

017494
GEOLOGICAL REPORT
SILVER - 48 MINERAL CLAIMS
61°4' N - 130° 50' W
W/K copy
MR. G. STEVENSON & MR. RON PHILP
July 11 - July 27, 1962.

GEOLOGICAL REPORT
on the
SILVER NUMBER 1 - 48 CLAIM GROUP
ST. CYR MOUNTAINS

Latitude $61^{\circ} 4' N.$

Longitude $130^{\circ} 50' W.$

WHITEHORSE MINING DISTRICT

017494

By

W. G. Stevenson, P.Eng.

With a Section on the General Geology
by

R.H.D.Philp, B.A.Sc.

Vancouver, B. C.

October, 1962

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Map No. 1

Location Map 1" = 50 miles
Geology Scale 1" = 500 feet
Key to Claims 1" = 1/2 mile
Geological Sections 1" = 1000 feet

Map No. 2

Geology Map Pole Showing 1" = 200 feet

Map No. 3

Geology Map Camp Showing 1" = 200 feet

Map No. 4

Geology Map Scale 1" = 1000 feet

REPORT

on the

SILVER NUMBER 1 - 48 MINERAL CLAIMS

ST. CYR MOUNTAINS

WHITEHORSE MINING DISTRICT, Y. T.

INTRODUCTION

Late in 1961 the Asbestos Corporation (Explorations) Limited optioned a block of 48 mineral claims located in the St. Cyr Mountains near the headwaters of the Liard River, 142 miles easterly from Whitehorse, Y.T. These are shown on Department of Northern Affairs and Natural Resources map sheet 105G-2, Scale 1" = 1/2 mile, marked Silver 1-48 mineral claims.

On July 11, 1962, personnel were moved from Whitehorse into a small unnamed lake near the Liard River about 5 miles from these mineral claims. Fixed wing aircraft was used for this initial move, and a helicopter was employed to move the men from the small lake to a position within the claim group. During the period July 11 to July 27, 1962, this group of men prospected the area in considerable detail, collected a number of samples and mapped the geology to a scale of 1" = 500', and selected areas were mapped in greater detail.

PURPOSE OF INVESTIGATION

Our work during the season has had as its main objective the determination of the commercial possibilities of mineralization discovered in this area. Our geological work during the year has been designed to satisfy the assessment requirements for this block of mineral claims

Mineral Claims

<u>Name of Mineral Claim</u>	<u>Grant No.</u>	<u>Date of Location & Located By</u>	<u>Date of Recording</u>
Silver No.1	77134	24th September Issac Dick	20th October 1962
" " 2	77135		"
" " 3	77136		"
" " 4	77137		"
" " 5	77138		"
" " 6	77139		"
" " 7	77140		"
" " 8	77141		"
" " 9	77142	Alex Shorty	"
" " 10	77143		"
" " 11	77144	25th September	"
" " 12	77145		"
" " 13	77146		"

<u>Name of Mineral Claim</u>	<u>Grant No.</u>	<u>Date of Location and Located By</u>	<u>Date of Recording</u>
Silver No. 14	77147	25th September Alex Shorty	20th October 1962
" " 15	77148		"
" " 16	77149		"
" " 17	77150	Paul Challie	"
" " 18	77151		"
" " 19	77152		"
" " 20	77153		"
" " 21	77154		"
" " 22	77155		"
" " 23	77156		"
" " 24	77157		"
" " 25	77158	26th September Duck Johnnie	"
" " 26	77159		"
" " 27	77160		"
" " 28	77161		"
" " 29	77162		"
" " 30	77163		"
" " 31	77164		"
" " 32	77165		"

<u>Name of Mineral Claim</u>	<u>Grant No.</u>	<u>Date of Location and Located By</u>	<u>Date of Recording</u>
Silver No. 33	77166	September 26th Gordon Dickson	October 23, 1962
" " 34	77167		"
" " 35	77168		"
" " 36	77169		"
" " 37	77170		"
" " 38	77171		"
" " 39	77172		"
" " 40	77173		"
" " 41	77174	September 27th Chiney Sterriah	October 20, 1962
" " 42	77175		"
" " 43	77176		"
" " 44	77177		"
" " 45	77178		"
" " 46	77179		"
" " 47	77180		"
" " 48	77181		"

METHOD OF INVESTIGATION

After acquiring our option on this property the Hunting Survey Corporation of Vancouver was engaged to prepare a topographic map of this claim group with a contour interval of 50 feet. This map was drawn to a scale

of 1" = 1000', which was subsequently enlarged to a scale of 1" = 500' for use as our base map.

During the period July 11 to 27, 1962 two geologists and three prospectors mapped, sampled and prospected this property. The names of the men and their rates of pay are listed below:

Mr. R. Philp	B.A.Sc.	\$500.00/month @ 17/31	=	\$ 273.00
Mr. R. Potter	B.A.Sc.	\$500.00/month @ "	=	273.00
Mr. I. Holmes	Prospector	\$425.00/month "	=	232.00
Mr. N. Smyth	"	\$375.00/month "	=	205.00
Mr. S. Eakin	"	\$350.00/month "	=	<u>191.00</u>
		<u>Total</u>		1,174.00

The expenses that have been charged against this project are in the order of \$7,480.00. These can be distributed approximately as follows:

Transportation	\$ 2,847.00
Engineering	965.00
Equipment	399.00
Food and Expenses	2,095.00
Wages	<u>1,174.00</u>
<u>Total</u>	\$ 7,480.00

GEOLOGICAL REPORT

DICKSON PROPERTY, YUKON TERRITORY

By: R.H.D. Philp, B.A., Sc.

REGIONAL GEOLOGY

The property lies within the boundaries of the Geological Survey of Canada's Map No. 8-1960 which shows the surrounding area to consist of sedimentary and metamorphic rocks of Middle and Upper Cambrian age, into which Mesozoic granitic rocks have been intruded. These sedimentary and metamorphic rocks have a northwesterly trend and overlie Lower Cambrian quartzites and limestones approximately five miles to the southwest. A granitic stock extends from the eastern side of the property a distance approximately five miles east, where more Middle and Upper Cambrian rocks are found.

The Tintina fault, lying about 7 miles northeast of the property and trending northwesterly, separates the previously mentioned rocks from schists and gneisses of unknown age.

Bedding and foliation attitudes and shears trend northwesterly and dip steeply in the vicinity of the Tintina Fault.

GENERAL GEOLOGY

The subject property is situated in an area of sedimentary, metamorphic and igneous rocks. The western limit of a granitic stock is found along the eastern side of the property. West of this intrusive, there is a zone of contact metamorphic rocks approximately 4000 feet thick consisting of hornfels with minor quartzite, skarn, and limestone. Many aplite dikes cut the metamorphic rocks near the contact. Beyond the contact zone, phyllite, with minor limestone, is found. Bedding and foliation strike northwesterly and dip steeply to either the east or west. Quartz stringers, lenses, and veins are common throughout the map area.

Iron mineralization as well as traces of copper and tungsten occur on the property. The major mineralization, however, is galena, occasionally with sphalerite. Galena is found in six quartz veins and stringers, one of which is up to 70 feet wide and follows a major shear zone. Galena is also found in talus at two other localities. The galena mineralization, which is generally erratic, is, in all cases, found near the outer rim of the zone of contact metamorphism.

Relief is pronounced and three peaks ranging up to 6500 feet in elevation are the main topographic features. From north to south these peaks have been given the names of Alpha, Beta and Gamma and are referred to as such in this report.

Lithologic Units

Phyllite, found mainly in the western portion of the area is dark grey to black, has a typical phyllite texture, and breaks in thin flakes. It attains a maximum thickness of approximately 1000 feet on the property. Over most of the map area this rock has been altered to a hornfels, the most extensive rock type on the property.

The hornfels is dark grey to black, dense, fairly soft, and breaks in small slabs of a few inches diameter. It forms a contact aureole extending approximately 4000 feet west of the granite stock.

Seldom pure, the quartzite is usually limy or shaly and is gradational into the hornfels. It generally shows a purplish grey and green colour banding. In places, this rock

is very dense and may be a chert. Quartzitic layers several hundred feet thick occur in the eastern portion of the map area.

The limestone is impure, grey and generally dense, although occasionally it is a coarse-grained crystalline rock. It occurs in beds up to approximately 500 feet thick.

Near the igneous contact along the east side of the property the limestone, and, it appears, some limy quartzite layers, have been altered to a garnet-epidote skarn.

The major intrusive rock found on the property is of granite to quartz-monzonite composition. Aside from a few local areas, this rock is very poor in biotite, the only mafic found in it, and consists of quartz, plagioclase and orthoclase. It varies from medium to coarse grained and is grey to pinkish in colour.

Dikes from this intrusive mass are generally fine-grained and of aplitic texture.

STRUCTURAL GEOLOGY

All major structural features, including bedding, foliation, faults and fold axes, have a north-westerly trend.

Bedding generally strikes between 110 degrees and 150 degrees and dips steeply to either the northeast or southwest. This bedding is often warped about fold axes striking parallel to the bedding and either flat lying or gently plunging in a northwesterly direction. Locally, the bedding may be flat lying or gently dipping when associated with the aforementioned folding. Much of the bedding has been obscured during metamorphism.

Foliation attitudes are generally similar to those of the bedding.

A ridge to the east of the small lake at the north end of the property may be anticlinal. An anticlinal structure is also exposed on the southwest flank of Gamma Peak. This structure, along with bedding attitudes and drag folds, suggests that a gently plunging anticline may exist in the southeast portion of the map area. The east limb of this anticline has been truncated by the granitic rock.

A major fault, referred to as the Beta fault, is exposed on the southeast ridge of Beta Mountain near the center of the property. It extends along the flank of that mountain and has been correlated with a similar zone crossing the western flank

of Gamma Mountain. The northern end of this shear zone has a maximum width of 100 feet while the southern end, along Gamma Mountain, is generally less than 50 feet in width. Where exposed on Beta Mountain, the fault strikes northerly and dips at approximately 70 degrees to the west.

MINERALIZATION

Mineralization in the form of galena, sphalerite, pyrrhotite, pyrite, chalcopyrite and scheelite is found in the map area. Impressive amounts of galena were recognized in two general areas on the property. The first, the Pole showing, in the southeast portion of the property, is the largest and best mineralized. The second, the Camp showing, located in the northwestern portion of the property consists of three occurrences of galena bearing quartz. Galena is also found at two other localities in the vicinity of the camp showing. These two consist of quartz veins of 1-1/2 inch and one foot widths.

Pyrrhotite, and, to a lesser extent, pyrite, is common in the hornfels along the granite contact.

These minerals are also common in many of the numerous quartz veins and stringers found on the property.

Scheelite was observed under an ultraviolet lamp in a few samples taken from the hornfels and skarn near the granite contact. One sample from this contact assayed 0.07 per cent WO_3 .

A large quartz vein, up to 50 feet wide and with a known length of 2200 feet occurs in the northwest corner of the property. This vein, which strikes approximately 340 degrees, is steeply dipping. The rock is deeply weathered making a determination of the types of mineralization difficult. However, a trace of chalcopyrite and malachite was observed in the quartz near the south end of the vein. Of four samples taken from this vein, two contained no copper while the other two assayed 0.22 and 0.15 per cent copper.

The portion of the Beta fault, cutting Beta peak is composed of a mass of brecciated wall rock and quartz. Mineralization is found in the form of erratic pyrrhotite streaks and galena pods. Across the cirque to the south, a quartz filled breccia, believed to belong to the same structure, contains iron mineralization over approximately a four foot width.

Pole Showing

In the area referred to as the Pole showing,

galena has been traced along a 2000 foot length of the Beta zone. Here, the Beta zone consists of quartz and a quartz breccia up to 70 feet in width, within an area of hornfels, phyllite, and minor limestone. This vein strikes northwesterly and dips steeply to either the east or west. The mineralization is very erratic, consisting of lenses and crusts of galena.

Up slope, to the northeast of the Beta zone, two galena bearing quartz stringers are found. The lower one outcrops intermittently for approximately 750 feet. Galena occurs over about half this length. The quartz vein strikes north to northeasterly, dips steeply to the east and varies in width from one to ten feet. The galena, occurring in crusts and lenses, is generally confined to the footwall of the vein. The maximum width of mineralization is 3-1/2 feet with the average being slightly less than one foot. The other stringer, up to 6-1/2 feet wide, outcrops intermittently for approximately 550 feet. This stringer also strikes north to northeasterly and dips approximately 55 degrees to the east. Galena, found along the footwall, occurs in widths of up to 1-1/2 feet in about half the outcrop. The mineralization is in the same form as that in the lower stringer.

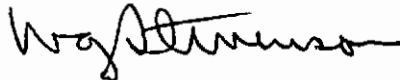
Camp Showing

An occurrence of galena and sphalerite in a quartz vein near the western side of the property is referred to as the Camp showing. This occurs at a small creek cut, in an area of over burden. The quartz vein, which is at least 10 feet wide, outcrops for only 90 feet along strike. It strikes 120 degrees and dips approximately 80 degrees to the south. Hornfels forms the hanging wall contact. Although the footwall is covered, hornfels-phyllite outcrops approximately 40 feet to the east. Except for a vertical face along the east side, the vein is highly weathered, making it impossible to estimate the per cent mineralization. Mineralization is found in stringers and pods throughout the vein, with the most highly mineralized section being an 18 inch wide layer along the eastern limit. Many phyllite inclusions found along the eastern side of the vein suggest this is near the footwall of the vein. Galena bearing quartz float is found approximately 800 feet south of this vein. Three hundred feet east of this occurrence sparse galena mineralization is found in quartz boulders or outcrop in a talus area. The country rock in the latter two regions consists of phyllite and hornfels.

Dip needle traverses were run for the purpose of tracing various structures. However, variations in magnetic intensity were not great enough to produce usable results.

COMMERCIAL ASPECTS

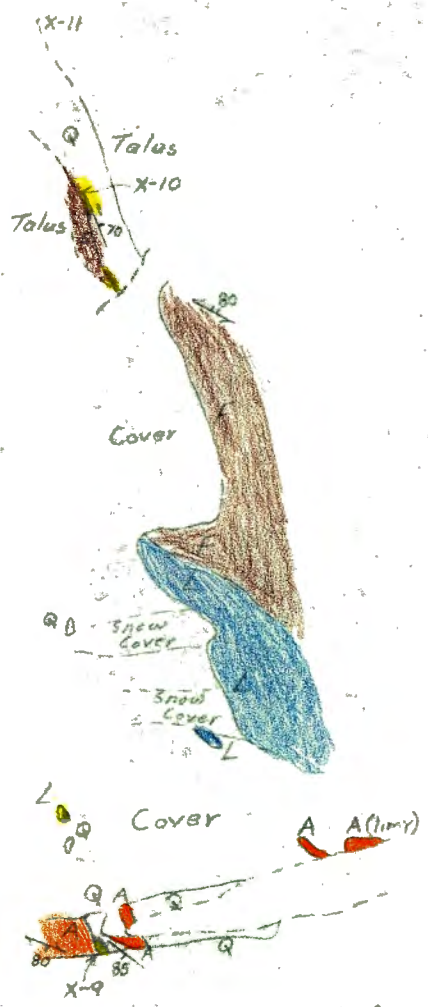
Sulfide mineralization has been found at several locations throughout the property and the structure as shown on the attached map and sections are continuous over impressive lengths. From an analysis of the preliminary assay results it would appear that the silver content that would be recovered in a lead concentrate would be low. As this area is remote from smelter and market it would appear that material of the indicated grade under today's metal prices could not be mined, treated and transported at a profit.



W. G. Stevenson, P. Eng.
Regional Manager
Asbestos Corporation (Explorations) Limited

SAMPLE INDEX

Sample No.	Width	Location	Description	Gold	Silver	Lead	Zinc	Copper	WO3
1		See map - Camp showing	Floät	0.01	3.74	42.6			
2		" " " "	Floät	T	0.50	5.2			
4	3"	See 500-scale map	Chip sample from quartz vein	T	4.30	67.8			
6		" " " "	Grab sample from granite skarn contact						nil
7	1-1/2"	" " " "	Chip sample - Galena in 1-1/2" quartz vein	T	1.26	26.6			
8	10'	See map - Camp showing	Chip sample over entire vein	T	1.70	6.7			
9	18"	" " " "	Chip sample from near FW of vein	T	3.10	16.0	12.0	nil	
10		See 500-scale map	Grab sample along contact	T	nil				0.07
11	20'	" " " "	Select sample from quartz vein	T	nil			0.22	
12	45'	" " " "	Chip sample across vein	T	0.06			nil	
13	30'	" " " "	Chip sample across vein	T	nil			nil	
14	20'	" " " "	Chip sample across vein	T	0.14			nil	
15	30'	" " " "	Quartz and country rock	T	nil				
16		" " " "	Grab sample from rusty zone	T	0.14				
S-1	3'	" " " "	From pyrrhotite zone - B fault	0.01	0.04				
S-2		" " " "	From B fault near Pole show	0.01	9.80	19.1			
X-1		See map - Pole Showing	Fine-med. grained galena	T	7.24	64.7			
X-2		" " " "	Medium grained galena	T	9.10	67.8			
X-3		" " " "	Fine grained galena & possibly tetrahedrite	T	2.16	36.2			
X-4		" " " "	Fine grained galena	T	1.30	13.2			
X-5	3'	" " " "	Coarse grained galena	T	9.04	77.8			
X-7		" " " "	Medium grained galena	T	2.70	23.3			
X-8	4"	" " " "	Coarse grained galena with copper staining	T	11.1	74.0			
X-9		" " " "	Coarse grained galena	T	8.00	71.2			
X-10		" " " "	Coarse grained galena	T	2.50	34.6			
X-11		" " " "	Medium grained galena	T	1.94	18.7			



LEGEND

- Hornfels (minor phyllite) F [Brown Box]
- Phyllite A [Red Box]
- Limestone L [Blue Box]
- Quartz Q [Green Line]
- Mineralized Quartz [Yellow Line]
- Bedding / 30
- Foliation / 60
- Sample location X-7

Pole showing - Dickson
Property
Drawn by R. Philp
July 25, 1962

Scale: 1" = 200'

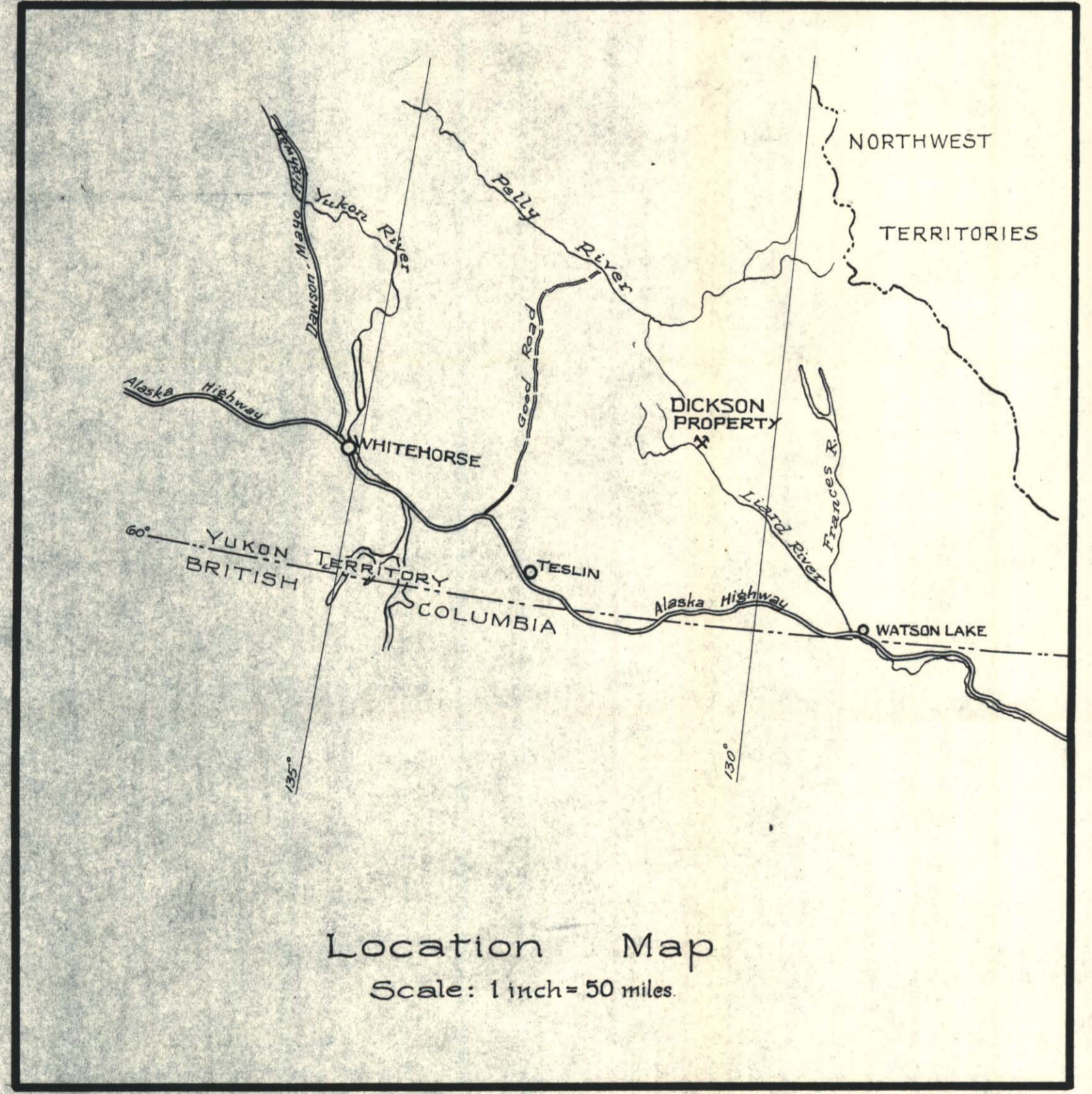
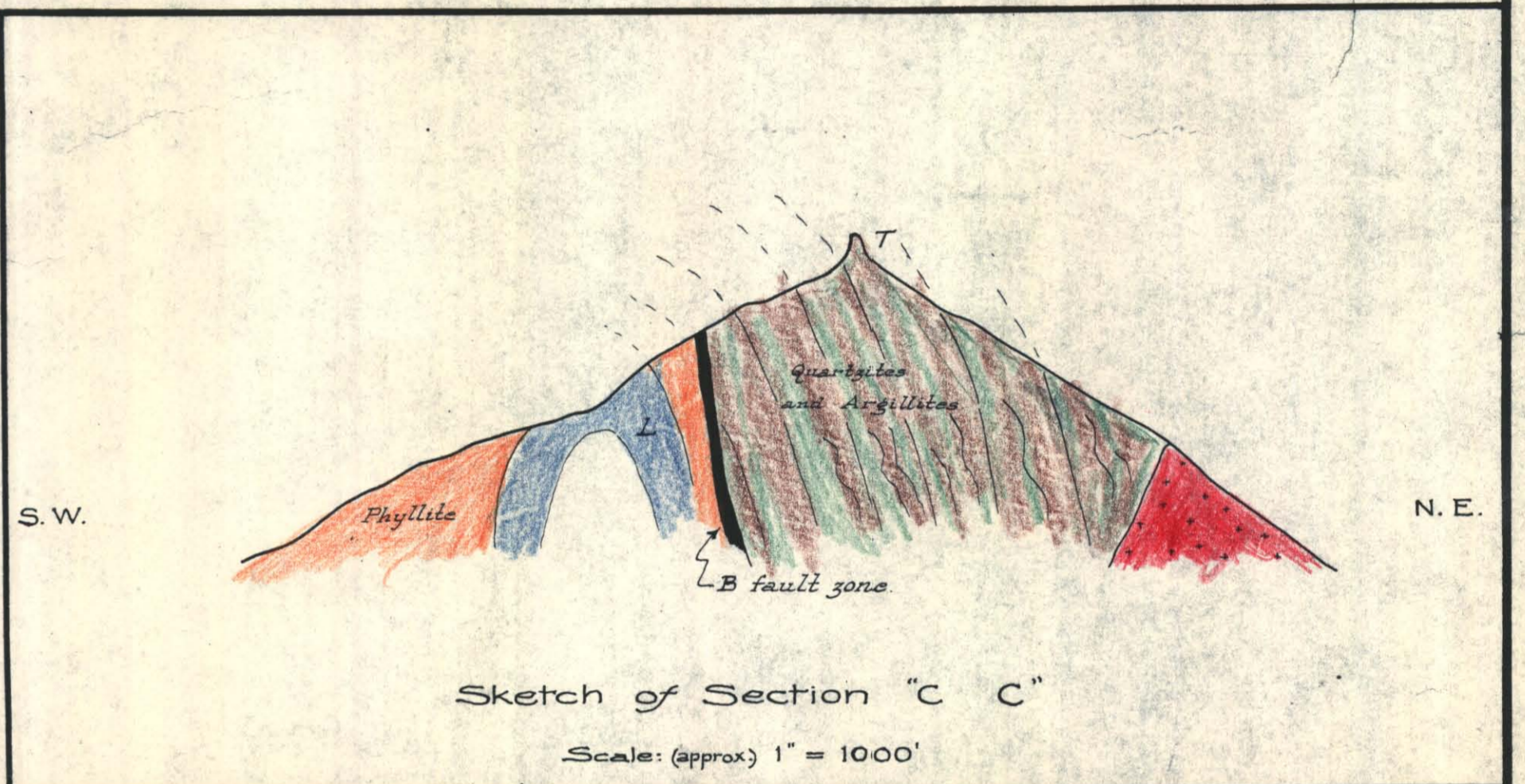
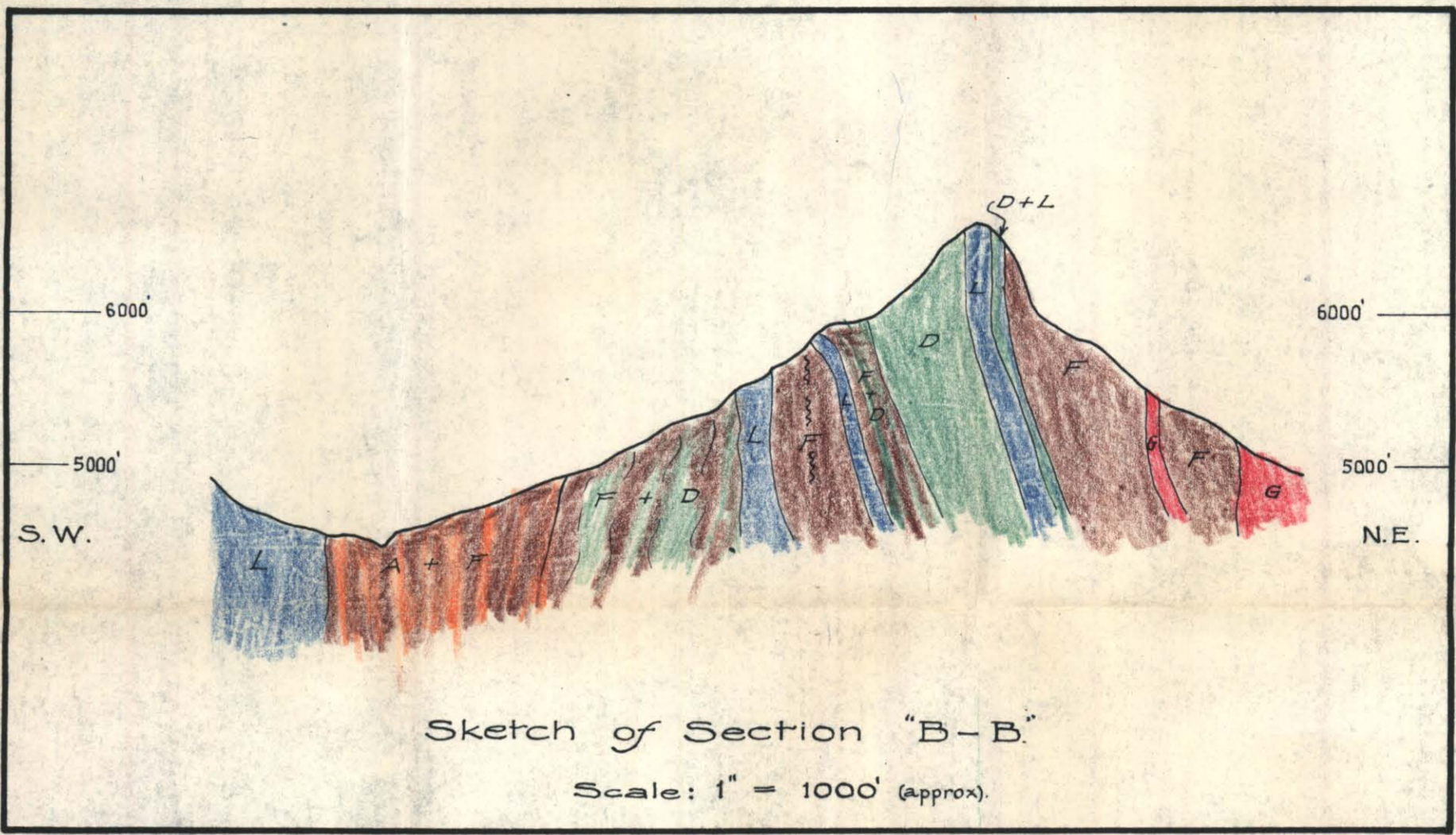
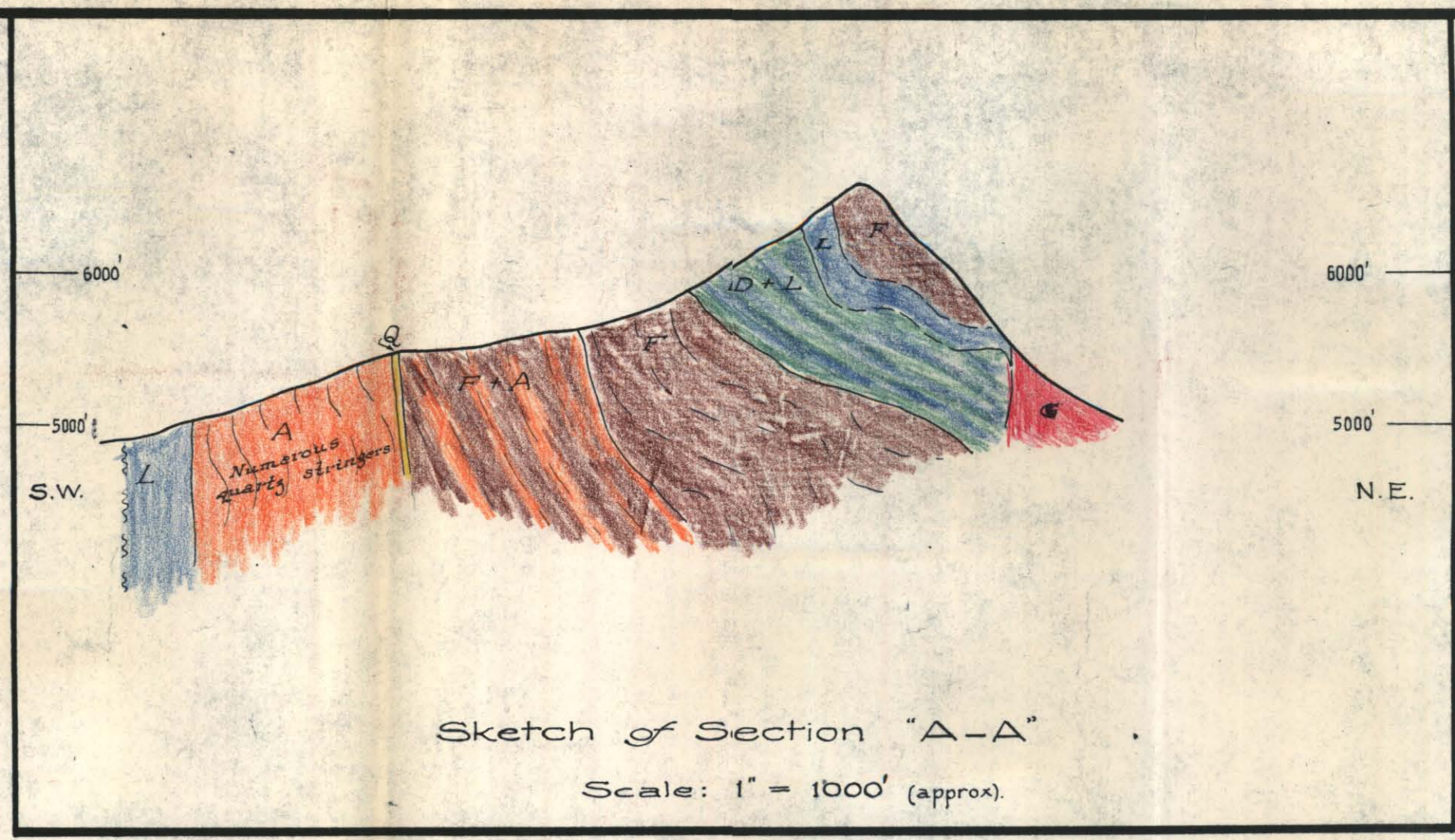
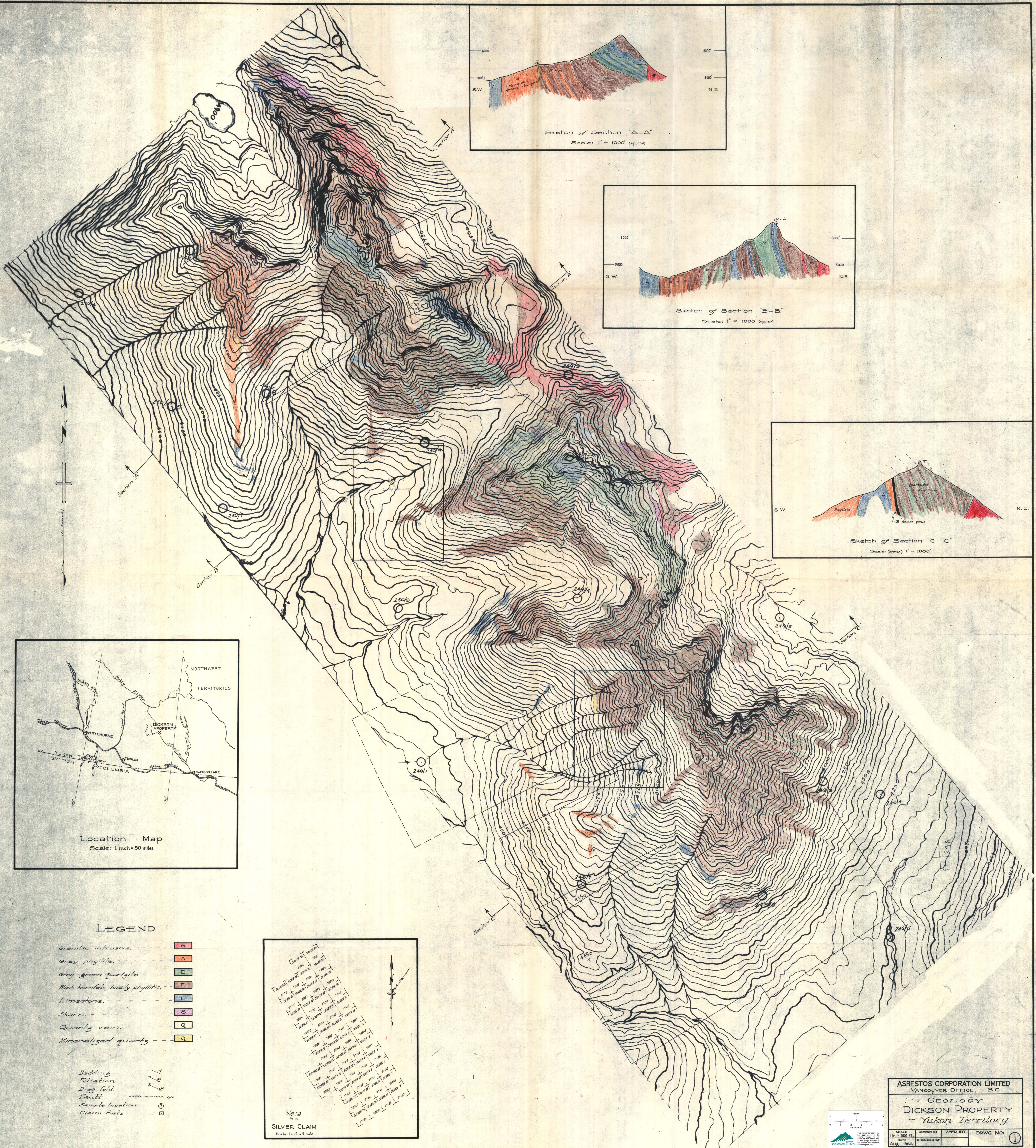


LEGEND

- Hornfels F [Red square]
- Phyllite A [Orange square]
- Limestone L [Blue square]
- Mineralized Quartz Q [Green line]
- Bedding / (diagonal line)
- Foliation \ (diagonal line)
- Sample location z (underline)
- Dip needle rdgs. (circle with number)

Camp Shering - Dickson Property
 Drawn by: R. Philip
 August 16, 1962

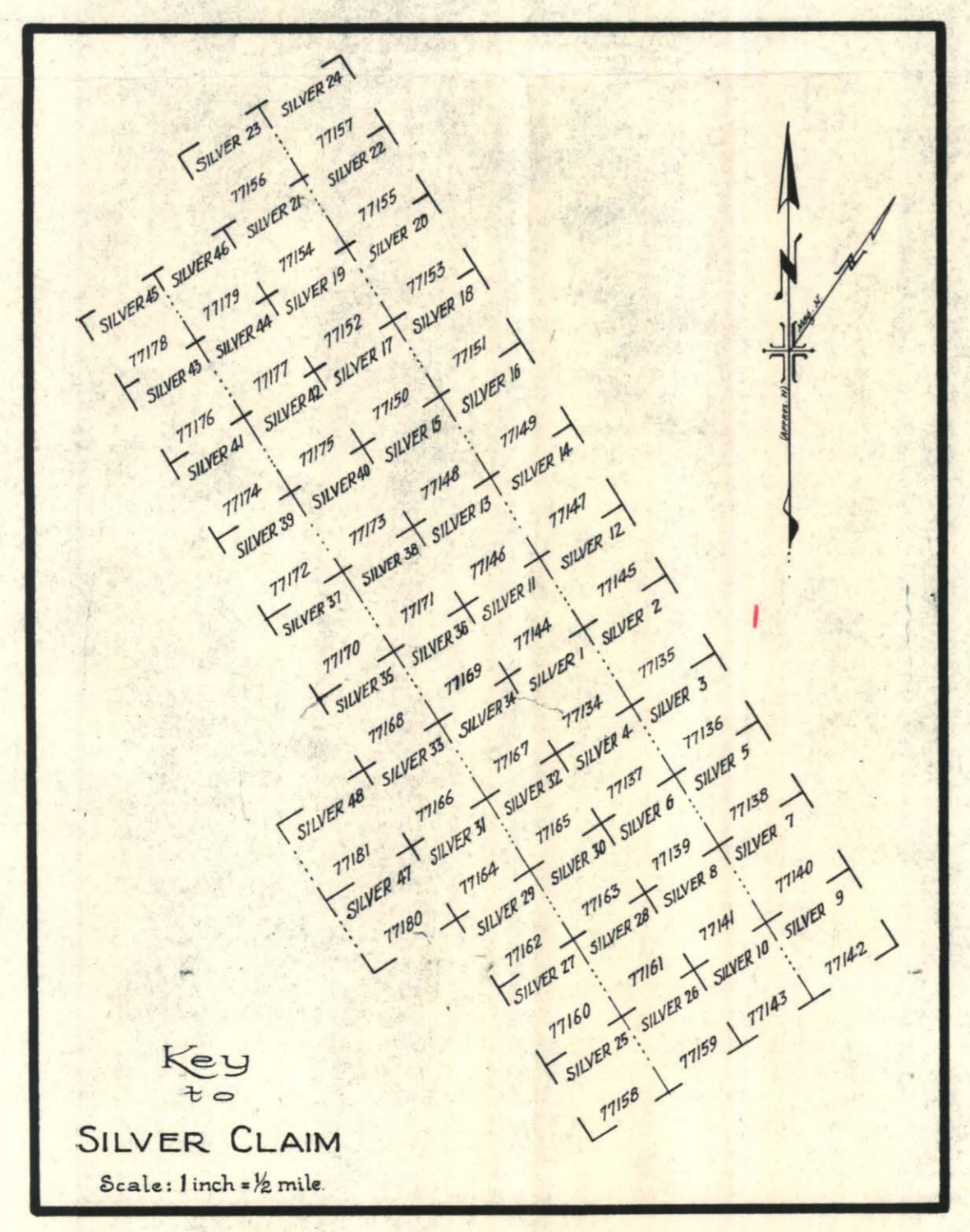
Scale: 1" = 200'



LEGEND

- Granitic intrusive. --- G
- grey phyllite. --- A
- gray-green quartzite. --- D
- Black hornfels, locally phyllitic. --- F
- Limestone. --- L
- Skarn. --- S
- Quartz vein. --- Q
- Mineralized quartz. --- Q

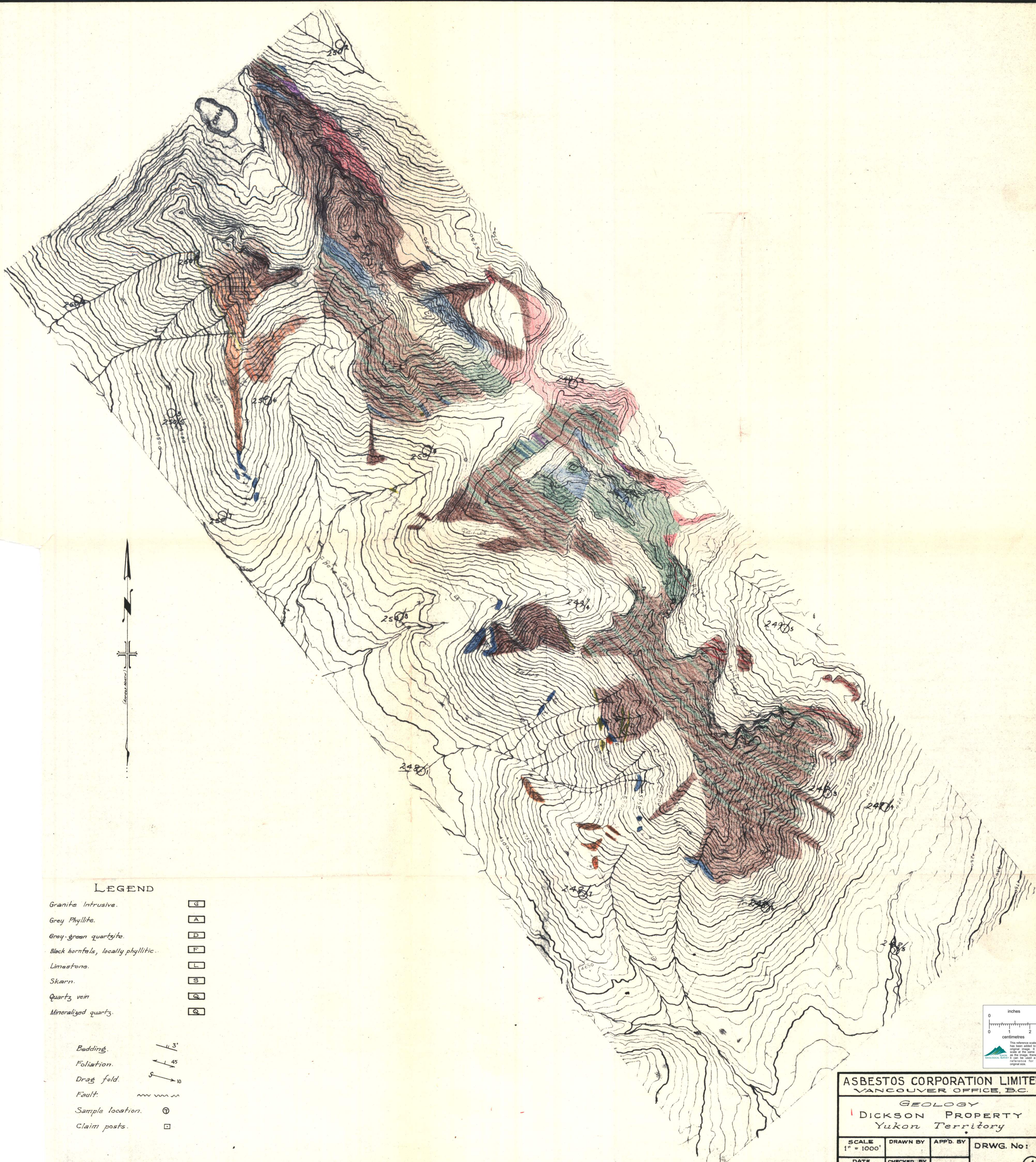
- Bedding. ---
- Foliation. ---
- Drag fold. ---
- Fault. ---
- Sample location. ---
- Claim Posts. ---



ASBESTOS CORPORATION LIMITED
VANCOUVER OFFICE, B.C.

GEOLOGY
DICKSON PROPERTY
~ Yukon Territory.

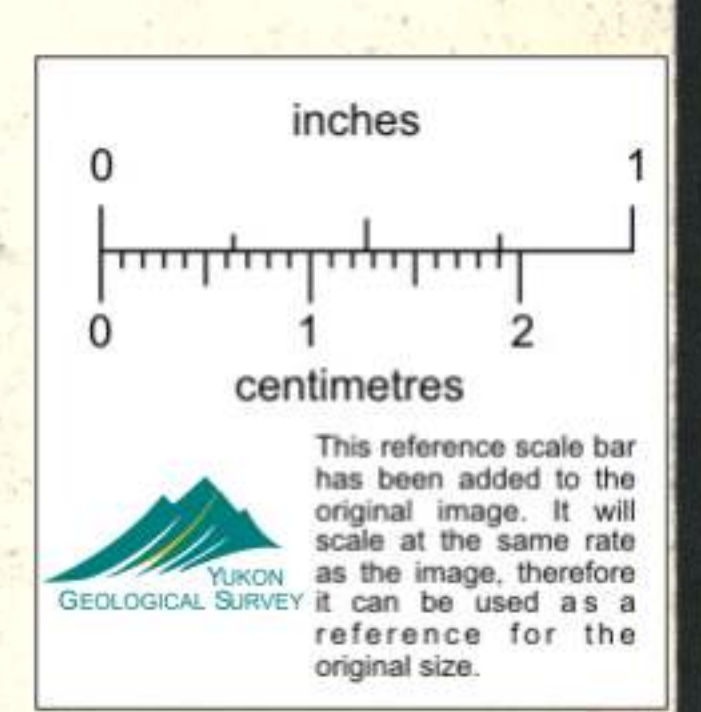
SCALE: 1 in. = 500 ft.
DATE: AUG. 1962.
DRAWN BY: []
CHECKED BY: []
APP'D. BY: []
DRWG. NO.: ①



LEGEND

- Granite Intrusive. G
- Grey Phyllite. A
- Grey-green quartzite. D
- Black hornfels, locally phyllitic. F
- Limestone. L
- Skarn. S
- Quartz vein. Q
- Mineralized quartz. Q

- Bedding.
- Foliation.
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GEOLOGY			
DICKSON PROPERTY			
Yukon Territory			
SCALE 1" = 1000'	DRAWN BY	APP'D. BY	DRWG. No: 4
DATE Aug. 1962.	CHECKED BY		