Dorlet

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane, Washington 99204
September 24, 1963

Memorandum

To: Chief, Office of Minerals Exploration

From: Field Officer, Region I

Subject: Supplemental Examination Report
OME-6381 (Silver)
Silver Moon Mining Co.
Silver Moon Claim Group
Lemhi County, Idaho

INTRODUCTION

An on-site examination was attempted January 11, 1963, and a memorandum report was submitted February 9. Due to deep snow cover, the examination could not result in a satisfactory conclusion. A second examination was made May 11, 1963, in the company of Albert E. Brown and Ralph M. Taylor, Partners. About 6 hours were spent on the property, mapping and sampling workings and exposures in the exploration area.

On July 12, 1963, A. E. Brown, one of the applicant partners, telephoned the Spokane office to inquire as to the progress of the processing of their application. He was told that the examination report had just been given to the typist for final typing and that, on the basis of the information then available, I could not recommend his proposal to deepen the shaft. Brown asked that the report be held up until he and his geologist could come to Spokane to present additional information. The visit was made on July 14, 1963.

Steven C. Hansen, the applicant's geologist, had spent much of June and July investigating presently accessible workings and mapping the general geologic relation between rock types and ore deposits in some of the workings. Brown and Hansen stated that if and when the proposed shaft found sufficient ore to provide capital, they intended to do some diamond drilling but that they could not afford the full cost of drilling now. I reminded Brown that I had suggested to Ralph Taylor, another partner, in January and again to Taylor and Brown in May, that preliminary drilling might be worth considering as a first stage before any more shaft work was done. He recalled the suggestion and said they were not willing to consider it as they would then have no funds left with which to carry their share of an OME project. It was again explained that drilling might be considered as a first stage of an OME contract but that this statement

See fig. 1 in folder

was in no way to be considered as any assurance that such a proposal would be approved or that a contract would be forthcoming. They said that they had understood the Operator would have to bear the full expense of the drilling. They left with the understanding that they would submit an amended application "right away." The amended application was handed to me in Dillon, Montana, during a recent field trip, on August 29, and was forwarded, after my return to Spokane, on September 8, 1965.

GEOLOGY

The predominant rock in the area is grey to blue-grey dolomitic limestone of Devonian(?) age, that is part of a series of Precambrian and Paleozoic rocks that cover most of the northeast flank of the Lemhi Range. About 2 miles to the northwest of the Silver Moon property quartz diorite porphyry dikes have been described by Joseph B. Umpleby (Geology and Ore Deposits of Lemhi County, Idaho, 1913: U. S. Geol. Survey Bull. 528, p. 93). In the second paragraph on page 2 of a memorandum examination report dated February 9, 1965, I stated: ". . . the exposed walls were in the same oxidized material with andesite in the back." The applicant had stated that the harder rock in the drift back had been identified by the U. S. Bureau of Mines as andesite. However, closer inspection of this rock indicates that it is a bed of slightly silicified dolomitic limestone and nothing that could be definitely classified as a dike rock was seen. The dikes described by Umpleby are post-ore in age, at least in part, and probably have little control on ore deposition.

Since the first inspection, the shaft has been advanced about 50 feet to a total depth of about 92 feet (fig. 1). At a depth of about 60 feet a fault striking N. 5° E. and dipping 65° E. was encountered. The shaft was turned from its initial bearing of N. 35° W. to N. 5° E. and continued down along the plane of the fault which it penetrated for no more than 2 feet. There is about 1/4 inch of clay along the hanging wall underlain by soft, shattered, and fine-grained slightly siliceous material probably crushed dolomitic limestone. A sample taken across 1.5 feet of this material assayed 4.9 ounces silver per ton and 3. 5 percent lead. Two additional samples were taken from the face at the bottom of the shaft across the bedding of the limestone, one near the center of the face, the other near the right-hand corner of the shaft. Respectively, they assayed 10.1 ounces silver per ton and 0.2 percent lead over a width of 2.5 feet, and 11.3 ounces silver per ton and 0.75 percent lead over a width of 2.0 feet (fig. 1).

Inside the hoist-compressor house, northwest of the shaft collar, the face of a remnant of unbulldozed bedrock exposes a sheared zone that strikes about N. 35° E. and dips 62° NW. This zone is also exposed north of the hoist house in the wall of the cut in which the hoist house stands. According to Taylor, while the cut was being made, several pieces of rock containing veinlets of horn silver were found

along this shear zone, but neither enargyrite nor sulfide minerals could be found by the examiner. The applicant could not indicate specific localities at which his samples were taken, although he indicated that the following assays were of samples taken over a length of 160 feet along the shear zone.

	Width (inches)	Ag oz/T	Pb %	Applicant's description
	10	68.6	34.0 (approx.)	Off top of vein
	10	45.6	13.5	Upper vein material
	10	48.4	0.2	Upper vein under andesite
	36	11.4	nil	Lower vein
	12	118.0	NA	Vein above portal
	12	108.0	NA	Vein above and 20 feet right of portal
	12	8.3	nil	Top of vein in shaft
Av.	15.5	47.3	5.42 (5 assays only for lead)	

However, if this general average is broken down, the 2 highest silver assays of samples taken 20 feet apart represent a lens, say possibly 30 feet long and 12 inches wide with an average grade of 113.0 ounces silver per ton and the remaining 5 samples indicate an average grade of 27.13 ounces silver per ton over an average width of 15.6 inches.

Seven samples taken by Clarence E. Felix, Consulting Geologist, from the shaft between the surface and a depth of 40 feet assayed:

	Width (inches)	Au oz/T	Ag oz/T	Pb %
	28	Tr	1.6	NA
	20	Tr	0.6	nil
	44	0.01	5.0	NA
	34	0.01	3.6	NA
	60	0.01	4.4	1.6
	7	0.01	4.0	NA
	15	0.02	8.8	NA
Av.	29.7	0.01	3.96	1.6 (1 sample only for lead)

Three samples within the same segment of the shaft taken by the examiner January 11,1965, assayed:

	Width (inches)	Au oz/T	Ag oz/T	Pb %
	12	Tr	2.7	2.4
	12	Tr	4.1	0.4
	29	Tr	2.9	NA
Av.	17.7	Tr	3.13	1.4 (2 samples only for lead)

Three samples taken by the applicant from depths of 35 to 50 feet in the shaft assayed:

	Width (inches)	Au oz/T	Ag oz/T	Pb %
	10	0.02	20.2	8.3
	12	Tr	5.7	1.05
	48	0.03	5.9	5.95
Av.	23.3	0.02	7.9	5.44

Four samples taken by the applicant at an approximate depth of 75 feet assayed:

	Width (inches)	Au oz/T	Ag oz/T	Pb %	Applicant's description
	14	Tr	10.4	3.05	14 inches from HW down
	16	0.02	14.2	5.20	16 inches of ashy quartz
	20	0.02	17.4	4.30	20 inches between ashy quartz and lens under FW
	6	Tr	6.6	5.20	Material next to contact
Av.	14	0.01	13.6	4.34	

The numerical average grade of three samples of no given width taken by the applicant at the face of the shaft is 0.023 ounces gold and 11.78 ounces silver per ton and 1.55 percent lead. This compares with the three OME samples taken from the same face, which averaged a trace gold and 9.2 ounces silver per ton and 1.2 percent lead over a width of 24.0 inches.

For comparison, the average widths and grades of the various sample groups are tabulated:

Sample group	Number of samples	Width (inches)	Au oz/T	Ag oz/T	Pb %
Applicant's along surface zone	7	15.5	--	47.3	3.42
Felix 0-40 feet in shaft	7	29.7	0.01	3.96	1.60
OME 0-40 feet in shaft	3	17.7	Tr	3.13	1.40
Applicant's 35-50 feet in shaft	3	23.3	0.02	7.90	3.44
Applicant's at 73 feet in shaft	4	14.0	0.01	13.60	4.34
Applicant's at shaft bottom	3		0.023	11.78	1.55
OME at shaft bottom	3	24.0	Tr	9.20	1.20

Excluding the 3 samples taken by the applicant at the shaft bottom, the remaining 6 groups of samples taken at the surface and in the shaft from 0 to 92 feet below the outcrop, weighted by the number of samples in each group times the average width, indicate an overall average grade of trace gold and 7.0 ounces silver per ton and 2.43 percent lead over a width of 22.9 inches, a considerable drop from the average grade at the surface.

Based on the above sample statistics, it is apparent that although there is a slight increase in the average silver content from 0 to 92 feet in the shaft, the values of interest are spotty, occur at irregular intervals, and constitute only 6 out of 27 samples considered. The 6 values range from 10.1 to 20.2 ounces silver per ton and average only 13.16 ounces silver per ton over a width of 18.8 inches. One sample taken by the applicant at the bottom of the shaft assayed 21.3 ounces silver per ton, but as no width is given, it is not included in the average of the "values of interest."

The applicant has submitted two assay reports of samples that should be mentioned, and in his letter of April 20, 1965, mentions a third. Although no widths are given, the two reported assays are:

Ag oz/T	Description
3,215.0	Horn silver off upper portion of upper vein.
2,180.8	Yellow rock taken about 15 feet down the contact. Had quite a bit of native silver visible in rock. (This is about 75 feet below the shaft collar.)

In his letter of April 20, the applicant states: "Mr. Taylor shot a trench along the contact on the surface and found some pieces of yellow high-grade silver. He had a piece assayed and it ran 1,490.0 oz. per ton." Referring to figure 1, this sample (or specimen) came from the side of the dozer cut near the indicated shear that strikes N. 5° E. and dips 74° SE. This is undoubtedly the same structure as the fault encountered in the shaft. That they are not more closely tied together on figure 1 is due to local magnetic attraction at places in the shaft and hoist house that could not be avoided. The applicant could show no evidence of similar material in place either on the surface or in the shaft, but apparently small pods of very high-grade silver occur erratically in the vicinity of the shaft. Other such pods may or may not be found.

About 50 feet southwesterly from the applicant's shaft is an old inclined shaft caved a few feet below the collar. It is said to have an inclined depth of about 80 feet; at the collar the apparent inclination is 35°. Drifting from the bottom of the shaft is said to be in excess of 50 feet, but the direction is not known nor is the amount and grade of production, if any.

About 300 feet northwesterly of the applicant's shaft is the Grace Phelan shaft, from which $90,000 worth of silver is said by the applicant to have been shipped in 1937 or 1938. These workings were not accessible as the shaft collar was choked by snow. The shaft is said to be 140 feet deep and to have cut, at 90 feet, an ore shoot which was followed by a 250-foot drift.

About 110 feet northeasterly from the applicant's shaft is an area of cleared ground where the end of a single shaft timber may be seen. This is said to be the site of a shaft some 20 to 30 feet deep from which 7 tons of ore averaging 200 ounces silver per ton and 62 percent lead was shipped in 1937. Unfortunately, all settlement sheets formerly in the applicant's possession were lost in a fire a few years ago.

Umpleby (1913) devotes two paragraphs on page 108 to a description of the ore deposits in Silver Moon and Liberty Gulches. The Silver

Moon ore body, which he describes as being in the form of a lens about 50 feet long and 30 inches in maximum thickness, feathering out to the north and south, is about 1,000 feet northwesterly from the applicant's shaft. This vein, said to have produced 80,000 ounces of silver about 1893, was not visited in May as it was reportedly still covered by snow.

The above reports indicate that since about 1893 the total production of silver from the Silver Moon property has been:

Year	Silver ozs.	Approx. price/oz	Approx. value
1893	80,000	$0.87	$ 69,600
1937	1,400	0.4488	600
1937-1938	204,500	0.44	90,000
Total	285,900		$160,200

At the present price of silver, this production would be worth $368,800.

Data in Mineral Resources of the United States for 1893 and in Minerals Yearbooks for 1937 and 1938 suggest that the above reported production is reasonably correct.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In summary, known ore bodies that have reported production were apparently small lenticular replacement deposits in dolomitic limestone. Although at three separate localities in and near the applicant's shaft samples have contained very high-grade silver, the average of all samples taken in the same area is not ore grade. However, ore grade is approached in the last 20 feet of the shaft and in general the silver content appears to increase with depth; lead values exceed those of silver to a depth of about 50 feet and in general fall within the range of 1.2 to 5.4 percent. One hundred ten feet northeasterly of the shaft reported silver values exceeded those of lead from the surface to a depth of 20 to 30 feet.

It is concluded on the basis of presently available data that there may be other small lenticular ore bodies within the Silver Moon property, some of them fairly high in silver, but that the chance of making a significant discovery by continuing the shaft and by the proposed drilling would be pure luck.

It is recommended that the application be denied without prejudice and that, should detailed geologic mapping and trenching indicate

the presence of a more favorable target, consideration should be given to any proposal based thereon that the applicant might submit.

Consideration has been given to a possible recommendation to drill holes 1 and 2 proposed in the supplemental application with holes drilled 100 feet on each side of these at right angles to the line of the shaft, but the general low grade in the applicant's shaft and the apparent small size of known lenses make this a pretty long shot. The remaining proposed drill holes are located by the general proximity of old workings and can only be considered as being in the nature of prospect holes.

D. R. MacLaren

D. R. MacLaren

Enclosure
Distribution:
OME(2)
USGS(SRO)
Docket
MacLaren

Docket

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION
So. 157 Howard Street
Spokane, Washington 99204
February 9, 1965

Memorandum

To: Chief, Division of Exploration Operations

From: Acting Field Officer, Region I

Subject: Field Examination Report
OME-6381 (Silver)
Silver Moon Mining Co.
Silver Moon Claim Group
Lemhi County, Idaho

The Silver Moon property was visited January 11, 1965, accompanied by Ralph Taylor, partner in charge of the work, and one employee. No other persons were at the property. As there had been considerable snowfall during late December, much of which blows into sizable drifts during each day and night, the examiner was met by Taylor with a D-8 cat equipped with blade. No difficulty was encountered in reaching the property, but all workings except an inclined shaft on the Grace Phelan claim were buried under 3 or more feet of snow and were inaccessible.

The property may be reached from Leadore by proceeding southeasterly along State Highway 28 for 16 miles to the Gilmore road; turn right and follow this improved road for a half a mile to the Silver Moon access road which is marked by a sign; follow this unimproved and ungraded road for 2 miles to the camp.

The camp consists of 2 or 3 bunkhouses, a mess hall, and 3 lesser buildings for wood and vehicle protection. At the Grace Phelan shaft is a combined shop and hoist house extended to protect the shaft collar.

Before going to the shaft the questions raised in the November 9, 1964 memorandum of referral including costs were discussed with Taylor.

Stripping operations of a narrow vein cropping disclosed a vein up to 20 inches wide for a length of about 160 feet. The assays accompanying the application represent samples taken at various places and of various types of material from the stripped area. Four chip samples of vein material had an average grade of 42.8

ounces silver per ton; one assayed 118.0 ounces silver per ton over a width of 12 inches, another assayed 43.6 ounces silver per ton over a width of 10 inches representing high grade; one assayed 8.3 ounces silver per ton over 12 inches and the fourth assayed 1.4 ounces silver per ton over a width of 12 inches representing low grade. Ten grab samples had an average grade of 21.30 ounces silver per ton and ranged from 0.40 to 48.40 ounces per ton. One cut sample assayed for lead ran 13.5 percent. One of the grab samples was estimated to contain 34 percent lead and 7 others assayed for lead ranged from nil to 0.4 percent. The cut is partly occupied by a combination shop, hoist house, shaft cover and the rest of it was covered by up to 2 feet of snow. The character of the vein and its relationship to the enclosing rock could not be observed.

The shaft had been put down about 40 feet. Near the collar the vein, represented by soft crused material heavily stained by manganese and somewhat less iron oxide, is about 2 feet thick. At 30 feet the full height of the shaft was said to be in the same soft oxidized material. However, this could not be checked as from about 25 feet to the face at 40 feet the back had been shot down but not mucked out; the exposed walls were in the same oxidized material, with andesite in the back. The floor of the shaft was timbered for the full width of 8 feet for the first 20 to 25 feet and is inclined at about 45°. Taylor said he had blasted out the back to expose the full width of the altered zone and to try to expose a vein said to be in the hanging wall.

Two character samples of the oxidized material were taken from opposite walls of the shaft just above the muck and about 30 feet below the sill. The southwest sample assayed 2.7 ounces silver per ton and 2.4 percent lead over a width of 1 foot; the one from the northeast side assayed 2.9 ounces silver per ton over a width of 2.5 feet; it was not assayed for lead. The sample locations were determined by a fairly distinct band of harder material, possibly weathered vein filling, that strikes N. 38° E. and dips 45° NW. The same structure at the toe of the shaft, about 40 feet below the collar strikes N. 34° E. and dips 45° NW. A third sample of porous material at the face, believed by Taylor to be high grade, assayed 4.1 ounces silver per ton and 0.4 percent lead.

On February 4, 1965, Taylor visited the office and left a copy of a report by Clarence E. Felix which had been received since my inspection, and an assay report on samples he had taken also received after my visit. The report, which Taylor requests be returned when it has served its purpose, is enclosed along with a Thermofax copy of the assay report. On the assay report I have written such widths, locations, and sample types as Taylor could give me from memory, and for comparison purposes have written the values, at $1.29 for silver and $0.155 for lead, above four of the assays.

All that can be concluded at this time, based on my assays, those of Taylor, and those of samples taken by Felix is that a vein apparently increasing in width with depth shows slightly increasing values in silver as it is followed down. I could get no ideas as to the lateral continuity within or beyond the limits of the bulldozer cut because of snow; whether Felix, who visited the property 3 weeks before I did could acquire firsthand evidence on which he bases his description of the bulldozed area or whether his basis is hearsay I do not know, however, near the bottom of page 6 of his report he mentions thick snow cover.

Although the applicant's assays of samples from the bulldozed pit are encouraging, there is no way of checking whether they represent the full length of the exposure or a relatively small area therein. The proposed 400 feet of inclined shaft might be justified if the indicated values can be checked over a length of 160 feet or more, but if the occurrence should be a lens of, say 30 to 40 feet long, such a shaft might be excessive. Therefore, it is recommended that in fairness to the applicant he be advised that another examination will have to be made after the snow is gone before a proper evaluation of his proposal can be made.

D. R. MacLaren

D. R. MacLaren

Enclosures
Distribution:
OME(2)
USGS(SRØ)
Docket
MacLaren

MME Form 40
Jan. 65

RECEIVED
SEP 7 1965
SPOKANE, WASHINGTON

Handed to Admin. Field Office 8/29/65

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF MINERALS EXPLORATION

Budget Bureau No. 42-R1368
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 Moon Mineing Co.
c/o Albert E. Brown
1563 Cassiopeia St.
Idaho Falls, Idaho

APPLICANT DO NOT USE THIS BLOCK

DOCKET NUMBER
6381

DATE RECEIVED

REGION

DIVISION CODE

BUSINESS ORGANIZATION *(Check one)*

INDIVIDUAL	
CORPORATION	
PARTNERSHIP	X
OTHER *(Specify)*	

STATE IN WHICH FIRM IS ORGANIZED

LIST CORPORATE OFFICERS OR PARTNERS HERE, IF APPLICABLE

NAME	ADDRESS	TITLE
Ralph H Taylor	Box 98, Iona, Idaho	President
Larry H Taylor	Box 98, Iona, Idaho	
Elmer Jornberg	Territon, Idaho	
Albert E Brown	1563 Cassiopeia St. Idaho Falls, Idaho	

MINERAL(S) FOR WHICH YOU WISH TO EXPLORE
Silver

ESTIMATED COST OF PROJECT
$ 56,105.48

PROPERTY NAME	LOCATION COUNTY	STATE
Texas Mining District,	Lemhi	Idaho

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 25, D. C., 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.

August 23, 1965
DATED

Ralph M Taylor
BY *(Signature)*

President Silver Moon Mining Co.
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.

INFORMATION REQUIRED WITH THIS APPLICATION

1. Financial Eligibility:

(a) Submit evidence of efforts made within 90 days preceding the filing of this application to obtain credit from your bank of account and at least one other banking institution or other private source of credit. Such evidence shall include true copies of correspondence which show: (1) date of loan request, (2) amount and terms requested, (3) proposed use of loan funds, and (4) the replies from credit sources. If the loan was offered under terms which you consider unreasonable, state why you consider them so.

(b) List names and addresses of affiliated, parent, or controlling companies or organizations and state extent and nature of their interest.

(c) State how you propose to furnish your share of the cost of the exploration work.

2. Applicant's Rights in Land:

(a) State your interest in the land and mineral rights, whether owner, lessee, purchaser under contract, or other. If you are not the owner, submit one true copy of the lease, contract, or other document (with address of owner) under which you control the property. Describe all liens, mortgages, or other encumbrances on the land and state book and page number and official place where recorded.

(b) State the legal description (section, township, and range; metes and bounds; patent number of claims) of the land upon which you wish to explore and all adjacent land which you own or control. Describe any part of the land or workings which should not be subject to Government royalty and liens. If the land consists of unpatented claims, state book and page number for each recorded location notice, including amended locations, and official place where recorded. State all the names by which you know the property.

(c) For all land or mineral rights encumbered or not owned, submit five copies of Lien and Subordination Agreements on MME Form 52. If the agreements cannot be obtained, state reasons and provide copies of letters of refusal.

3. Physical Description:

(a) Describe in detail and illustrate with maps or sketches all mining or exploration operations which you know have been or are being conducted upon the land. Include existing mine workings and all production facilities.

(b) State your interest, if any, in operations described in (a).

(c) State, if you know, the past and current production, supporting your statement with copies of settlement sheets, mine records, or published data if available.

(d) Describe known ore reserves, giving quantities and grades and sampling methods used. Support your statement with copies of assay certificates and assay maps if available.

(e) Describe by narrative and maps or sketches the geologic features of the property, including ore minerals, geologic formations if known, and type of deposit (vein, bedded, etc.).

(f) State your reasons for expecting to find ore, and if you have sampled the area you propose to explore, show where the samples were taken, describe sampling methods used, and provide copies of assay certificates.

(g) Send with your application at least *two* copies of all geologic or engineering reports, assay maps, or technologic information which you have, indicating whether you require their return.

4. Accessibility of Property:

(a) To aid the OME representative who may examine the property, state name and address of person who will meet him; give directions for reaching the property; and describe accessibility of property and of any mine workings.

(b) Name the shipping and supply points and state the distances to the property.

5. Exploration Work:

(a) Describe fully the proposed exploration work giving individual footages and sizes of openings *for each item of work.* Use narrative, maps, plans, and sections as necessary. Show location of the proposed work as related to geologic features such as veins, ore-bearing beds, contacts of rock formations, etc. Show also the relation of the proposed work to any existing mine workings and to *land boundaries* or to the closest identifiable corner.

(b) If an access road must be built, show the proposed location on the property map and state the length, type and construction methods proposed.

(c) If an OME contract is executed, state how soon thereafter work would be started and finished. State your anticipated average daily, or monthly rate of progress for each type of work.

6. Experience:

State your operating experience and background to conduct this exploration work and also that of the person who will supervise the work.

7. Estimate of Costs:

Furnish detailed estimates of the necessary costs *for each item of the work proposed in 5(a)* under the headings listed below with a total for each heading and the estimated total cost of the work. Costs for any work to be performed by an independent contractor should be listed separately under category (a) below. Costs for any work that is not to be performed by an independent contractor should be listed under categories (b) through (g).

(a) Independent contracts. State the total cost of any proposed independent contract for all or any part of the work, and the number of units and the unit cost for each type of work, such as per foot of drilling, per foot of drifting, per hour of bulldozer operations, or per cubic yard of material moved. Cost estimates should be supported by bids from three contractors if possible. (*Note*—If none of the work is to be contracted, write "none" after this item.)

(b) Personal services. The cost of supervision, engineering and geological services, outside consultants, and labor should be itemized by numbers and classes of employees; rates of wages, salaries or fees; and periods of employment. State whether these services are available.

(c) Operating materials and supplies. List items of material and supplies giving quantity and cost of each. Include under this heading power, water, and fuel, and units of equipment and tools costing less than $50 each.

(d) Operating equipment. List items of equipment and tools costing $50 or more per unit. Give specifications and indicate how each item is to be acquired—i.e., rented, purchased or provided by the applicant. If rented or purchased, state the estimated rental or purchase price. If furnished by the applicant, state condition and present fair market value.

(e) Initial rehabilitation and repairs. Describe the type and the cost of *initial* rehabilitation or repair of existing buildings, fixtures, installations (exclusive of mine workings), and movable operating equipment now owned by the applicant which will be used in the exploration work.

(f) New buildings, fixtures, installations. Describe each building, fixed improvement, and installation to be purchased, constructed, or installed for the exploration work, stating specifications and cost including labor, materials, and supervision.

(g) Miscellaneous. Describe the type and estimate the cost of repairs and maintenance of the operating equipment listed in 7(d). Do not repeat initial repairs listed in 7(e). Show also the costs of analytical work, accounting, workmen's compensation and employees' liability insurance, payroll taxes, and other required costs that do not fall within the previous categories. [*Note*—The Government will not contribute to costs incurred before the date of the contract, or to costs of or incident to: (1) acquiring, using, or possessing land and any existing improvements, facilities, buildings, installations, and appurtenances, or the depreciation and depletion thereof; (2) general overhead, corporate management, interest and taxes (other than payroll and sales taxes); (3) insurance (other than employees' liability insurance); and (4) damages to persons or property (other than authorized repair to or replacement of equipment or other property used in the work).]

INT.-DUP. SEC., WASH., D.C

SILVER MOON MINING CO.
c/o Albert E. Brown
1563 Cassiopeia St.
Idaho Falls, Idaho

August 23, 1965

U. S. Department of the Interior
Office of Minerals Exploration
So. 157 Howard Street
Spokane, Washington 99204

Supplement to application dated October 16, 1964. To include detailed information, illustrations, and maps to justify a Phase #1 addition to the original application.

Phase #1 intended to provide more accurate goals for Phase #2, or proposed underground exploration.

3. PHYSICAL DESCRIPTION

(d) Exact knowledge of quality or quantity of ore is not known. Exploration by means of core drilling is planned to gain this information.

(e) The geologic setting is that of Paleozoic limestone on the border of the Idaho Batholith. These limestones have been fractured by intrusion of the batholith and associated dikes. There are two known faults which have been mapped and established by geologic methods. (See attachment A1-in envelope). An intrusive dike is found at the present mine working (See attachment A1, I). There are two veins associated with this dike (See attachment A1, Section C-C'). These veins are cut by a fault with the east side down approximately ten feet. The vein material is less altered on the ~~east~~ west side of the fault by ground water action. The assays from this mine work have steadily increased in silver as the shaft was put down.

The vein which was mined in 1937 at roman numeral IV (See attachment) has been crosscut by backhoe work this past summer. The vein assayed over five oz. of silver and is from two to eight feet wide. Backhoe work is planned to explore this vein along its strike to a greater extent. This may be mined by open pit methods.

The geologic setting around the fault on the west side of the mapped area is ideal for core drilling. Paleozoic limestones dip into the fault from both sides. (See attachment A1, Section A-A'). Ore bodies have been mined out in this area. (Bulletin 528 USGS, p. 108). The ore was implaced between the beds of limestone from solutions moving up the fault zone. We know at least two such ore bodies have been mined out. (See attachment A1, Section B-B'). No exploration at depth was done. The miners followed the veins into the side of the hill but did not put any shaft down to search for other ore bodies at depth. The silver has been found as silver chloride, silver bromide, cerargyrite, argentite, and other associated silver ores such ad embolite and kromyrite.

The ore bodies occur as veins and replacement bodies within the bedded Paleozoic limestones. Material found in the fault zones appears to be valuable.

Geologically there are three prime areas for exploration on the property, which are where the horn silver was found at the surface, (See attachment A1, I), near the 1937 workings where backhoe work has explored a good vein at the surface, (See attachment A1, IV), and near the mined out bodies found on the west side of the property, (See attachment A1, VII).

(f) Ore of higher quality in expected to be found down dip along the vein at the present working (See attachment A1, I) because of the assay increase in silver in the present working. The vein fits the classic description of an ore body with an enriched zone at the surface, a leached zone, then a steady increase in ore into the primary ore body.

The vein exposed at the surface (See attachment A1, IV) has produced ore (See attachment A2 ? where) but has not been extensively explored. Assays at the surface show five oz. of silver per ton. The size of this vein needs to be established. This vein is expected to increase in silver with depth and ore pockets are also expected because of the past history of the vein.

The area around the mine mentioned in Bulletin 528 USGS, page 108 (See attachment A1, VII) has never been explored at depth. At least two ore bodies were implaced between the beds of limestone, similar conditions can be expected at depth and on the east side of the fault which is covered and where little or no exploration has ever been done. The situation of limestone beds dipping into the fault should produce ore bodies at depth similar to those already mined out.

5. EXPLORATION WORK

(a) The following is a list of the proposed core holes:

No.	Footage	Size
1.	110	NX Core
2.	150	" "
3.	240	" "
4.	180	" "
5.	440	" "
6.	440	" "
7.	420	" "
8.	400	" "
9.	400	" "
10.	420	" "
Total Footage	3200 Ft. of NX size core holes	

These proposed core holes are numbered, plotted and footage shown on attachment A-1. These core holes are proposed according to the geologic structure around them such as veins, faults, old mine activity and ore bearing beds. See sections on attachment A-1 for a diagrametic exploration. Nearest location of section corner is shown on attachment A-1.

Core holes No. 1, 2, 3, and 4 are proposed to test the veins which are now exposed in our shaft. These veins have shown a steady increase in silver since our shaft was begun. Core holes are necessary down the dip of the veinsto determine value and quantity of the silver. See attachment A-1 for location and geologic setting of the proposed core holes.

Core holes No. 5, 6, 7, 8, 9, and 10 are proposed to explore the silver producing beds associated with known ore bodies which have been mined. This area was mentioned by Umpleby in U.S.G.S. Bull. 528, P. 108. This area is ideal for evaluation by core drilling. Paleogic limestones are found dipping into a foult. Ore bodies have been emplaced between the beds of limestone. Beds beneath the surface have never been penetrated by a drill bit of shaft work. All the old workings were horizontal and nearly driven into the side of the canyon. We propose to explore this area with the core holes mentioned above. See attachment A-1 for geologic setting, location, and footage for each hole.

(b) An access road is needed to reach locations 8, 9 and 10. This road will be approximately 300 feet long. Due to the terrain blasting will be necessary to build the road and clear the landings for the drilling rig. This road is to be built by cat with the aid of blasting where necessary.

(c) If an O M E contract is executed work would be started within two weeks depending on the weather. If weather conditions are unfavorable work would be delayed until next spring approximately May 15, 1966. The average anticipatedrate of progress would be 60 feet of coreing per day. The entire program is expected to take 75 working days. This estimate takes

5. (c)

into account move in time, set up time, and other necessary elements such as changing locations. The access road to locations 8, 9, and 10 would be built while other core holes were being drilled. We anticipate 6 days of cat work with associated blasting to build this road. This would be an average of 50 feet per day. The entire program is expected to take 75 days or 2 1/2 months.

Other items connected with this O M E application not mentioned in this supplement are covered in the original application.

7. ESTIMATE OF COSTS

(a)	McCabe bid (Exhibit A-3) Per. Ft. of NX Core	10.50
	Doyles bid (Exhibit A-4) " " " " "	9.90
	Cornell bid (Exhibit A-5) " " " " "	12.50
		32.90
	Average $11.00 per Ft X 3200 Ft Total---	$35,200.00
	Estimated additional cost factors 15%-------	5,200.00
	Factors include- overburden drilling-cementing-redrilling-casing-coring-circulation loss-and 6 additives Total---	40,400.00
	Water truck including driver and fuel $2.00 per day X 75 days	3,000.00
	Total---	$43,400.00
(b)	Supervisor $750.00 per Mo.	1,875.00
	Geologist 1,000.00 per Mo.	2,500.00
	Operator 600.00 per Mo.	1,500.00
	Cook 300.00 per Mo.	750.00
		6,625.00
		44,380.00
		$51,005.00
(c)	Bell 82 Hrs. cat 8 $1. per hr. 16¢ per gal.	103.68
	" 20 " Compressor 5gal per hr. 16¢ per	16.00
	Oil, hose, filters Approx	30.00
	Powder, 2 cases $15.60 per Case	31.00
	Core boxes, wooden 4 Ft. 4 Cores per $4.00 ea.	800.00
	Groceries $150.00 per Mo.	375.00
		1,355.68
		51,005.00
		$52,360.68
(d)	Compressor, 315 Cu. Ft. Furnished F.H.V	1,600.00
	Caterpillar, D-8 " "	8,000.00
	Water tank, 3000 Gal " "	350.00
	Air hose, 200 Ft. " "	120.00
	Truck 3/4-Ton, Chev. 4-Wh 1948 Furnished F.H.V	2,600.00
	Hammer, air, 65-Lb. Furnished F.H.V	400.00
		13,070.00
	1/60 per Mo. -$210.00 X 2 1/2 Mo.—	525.00
		13,360.00
		$52,705.68
(e)	Assay every 4 Ft.- 800 assays X $4.00-	3,200.00
		$55,905.68
	TOTAL----------	$96,105.68

Exhibit A-3

August 20, 1965

Silver Moon Mining Company
P. O. Box 81
Leadore, Idaho

Gentlemen

We submit the following prices covering the proposed Diamond Core Drilling near Gilmore, Idaho, Lemhi County.

1.	Mobilize and demobilize	$850.00
2.	Moving and setting up on each drill site	75.00
3.	Overburden drilling	10.95
4.	N. X. Core drilling	10.50
5.	B. X. Core drilling	9.90
6.	Cementing, redrilling, reaming, and casing (Plus down the hole cost)	15.00

Core prices include sludge collection every 5 to 10 feet.

The above prices are predicated on a minimum of 2,880 feet, a maximum of 4,000 feet.

We thank you for the opportunity of submitting this quotation and hope that we may be of service to you.

Yours very truly

McCABE BRO'S DRILLING INC.

Edwin L. McCabe

Edwin L. McCabe

Left @ Spok. by Brown & Hansen 7/14/65

The Silver Moon Mine

Summary of Activity

The Silver Moon Mine claims are located primarily in section 29, T. 13 N., R. 27 E., Lemhi Co. Idaho. The formation boundaries and age assignments have not been made for the rock units due to lack of fossil information and limited exposures. The structure-geologic map with this summary is based upon Brunton compass readings and measurements.

The various mine workings on the property are identified with a Roman numeral. The following is a brief outline of the activity connected with each mine as supplied by former lease holders, miners, and personal measurements:

I. This is the mine now being worked. It was located on an outcrop of hornsilver. The vein upon which the hornsilver formed lies beneath a highly altered intrusive dike. Both dip to the north-northwest at 40°. The mine shaft has been sunk on an incline following another vein found beneath the one mentioned above. The assays support the expected sequence of ore deposits from this vein. After the enriched zone near the surface a leached manganees zone was encountered which ran two to three ounces of silver per ton. The assays now run 30 to 40 ounces per ton with rich streaks running over 200 ounces per ton. A fault was encountered at a depth of 64 feet and the shaft has followed the fault plane another 36 feet. They are now in the process of shooting across the fault and up into the vein which supplied the hornsilver.

II. Depth - 85 feet on an incline with over 55 feet of crosscut work.
Ore - tonnage or value not known

III. Depth - 25 feet on an incline
Ore - seven tons which ran 62% lead and over 200 ounces silver
Year - 1937

IV. Depth - 140 feet with ore at 90 feet and one 240 foot crosscut.
Ore - $90,000. worth of silver
Year - 1937-38
One of the veins cut by this mine has been exposed by back hoe digging along its strike. It assays four to five ounces of silver at the surface.

N.B.--left at Spokane Office by Brown & Hansen 7/14/65.

V. Depth - 30 feet
Ore - five to six tons high grade copper, silver and lead
Year - 1939-41

VI. Depth - 90 feet - connected to V by tunnel
Ore - only scattered pieces
Year - 1939-41

VII. Depth - 70 feet into side of hill and 50 feet down along a bedding plane
Ore - 80,000 ounces of silver
Year - before 1912
Ref. Bull. 528; U.S.G.S. p. 108

VIII. Depth - 75-80 feet into side of hill
Ore - tonnage or value not known
Year - before 1912

IX. Depth - 70 feet into side of hiss with three stoped taken out
Ore - tonnage or value not known
Year - before 1912

X. Surface cut - not information

XI. Depth - 40 feet with additional working not measured
Ore - $35,000. worth of silver
Year - ?

It is my opinion that this property merits more extensive exploration. The scattered locations which produced ore and the present leads indicate that more ore should be present.

Steven C. Hansen

Steven C. Hansen
Geologist

P. O. Box 808

Phone SK 2-5612

CERTIFICATE OF ASSAY

FROM

PETER MACK

ASSAYER AND CHEMIST

Office of Minerals Exploration

Wallace, Idaho, May 22, 1965

MARKED	Gold ozs. per ton	Silver ozs. per ton	Lead %	Zinc %	Copper %	Iron %	Insol. %	U_3O_8 %	%
549B	Tr	10.1	0.2	2.5	center face Silver Moon				
550B	Tr	11.3	0.75	2' rt. side face Silver Moon					
551B	Tr	4.9	3.5	1.5' from belt Silver Moon					
552B	Tr	1.6	Tr	2.2	22 oz in Nitrate 10			1 in Accept	
553B	Tr	Tr			FeO stained stock 2'			Chemical	
554B	Tr	Tr			Alt. grey gen. 5'				

RECEIVED

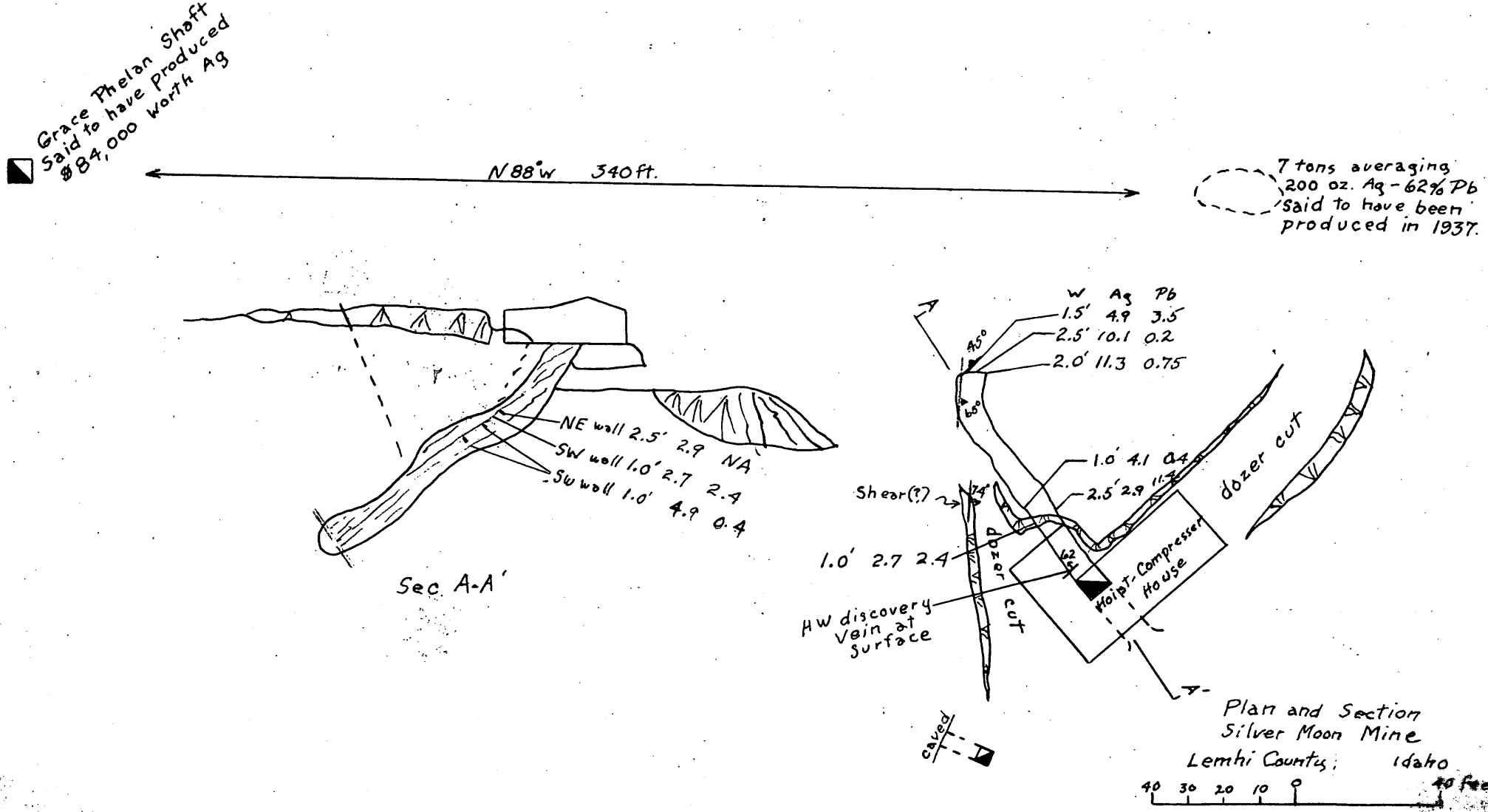
MAY 24 1965

O.M.E.

Charges

9m 5 63 12

Peter Mack



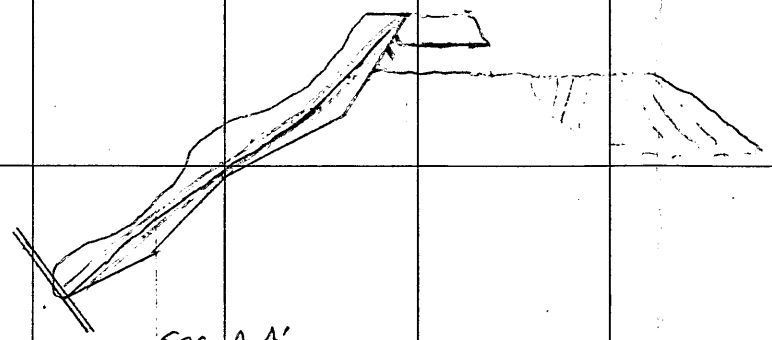
Plan and Section
Silver Moon Mine
Lemhi County, Idaho

May 11, 19[illegible]
Fig. 1

Spokane
EXHIBIT 10TO S —

J. A. Gendron Co., Spokane

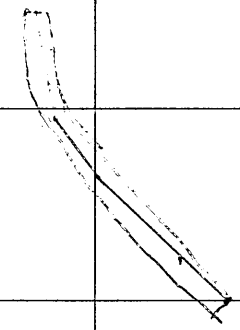
K+E ALBANENE 195M TRACING PAPER 62943



Sec. A-A'

340 ft ± N 88° W
To old shaft said to
have produced $70,000 in silver

Area in which
old pit reported
No indication on
present surface



W	Ag	Pb
1.5	4.9	3.5
2.5	10.1	0.2
2.0	11.3	0.75
1.0	4.1	0.4
2.5	2.9	NA
1.0	2.7	2.4

A

45°

65°

Shear pit in trench

Hoist-Compressor House

A

Caved

J. A. Gendron Co., Spokane

K+E ALBANENE 195M TRACING PAPER 62843

K+E ALBANENE 195M TRACING PAPER 62943

J. A. Gendron Co., Spokane

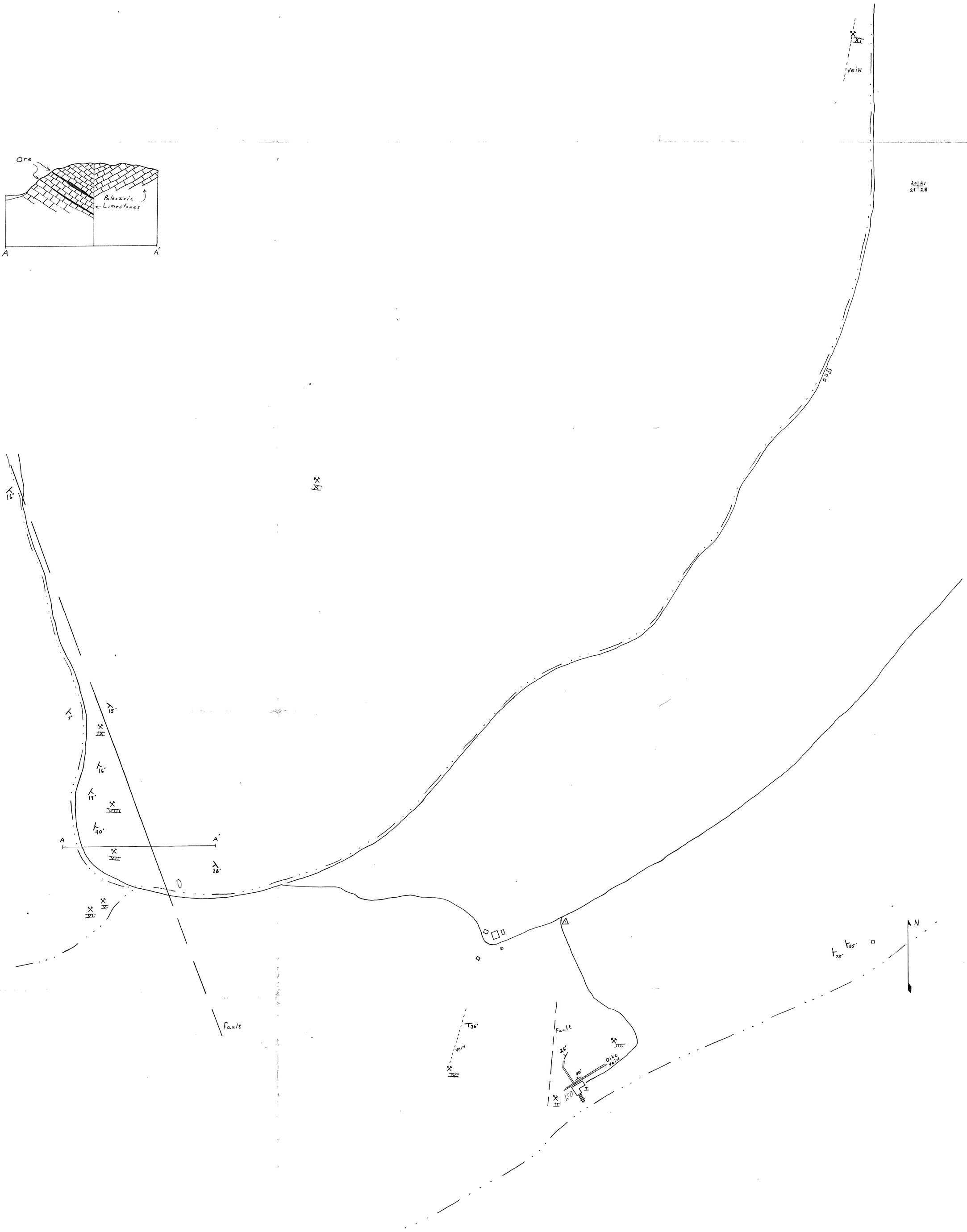
THE
SILVER MOON MINE

Preliminary Structure-Geologic Map

Prepared by Steven C. Hansen Geologist

June 1965

Scale 1" = 100'



Docket No. 6381
Attachment A 1

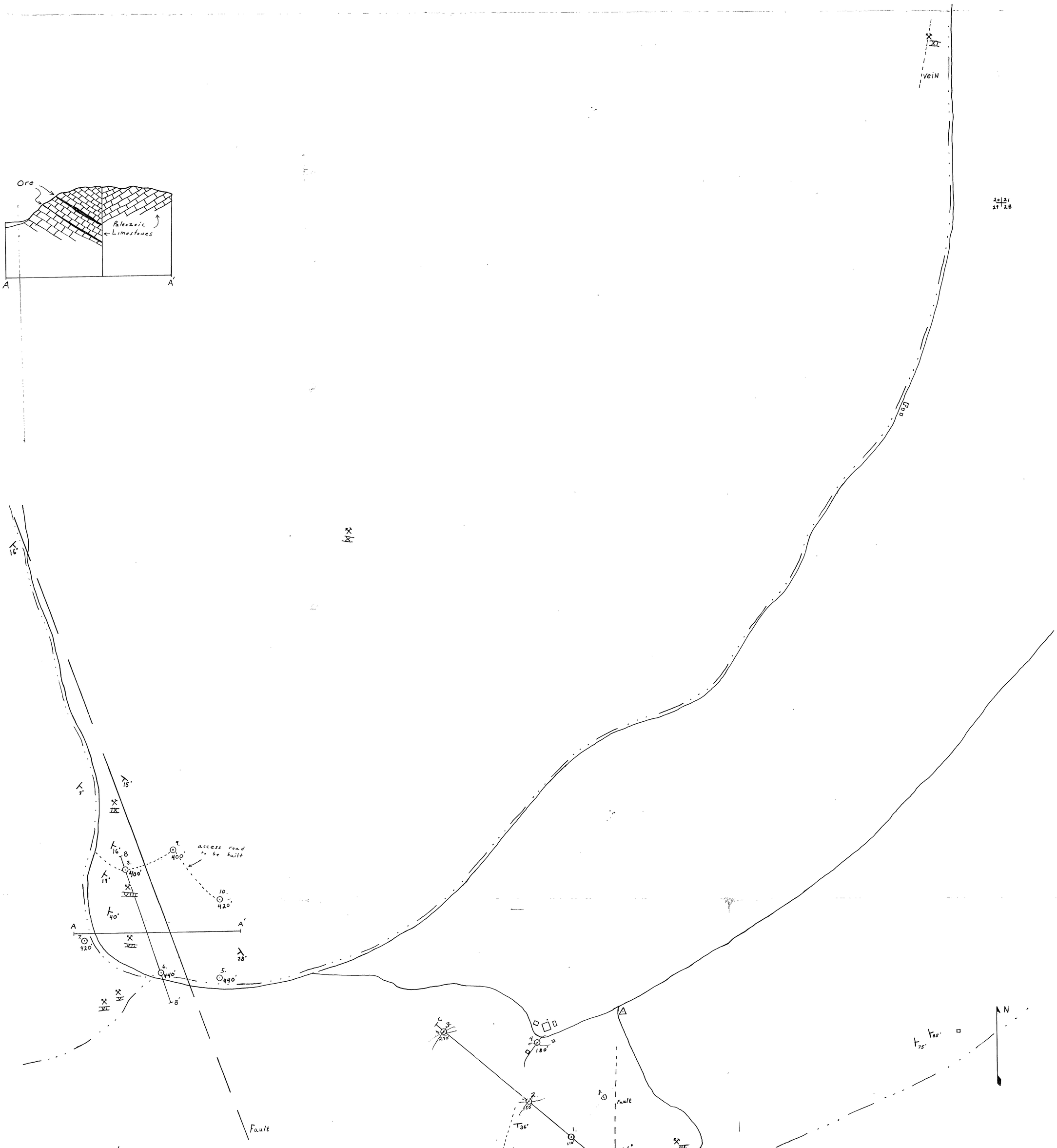
THE SILVER MOON MINE

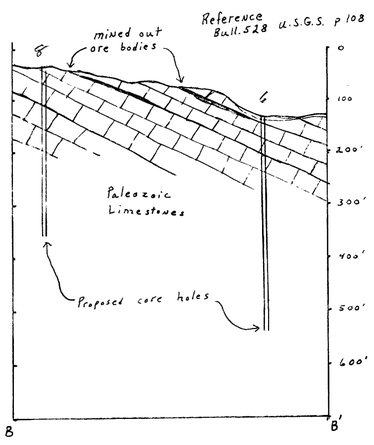
Preliminary Structure-Geologic Map

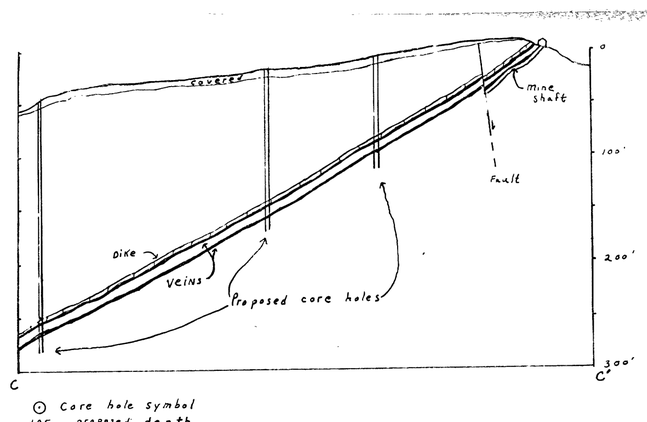
Prepared by Steven C. Hansen Geologist

June 1965

Scale 1" = 100'







⊙ Core hole symbol
105 proposed depth