2073

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2073 MAP

Joe Sullivan, P.Eng.
Mine Exploration

Telephone: Off. 261-0688
Res. 263-8022
or
Off. 683-9157

6080 East Boulevard
Vancouver 13, B.C.
or
202 - 850 West Hastings St.
Vancouver 1, B.C.

GEOLOGICAL, MAGNETIC, AND GEOCHEMICAL REPORT

SEATTLE GROUP OF MINERAL CLAIMS

NORTH FORK OF THE GRANBY RIVER

GREENWOOD M. D.

49° 118° S.E.

By:	Joseph Sullivan, P. Eng.
Claim Owner:	Isaac Wiebe, Grand Forks, B.C.
Company:	Ryslo Silver Mines, Vancouver, B. C.
Field Period:	August 30 to September 16, 1969
Drafting & Report Period:	September 17 to October 3, 1969

* * * * *

TABLE OF CONTENTS

INTRODUCTION:

The text of this report is to supplement the geological, magnetic, and geochemical plan maps to be found in the back envelope. The horizontal control is the same for each of the three surveys so that each map is an overlay of the others.

All the technical work in the field and in the office was done or supervised by the writer. Field assistance in collecting the soil samples was given by:

Mr. Bud Pasco
Greenwood, B. C.

Field assistance in reading the magnetometer was given by:

Mr. Isaac Wiebe
Grand Forks, B. C.

The final tracing of the plans and section was done through the facilities of:

Versatile Drafting
448 Seymour Street
Vancouver 2, B. C.

PROPERTIES AND LOCATION:

Mr. Isaac Wiebe of Grand Forks, B. C. has optioned 25 located mineral claims and four Mineral Leases to:

Ryslo Silver Mines Ltd.
534 - 789 West Pender Street
Vancouver 1, B. C.

The Mineral Leases are:

M 330	Seattle	L 652
	Virginia City	L 1606
M 331	Loyal Canadian	L 1608
M 332	No. 1	L 1362
M 360	Bunker Hill	L 1609

The located claims are the Ikes Nos. 1 - 25 that form a contiguous block on the west side of the north fork of the Granby River just eight road miles north of Grand Forks in the Greenwood Mining Division.

The leases lie in the southeast quadrant of the located block and overlie the West North Fork Road and the C.P. Railway.

HORIZONTAL CONTROL:

There is a 2,400 foot baseline in a northsouth direction with eastwest crosslines at 300 foot intervals. Line stations are measured in at 100 foot horizontal intervals for a total footage of 17,300 feet or 3.3 line miles.

VERTICAL CONTROL:

Altimeter readings were taken at each station on the baseline, then the first station was re-read. The 50 foot difference recorded between the readings at the first station was distributed as a straight line correction along the base. All the crosslines were tied to the base and corrected in the same manner.

GEOLOGICAL MAPPING PROCEDURE:

The grid stations were plotted on small $8\frac{1}{2}$ x 11 inch graph sheet so that the outcrops could be plotted to scale directly in the field. All the outcrops that were not traversed by a grid line were located by pace and compass measure if within 50 feet of a station. Those outcrops that lay from 50 to 150 feet from a station were located by tape and compass measure.

These field notes were then traced back on to a grid sheet to produce the accompanying geological plan.

MAGNETOMETER SURVEY PROCEDURE:

The instrument used was a Sharpes MF-1 fluxgate magnetometer. A reading was recorded at each grid station along with the date and time. Station 12N on the baseline was used as the origin and end point. From here the base was read from 00 to 24N. The necessary adjustments recorded on the closure at 12N were pro-rated along the baseline according to the time interval between each reading. The crosslines were then read and adjusted to the base using the same time interval distribution.

The corrected values were plotted on the magnetic plan and contoured in 250 gamma intervals between the limits of minus 1,000 gammas and plus 1,000 gammas. After the first survey was plotted in the field it was found that the area bounded by 12N - 2W, 18N - 2W, 12N - 2E, and 18N - 2E had to be detailed at 50 foot intervals to make a reasonable interpretation possible.

GEOCHEMICAL SURVEY PROCEDURE:

During the process of the geological mapping it was determined that no layers of transported soil underlay the grid area above the 1,800 foot contour. Further it was determined that, beneath the live vegetation, the ground vegetation and litter, the soil was composed of angular pebbles, sand, and clay derived from the underlying rock units (grit, limestone, and diorite).

Each sample was taken from this sandy soil beneath the ground vegetation and litter. The depth at which the sample was taken varied with the thickness of ground vegetation and litter, and ranged from four inches to one foot.

Each three ounce sample was taken close to a grid point, placed in a strong paper sack designed for this purpose, numbered the same as the grid station and packed in a cardboard container for shipment to a geochemical testing laboratory. The tool used for digging up the sample was an unpainted common garden trowel.

At Warnock Hersey International Limited, the chosen analysts, the analytical procedure was as follows for each sample:

(1) Drying by infra-red lamp and fan.

(2) Screening through a -80 mesh silver sieve.

(3) Extraction of the copper ion into solution by hot HNO_3/Hcl (aqua regia).

(4) Determination of the copper content in parts per million by an atomic absorption instrument.

The results obtained from the laboratory are included at the back of this report.

SURVEY RESULTS:

(a) Geological:

The most widespread rock unit encountered in the grid area was a medium to light grey banded limestone (ls), containing massive beds of grey limestone up to ten feet wide. This type of rock formed the low steep bluffs on the north and west sides of the area mapped.

Underlying and conformable with the limestone was a faint banded limey grit (g). This unit varied from medium to dark grey in color and the grain size varied, from a silt to coarse rounded sand, along both the width and length of the beds.

Occasionally this unit had a fine grained andesitic appearance close to the limestone contact. In all the outcrops tested the grit reacted to dilute hydrochloric acid.

Intruding the grit near the west center of the grid is a small body of diorite (dio). This unit is composed of about 80 percent medium to coarse grey felspar crystals interlaced with about 20 percent black hornblend. The intrusive contact with the grit was exposed in an open cut on line twelve west where it lay sill-like with the sediments. No other contact exposure was seen so the true areal extent of the diorite is not known but it appears to cover about 75,000 square feet.

The writer has separated the rock alteration present into three types. Epidote-garnite skarn, (ep-gn), chlorite-calcite skarn (ch-sk), and bleached crystalline limestone. These three types of alteration have formed chiefly in the limey parts of the grit close to the overlying limestone. The epidote-garnite skarn is composed of epidote, garnite, and actinolite that forms along the bedding plains and retains the banded appearance. The chlorite-calcite skarn is composed of chlorite and calcite and appears to form small irregular masses through the grit. The bleached crystalline limestone is milky white and forms where the epidote- garnite skarn comes in contact with the grey limestone.

Pyrite, magnetite, and chalcopyrite have formed along the bedding within the epidote- garnite skarn and in irregular threads and ribbons throughout the altered zones, but again, chiefly in the epidote-garnite skarn. These metallics and the alteration have localized along the north and east contact of the diorite intrusive and appear to be controlled largely by small folds and associated faulting.

Lesser amounts of pyrite, magnetite and chalcopyrite can be found in the diorite in tiny blebs and minute fractures.

A geological and magnetic section (marked Section

A-B) has been drawn through line 15N on the geological plan. This is the writer's interpretation and is suggested because it best fits the various structures and mineralized outcrops seen on the surface. It is a faulted fold system plunging at flat and moderate angles to the north under the barren limestone.

(b) Magnetometer:

On the magnetic plan it is clear that the negative (lows) favour the diorite area and the extreme lows are found at or close to the diorite-grit contact. The highest positive values are found close to the lows but on the opposite side to the diorite. This could mean that a series of dipoles lie in the magnetite zone and that the negative ends are at the diorite contact. Since the chalcopyrite is associated with the magnetite, and since chalcopyrite is the mineral of chief economic importance in this exploration project, the high values and the low values are of equal importance, for they probably both contain chalcopyrite.

(c) Geochemical:

The geochemical map shows a concentration of copper ions in the same areas as the magnetic anomalies so we know that we have not been tracing a zone composed entirely of iron minerals.

The large width of the copper ion zone indicated in the plan is probably due to the copper ions migrating down the surface slope from the known copper showings.

RECOMMENDATIONS:

It is recommended that this deposit be explored by diamond drilling through the epidote-garnite skarn into the diorite intrusive. This will be the same as drilling through the high magnetic zones into the low magnetic zones and into a diorite basement.

The recommended starts for the drilling are as follows:

(1) Drill into the fold nose area at 13N - 1E with three holes whose lengths are in the order of 250 feet each, and whose bearings will be south of west.

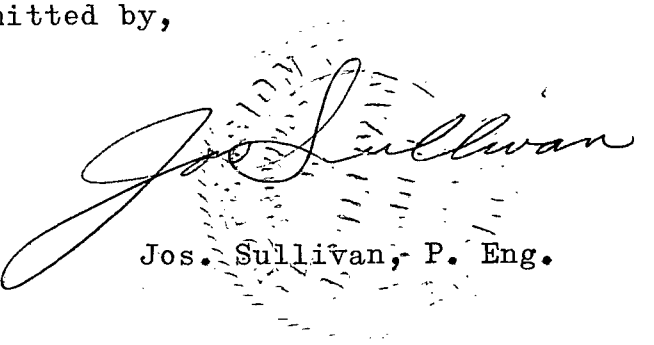
(2) Drill, from sites 1 to 5, as indicated on the geological plan, five holes with lengths of 150 feet, bearing at N 60° W, and dipping at -35°.

(3) Drill, from sites 6 to 11, six holes with lengths in the order of 150 feet each, with bearings due west, and dips of -35°.

(4) Valuate the drill results and consider a program of deeper drilling.

Concurrent with the drilling, it is recommended that the surface trace of the diorite contact be delimited by surface stripping, magnetometer detail, and geological mapping.

Submitted by,



Jos. Sullivan, P. Eng.

WARNOCK HERSEY
INTERNATIONAL LIMITED

PROFESSIONAL SERVICES DIVISION

125 East 4th Ave. Vancouver 10, B. C. Phone 876-4111 — Telex 04-50353

REPORT OF: Geochemical Testing

FILE NO. G.3-S.1-69-8545

AT: Vancouver Laboratory

DATE: October 3, 1969

PROJECT: Copper Analysis

REPORT NO.

REPORTED TO: Joe Sullivan,
6080 East Boulevard,
Vancouver 13, B. C.

ORDER NO.

We have tested samples of Soil submitted by you on Sept. 17, 1969 and report as hereunder:

Fraction : - -80

Extraction: - Hot HNO_3/HCl

Method: - Atomic Absorption

RESULTS:

Sample No.	Copper (ppm)	Sample No.	Copper (ppm)
BL 0N	5	BL 20+00N	25
1+00N	5	21+00N	25
2+00N	10	22+00N	5
3+00N	20	23+00N	5
4+00N	25	24+00N	10
5+00N	40	0N 1+00E	20
6+00N	197	2+00E	10
7+00N	55	3+00E	15
8+00N	300	4+00E	5
9+00N	35	5+00E	5
10+00N	50	6+00E	5
11+00N	45	7+00E	5
12+00N	40	8+00E	20
13+00N	40	9+00E	5
14+00N	55	10+00E	15
15+00N	172	11+00E	5
16+00N	15	12+00E	5
17+00N	20	13+00E	5
18+00N	30	14+00E	15
19+00N	10	0N 1+00W	5

RESULTS (Continued):

Sample No.	Copper (ppm)
ON 2+00W	10
3+00W	5
4+00W	5
5+00W	5
6+00W	5
3N 1+00E	10
2+00E	25
3+00E	13
4+00E	5
5+00E	20
6+00E	20
7+00E	15
8+00E	10
9+00E	5
10+00E	10
11+00E	15
12+00E	15
13+00E	25
1+00W	10
2+00W	15
3+00W	10
4+00W	15
5+00W	25
6+00W	20
L6N 1+00E	10
2+00E	10
3+00E	10
4+00E	5
5+00E	5
6+00E	20
7+00E	20
8+00E	10
9+00E	5
10+00E	10
11+00E	10
12+00E	5
1+00W	75
2+00W	30
3+00W	15
4+00W	10
4+0075'W	5
9N 1+00E	580
2+00E	58
3+00E	35
4+00E	25

Sample No.	Copper (ppm)
9N 5+00E	35
6+00E	20
7+00E	15
8+00E	10
9+00E	10
10+00E	15
10+50E	13
1+00W	40
2+00W	35
3+00W	60
4+00W	20
5+00W	15
6+00W	25
L12N 1+00E	2900
2+00E	650
3+00E	40
4+00E	105
5+00E	100
6+00E	75
7+00E	10
8+00E	25
9+00E	15
10+00E	75
11+00E	10
1+00W	100
2+00W	20
3+00W	165
4+00W	65
5+00W	117
6+00W	235
15N 1+00E	45
2+00E	25
3+00E	30
4+00E	20
5+00E	15
6+00E	15
7+00E	10
8+00E	15
9+00E	15
9+50E (Road)	25
1+00W	55
2+00W	15
3+00W	40
4+00W	15
L18N 1+00E	15

.....3

File: 8545
Date: Oct. 3/69

RESULTS (Continued):

Sample No.		Copper (ppm)
L18N	2+00E	30
	3+00E	10
	4+00E	15
	5+00E	30
	6+00E	15
	7+00E	5
	8+00E	10
	9+00E	20
	1+00W	20
	2+00W	20
	3+00W	20
	4+00W	15
21N	1+00E	25
	2E	20
	3E	20
	3E	15
	4E	20
	5E	35
	6E	15
	7E	15

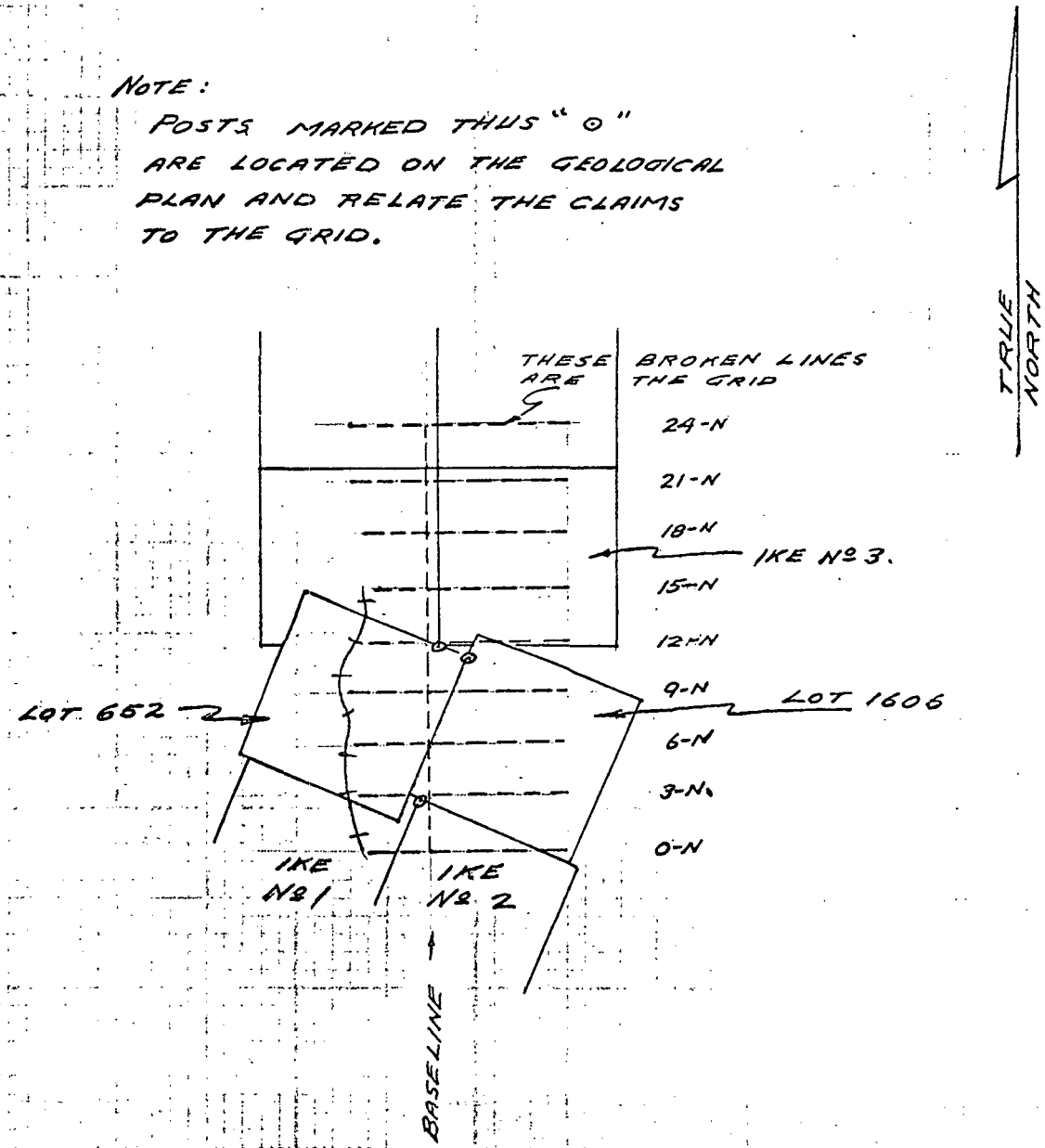
Sample No.		Copper (ppm)
21N	8E	15
	9E	20
	1+00W	5
	2W	10
	4+00W	5
	5+00W	15
L24N	1+00E	15
	2+00E	15
	3+00E	10
	4+00E	30
	5+00E	30
	6+00E	15
	7+00E	15
	8+00E	20
	9+00E	20
	10+00E	10
	1+00W	25
	2+00W	25
	3+00W	20
	4+00W	15
	5+00W	10
	6+00W	10

WARNOCK HERSEY

G. Cochrane,
GEOCHEMICAL DEPARTMENT

/cr

NOTE:
POSTS MARKED THUS "⊙"
ARE LOCATED ON THE GEOLOGICAL
PLAN AND RELATE THE CLAIMS
TO THE GRID.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2073 MAP 5

RE: SEATTLE GROUP OF MINERAL CLAIMS.
PLAN OF MINERAL CLAIMS SHOWING
RELATION OF GRID LINES TO THE
INDIVIDUAL CLAIMS.

Jos. Sullivan, P. Eng.
DEC. 15, 1969.

TO ACCOMPANY GEOCHEMICAL REPORT BY J. SULLIVAN, P. ENG. ON THE SEATTLE GROUP, 8 MILES NORTH OF GRAND FORKS, GREENWOOD MINING DIVISION, DATED OCTOBER 3, 1969

2073

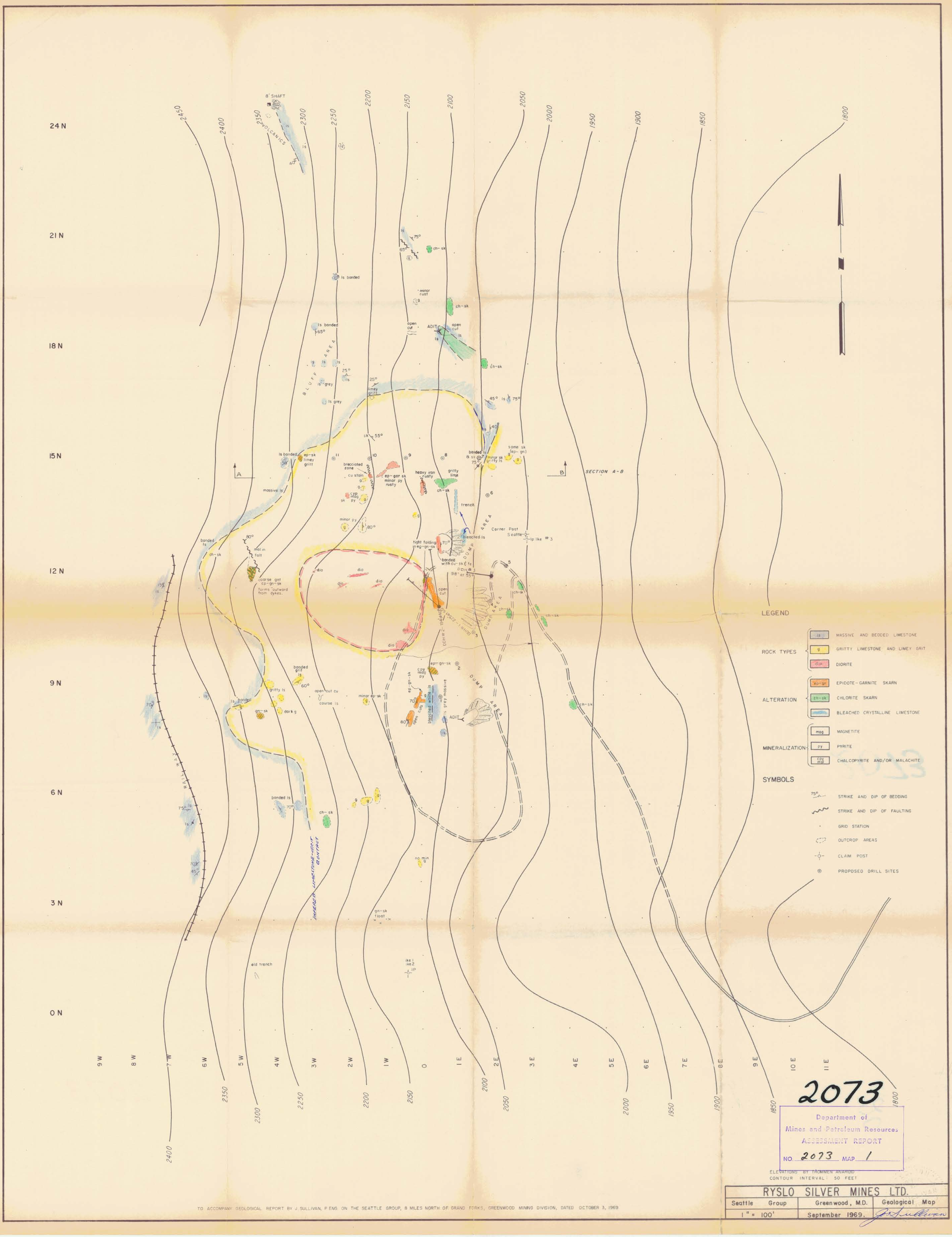
RYSLO SILVER MINES LTD.		
Seattle Group	Greenwood, M.D.	Geochemical Map
1" = 100'	September 1969.	J. Sullivan

INSTRUMENT: SHARPES FM-1
VALUES IN GAMMAS

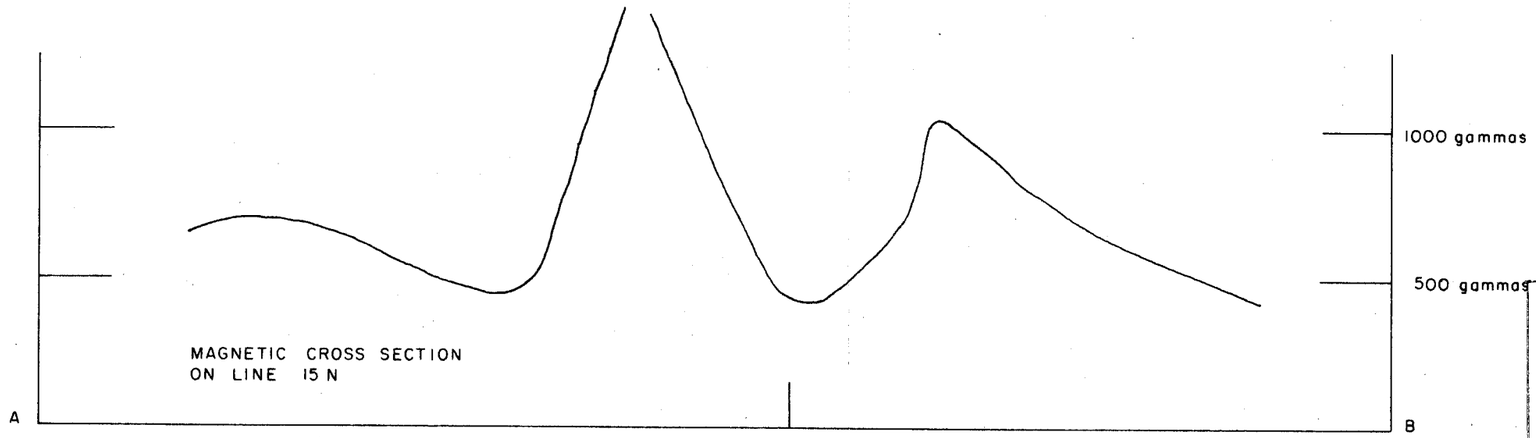
To ACCOMPANY MAGNETOMETER REPORT BY J.SULLIVAN, P.ENG. ON THE SEATTLE GROUP, 8 MILES NORTH OF GRAND FORKS, GREENWOOD MINING DIVISION, DATED OCTOBER 3, 1969

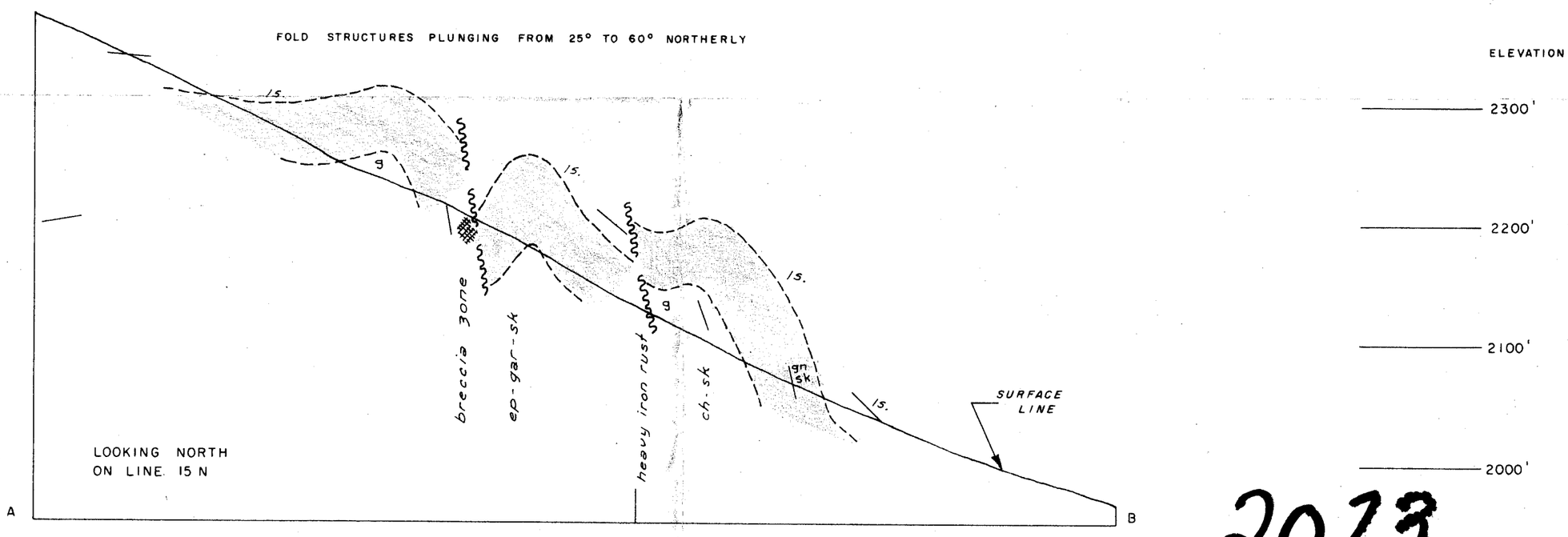
2073

RYSLO SILVER MINES LTD.		
Seattle Group	Greenwood, M.D.	Magnetic Survey Plan
1" = 100'	September 1969	J. Sullivan



TO ACCOMPANY GEOLOGICAL REPORT BY J. SULLIVAN, P. ENG. ON THE SEATTLE GROUP, 8 MILES NORTH OF GRAND FORKS, GREENWOOD MINING DIVISION, DATED OCTOBER 3, 1969.





2013

Jos Sullivan

TO ACCOMPANY GEOCHEMICAL REPORT BY J. SULLIVAN, P. ENG.
ON THE SEATTLE GROUP, 8 MILES NORTH OF GRAND FORKS,
GREENWOOD MINING DIVISION, DATED OCTOBER 3, 1969

RYSLO SILVER MINES LTD.		
SEATTLE G.P.	GREENWOOD M.D.	MAGNETIC AND GEOLOGICAL SECTIONS A-B
1" = 100'	SEPTEMBER, 1969	SEE LINE 15 N