

LOG NO: 1103 RD.

ACTION:

FILE NO: 87-688-16505

GEOPHYSICAL REPORT

on the

LAWLESS GROUP
Similkameen M.D.

NTS 92H/10W

Lat 49°37'^{06"}, Long 120°54'^{53'}24"

for

A. Nightingale
and
D.G. Lorimer
Owners and operators

by

M.K. Lorimer, B.A.Sc., P.Eng.

3 October, 1987

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

16,505

FILMED

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VANCOUVER, B.C.

CONTENTS

	<u>Page</u>
INTRODUCTION	
Location	1
Property	2
History	2
Geology	2
1987 Programme	3
Results	4
RESULTS	4
CONCLUSIONS	4
BIBLIOGRAPHY	6
CERTIFICATE OF QUALIFICATIONS	7
APPENDICES: A. Cost Summary	8
B. Magnetometer Readings	9-11
DRAWINGS: Fig. 1: Location Map	12
Fig. 2: Magnetometer Survey	13

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3 Oct 87

INTRODUCTION

Location:

The Lawless Group of placer claims is located on Lawless Creek in the Tulameen area of southwestern British Columbia.

The property may be reached by travelling north-westerly a distance of about 23 kilometres (14 miles) from the settlement of Tulameen or by travelling an equal distance southeasterly and then northerly from the new Coquihalla Highway. Both routes are mostly over logging roads in good condition. The access road traverses the property from south to north and continues beyond.

The claims straddle Lawless Creek which, at this point, is a gently-flowing stream with a southeasterly course. At the northern end of the two-claim group the valley is narrow and thickly wooded with merchantable timber. At about one third of the distance from the northern boundary the valley widens to give a maximum of about 150 metres of comparatively flat ground and then it narrows to about 100 metres at the southern boundary. The western side of the valley is steep whereas the eastern side is more moderately sloped and appears to be a series of benches. About two thirds of the valley floor and most of the eastern slopes have been logged and are now covered by logging debris, alders and willows.

The geographical location is $49^{\circ}37'N$, $120^{\circ}54'W$, the National Topographic System map area is 92H/10W, and the Mining Division is Similkameen. The average elevation of the valley floor is about 1200 metres (4000 feet) above sea level. Fig. 1.

Property:

The Lawless Group consists of two placer claims as follows:

<u>Placer Lease No.</u>	<u>Tag No.</u>	<u>Proviso Code</u>	<u>Expiry Date</u>
19162	P46657	Yellow	16 Oct 87
19200	P30439	Yellow	21 Nov 87

The claims are jointly owned by A. Nightingale and D.G. Lorimer of Port Coquitlam, B.C.

History:

Historical information on the area is scarce and often vague. There are several references in old reports to Chinese miners working the gravels of Bear Creek, as Lawless Creek was then known, in the latter half of the 19th century. Because these miners were secretive and because few maps or plans were made, or have survived, little data are available concerning recoveries or areas worked.

On the subject claims the width and low gradient of the valley floor present favourable conditions for the deposition of heavy minerals, and there is, indeed, evidence of previous placer operations. At one point near the present stream a long pile of boulders obviously comprises discards from a sluicing operation.

Geology:

The area rocks belong to the Tulameen Group, an assemblage of andesite, breccia, limestone and argillite of the Triassic period. Schistosity is well developed. The strike is slightly west of north and the dip is generally steep to the west.

Jurassic igneous intrusions occur in some areas. These consist of boulder granite, peridotite, pyroxenite, augite syenite and granodiorite.

There is little evidence of bedrock in the creek. For most of its length through the claims the creek bed and banks are composed of material grading from well-rounded boulders to sand.

According to Charles Camsell in Geological Survey of Canada Memoir 26, gold and platinum occur in the creek as nuggets, flour gold being uncommon. The largest gold nugget found in the district came from Bear (now Lawless) Creek. The platinum has pitted surfaces commonly filled with chromite. Other platinum grains are coated with magnetite particles making them amenable to magnetic separation. The coarseness of the nuggets suggests a local origin. Native copper also occurs.

1987 Programme:

In an attempt to locate deposits of magnetic materials and, by inference, possible former stream channels, a magnetometer survey of the flat valley floor was made in September, 1987. This survey extended the full length of the southern claim.

The claim location line was used as a base line. The origin was at the No. 1 post at the north end. Cross lines were established at 50-metre intervals. Stations on the cross lines were established at 25-metre intervals during the course of the survey and marked with plastic flagging.

Readings were taken with a Scintrex fluxgate magnetometer, serial number 904440. This is a vertical intensity instrument with a sensitivity of 200 gammas a scale division on the 10,000-gamma scale, but estimates to 100 gammas, or even 50 gammas, can easily be made.

Control points were established by traversing south along the base line and then returning to the starting point taking readings at each cross line. The readings for each point were then averaged.

Cross line readings were made after setting the instrument to the control point value previously established.

The work was done in the period 12-13 September, 1987.

The field crew consisted of:

D.G. Lorimer	Instrument man	12 hrs.
A. Nightingale	Compass and chain	12 hrs.
E.M. Lorimer	Rear chainman	12 hrs.

D.G. Lorimer is an experienced instrument man and party chief and is a former employee of Seigel Associates Ltd.

The survey was directed by M.K. Lorimer, P.Eng., who was present during the field work.

A cost summary is given as Appendix A.

RESULTS

The magnetometer readings are tabulated in Appendix B and plotted and contoured on Fig. 2.

With a few exceptions the magnetic relief is comparatively flat with a slight decrease in average intensity from north to south.

The magnetic "highs" and depressions show a linearity consistent with the magnetic expressions of contacts, fault zones and buried stream channels. In any event, the "highs" indicate higher than normal concentrations of magnetic materials and should be regarded as anomalies.

Of special interest are the areas centred on 3 south 2 east, 6 south 2 east and 15 south 2 east. The last mentioned is the highest reading of the survey. It might be regarded as an erratic but the readings immediately to the west and to the south give some support to the validity of a high reading here. However, this point is close to the creek and near the junction of a tributary stream. It may, therefore, be the location of an old tailings dump rich in magnetic minerals.

CONCLUSIONS

The Lawless Group is located along a creek that has a history of placer gold and platinum production, and it covers a broad valley favourable for the deposition of heavy minerals.

Although there is some evidence of old workings, most of the valley bottom appears to be untouched except by loggers.

A line of magnetic "highs", mostly 50 to 75 metres east of the present creek, may indicate a buried stream channel. The "highs" along this line are the most promising areas for further investigation.



M.K. Lorimer, B.A.Sc., P.Eng.

3 October, 1987

BIBLIOGRAPHY

British Columbia Minister of Mines Reports, frequent
references to Bear (Lawless) Creek, 1886-9,
1898-9, 1905-7, 1930

Camsell, C., Geological Survey of Canada, Memoir 26,
Geology and Mineral Deposits of the Tulameen
District, B.C., 1913

CERTIFICATE OF QUALIFICATIONS

I, MALCOLM KEITH LORIMER, of the City of Vancouver, B.C., Mining Engineer, hereby certify:

1. THAT I am a practising Mining Engineer and reside at 3082 West 27th Avenue, Vancouver, B.C.
2. THAT I am a graduate of the University of British Columbia and hold a Bachelor of Applied Science degree in Mining Engineering granted in 1950.
3. THAT I have been practising my profession for over thirty-seven years.
4. THAT I am a Life Member of the Association of Professional Engineers of the Province of British Columbia.
5. THAT the following is a true record of my employment and experience:

1950-52 General Engineering, Consolidated Mining and Smelting Company of Canada Limited, Kimberley, B.C.

1952-56 Chief Engineer, Pioneer Gold Mines of B.C. Ltd., Pioneer Mines, B.C.

1956-57 Chief Engineer, Buchans Mining Co. Ltd., Buchans, Nfld.

1957-59 Chief Engineer and Mine Superintendent, Cowichan Copper Company Ltd., Lake Cowichan, B.C.

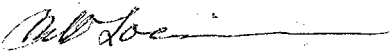
1959-65 General exploration work for various companies, mostly in southern British Columbia.

1965-75 Associate, H.L. Hill and Associates Ltd., later L.J. Manning and Associates Ltd., Mining and Geological Engineers, Vancouver, B.C.

1975-Present Independent Mining Consultant.

6. THAT I have no financial interest in the placer claims described in the accompanying report.

Dated at Vancouver, B.C. this 5th day of October, 1987.


M.K. Lorimer, B.A.Sc., P.Eng.

APPENDIX ACOST SUMMARYField Labour:

D.G. Lorimer	12 hrs. @ \$15.00	\$180.00	
A Nightingale	12 hrs. @ \$12.50	150.00	
E.M. Lorimer	12 hrs. @ \$12.50	150.00	
		<hr/>	\$480.00

Transportation:

Vehicle rental: 2 days @ \$50.00	100.00	
Mileage: Vancouver-Lawlee Creek and return, 480 km. @ \$0.20	<hr/>	96.00
		196.00

Camp costs:

4 men, 2 days @ \$40.00	320.00
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Instrument rental:

2 days @ \$25.00	50.00
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Professional Engineer:

Planning, supervision and report:	
12 hrs. @ \$40.00	480.00
28 hrs. @ \$37.50	1050.00
	<hr/>
	1530.00

TOTAL COST

\$2576.00

MAGNETOMETER READINGSBASE LINE

<u>Station</u>	<u>Traverse South</u>	<u>Traverse North</u>	<u>Average</u>
00	1500	1400	1450
1S	1300	1700	1500
2S	1300	1200	1250
3S	1150	1400	1300
4S	1300	1600	1450
5S	1100	1300	1200
6S	1600	1800	1700
7S	1400	1400	1400
8S	1500	1700	1600
9S	1700	1700	1700
10S	1700	1600	1650
11S	1600	1700	1650
12S	1600	1300	1450
13S	1400	1600	1500
14S	1600	1400	1500
15S	1500	1300	1400
16S	1000	1100	1050
17S	1100	1300	1200
18S	1100	1500	1300
19S	1200	1200	1200

MAGNETOMETER READINGS (ctd.)CROSS LINES

<u>Line</u>	<u>Station</u>	<u>Reading</u>	<u>Line</u>	<u>Station</u>	<u>Reading</u>
00	4W	1350	8S	1W	1300
	3W	1450		1E	1400
	2W	1450		2E	1700
	1W	1650		3E	1700
	1E	1550		4E	1800
	2E	1550		5E	1700
1S	3W	1400	9S	1W	1600
	2W	1400		1E	1700
	1W	1500		2E	1800
	1E	1500		3E	1700
	2E	1300		4E	1700
2S	1E	1450		5E	1700
	2E	1550	10S	1E	1100
	1W	750		2E	1700
	2W	1050		3E	1500
	3W	1150		4E	1400
3S	1W	1200		5E	1500
	1E	1200		1W	1600
	2E	1700		2W	1600
4S	1W	1350	11S	1E	1300
	1E	1550		2E	1600
	2E	1550		3E	1400
	3E	1550		4E	1500
5S	1E	1300		5E	1500
	2E	1100	12S	1W	1400
	3E	1300		1E	1500
6S	1E	1700		2E	1200
	2E	2000		3E	1300
	3E	1500		4E	1300
	4E	1500	13S	3W	1400
7S	1E	1900		2W	1700
	2E	1900		1W	1300
	3E	1900		1E	800
	4E	1900		2E	1400
				3E	1500
				4E	1300

APPENDIX B
(3)

MAGNETOMETER READINGS (ctd.)

CROSS LINES (ctd.)

<u>Line</u>	<u>Station</u>	<u>Reading</u>	<u>Line</u>	<u>Station</u>	<u>Reading</u>
14S	2W	1400	17S	1E	1200
	1W	1300		2E	1300
	1E	1500		3E	1500
	2E	1500		4E	1500
	3E	1600		5E	1600
15S	1E	1600	18S	1W	1000
	2E	2600		1E	1200
	3E	1400		2E	700
	4E	1400		3E	1200
16S	1E	1400	19S	4E	900
	2E	1600		3W	1100
	3E	1500		2W	1000
	4E	1500		1W	1000
	5E	1400		1E	1100
				2E	1000
				3E	700

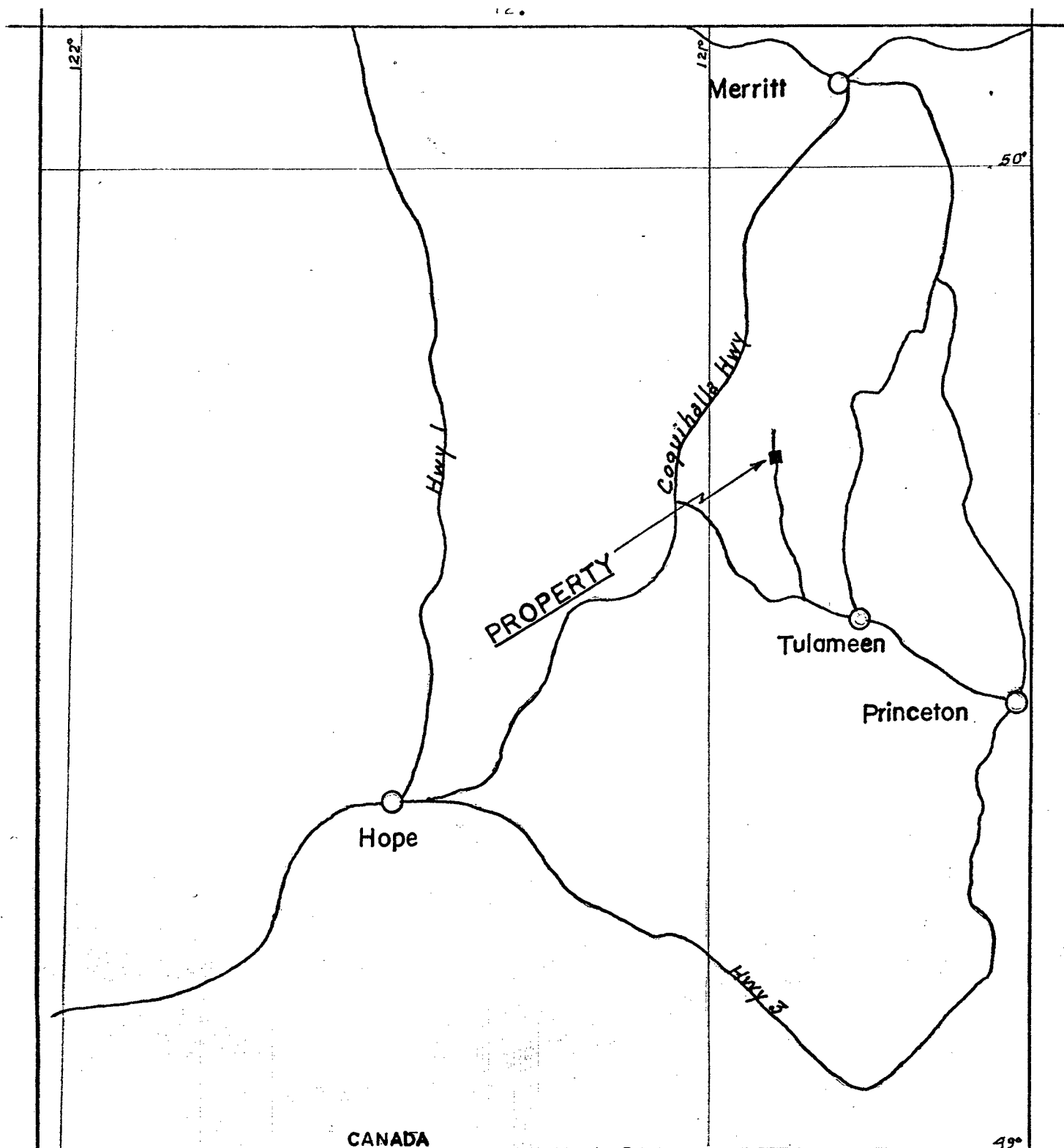
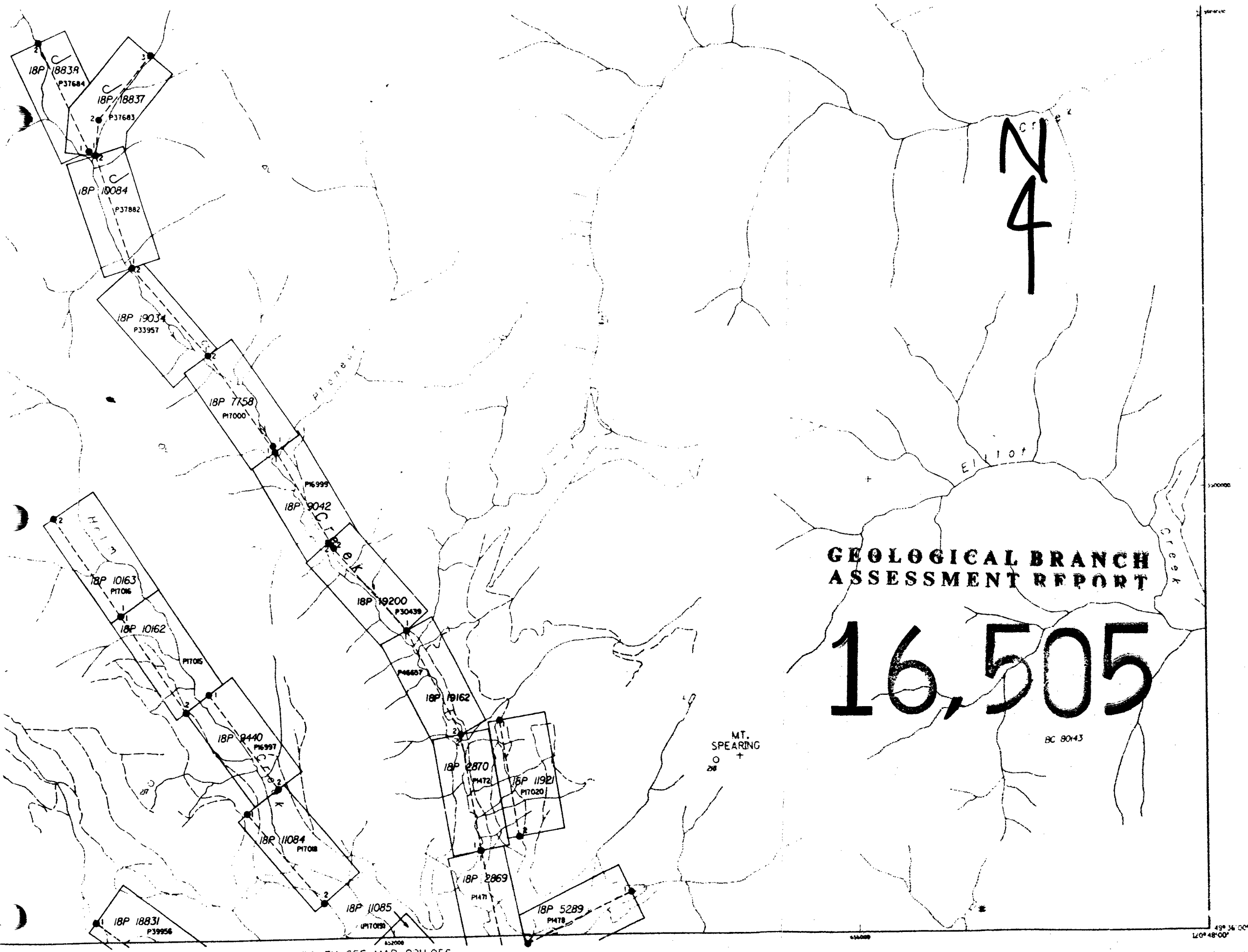


Fig. I
LAWLESS GROUP
INDEX MAP

0 10 20 30 km.
0 10 20 ml.

Drawn: M.K. Lorimer
Oct 87



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BC 8043

PAPER RECREATIONAL PLACER RESERVES AND STAKING	PLACER DESIGNATED AREA	FORFEITED LEASE	ROADS	RAIL	POWER
GLACIERS, ICEFIELDS, AND SNOWFIELDS	VERIFIED SURVEYED	WATER	PAVED	STRAIGHT	LINE
AIR PHOTO CENTRE	SHADING	SWAMP	GRAVEL	CURVED	POLE
		WETLAND	ABANDONED		

SCALE 1:20 000
200 0 200 400 600 800
METRES
CONTOUR INTERVAL METRES

THIS MAP IS PREPARED ONLY AS A GUIDE TO THE LOCATION OF PLACER LEASES AS SHOWN ON THE LOCATOR'S SKETCHES. FOR CURRENT OR MORE SPECIFIC INFORMATION, APPLICATION SHOULD BE MADE TO THE MINING DIVISION CONCERNED.

92H.066

PROVINCE OF
BRITISH COLUMBIA
MINISTRY OF
ENERGY, MINES AND
PETROLEUM RESOURCES

DATE OF PHOTOGRAPHY: 1976-81
U.T.M. GRID: ZONE 10 (1975)
BASE COMPLETED: AUGUST 1982
BASE SOURCE: PHOTOGRAMMETRIC
LAND DISTRICTS: YALE DIVISION OF YALE

MINING DIVISIONS (MD): NEW WESTMINSTER,
NICOLA, SIMILKAMEEN
PLACER DESIGNATED AREAS (DPA): TULAMEEN

PLACER DESIGNATED AREA
NO STAKING AREAS
FORFEITED LEASE
SURVEYED SUR
VERIFIED VER

SCALE 1:31680

200 0 200 400 600 800
METRES

THIS MAP IS PREPARED ONLY AS A GUIDE TO THE LOCATION OF PLACER LEASES AS SHOWN ON THE LOCATOR'S SKETCHES. FOR CURRENT OR MORE SPECIFIC INFORMATION, APPLICATION SHOULD BE MADE TO THE MINING DIVISION CONCERNED.

LAST TITLE UPDATE: 17JUN1987

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,505

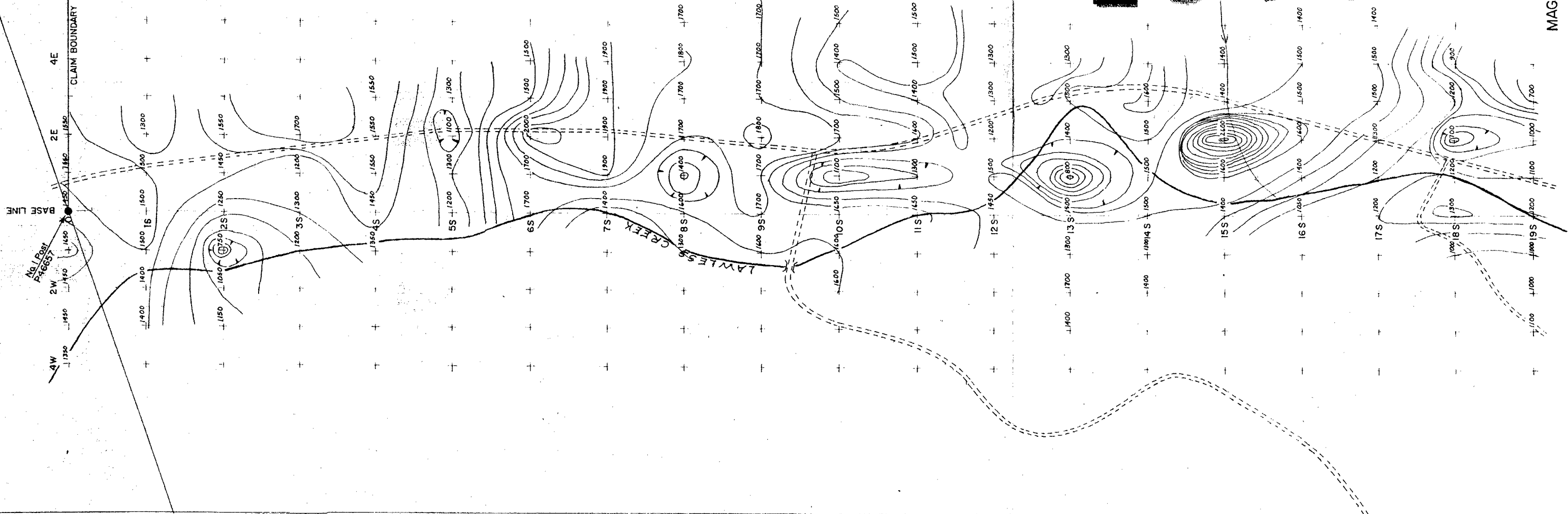


Fig. 2
LAWLESS GROUP
MAGNETOMETER SURVEY
0 25 50 75 100 150 200 300 ft
0 25 50 75 100 m
Drawn: M.K. Lorimer
Oct 87

- Notes:
1. Contour interval 100 gammas
 2. Arbitrary datum
 3. Vertical intensity