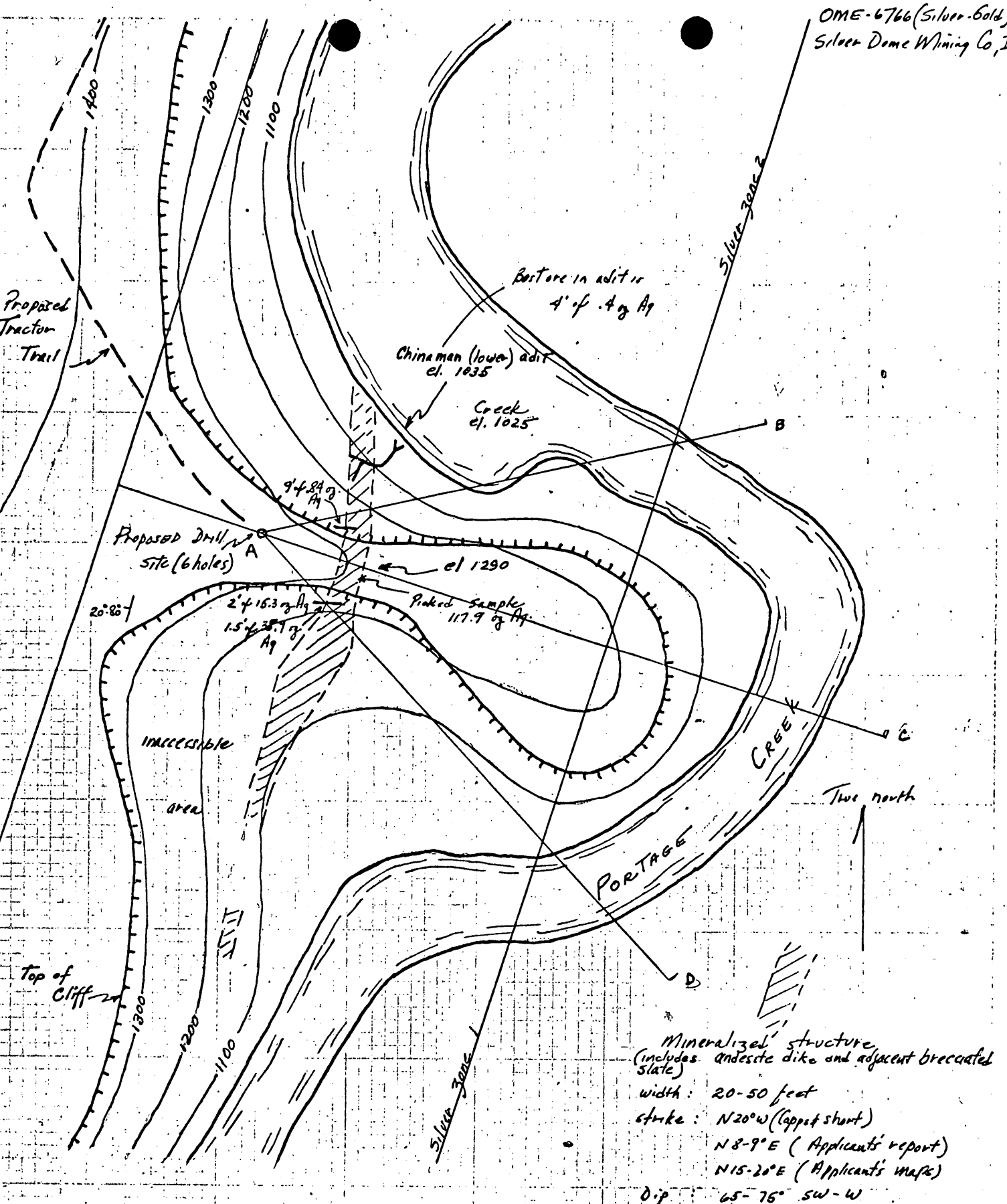
Provision should also be made for adequate technical support.

A rough topographic-geologic map of the Apex area (adapted from applicant's map) and 3 sections which show the suggested location, length and inclination of the 6 drill holes are attached.

Donald H. Richter
Geologist

(Blind)
cc: Dir. file-Washington
A. G. file - Menlo Park

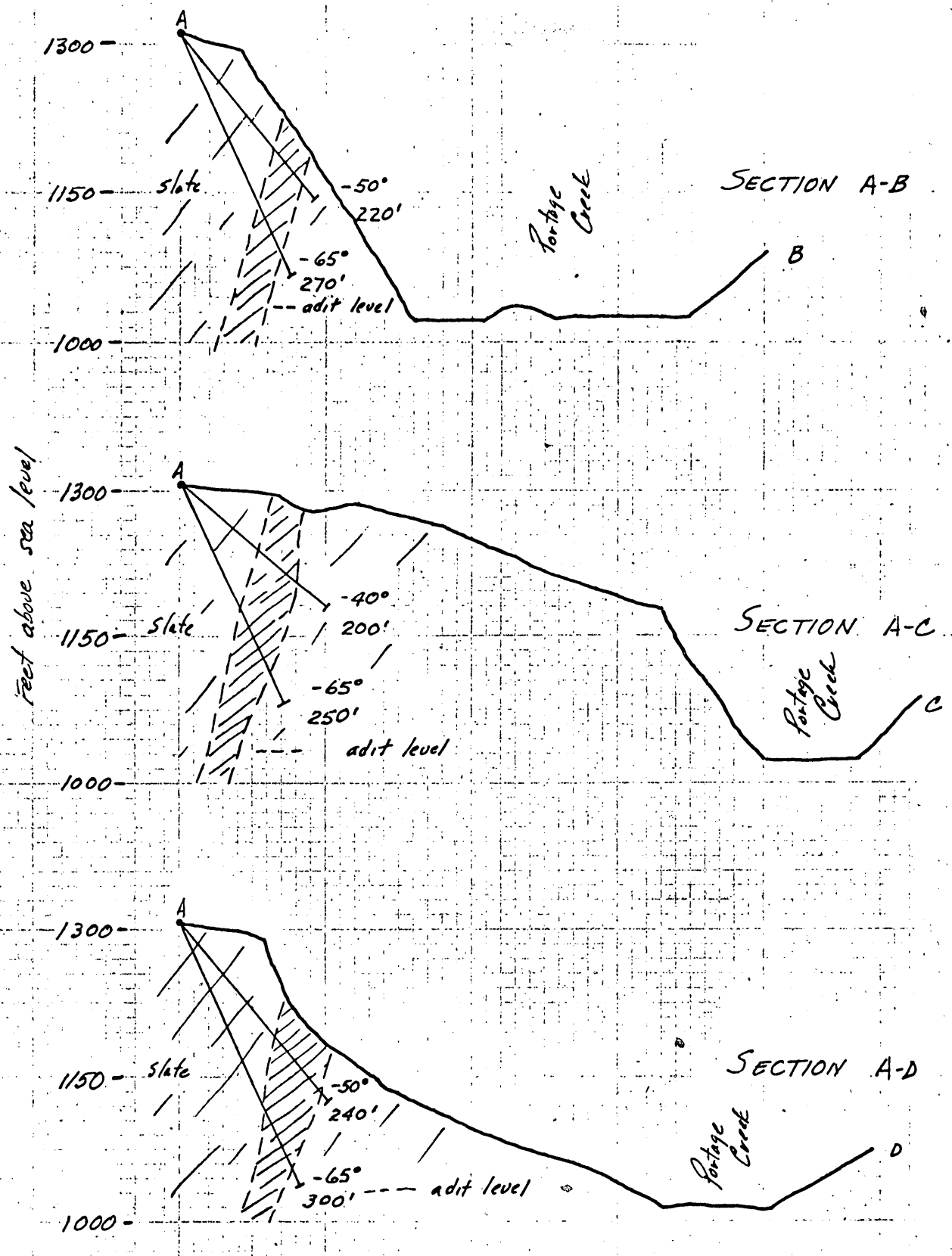
OME-6766 (Silver-Gold)
Silver Dome Mining Co, Inc



Mineralized structure (includes andesite dike and adjacent brecciated slate)
width: 20-50 feet
strike: N20°W (Appt short)
N8-9°E (Applicant's report)
N15-20°E (Applicant's maps)
Dip: 65-75° SW-W

Topographic and geologic sketch map of Apex area
Scale 1" = 150'
contour interval 100'

OME-6766 (Silver-Gold)
Silver Dome Mining Co, Inc



SECTIONS THROUGH PROPOSED DRILL HOLES
APEX AREA
SCALE 1" = 150', no vertical exaggeration

MINERALIZED Structure

DEPARTMENT OF THE INTERIOR
Hubert Work, Secretary

U. S. GEOLOGICAL SURVEY
George Otis Smith, Director

Bulletin 783

MINERAL RESOURCES OF ALASKA

REPORT ON PROGRESS OF INVESTIGATIONS IN 1924

BY

PHILIP S. SMITH AND OTHERS

WASHINGTON
GOVERNMENT PRINTING OFFICE
1926

A RUBY SILVER PROSPECT IN ALASKA

By S. R. Capps and M. N. Short

INTRODUCTION

In July, 1922, a silver prospect of unusual type was discovered in the upper Susitna Basin. This prospect, named the Mint mine by the owners, is the property of Arthur Moose Johnson, the discoverer, and of his partner, Harry A. Wertz. It is about 9 miles east of Chulitna station on the Alaska Railroad, 274 miles by rail north of Seward, and lies on the west bluff of Portage Creek, about 3 miles above the junction of that creek with Susitna River. At that place Portage Creek has an altitude of about 1,100 feet above sea level. The Mint mine can be reached on foot over a fair trail of moderate grades in about three hours' travel from the railroad. The trail has been improved by a bridge across Indian River, by some cutting of brush, and by numerous notices of direction. In 1924 it was wet and soft in places, but by some relocation and grading it could without serious difficulty and without much heavy construction be developed into a good wagon road. A comfortable cabin has been built on Bear Lake, about 2 miles west of the lode.

The present description of the Mint mine is the result of a visit in September, 1924, by S. R. Capps, who spent about two days on this and adjacent properties. At the same time Mr. Harry Townsend, of the Bureau of Mines, visited the property and made a sketch survey of the lode and the developments and took some samples of the ore body. The writers wish to acknowledge their indebtedness to Mr. Townsend for furnishing copies of his surveys and the results of his sampling. The laboratory study of the specimens of the rock and the ore in thin section or in polished section was made by M. N. Short.

GEOLOGIC RELATIONS

The outcrop of the Mint ore body is on the west bluff of Portage Creek, at a place where the creek makes a sharp U-shaped bend eastward. The creek valley in this stretch lies in a steep-sided canyon cut several hundred feet below the level of the upland, and a promi-

nent narrow point extends eastward into the U-shaped bend. This point rises about 300 feet above the creek, and its walls are in many places sheer cliffs, so that except in one place, where some ladders have been placed along a steep drainage line, the canyon walls are scalable only with difficulty. The ore body was first discovered at a narrow place on the crest of this projecting point of the canyon wall and has since been traced down nearly to the creek on both sides. Developments on this property at the time of visit included a lower tunnel 15 feet long, 10 feet above Portage Creek and on the footwall side of the lode, which had been started to cut the lode at a low level but had not yet reached it; a second tunnel 17 feet long and an open cut on the lode about 100 feet above Portage Creek; and a small open cut about 230 feet above Portage Creek and on the south side of the point, about 30 feet below its crest. The country rock in this vicinity consists of dark-gray to black slate, generally blocky but locally fissile, with a well-developed cleavage. It has yielded no fossils in this vicinity but is believed to be of Mesozoic age. No detailed geologic mapping has been done in this immediate vicinity, but within a few miles to the north of the Mint property there are considerable areas of greenstone associated with the slate, and both slate and greenstone are cut by stocks of granitic rock, probably also of Mesozoic age, from which acidic dikes radiate into the slate. Two such dikes were observed on lower Portage Creek—one at the Mint prospect, which though much altered was probably originally an andesite dike, and another on the Ella B. prospect, about a mile south of the Mint, which is a much fresher and less altered andesite. The Mint lode is believed to be genetically related to these dikes, which have supplied the mineralized solution from which the vein quartz and sulphides of the lodes were deposited. The ore at the Mint mine consists of quartz carrying sulphides, the most valuable of which is pyrargyrite. The ore occurs as the interstitial filling of a slate breccia on the west side of the dike, as veinlets in the dike itself, and as stockworks of quartz veinlets in the slate on both sides of the dike.

At the Mint prospect the blocky slate, which strikes north to N. 30° E. and dips 20°–80° west to northwest, is cut at a low angle by an andesite dike from 5 to 12 feet wide that strikes about N. 20° W. and dips 75° southwest. The freshest obtainable specimens of rock from this dike, when studied in thin section, are found to be composed predominantly of feldspathic materials, consisting of phenocrysts of somewhat sericitized orthoclase in a groundmass of badly altered feldspar laths that suggest that the rock is an andesite. Ferromagnesian minerals are notably absent. The dike rock is crushed and traversed by minute veinlets of quartz, which are accompanied by a few small grains of sulphide.

Other thin sections of a rock which in the field appeared to be identical with the dike rock described above prove under the microscope to consist of closely spaced parallel seams of quartz, in the midst of which are small clusters of ruby silver and arsenopyrite. The arsenopyrite preserves its crystal outlines against both quartz and ruby silver, but the sulphides and quartz were undoubtedly introduced together. The rock shows no signs of igneous origin, but consists of a fine-grained aggregate of quartz and biotite low in iron, with the biotite plates approximately parallel. The field evidence suggests that this material is a portion of the dike that has been almost completely replaced by secondary quartz, but the microscopic evidence suggests that it is a highly silicified mass of the slate country rock.

The accompanying sketch (fig. 3) shows the relations of slate, dike, and ore body at the upper tunnel, about 100 feet above Portage Creek. At the upper tunnel workings the evidence indicates strong movement on the west side of the dike, which resulted in the brecciation of the slate and the formation of some gouge. The interstices between the fragments of slate have been partly or wholly filled with solution quartz. In thin section this quartz exhibits a mosaic pattern. The quartz grains adjoining the fragments of slate have tended to orient themselves with their optic axes perpendicular to the fragments. There are many irregular vugs in which the quartz filling is incomplete and the cavities are lined with crusts of quartz prisms with which sulphide minerals are associated. Many of these crusts are now stained a rusty red on the surface. The fragments of slate are generally sharp and angular, though there is evidence of some replacement by quartz. As has been stated, the dike itself has been largely replaced by silica and is cut by quartz veinlets containing sulphides.

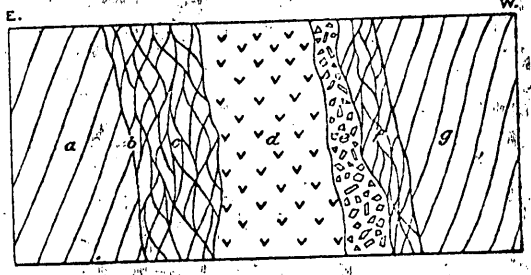


FIGURE 3.—Sketch of geologic relations at upper tunnel, mint mine, looking south. Scale, 1 inch=20 feet. *a*, Blocky slate; *b*, slip zone with gouge; *c*, slate, with quartz veinlets and sulphides; *d*, badly altered and silicified andesite dike with quartz veinlets and sulphides; *e*, breccia of slate fragments with quartz filling that carries sulphides; *f*, slate with gouge and quartz veinlets that carry sulphides; *g*, blocky slate

On the footwall or east side of the dike and adjoining it is an area of slate, about 8 feet wide, which is intimately cut by sulphide-bearing quartz veinlets. This area of slate is bounded on the east side by a slip zone with gouge. This slip zone has been somewhat mineralized as well as the slate for some distance east of it.

At the place where the original discovery was made, about 230 feet above Portage Creek, on the south side of the narrow ridge where the ore body occurs, a continuation of the mineralized zone is seen. At that place a shallow open cut reveals much the same conditions as those already described, though the exposures are imperfect. Blocky slate on the east adjoins the altered dike, which is here about 10 feet thick, is almost completely silicified, and is cut by quartz veinlets carrying sulphide minerals. West of the dike lies a zone 18 inches wide composed mainly of quartz, which carries some sulphides. This zone is succeeded to the west by about 8 feet of slate carrying more or less vein quartz and sulphides. Still farther west lies a zone 1 to 3 feet wide composed of slate breccia with quartz and sulphides in the interstices. This breccia lies below a hanging wall of blocky slate that shows only scattered specks of sulphide minerals and little quartz.

THE ORE

The ore samples that are described below were examined in thin section or in polished section under the metallographic microscope and are believed to be typical of the slate-breccia portion of the ore body. Much of the highest-grade silver ore, however, occurs as veinlets of quartz carrying ruby silver which cut either the dike rock or the adjoining slate.

Sample 1a.—Slate breccia from open cut near top of ridge on south side. Fragments of slate cemented by solution quartz. The slate consists mainly of a very fine aggregate of biotite and quartz. The fragments have sharp boundaries with the quartz, and there has been almost no replacement of slate. Veinlets of quartz break across the fragments in places, but the boundaries of the veinlets are sharp and indicate a filling of cracks rather than replacement. However, locally there has been some replacement of slate by quartz, as in the midst of some areas of slate there are perfectly formed quartz prisms, some as much as 1 millimeter in diameter. It is hardly possible that cavities of the proper size and shape could have existed prior to the advent of the quartz. Sulphides occur in both quartz and slate. Some sericite accompanied the solution quartz and replaced it along the boundaries between the individual grains.

Sample 1b.—From same locality as sample 1a. The replacement of slate by quartz is more apparent in sample 1b, and rounded areas of slate surrounded by quartz are common. The solution quartz in places forms a fan-shaped mosaic around fragments of slate. The quartz contains tiny dark inclusions whose exact nature could

not be determined. They are transparent and dark-brown and may be rutile.

One veinlet of sulphides crosses the entire section mainly in the slate area. It is bounded on both sides by seams of quartz, the quartz grains being oriented more or less perpendicularly to the sulphide veinlet. The quartz at this place is later than the sulphides.

Ore minerals.—The following ore minerals were identified in polished sections:

Pyrargyrite (Ag_3SbS_3).	Galena (PbS).
Miargyrite ($AgSbS_2$).	Tennantite (?) (Cu_3AsS_7).
Arsenopyrite ($FeAsS$).	Pyrite (FeS_2).
Chalcopyrite ($CuFeS_2$).	

These sulphides are very closely associated with one another and form intergrowths which appear as simple patterns in the polished section. Arsenopyrite and pyrite usually show some crystal outlines and may be a little earlier than the remaining sulphides, which form mutual boundaries owing to simultaneous deposition, indicating that they are all of the same age. The boundaries are smooth and rounded, with few prominent projections of one mineral in the other. All the minerals are believed to be hypogene. No oxidized minerals were observed, and there are no microscopic structural features indicative of supergene enrichment.

The sulphide minerals are intimately associated with the vein quartz that cements the breccia, and the evidence is clear that the quartz and ore minerals were deposited by the same solutions.

Pyrargyrite is the predominating ore mineral present. It is readily identified in the hand specimen and forms dark-reddish crusts and coatings on quartz. No crystals were observed in the material studied microscopically, though a few fine prisms as much as 17 millimeters in length by 12 millimeters in diameter have been found. The laboratory examination which polarized light showed only small individual grains, none more than 0.1 millimeter in diameter. An open-tube test indicates that arsenic is entirely absent or forms only a small percentage of the mineral.

Miargyrite is closely intergrown with pyrargyrite and forms approximately 10 per cent of the sulphides present. It is recognized only in the polished section and was identified by microchemical tests, by the color of its powder, which is darker than that of pyrargyrite but lighter than that of polybasite, by its color in reflected light, and by its strong anisotropism. No isolated areas of miargyrite were observed, and it occurs only as small rounded areas in pyrargyrite.

Arsenopyrite occurs for the most part as scattered crystals and small clusters of grains well distributed through the specimen. The total amount of arsenopyrite in the specimens observed is about

the same as that of pyrargyrite. Although most of the arsenopyrite is disseminated, a veinlet of arsenopyrite entirely traverses one of the polished sections and is an open-space filling. Most of the arsenopyrite occurs in quartz, but a relatively small percentage replaces fragments of slate.

Pyrite is relatively rare and was only observed along the margins of the veinlet of arsenopyrite described in the preceding paragraph. The comparative absence of pyrite is noteworthy and indicates that the ore solutions were poor in sulphur.

Chalcopyrite is found only in microscopic quantities and does not form more than 1 per cent of the total sulphides. On the polished surface it appears as small isolated areas in pyrargyrite.

Galena is almost invariably found adjacent to chalcopyrite but is also found as isolated patches in pyrargyrite. In places it forms well-defined graphic intergrowths with pyrargyrite; elsewhere the two minerals form mutual boundaries. The total amount of galena is about the same as that of chalcopyrite.

Closely associated with the galena and chalcopyrite is a mineral which has a brownish-gray tint in reflected light. The total amount of this mineral is too small to permit positive identification. It is inert to all the chemical reagents used and is apparently isotropic in polarized reflected light, hence presumably isometric. Its properties check fairly well with those of tennantite.

SUMMARY

The country rock of the Mint mine is composed of a series of slates into which are intruded one or more dikes of andesite. The dikes apparently follow a zone of shearing. The intrusion was accompanied by extensive brecciation and the introduction of large quantities of silica. Quartz was deposited in and around the fragments of slate and as veinlets traversing them, and there was more or less replacement of these fragments. Where the replacement was most thorough the rock has a bleached appearance and in the hand specimen is indistinguishable from the andesite dike.

The silica in the open-space fillings has many vugs into which project small slender prisms of quartz.

The association of silica with the sulphides is very close, and the conclusion is warranted that quartz and sulphides were deposited by the same solutions. Some of the sulphides occur as coatings on the quartz prisms of the vugs, but for the most part they occur as isolated bunches in the midst of quartz. There has been very little replacement of quartz by sulphides or sulphides by quartz.

The sulphides are intergrown in patterns which indicate that they are essentially contemporaneous. There is no evidence that any minerals are due to supergene enrichment, and all are believed to

Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California 94025

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April 8, 1969

Memorandum

To: Donald H. Richter, Alaskan Geology Branch, Anchorage, Alaska

From: H. K. Stager, Field Officer, OME, Region II, Menlo Park, California

Subject: OME-6766 (Silver-Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et al., Claims
Talkeetna Recording District, Alaska

Enclosed is the application docket for exploration assistance at the subject property. It is my understanding that you are familiar with the area and have possibly studied the deposit and can give us your appraisal and recommendations concerning the proposed work. Will you please contact Mr. Renshaw and discuss the application with him, and if a field examination is warranted, please make it as soon as your schedule and weather conditions permit. Any travel expenses and per diem should be charged to 940104 (OME, Region II). I have discussed this application with George Gryc and have his permission to refer it to you.

If you have any questions please call, or write, me. The docket material should be returned to this office when you have completed your appraisal. Please keep me informed as to your progress.

H. K. Stager

Enclosure: Docket OME-6766

cc: Chief, OME, Wash., D.C.
Dir. RF
ACG RF
MP RF
Docket

HKStager:mkh

OME Form 7
(2/63)

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Date	Surname	Code
3/4/69	[illegible]	120
		120
3/4	Cal	220

120M

AIRMAIL

MAR 4 1969

Memorandum

To: Field Officer, Region II

From: Acting Chief
Office of Minerals Exploration

Subject: OME-6766 (Silver-Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et al., Claims
Talkeetna Recording District, Alaska

We are referring the subject application to you for further consideration, a field examination if warranted, and recommendations.

We agree, most of the proposed work appears to be prospecting. However, a review of the new material submitted by the Applicant suggests that the work relating to the "Apex" location can be considered exploration. Although some work may be warranted, based on the information furnished by the Applicant, indications are that the potential of the property does not justify the cost of the proposed $87,000.00 project.

If a contract is recommended, the cost estimate should be revised in accordance with the average costs in the district. Allowances for personal services, equipment, and maintenance are considered high in the present estimate.

Harold Kirkemo (gfa)

Harold Kirkemo

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Mr. Emerick

WLEmerick/bsl 3/4/69

MME Form 7
(2/63)

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Date	Surname	Code
3/4/69	Peterson	120
		120
		220
		120M

MAR 4 1968

AIRMAIL

Silver Dome Mining, Inc.
P. O. Box 4-2163
Anchorage, Alaska 99501

Re: OME-6766 (Silver-Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et al., Claims
Talkeetna Recording District, Alaska

Gentlemen:

Thank you for your letter of February 25 enclosing additional information in support of the subject application for financial assistance. The copy of your letter requesting a loan from the National Bank of Alaska was not received.

The application is now being referred to Mr. H. K. Stager, Field Officer, Region II, U. S. Geological Survey, Building 2, 345 Middlefield Road, Menlo Park, California 94025.

Mr. Stager will notify you if additional information concerning the application is needed, and possibly to make arrangements for a field examination. If an examination is made it will be scheduled sometime after the ground is free of snow, as all surface and trench exposures of the target vein must be inspected.

Sincerely yours,

Harold Kirkemo (glr)

Harold Kirkemo, Acting Chief
Office of Minerals Exploration

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Region II
130
~~XXXXXXXXXXXX~~
Mr. Peterson

ECPeterson/bsl 3/4/68

ALASKA
MINERAL LAB
2229 SPENARD ROAD
ANCHORAGE, ALASKA 99503
PHONE 272-2716

February 17, 1969

H. K. Stager
Field Officer
Office of Minerals Exploration
Region II
345 Middlefield Road
Menlo Park, California 94025

O. M. E.
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FEB 24 1969
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RE: Docket #OME-6766
Silver Dome Mining, Inc.

Dear Mr. Stager:

We sincerely regret the confusion resulting from the correspondance regarding this application. The President of Silver Dome Mining, Inc. has been out of the State for several months and apparently did not make arrangements for corporation mail to be delivered to other officers. We would be obliged if future communications could be sent to P. O. Box 4-2163, Anchorage, Alaska.

new address

In any event we now have your letters of December 19, December 26, and January 31. The following are answers to the questions stated in the December 19 letter; numbered to correspond with each respective paragraph:

[1] The proposed work relating to trenching and diamond drilling is in fact designed to gather additional geologic data and to determine the continuity of silver values. As is typical of many silver occurrances associated with dikes or veins the ore tenor is erratic. It is therefore desireable to determine those factors of geologic structure which may serve to control the ore deposition. Such knowledge is essential to the prediction of ore continuity and occurrance. It is also necessary in the determination of reserves to verify

those locations where ore does not exist. I can assure you that the full intent of trenching and drilling is to find ore.

[2] It is our belief that the dike or so called "vein" as discussed in the report does constitute a specific target. It has been determined with some degree of certainity that the silver mineralization does persist along this dike and in the adjacent brecciated country rock. However the tenor of ore is a variable and appears to be of possible economic value and volume adjacent to the wider zones of the dike. The probable lense shaped ore bodies must be located and delineated. It is already known that the dike pinches and swells along the strike and possibly also will pinch and swell in the direction of dip. It must be determined if the ore bodies are intermittant chimney-like structures or discontinuous pods or lenses. This is not a situation where the mineral values will be found within a conventional vein; but rather in brecciated country rock along the dike. The dike has merely served as a channelway for the mineralizing solutions.

[3] It is of course essential that the Chinaman adit be extended as a drift along the dike with cross-cuts into the brecciated country rock. However, it would be desirable to verify the existance of ore at depth to the south of the adit before expensive tunneling work is undertaken. The diamond drill holes from the more accessable "Apex" location are intended for this purpose by penetrating the brecciated west wall area of the dike at an elevation intermediate between the surface outcrop and the Chinaman adit level.

It must be realized that the Chinaman adit is just above river flood level near the bottom of a three hundred foot deep canyon. The previous access trail down the west canyon wall is no longer passable even on foot due to erosion.

The mobilization of equipment for further tunneling would require the erection of an aerial tramway. On the otherhand, diamond drilling from the canyon rim near the "Apex" only requires the construction of a short trail for access. It is my belief that more meaningful information can be gained at less expense by the diamond drilling.

[4] If you do not believe that the further information provided above is sufficient to justify the original application scope please notify us immediately and a revised scope will be submitted.

[5] Copies of the letters requesting bank assistance loans are enclosed.

[6] We were not aware of your standard allowance for equipment use, however, the rates specified would be acceptable to Silver Dome Mining, Inc.

[7] As it was anticipated that there would be a time lag between monthly voucher submittal and disbursement, the Corporation would be prepared to have sufficient funds available for operating expenses.

[8] The report by A. L. Renshaw, Jr., P.E. included in the application consisted of two mineral investigations. Only that portion of the report pertinent to the Silver Dome Mine was included with the application. The map on page 4 of the report identifies two locations: "Silver Dome Mine Camp" designates the location concerned in the application, whereas "Mineralized Zone" refers to the second area investigated. The second area is a low grade molybdenite occurrance and is not intended to be included under this application. The intent of the page 4 map had been to show the proximity of the two mineral occurrances. The map on page 6 shows only the Silver Dome Mine and vicinity without

noting the molybdenite mineralization which is located about three miles east of the silver occurrance. The location of the Silver Dome Mine on both page 4 and page 6 are in agreement.

[9] A claim map is enclosed with a separate letter by Dan Renshaw explaining the history of the claims.

As stated in #4 above we will withhold revision of the application until we hear further from you. Consideration of the application to date is sincerely appreciated.

Sincerely,

A. L. Renshaw, Jr., P.E.

enclosures

cc: Dan Renshaw

James E. Welker, Vice President
Silver Dome Mining, Inc.

ALR/kl

RECEIVED
FEB 19 1969
OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY
MENLO PARK, CALIF.

DAN RENSHAW P.E.
Consulting Engineer
519 Eighth Ave. Room 209
ANCHORAGE, ALASKA 99501

February 7, 1969

Mr. H.K. Stager
Field Officer, Region II
Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California, 94025 Re: OME #6766

Dear Mr. Stager,

Your request for a claim map has brought into focus a problem which was not discussed in the original OME application. This letter is intended to clarify the present claim status at the Silver Dome Mine.

The original member of the Silver Dome Mining, Inc. group to prospect the area of the Silver Dome Mine was Tom Mely. Tom was more knowledgable of mining and claim staking than any of the other members of Silver Dome Mining, so he staked most of the Cheechako Moose claims. Mr. Mely drownd in Portage Creek in 1966 while further prospecting the area. He alone was intimately knowledgable of the exact location of the Cheechako Moose claims. Those claim corners that could be found were well marked, however, the underbrush and dense forest growth in the area creates a very effective blind for the remining corners.

Rather than spend expensive additional time attempting to recover the Cheechako Moose claim corners, it was decided that three new claims be top filed over the Cheechako Moose claims and that assessment work be performed on all claims to maintain all in valid standing. Silver Zone One, Two and Three were located in the area that Silver Dome Mining wished to perform intensive exploration, hopefully with OME assistance.

During the summer of 1969 the Silver Zone - Cheechako Moose claims conflict will be rectified and that portion of the Cheechako Moose claims covered by Silver Zone claims will be dropped. Silver Dome Mining will warrent as to the future maintenance of the Silver Zone claims over conflicting prior Cheechako Moose claims as necessary to protect the OME on any assistance program initiated.

As requested, a claim map is included that shows the location of the Silver Zone claims relative to major surface features. All exploration work proposed for OME assistance world be located on these claims.

If there is additional information concerning the Silver Dome claim situation that I can clarify please so request.

Yours truly,

Dan Renshaw

Dan Renshaw P.E.

RECEIVED

FEB 19 1969

OFFICE OF MINERALS EXPLORATION
U.S. GEOLOGICAL SURVEY
MENLO PARK, CALIF.

Box 4-2163
Anchorage, Alaska 99503
November 14, 1968

Mr. William Murray
First National Bank
646 W. 4th Avenue
Anchorage, Alaska

Dear Mr. Murray:

Mr. Charles Wille, Pres. of Silver Dome Mining, Inc., and myself was in to see Mr. Marvin Smith of the Northern Lights Branch last spring concerning a loan. At that time our account was in their branch and it was later transferred to your bank, therefore, we are applying for a loan at your bank.

Silver Dome Mining, Inc., has 34 silver claims located at Chulitna. We would like to get a loan in the amount of $30,000. so that we can do exploration work at the mine. We plan to do the work in the summer of 1969 if we can get the loan in time. We have equipment at the mine to use for collateral.

We would appreciate a letter at your earliest convenience as to the action taken.

Very truly yours,

Ralph R. Hilleary,
Secretary

RRH:eh

owe their origin to hypogene deposition. The area in which the ore body occurs was overridden, in Pleistocene time, by a great glacier that doubtless eroded away any oxidized zone in this deposit, and left only the hypogene unoxidized portion of the lode.

Too little work had been done at the time of visit to determine the size or the value of the ore body. A 40-pound picked sample tested by the Bureau of Mines shows a silver content of 117.90 ounces to the ton. A series of samples taken at the mine by Harry Townsend, of the Bureau of Mines, ranged in value from a trace of gold and 1.20 ounces of silver to 0.14 ounce of gold and 32.2 ounces of silver to the ton.

The mineral association resembles that at the Premier and Mayo mines, Yukon Territory. The sharp boundaries of the fragments of slate and the fine-grained character of the quartz, as well as the presence of numerous vugs, indicate conditions of relatively low temperature and pressure. The mineral association is that of the shallow-seated type and will probably not extend to great depth.

Office of Minerals Exploration
345 Middlefield Road
Menlo Park, California 94025

January 31, 1969

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FEB 3 1969

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	120

Mr. Dan Renshaw
519 Eighth Avenue, Room 209
Anchorage, Alaska 99501

Re: OME-6766 (Silver-Gold)
Silver Dome Mining, Inc.
Silver Zone No. 1, et al., Claims
Talkeetna Recording District, Alaska

Dear Mr. Renshaw:

In reply to your letter of January 29, 1969, concerning the application submitted by Silver Dome Mining, Inc., this application was received in the Field Office on December 16, 1968, and forwarded to OME in Washington, D. C., for processing. Docket number OME-6766 was assigned on December 19, 1968, and the Applicant was so informed. A review of the application raised numerous questions that were the subject of a second letter sent to the Applicant on December 26, 1968. To date no reply has been received from the Applicant. Copies of the two letters are enclosed for your information.

Sincerely yours,

H. K. Stager
Field Officer
OME, Region II

Enclosures

cc: Chief, OME, WDC
Dir. RF
ACG RF
MP RF
Docket

HKStager:mkh

DAN RENSHAW P.E.
Consulting Engineer
519 Eighth Ave. Room 209
ANCHORAGE, ALASKA 99501

January 29, 1969

Mr. Harold K. Stager
Field Officer
Office of Mineral Exploration
U.S. Geological Survey
345 Middlefield Road
Menlo Park, California
94025

OME-6766

Dear Mr. Stager,

Over a month ago two copies of a mineral exploration proposal requesting OME assistance for Silver Dome Mining, Inc. was mailed to your office. I would like to know if you are in receipt of the proposals and if so whether there has been any action taken by the OME to date.

Should there be any additional information required or if I may be of any assistance in any way please so indicate. Thank you.

Yours truly,

Dan Renshaw

Dan Renshaw. P.E.

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JAN 31 1969
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U.S. GEOLOGICAL SURVEY

MME Form 7
(2/63)

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12/24/68	Peterson	120
12/26/68	Ewing	120
		110
12/26	Case	220

120M

DEC 26 1968

AIRMAIL

Silver Dome Mining, Inc.
8021 Brink Court
Anchorage, Alaska 99504

Re: OME-6766 (Silver-Gold)
Silver Dome Mining Inc.
Silver Zone No. 1, et al., claims
Talkeetna Recording District, Alaska

Gentlemen:

Our review of your application for financial assistance indicates that most of the proposed work relating to trenching and diamond drilling is designed to gather additional geologic data rather than to find ore, and therefore, not eligible for Government assistance.

The OME program is limited to the exploration of specific geologic targets in specific areas, and excludes participation in the preliminary work required to delineate these targets and obtaining the necessary supporting evidence. Such information should be obtained by the Applicant at his own expense prior to the submittal of an application.

Perhaps exploration limited to drifting along the mineralized vein exposed in the Chinaman adit should be considered. Samples #10 - #13 indicate that this vein may warrant testing. Some additional sampling here may provide the necessary supporting evidence,

If a revised project proposal is submitted you will also have to furnish the following information, in addition to evidence to support the proposal, to complete the application.

Furnish copies of <u>your</u> letters to the two banks requesting an exploration loan. The letters should state the amount of the loan (estimated Government participation), purpose, date, and terms requested.

For your information, allowable costs under an OME contract do not include full book value allowances to the Operator for his equipment used on a contract. Rather, for each piece used the Operator is compensated by allowing depreciation to the extent of 1/60th of the fair market value of the equipment or its book value, whichever is less, for each month used. If the equipment is rented, a fair rental charge per month is allowed.

In addition, the Government pays its share of the costs at the end of each month after a voucher for the costs incurred has been submitted and approved. It usually takes two or three weeks to process such a voucher. An Applicant, therefore, should have sufficient funds readily available to pay all the costs of the project for the first two or three months.

Please clarify which location of the Silver Dome mine is correct. The maps on pages 4 and 6 of the report prepared by Anson Renshaw, Jr. show different cites.

A claim map or sketch is required showing the claim boundaries and their relation to old workings and proposed exploration.

We shall be pleased to continue the processing of your application upon receipt of the requested information. However, nothing in this letter should be construed as a commitment by the Government to grant an exploration contract.

Sincerely yours,

FRANK E. JOHNSON (gca)

Frank E. Johnson
Chief, Office of
Minerals Exploration

cc: Director's Reading File
Economic Geology File
OME Docket
OME Reading File
Region II (2 extra copies)
Mr. Peterson

ECPeterson/bsl 12/23/68

December 19, 1968

Silver Dome Mining, Inc.
8021 Brink Court
Anchorage, Alaska 99504

Subject: OME-6766

Gentlemen:

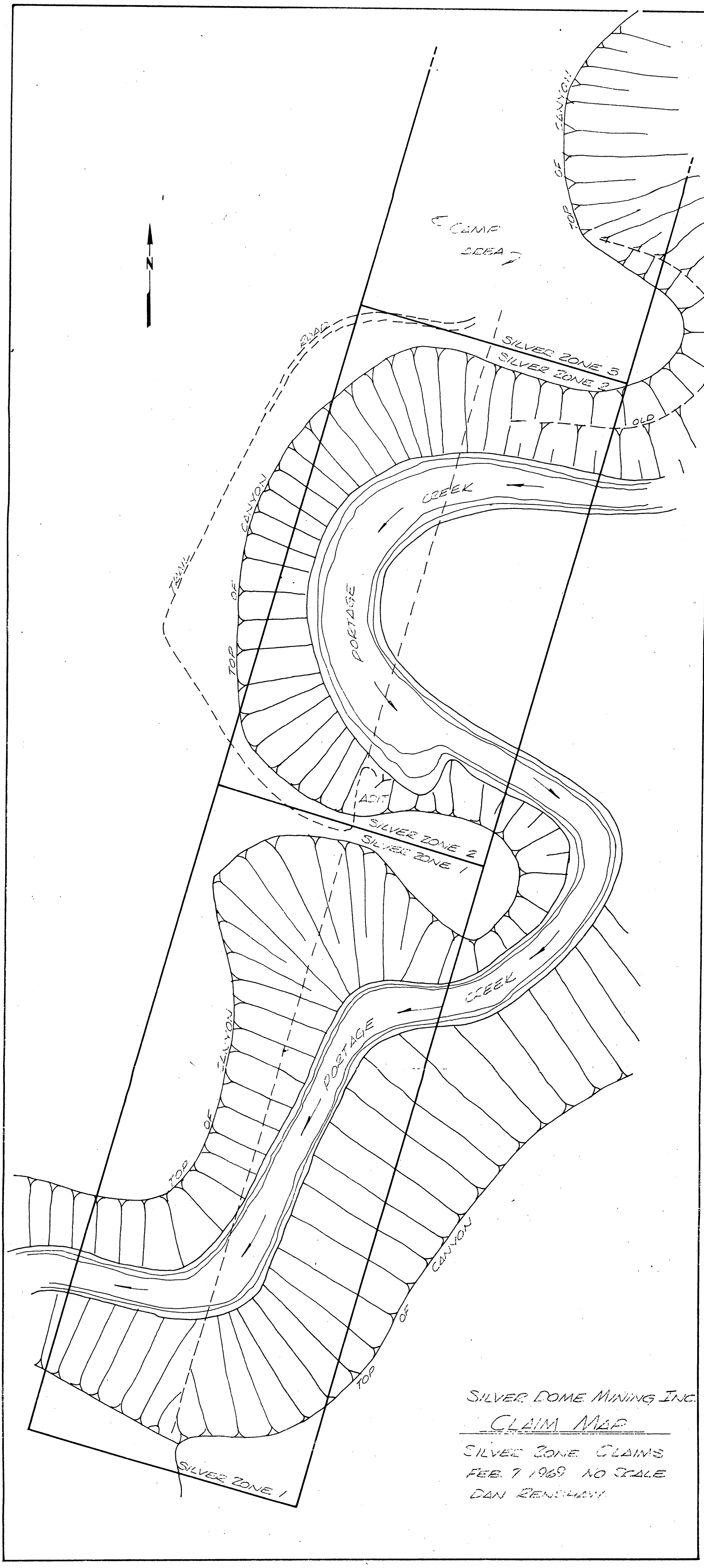
Your application for exploration assistance, dated December 12, 1968, submitted to our office at Menlo Park, California, has been assigned docket number OME-6766.

Please identify all future correspondence relating to your application by this docket number.

Sincerely yours,

Frank E. Johnson
Chief, Office of
Minerals Exploration

Copy to Region II


N
CAMP
SEEA
ROAD
SILVER ZONE 5
SILVER ZONE 3
TRAIL
OLD
TOP OF CANYON
CREEK
PORTAGE
ADIT
SILVER ZONE 2
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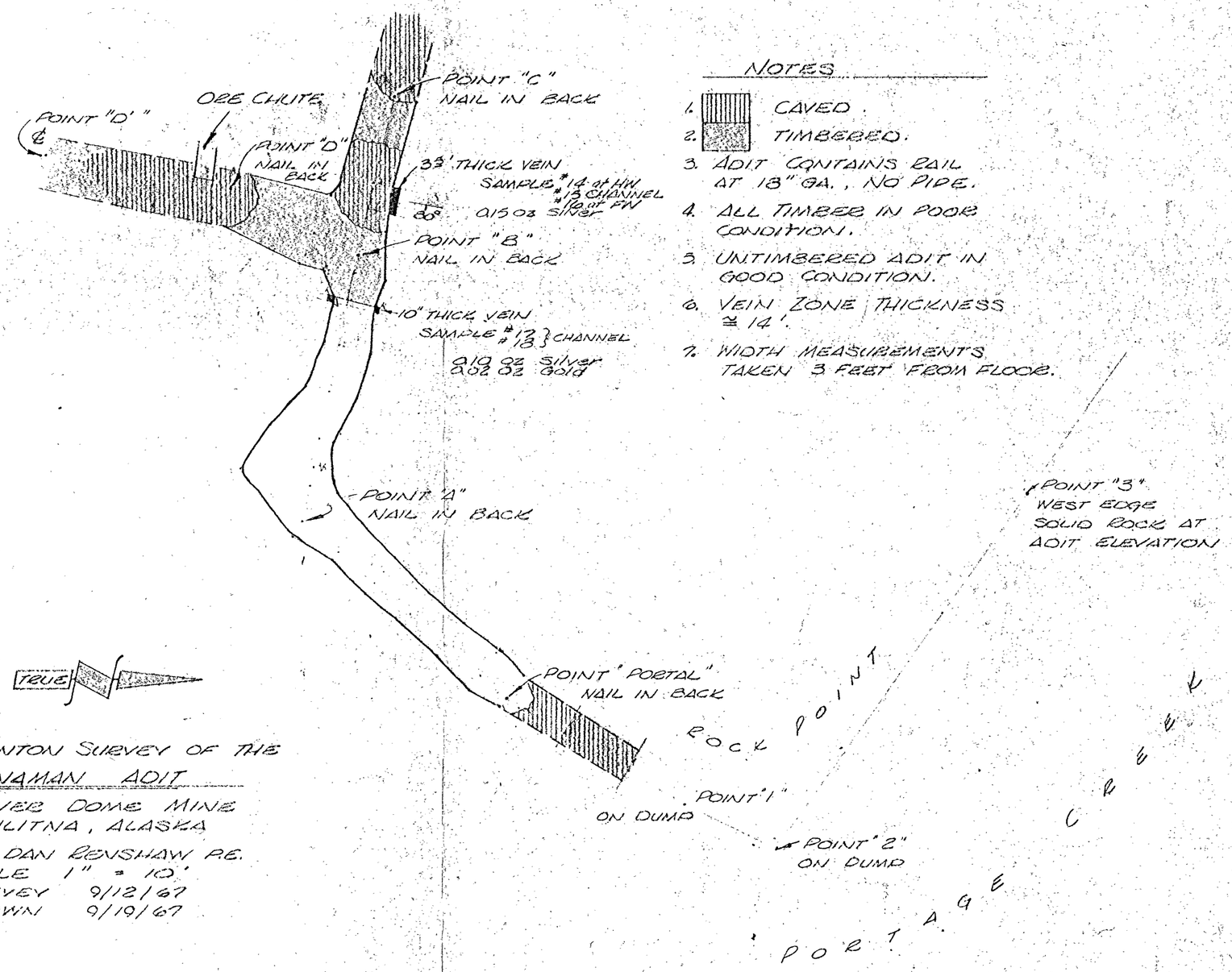
SILVER ZONE 1
SILVER DOME MINING INC.
CLAIM MAP
SILVER ZONE CLAIMS
FEB. 7 1969 NO SCALE
DAN RENSHAW



NOTES

1. CAVED.
2. TIMBERED.
3. ADIT CONTAINS RAIL AT 18" GA., NO PIPE.
4. ALL TIMBER IN POOR CONDITION.
5. UNTIMBERED ADIT IN GOOD CONDITION.
6. VEIN ZONE THICKNESS ≅ 14'.
7. WIDTH MEASUREMENTS TAKEN 3 FEET FROM FLOOR.

BRUNTON SURVEY OF THE
CHINAMAN ADIT

SILVER DOME MINE
CHULITNA, ALASKA

BY DAN RENSHAW P.E.
SCALE 1" = 10'
SURVEY 9/12/67
DRAWN 9/19/67