

004276

McALLISTER MINE.

82K/3E

82K/SW-25

The McAllister Mine
(Lat. $50^{\circ}05'$, Long. $117^{\circ}15'$)

Slocan Mining Division

B.C.

PROPERTY FILE

May 20, 1974

George L. Mill, F. Eng.

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INTRODUCTION

This report is written at the request of Mr. Ralph Sostad, 410 - 470 Granville Street, Vancouver, B.C. It has reference to the McAllister Mine, a former silver-lead producer located on the eastern slope of the Kane Creek Valley in the Slocan Mining Division of British Columbia. Its purpose is directed towards the determination of the economic feasibility of entering into an exploration program to obtain information relative to the lateral and down-dip potential of the vein system or systems on the property and - considering present silver prices - the chances of offsetting, at least in part, the cost of such a program by carrying on scavenger operations in old workings on the upper horizons.

SUMMARY

In summary, the writer is of the opinion that the high silver content of the main vein - a feature supported by past production records - the indicated presence of partially-developed and readily accessible ore above No. 3 level at its east end and the availability of targets to the west and below that horizon, offer a combination of targets which warrant investigation of the profit-making potential of the McAllister property at present metal prices and production cost levels.

Taking all these factors into consideration recommendations have been advanced which cover the first two stages of an exploration program and which call for:

1. The provision of adequate access facilities to permit the geological mapping and the sampling of all existing underground workings.

2. The rehabilitation of the No. 3 Level crosscut and that portion of the drift which extends eastward from the intersection of that crosscut with the lode.

3. Stopping operations above No. 3 Level, in the area lying between the two faults shown on White's longitudinal projection, to an extent at least sufficient to provide test shipments to the smelter.

It has been estimated that the first stage of the program as outlined will call for a capital outlay of \$15,000.00 and that the implementation of the second stage an additional \$30,000.00. Subsequent stages, if warranted, would involve rehabilitation of No. 6 Level crosscut as the main haulageway, and exploratory work on No. 3 Level west of its crosscut as well as on the down-dip projection of the main vein below the No. 3 Level horizon.

PROPERTY

The subject property comprises four Crown-granted mineral claims held by Mr. Sostad under the terms of an "option to purchase" agreement. Located in the Slocan Mining Division of British Columbia these claims are identifiable as follows:

Ridgeway	-	Lot No. 11898
Silver Queen	-	Lot No. 11899
Silver King	-	Lot No. 11900
Rause Fraction	-	Lot No. 11901

LOCATION AND ACCESSIBILITY

The property is located in the Slocan Mining Division of British Columbia. It lies on London Ridge, northwest of Princeton and on the east side of Kane Creek. It is readily accessible by road from New Denver via the New Denver-Kaslo road to Three Forks, up the Kane Creek road for a distance of four miles, then up a two mile switch-back road to No. 3 level portal. Due to its close proximity to New Denver, no camp provision would be necessary but transportation facilities would have to be provided over the approximate twelve mile travel distance.

PHYSICAL FEATURES

Portal elevations range from 5,500 to 6,000 feet above sea level. Climatic conditions are moderate but a relatively heavy snowfall must be anticipated. An ample water supply is available from underground sources or from Kane Creek but most of the timber requirements would have to be obtained from sawmills in the vicinity.

HISTORY OF THE PROPERTY

In the course of its intermittent operation between the years 1903 and 1950 the McAllister Mine is reported to have accounted for the delivery of a total of 23,194 tons to the smelter. Total metal content of these shipments was:

Gold	98 ounces
Silver	1,049,383 ounces
Lead	30,626 pounds

Zinc

5,409 pounds

This type of ore is commonly classed as a "dry" silver ore and, in this case, represents a per ton silver content of approximately 45 ounces.

The original surface exposure is said to have been traced over a distance of 2,000 feet and to have varied in width from 3 to 9 feet. The old trenches and open cuts are no longer distinguishable. The vein was first developed on three horizons with No. 3 level crosscut (Elevation 5850) serving as the main haulageway. In 1925, No. 6 level crosscut was started at Elevation 5500 and eventually connected by manways and ore-passes with new working horizons Nos. 4, 4½, 5 and 5½, none of which was extended to surface. No. 6 crosscut then became the main haulageway and tramming facilities extending beyond its portal, along the contour of the hillside, to the upper terminal of a two-bucket aerial tramway, 4,000 feet in length, extending to the floor of the valley.

On No. 3 level silver content of the vein was reported as ranging between 30 and 40 ounces per ton over a strike length of 1,000 feet. On No. 4 level a 380 foot length showed an average width of 4.5 feet and an average grade of 38 ounces of silver per ton. With the exception of small highgrade veins - presumably not part of the main vein - no tonnage of any consequence was developed below the No. 5 horizon. No. 6 level crosscut, though driven beyond the projection of the downward continuation of the main vein in 1926, did not intersect it but the vein is said to have been picked up two years later. The writer was unable to confirm this in the course of his 1968 examination because of the condition of the manways and the lack of ventilation due to caving of the portal of No. 6 level crosscut. In 1929 development work was confined to driving northeasterly from

a 76 foot raise extending from No. 6 level to reach "favorable ground on the downward projection of No. 5 level stopes". Access to this was not gained and the extent of the advance is not known. Beyond this date production was limited to 1,078 tons under lease arrangements with a reported silver content of 58,251 ounces.

When Liberty Mines Limited optioned the property in 1968 the writer stressed the importance of re-opening No. 6 level crosscut - initially, at least, to an extent sufficient to provide adequate ventilation to permit the safe examination and geological mapping of all workings below No. 3 level. Because of its poor condition plans called for the re-location of the portal with the new heading directed to a breakthrough in more favorable ground conditions. K.J. Christie, P.Eng., who supervised this underground work, states that the advance on this new heading was suspended with the face within a few rounds of its target. The writer understands, however, that a substantial amount of road work was done, principally in the area of the switchbacks.

GEOLOGY AND MINERALIZATION

The underlying formations on London Ridge are the slates, argillites and quartzites of the Slocan Series. Intrusive dykes and stocks, varying greatly both as to composition and in thickness or cross-section, are common in the area and are related to the Nelson batholith. The sediments show complex folding with frequent reversals in dip. The McAllister Main Vein occurs in quartzites underlain by a soft bed of slates estimated to be some 300 feet in thickness. The vein has an average strike of north 40 degrees east and an average dip of about 45 degrees to

the southeast. In places, however, it will flatten to 20 degrees and, in others, steepen to 60 degrees. It is well-defined in the quartzites but, upon encountering the slate formation to the northeast, it appears to break into a series of small veinlets. This may be due to faulting at the contact but it has been pointed out that it may also be due to closure of the fissure in the soft slates and that its further continuity might be expected should it re-enter the quartzites.

The lode material consists of quartz and crushed wall rock. The quartz carries silver values which appear to be associated principally with tetrahedrite, with the possible presence of tennantite in minor quantities. Pyrite, galena and sphalerite appear to a lesser extent. The contained minerals are either distributed irregularly through the quartz or concentrated in small rich shoots located in the vicinity of cross fissures which intersect the main vein at an angle of about 30 degrees.

Apart from the main vein a number of other quartz veins have been observed on the property but have not been explored.

POTENTIAL OF THE PROPERTY

Having reference to the enclosed plan and longitudinal projection of the mine workings it will be noted that the property has been developed by six main levels and two sub-levels over a vertical distance of 400 feet below surface. Levels Nos. 1, 2, 3 and 5 are adits which reach the main haulageway. In the course of his last visit to the property the writer gained access to most of the workings lying on and above No. 3 level with the major exception of the southwesterly portion of No. 3 level where air

conditions appeared hazardous. Attempts to reach horizons below the 4th sub-level were abandoned due to difficulty of access as well as lack of ventilation because of the closure of No. 6 crosscut at its portal.

Reference to the enclosed longitudinal projection shows that practically all past production originated from the central portion of the workings. As shipments averaged better than 45 ounces per ton in silver content one can assume that work was concentrated in this area because of its higher grade or the fact that it was more readily accessible. Based on the visual examination of the vein on the horizons inspected, the assays reported by White on his longitudinal projection of the workings and the current price of silver it would certainly appear that a substantial tonnage of profitable ore remains to be mined on both sides of the major stoped areas.

To substantiate further the opinion expressed above and having in mind the current price of silver as compared to that prevailing in 1935, the writer extracts the following assays and comments appearing in White's longitudinal projection:

A) Southwest of the Main Raise

1. Small stope on No. 3 level 500 feet from the raise - vein 25' wide @ 44.5 ozs/ton.
2. "quartzite carrying low grade (?) quartz vein" in general area.
3. Small stope on No. 5 level 150 feet from the raise - vein 16.4' wide @ 24.5 ozs/ton.

B) Area between No. 2 Level and Surface

1. "This area probably carries some commercial ore tonnage".
Two samples taken from stope backs show vein 12.6" wide @ 34.3
ozs/ton and 50" wide @ 36.5 ozs/ton respectively.

C) Area between Main Raise and Fault

1. Sample taken between Main raise and southwest boundary of
stoped area on No. 4 level - vein 38" wide @ 44.7 ozs/ton.

2. Samples taken on floor of underhand stopes on No. 5 level -
vein 62.9" wide @ 57.7 ozs/ton and 25.4" wide @ 230.1 ozs/ton.

Check samples at this location taken by Sullivan in 1966 show vein
20" wide @ 94.8 ozs/ton and 24" wide @ 250.0 ozs/ton.

D) Area Northeast of the Fault

With reference to this area White states that it "doubtless carries
considerable good ore yet to be developed. Vein samples taken in
old workings above the assumed quartzite-slate contact vary from 6"
to 35" in width and from 22 to 137 ozs/ton in silver content.

It should be noted here that the position of the contact east of the
workings is not known and that the possibility exists that the main
vein may re-enter the quartzites.

In summary, the more attractive targets at date of writing are:

1. The area northeast of the main fault.
2. The area between No. 3 and No. 5 levels southwest of the main
raise.
3. The area below No. 5 level between it and the contact.

CONCLUSIONS AND RECOMMENDATIONS

The writer concludes that the implementation of an exploration program on the property is fully justified. Furthermore, he is of the opinion - based on available information and assuming the careful control of stoping operations - that there is sufficient reserve tonnage of adequate grade above No. 3 Level to offset partially the capital outlay required to carry the first two stages to completion. The conclusions and ensuing recommendations are based on the following factors:

1. The current price of silver.
2. The indicated availability of an adequate supply of partially-developed ore above No. 3 Level at a grade sufficiently high in silver content to warrant direct shipments to a smelter.
3. The possible potential of the zone lying southwest of the above indicated reserve and also above No. 3 Level.
4. The presence of known targets between No. 3 Level and the quartzite-slate contact.
5. The siliceous nature of the ore re the provision of silica "credits" from the smelter.
6. The relatively low cost of surface and underground rehabilitation, excluding the re-opening and maintenance of No. 6 level crosscut as a main haulageway, at least for mining operations below No. 3 level. The No. 6 level horizon must be classed as the unknown factor until access to it can be gained.

In concluding that the McAllister property has economic potential at current metal prices the writer advances the following recommendations outlined in stages with the implementation of the second and subsequent stages dependent upon the results reporting in its preceding stage:

STAGE 1

1. Extend the new heading started in 1968 by Liberty Mines Limited to its breakthrough to No. 6 Level crosscut. It is anticipated that this will provide adequate ventilation to permit safe access to the workings below No. 3 Level. Precautionary measures should be taken prior to breakthrough as the lower workings may well be flooded.
2. Rehabilitate raises necessary to provide safe access to all levels.
3. Carry out a comprehensive geological mapping program both on surface and in all underground workings.
4. Sample all pertinent locations with particular emphasis on the area above No. 3 Level drift east of its access crosscut. Bulky samples cut across realistic mining widths are recommended.

STAGE 2

1. Rehabilitate No. 3 Level crosscut and that portion of the drift extending eastward along the lode.
2. Provide essential surface facilities such as an ore bunker at the portal of No. 3 Level and a change room. Housing facilities are not considered as warranted at this time.

3. Carry out stoping operations above No. 3 Level, in the area lying between the two faults shown on White's longitudinal projection, to an extent at least sufficient to provide test shipments to the smelter. The number of shipments possible during the current year will depend, undoubtedly, on the starting date of the exploration program.

STAGE 3

While the writer considers that the second stage of the program can be classed as mandatory he recognizes fully that the implementation of the third and subsequent stages will depend upon the results obtained in the first two stages. The third and subsequent stages would call for the investigation of the potential of the western portion of the No. 3 Level, the down-dip projection of the vein and the economic rehabilitation of No. 6 Level crosscut as a main haulage way. Recommendations and cost estimates pertaining to these areas will have to be held in abeyance pending the receipt of results reporting in the first two stages of the exploration program.

A separate estimate of the capital outlay required to carry each of the first two stages to completion, as outlined in the appendix, shows \$15,000.00 for the first stage and \$30,000.00 for the second stage, for a total of \$45,000.00.

Respectfully submitted,


George L. Mill

COST ESTIMATESSTAGE 1

Mobilization	\$ 500.00
Road Repairs	750.00
No. 6 Level Portal Rehabilitation	3,500.00
Equipment Rentals	750.00
Operating Supplies	1,000.00
Transportation Facilities	500.00
Provision of Access to Raises	1,500.00
C. ological Mapping	2,500.00
Sampling and Assaying	1,500.00
Engineering and Administration	1,000.00
Contingencies	1,500.00

TOTAL STAGE 1

\$15,000.00
STAGE 2

Equipment Requirements (rental-purchase)	\$15,000.00
Rehabilitation of No. 3 Level	2,000.00
Operating Supplies	3,000.00
Transportation	2,000.00
Surface Requirements (ore bunker and change room)	3,000.00
Engineering and Administration	2,000.00
Contingencies	3,000.00

TOTAL STAGE 2

\$30,000.00

REFERENCES

N.C. Minister of Mines Reports - years:

1904-1920-1922-1924-1925-1926-1928 and 1935

P.S. White, P. Eng. - 1935

Plan and longitudinal projection of mine workings.

Assay plans of various levels.

Jos. Sullivan, P. Eng. - 1966 Report

The McAllister Mineral Claims.

George L. Mill, P. Eng. - 1968

Report on the McAllister Mine (for Liberty Mines

Limited, (N.P.L.))

K.J. Christie, P. Eng.

Comments re work done by Liberty Mines Ltd. under his supervision.

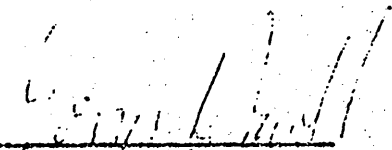
CERTIFICATION

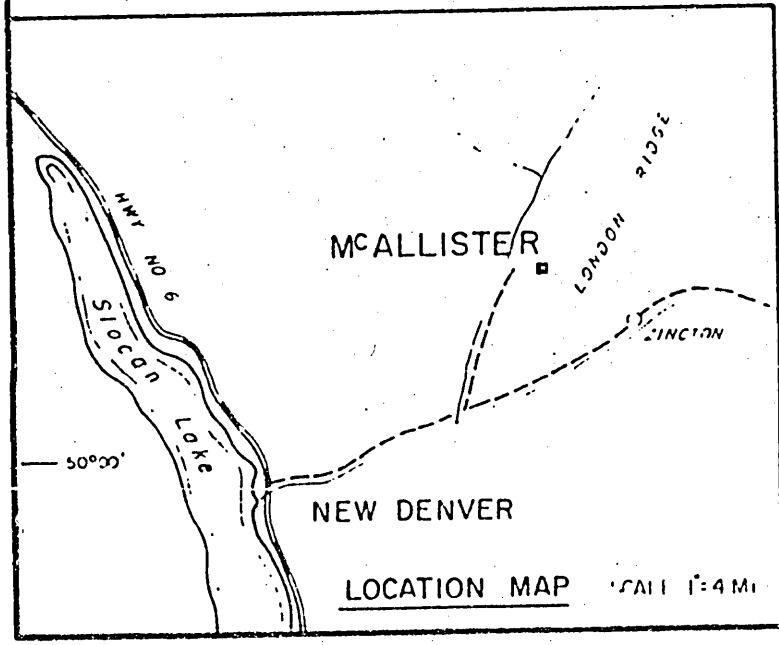
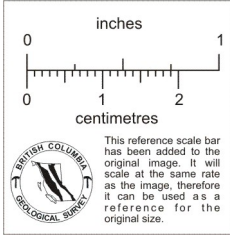
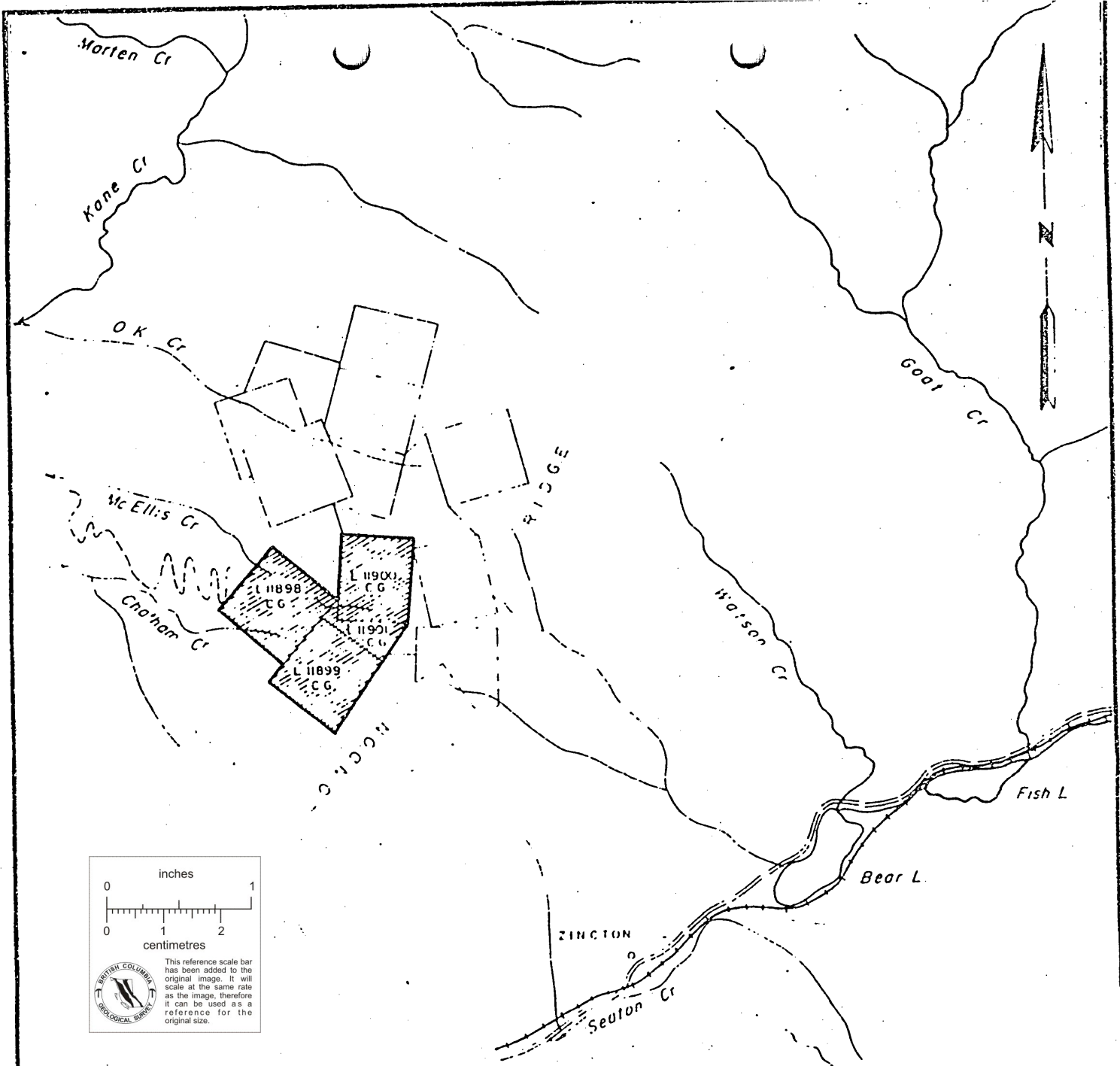
I, George L. Mill, hereby certify:-

1. That I am a mining and metallurgical engineer residing at 6176 Tisdall Street, Vancouver, B.C., V5Z 3N4.
2. That I am a graduate of Queen's University, B.Sc., and a registered member of the Association of Professional Engineers of the Province of British Columbia.
3. That I have practised my profession for 41 years.
4. That I have no financial interest, direct or indirect, in the subject property nor in any property in its vicinity and that I do not anticipate obtaining any such interest.
5. That the information contained in this report was derived in the course of several visits to the property in the 1950's and from my personal inspection of all accessible workings on June 29 and 30, 1968. Furthermore, much data has been obtained from the reports, maps and publications indicated on the attached references.
6. That Mr. Joseph Sostad has my authorization to make use of this report relative to the implementation of the recommendations, in whole or in part, contained therein.

To accompany report on the
McAllister Mine,
Slocan Mining Division

May 20, 1974


George L. Mill, P. Eng.



PLAN SHOWING LOCATION OF
MCALLISTER MINE
 SLOCAN MINING DIVISION
 BRITISH COLUMBIA
 Scale 1" = 1/2 Mi (approx)

McALLISTER MINE

ASSAY PLAN OF

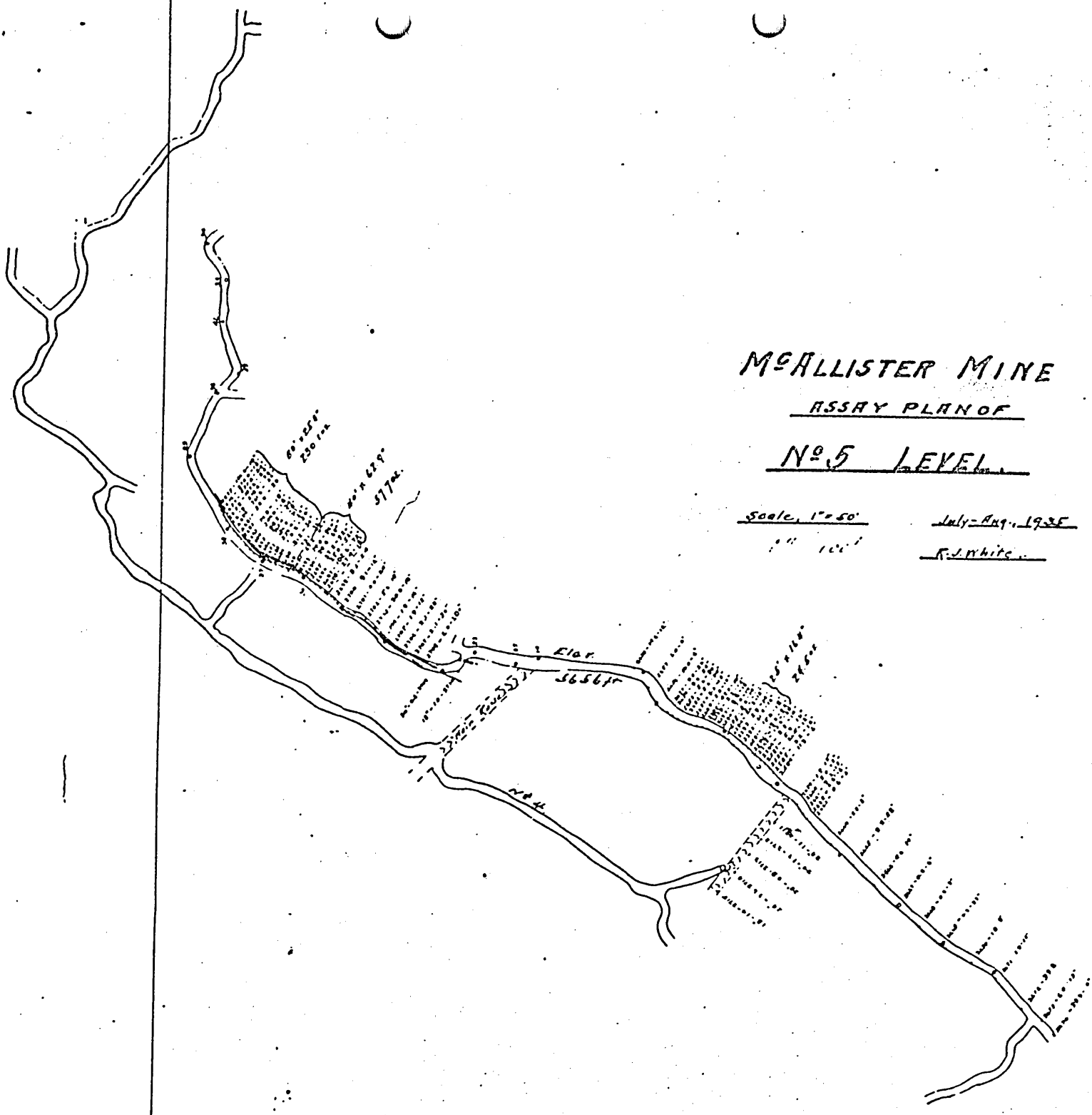
N^o 5 LEVEL

Scale, 1" = 50'

July-Aug., 1935

1" 100'

R. J. White

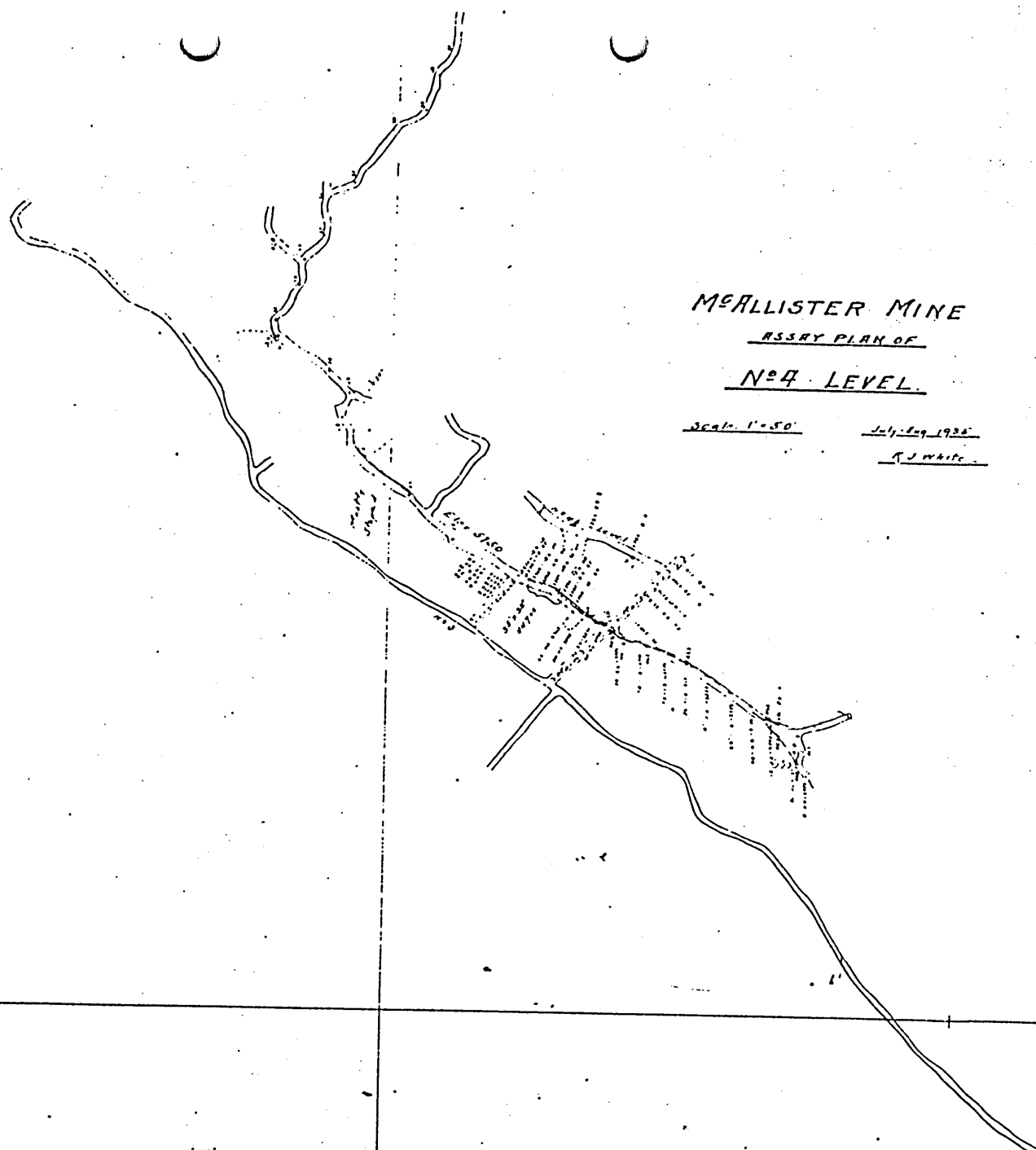


McALLISTER MINE
ASSAY PLAN OF
No. 4 LEVEL.

Scale: 1" = 50'

July-Aug. 1935

R. J. White



North

McALLISTER MINE
ASSAY PLAN OF
Nº3 TUNNEL.

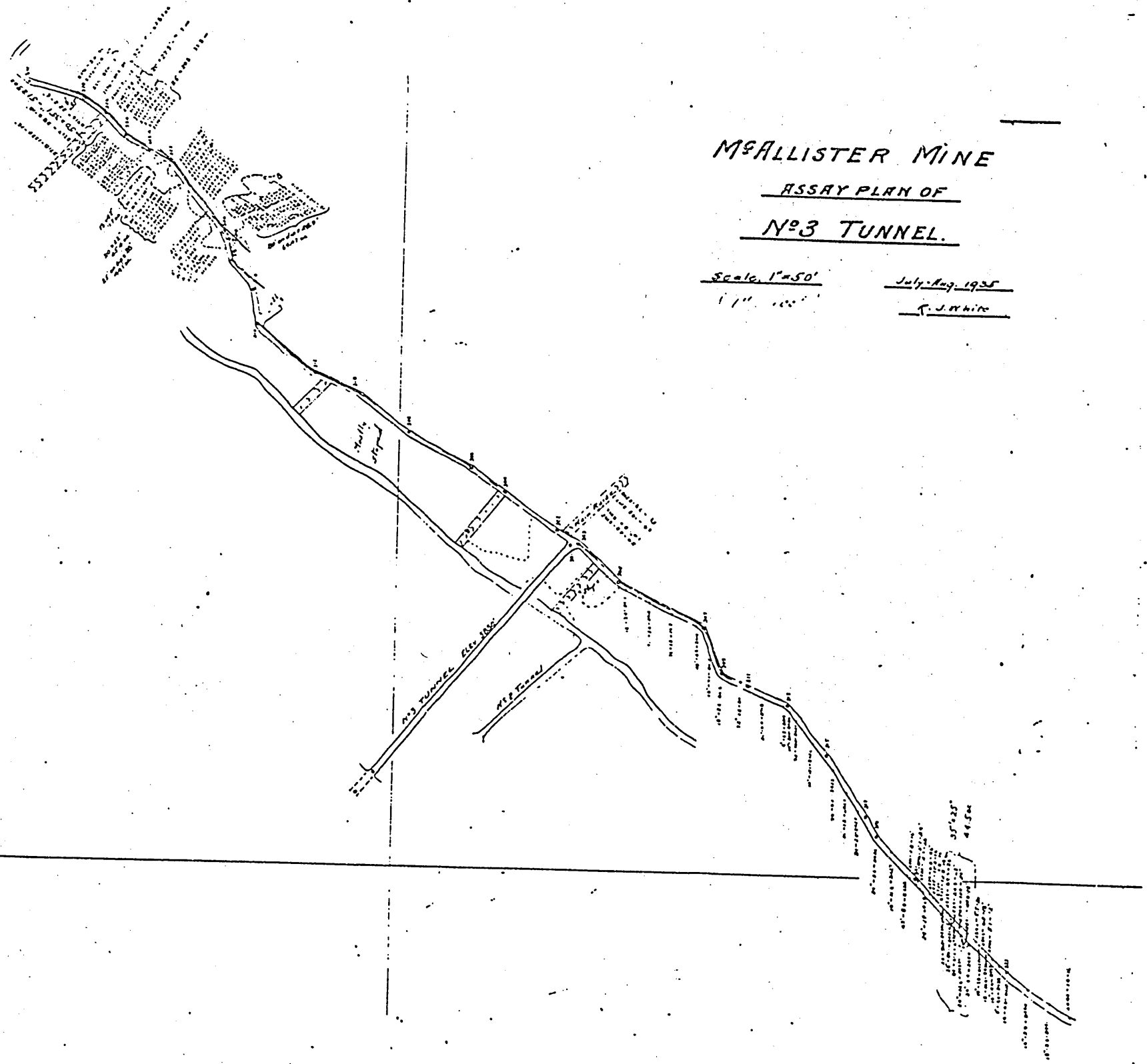
Scale, 1"=50'

July-Aug. 1935

1" = 100'

G. J. White

Nº 76



North.

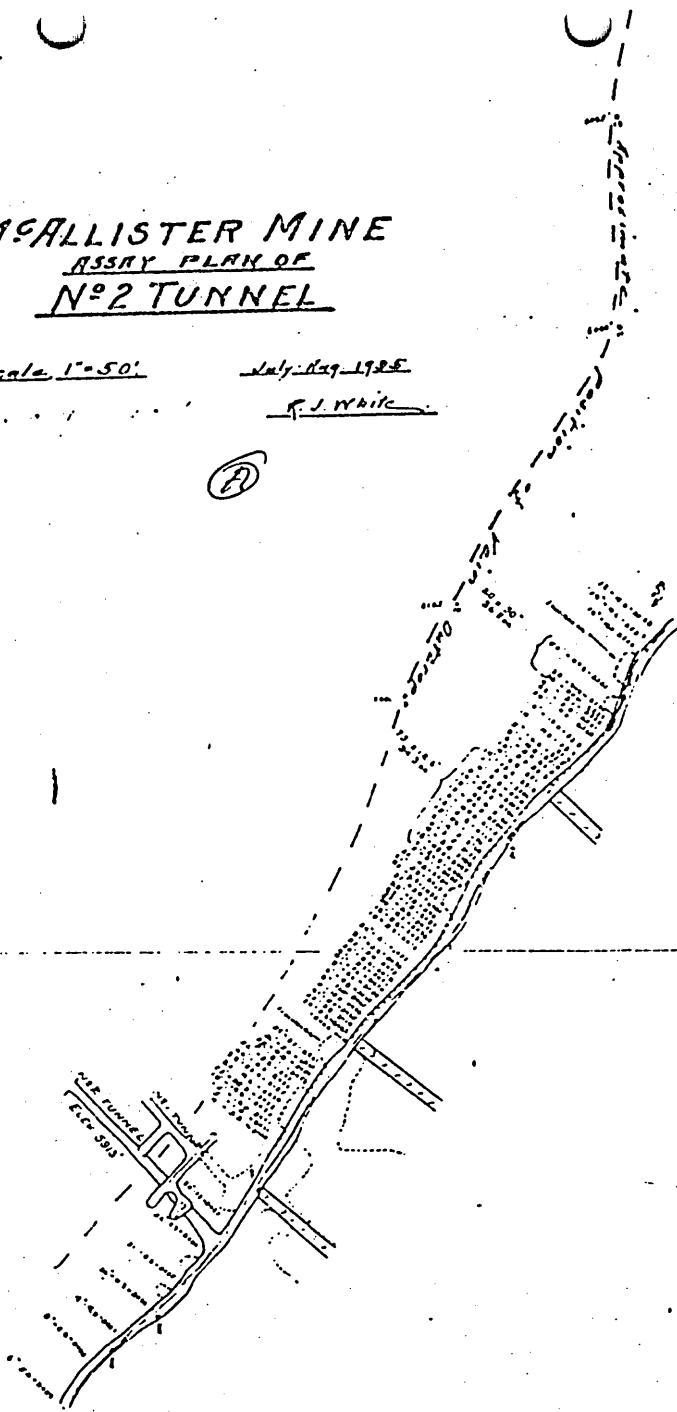
MCALLISTER MINE
ASSAY PLAN OF
N^o 2 TUNNEL

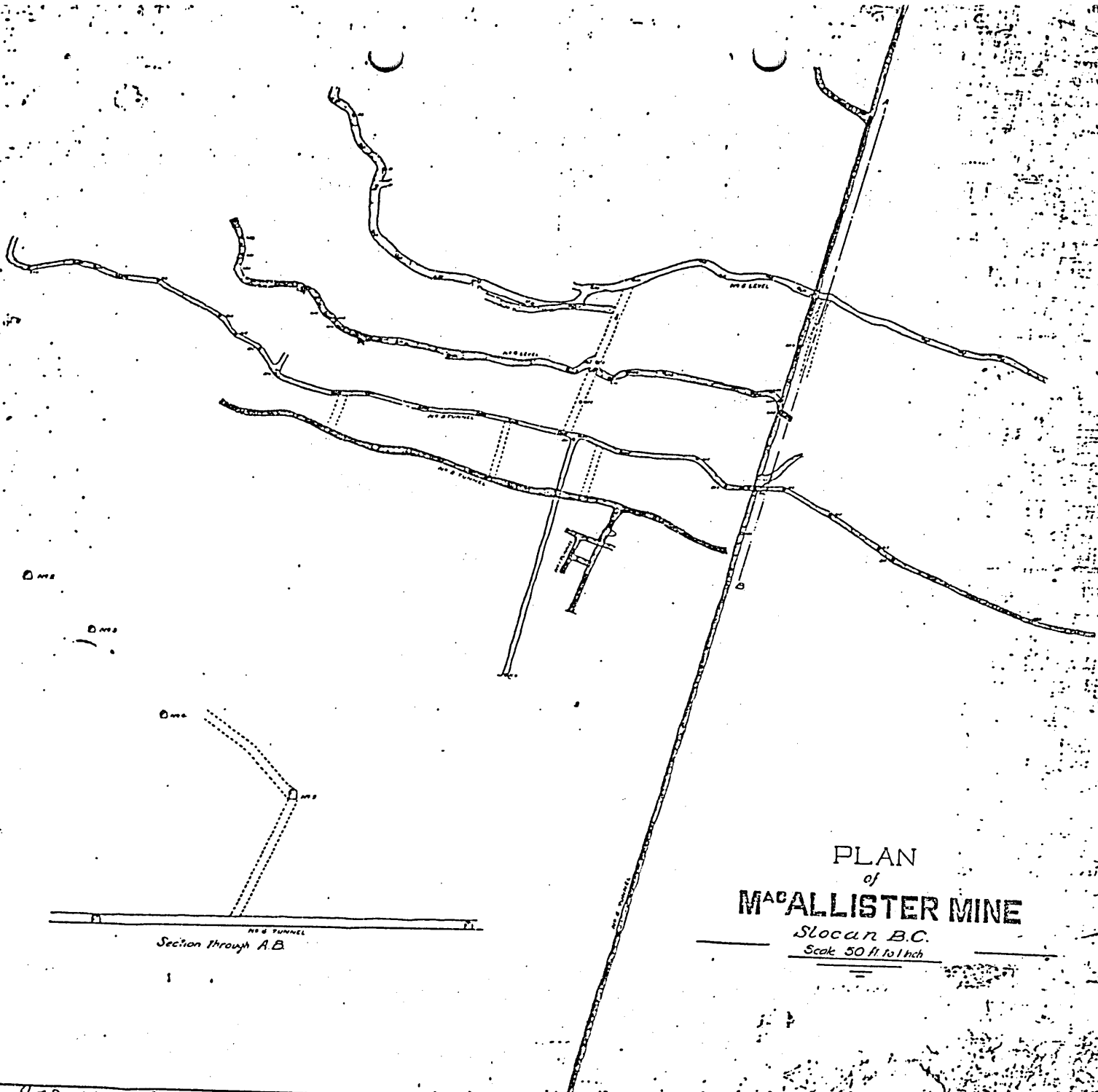
Scale 1"=50'

July-Aug-1925

F. J. White

(A)





PLAN
of
MACALLISTER MINE
Slocan B.C.
Scale 50 ft. to 1 inch

NO. 3 TUNNEL
Section through A.B.

REDUCE TO 9/16 IN. ...

McALLISTER MINE

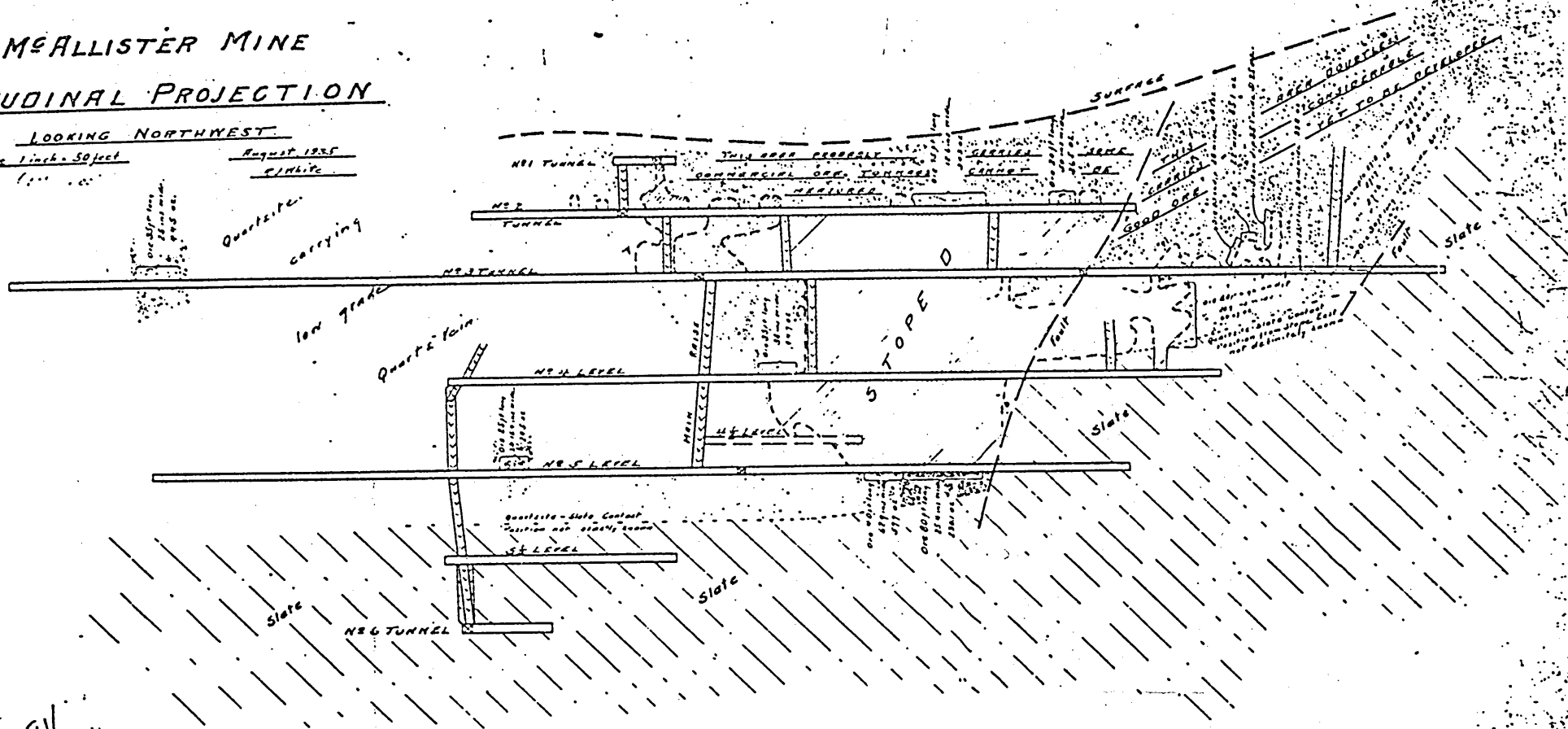
LONGITUDINAL PROJECTION

LOOKING NORTHWEST

Scale 1 inch = 50 feet

August 1935

C. H. L. T.



Reduce to 8 1/2 x 11