

ASSESSMENT REPORTS

MAP No. 105-H-2 TYPE OF WORK: Geology

09125

REPORT FILED UNDER	Silver Duke Mines Ltd. (SPL)	
DATE PERFORMED	July 1968	DATE FILED: Aug. 21, 1968
LOCATION - LAT.	41° 17' S	<u>WATSON LAKE AREA, YUKON</u>
	125° 46' W	
LONG.		
CLAIM Nos.	225 6227	
WORK DONE BY	GORDON P. F. WHITE & ASSOCIATES LTD	
WORK DONE FOR	Silver Duke Mines Ltd.	
REMARKS	Argentiferous galena and sphalerite with magnetite in skarn	
	zones was found in 1964. 2 DM had been drilled with highest	
	assays of 4.0 oz Ag, 1.86% Pb, and 2.45% Zn. Chip samples and	
	grab sample assays reported.	

GORDON P. E. WHITE & ASSOCIATES LTD.
CONSULTING GEOLOGISTS

Off. 600-4134
RES: 681-2673

821 WEST PENDER STREET
VANCOUVER 1, B.C.

SILVER DUNE MINES LTD. (N.P.L.)

MAX CLAIM GROUP

WATSON LAKE AREA, YUKON

BY

GORDON P. E. WHITE & ASSOCIATES LTD.

AUGUST 21, 1968.

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LOCATION MAP

SCALE: 1" = 4 MILES

CLAIMS MAP

1" = 1/2 MILE

SUMMARY

Silver Duke Mines Ltd. control 68 contiguous claims east of Frances Lake in the Yukon Territory where high silver, lead and zinc values have been found along skarn zones.

The Max Claims are underlain by a series of metamorphosed layered rocks which have been subjected to structural deformation and which have been intruded by granodiorite.

Silver Duke Mines have expended in excess of \$25,000.00 on part of the Max Claim group and although the results of an EM survey were negative, the possibility of disseminated mineralization in the metachists has been indicated by assays from diamond drill core.

With the indicated high metallic values and a possible structural and/or chemical control to economic concentrations of metallic minerals, a programme of systematic exploration is recommended. Careful geological mapping of lithological units with emphasis on structural interpretation is considered essential to an evaluation of this property.

INTRODUCTION:

On July 3 & 4, 1968 a field examination was carried out on a silver, lead and zinc prospect controlled by Silver Duke Mines Ltd. Traverses were made over the ground particularly along creek beds where the better rock exposures are present.

The assumed magnetic declination in this area is N 34 degrees E.

In the preparation of this report reference has been made to reports on this ground by Erik A. Ostensoo (February 15, 1966) written for Yukon Pacific Prospecting Group; by Douglas Perent (December 22, 1967); and by John G. Baird (May 31, 1968) of Seigel Associates Limited, geophysical contractors and consultants.

LOCATION & ACCESSIBILITY

The Mex Claims are located approximately 82 miles north of Watson Lake, Yukon Territory, close to the headwater of an easterly flowing tributary of the Hyland River. The property would be approximately 14 miles along the drainage system to the Cantung Highway. The easiest access to the property is by helicopter from Watson Lake.

TOPOGRAPHY & VEGETATION

The Max group covers the northeast side of a fairly wide valley at elevations from 4500 to approximately 7000 feet above sea level, an area of moderate to precipitous slopes.

The claims straddle the tree line, and stunted balsam and underbrush are found in the stream valley.

STATUS OF CLAIMS

The Max 1 to 40 are held under option while the Max 41 to 68 claims were located by Silver Duke Mines. Some of the lines, posts and tags of this contiguous claim group were inspected during the geological field study and these lines, posts and tags were found to be staked in accordance with the regulations governing the staking of claims in the Yukon Territory. A title search of the Max Claims has not been made by the writer.

HISTORY OF THE PROPERTY

Argentiferous galena and sphalerite with magnetite in skarn zones were found by Max Martin and Ernest Beech during the 1964 field season while working for Yukon Pacific

Prospecting Group. The following season Yukon Pacific carried out a programme of mapping, trenching and magnetometer surveying.

Silver Duke Mines retained Seigel Associates during May of this year to run magnetometer and "Turem" electromagnetic surveys over part of the claim group. The results of the EM survey were negative and it was concluded that "the possibility can be ruled out that a body of massive sulphide mineralization having a strike length of at least 250' and a depth extent of at least 200' and coming to within about 250' of the ground surface exists within the area surveyed". The magnetometer survey gave an approximate definition of the granodiorite and the metasediments as well as anomalous zones in the metasediments and in or near the contact of the granodiorite and metasediments.

One of the weaker anomalies (Anomaly E of approximately 500 gamma variance) was tested by diamond drilling 300 feet north 30 degrees east at minus 40 degrees. Selected sections were split and the following results were obtained:

SAMPLE NO.	FOOTAGE	WIDTH	Au oz.	Ag oz.	Pb %	Zn %
M1	103 - 106	3.0'	Tr	4.0	1.86	2.45
M2	112.5 - 115	2.5'	Tr	1.5	0.05	1.25
M3	138 - 140.5	2.5'	Tr	0.3	0.10	2.25
M4	87.5 - 88.5	1.0'	Tr	0.8	0.10	6.79

A second hole was drilled to a depth of 99 feet in the same direction approximately 400 feet east of the first hole. The purpose of this hole was to test the possibility of finding disseminated metallics in the sediments which had no apparent mineralization but a surface sample gave the following results:

Ag oz	Pb%	Zn%
0.02	0.05	0.05

Core recovery within the 99 feet of drilling in the NO: 2 hole was relatively poor. The predominant rock type is a hard, grey pink to green siliceous rock of probable sedimentary origin alternating with intruded sills of medium grained granodiorite. Finely disseminated sulphides are found in the siliceous rock and two sections were split and submitted for assay:

DDH NO: 2

FOOTAGE	Ki	Pb%	Zn%	Au oz	Ag oz	Cu%
91-96	Tr	.14	0.10	Tr	0.4	0.02
96-99	Tr	0.05	0.05	Tr	0.2	0.02

GENERAL GEOLOGY

A series of interbedded siliceous, argillaceous and lesser carbonaceous metasediments of probable two thousand feet true thickness has been intruded by a medium grained, occasionally porphyritic granodiorite. Where exposed, the contact zone is gradational with the granodiorite occurring as sharply-walled dikes and sills of granodiorite. In some areas quartz and quartz-feldspar veins have followed the granodiorite intrusions.

The metasediments in the area have been subjected to intense folding and rather abrupt changes in attitude are found on the property.

Magnetite, sphalerite, galena with silver values, and occasionally chalcopyrite and pyrrhotite occur with skarn minerals where the granodiorite has been intruded into metasediments.

ECONOMIC GEOLOGY

Six (6) samples taken by Max Martin and assayed July 23th, 1967, by the Whitehorse Assay Office returned the following values:

<u>SAMPLE NO.</u>	<u>SILVER</u> oz/ton	<u>LEAD%</u>	<u>ZINC%</u>	<u>COPPER%</u>	<u>TUNGSTEN%</u>
9851		TR	10.3	.14	TR
9854	.64	1.1	3.5	TR	TR
9855	.48	TR	7.1	.01	TR
9856	TR	TR	10.1	.28	TR
9858	33.3	17.4	25.4		TR
9859	1.74	TR	1.1	1.18	TR

One chip sample taken by Mr. Doug Parent from large mineralized boulders, in various pits, returned the following:

<u>SAMPLE NO.</u>	<u>ACID</u> oz/ton	<u>SILVER</u> oz/ton	<u>COPPER%</u>	<u>LEAD%</u>	<u>ZINC%</u>
629	TR	13.45	TR	4.85	6.25

Diamond drilling has indicated the presence of metals in other skarn zones as well as in the metasediments.

CONCLUSIONS AND RECOMMENDATIONS

High silver, lead and zinc ores are found along skarn zones on a property where mapping may reveal structural conditions favorable to the occurrence of economically interesting quantities of metallic minerals. Keeping in mind that the EM survey was negative over a portion of the ground, it is felt that a slower, more methodical approach to the evaluation of this property is warranted.

To reduce the transportation costs, a road should be constructed from the Santung Highway and a camp established to continue the program of exploration. The grid system should be completed over the property and geological mapping started assisted by contour surveying and continued magnetometer surveys. Emphasis should be placed on structural interpretation of the bedded rocks and a program of trenching would be a valuable aid to the mapping.

Dependent on the results of this initial phase of investigation, an induced polarization survey may be warranted, followed by diamond drilling.

The expenditures required to carry out this

recommended programme are as follows:

PHASE I

Road construction	\$20,000
Camp, communication	5,000
Transportation	6,000
Grid Control with surveyed base line	10,000
Geological Mapping	4,000
Contour Survey	5,000
Completion of Magnetometer Survey	5,000
Trenching	2,000
Assaying	1,000
Supervision & Contingencies	4,000
	<hr/>
	\$62,000

PHASE II

I.P. Survey over designated areas 20 line miles	\$10,000
EM Survey, over remaining claims if warranted	8,000
Diamond Drilling, 12x500'	60,000
Assaying	2,000
Supervision & Contingencies	2,000
	<hr/>
	\$82,000

Total of Phases I & II \$144,000

If favorable results are obtained, and if
and also if of this recommended program, further
expenditures will be required to systematically evaluate
this property.

Respectfully submitted,
GORDON F. H. JORDAN & ASSOCIATES, LTD.

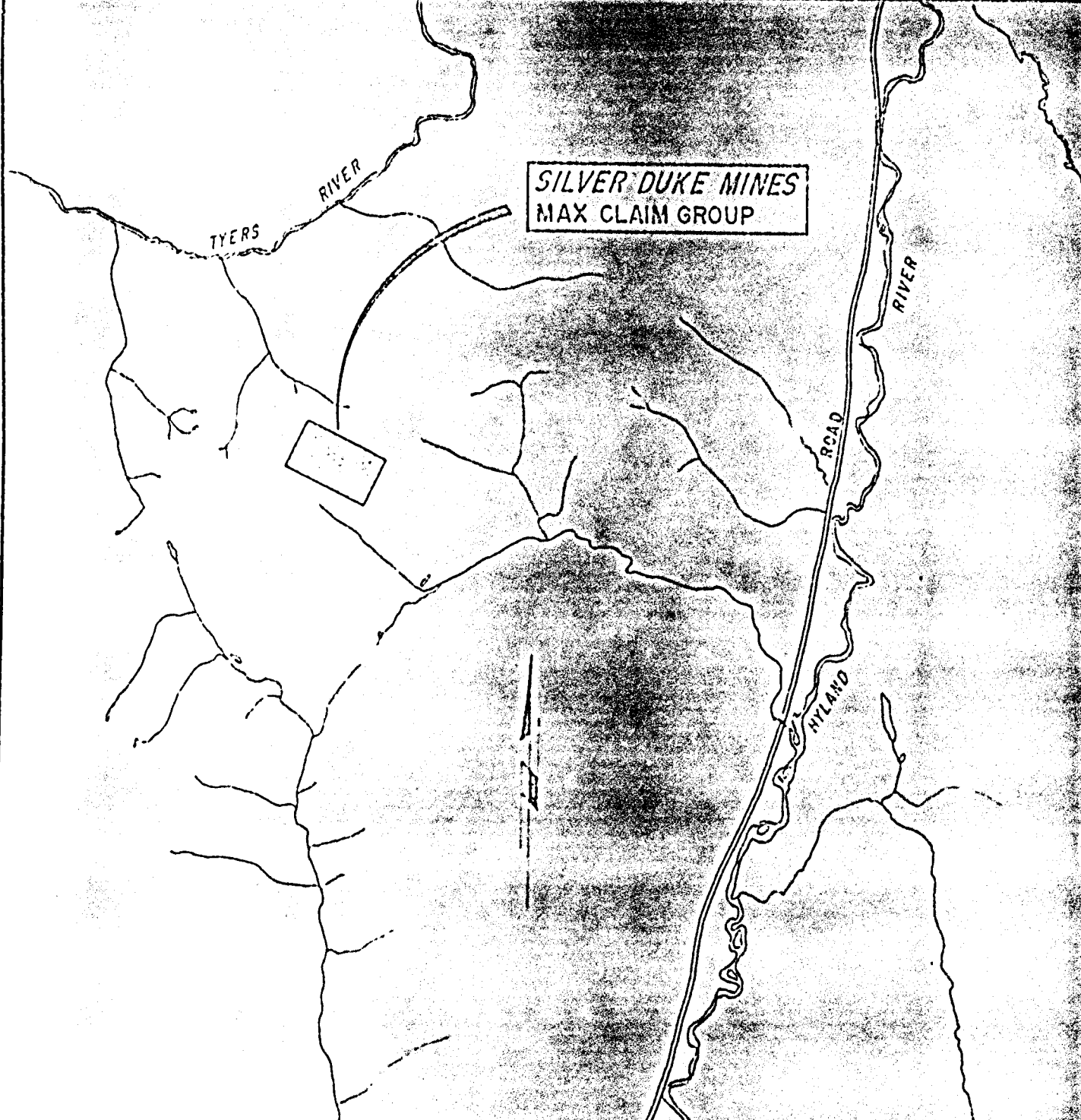
Gordon F. H. Jordan, President

I, GORDON PATRICK EARL WHITE, of the City of Vancouver, in the Province of British Columbia, HEREBY CERTIFY:

- 1) THAT I am a registered Professional Engineer in the Province of British Columbia.
- 2) THAT I am a graduate of the University of New Brunswick with a degree of Bachelor of Science (1953).
- 3) THAT I am a Consulting Geologist, and my residential address is H 1902, 1600 Beach Block, Vancouver 5, B.C., and my office is at 821 West Pender Street, Vancouver 1, B.C.
- 4) THAT I have visited the property discussed in this report.
- 5) THAT I have practised as a geologist for more than 15 years, examining and reporting on properties and mines in North America and Africa.
- 6) THAT I have personally checked the staking of some of the claims listed in this report, and have found those posts, tags and claim lines to be in accordance with the Mineral Act in the Yukon Territory.
- 7) THAT I have no interest, direct or indirect, in any company acquiring or intending to acquire control, nor do I expect to have any interest in Silver Duke Mines Ltd. Nor do I have any interest, direct, or indirect, in the claims referred to in this report.

DATED at Vancouver, this 21st day of August, 1968.


Gordon P. E. White, P. Eng.



SILVER DUKE MINES
MAX CLAIM GROUP

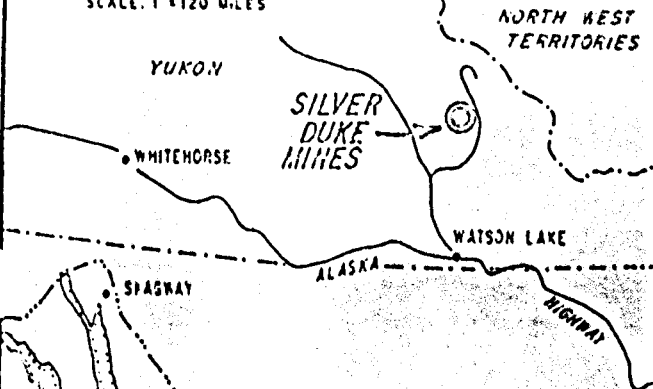
TYERS RIVER

RIVER

ROAD

ISLAND

SCALE: 1" = 120 MILES



YUKON

NORTH WEST TERRITORIES

SILVER DUKE MINES

WHITEHORSE

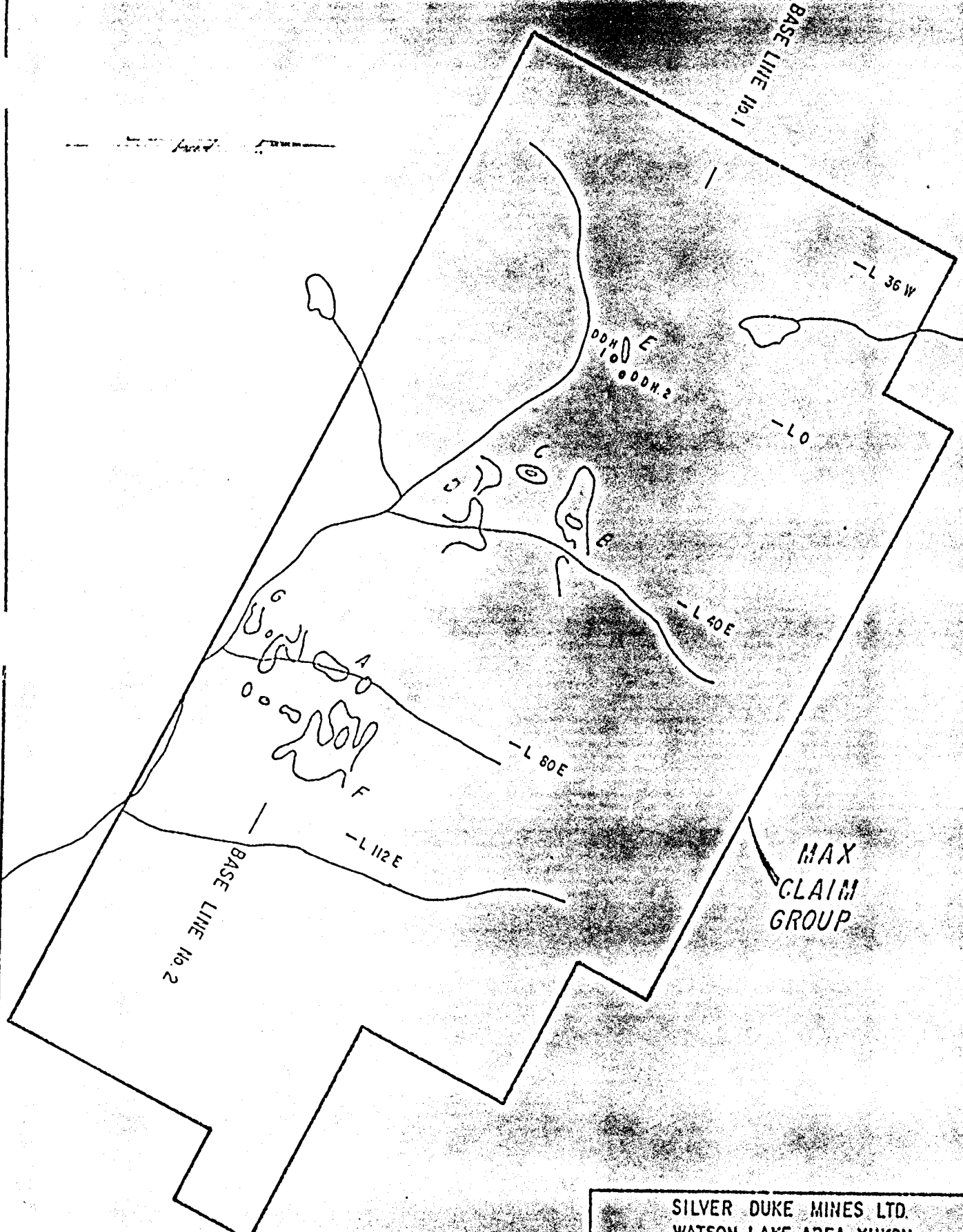
WATSON LAKE

ALASKA

HIGHWAY

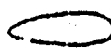

BRITISH COLUMBIA

SILVER DUKE MINES LTD. WATSON LAKE AREA, YUKON	
LOCATION MAP	
SCALE	
0	1 2 3 4 5 6 7 8 9 10
MILES	KILOMETERS
GORMON & WHITE & ASSOCIATES LTD.	



MAX
CLAIM
GROUP

LEGEND

-  - Magnetic Anomaly
-  - Diamond Drill Hole

SILVER DUKE MINES LTD.
 WATSON LAKE AREA, YUKON
CLAIMS MAP
 SHOWING MAGNETIC ANOMALIES

SCALE

1/2" 1/4" 0 1/4" 1/2" 1 MILE

GORDON PE WHITE & ASSOCIATES LTD.