84-#834 - 12562
7

B.E. Spencer Engineering Ltd.

CONSULTING GEOLOGICAL ENGINEER

REPORT

ON

A GEOCHEMICAL SURVEY

OF THE

PROTECTION 1-3 MINERAL CLAIMS

NELSON MINING DIVISION, N.T.S. 82F/6E

LATITUDE: 49°19'N, LONGITUDE: 117°10'W

FOR

C. T. EXPLORANDA LTD.

BY

B. E. SPENCER, P. ENG.

B. E. SPENCER ENGINEERING LTD.

SEPTEMBER 30, 1984

960-625 HOWE STREET, VANCOUVER, B.C. V6C 2T6 TELEPHONE (604) 687-4450

TABLE OF CONTENTS

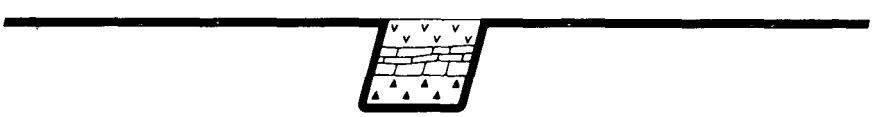
INTRODUCTION

C. T. Exploranda Ltd. have entered into a joint venture agreement with Nu-Dawn Resources Inc. whereby they may earn a 50% interest in the Protection 1-3, Ymir Fraction and Ymir Fraction #2 mineral claims. Under the terms of the agreement, C. T. Exploranda Ltd. must spend the initial $120,000 in exploring the claims. A geochemical soil survey was undertaken as partial fulfillment of this expenditure. Three hundred and forty soil samples were collected over the claims and analysed for gold, silver, lead and zinc. Details of the survey follow.

PROPERTY

The mineral claims subject to the joint venture agreement are tabulated below:

Ymir	Lot 1708
Rockland	Lot 1709
Mugwamp	Lot 1710
Lawrence Fraction	Lot 2303
Ymir Fraction #2	
Golden Horn	Lot 1711
Nora Fraction	Lot 2301
Pautney Fraction	Lot 2302
Ymir Fraction	
Protection 1-3	Record #2129-2131



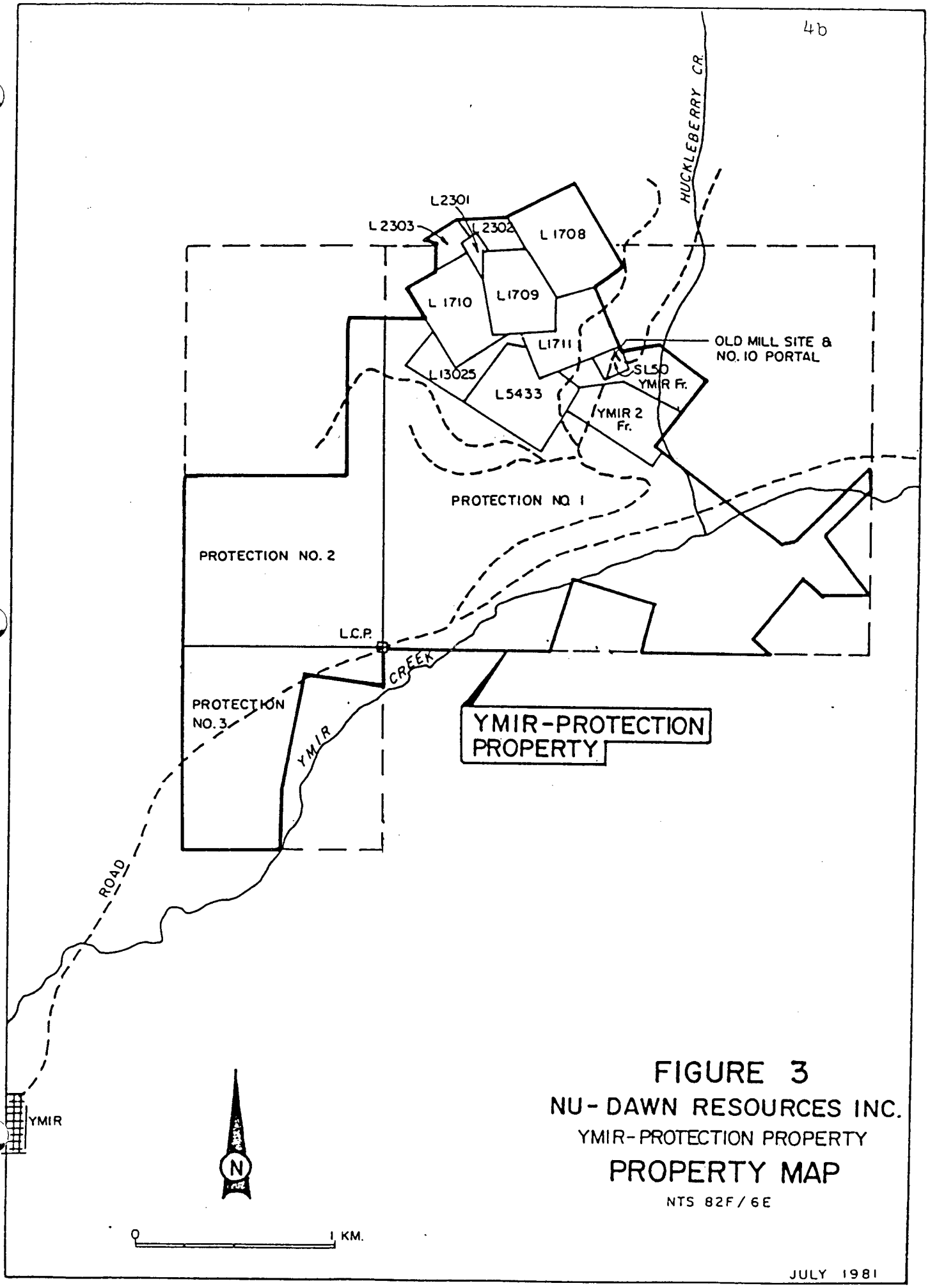


FIGURE 3

NU-DAWN RESOURCES INC.

YMIR-PROTECTION PROPERTY

PROPERTY MAP

NTS 82F/6E

JULY 1981

LOCATION-ACCESS

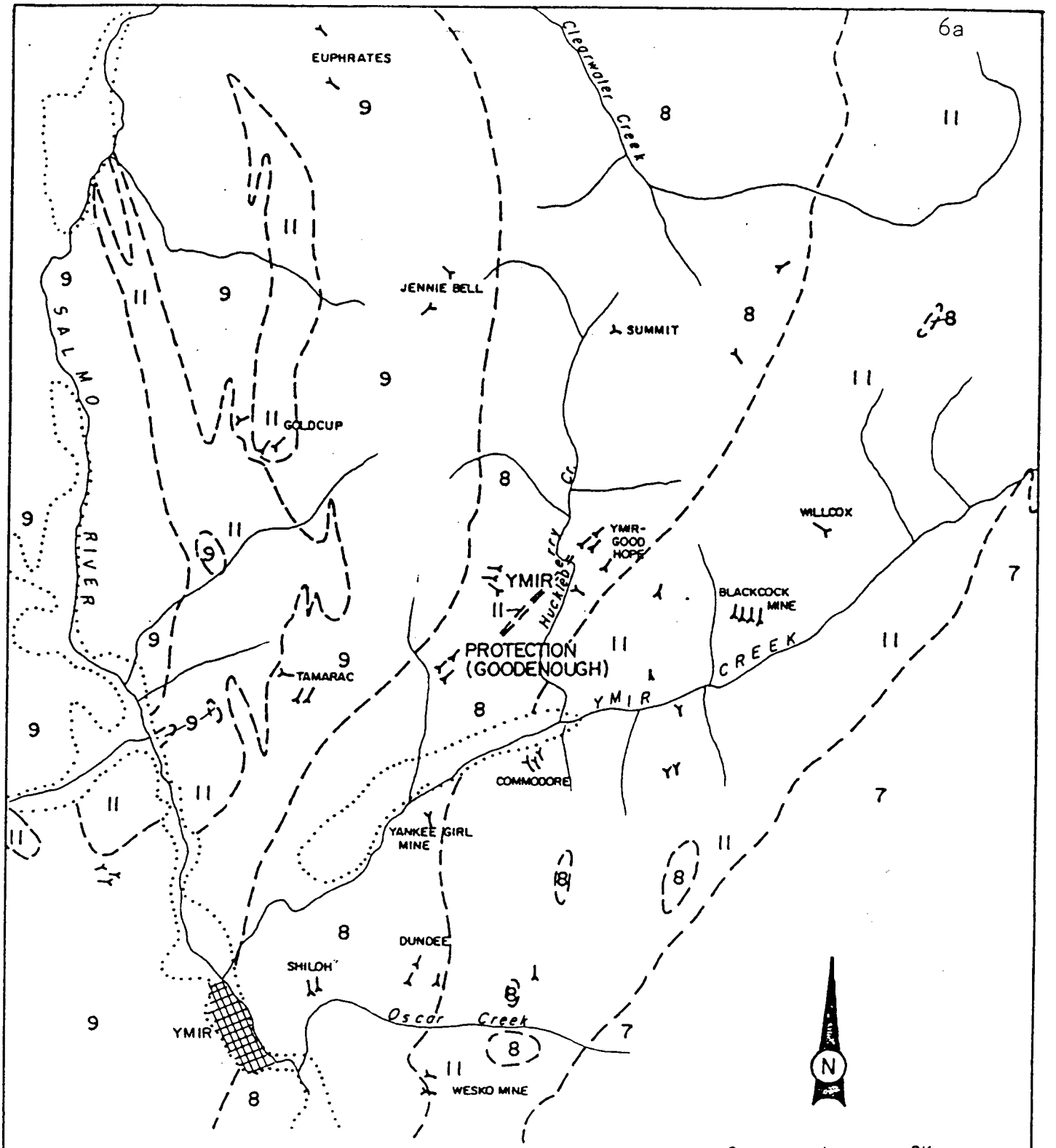
The mineral claims are located 5 kilometres northeast of Ymir, British Columbia on the southeast slopes of Mt. Elsie, and cover the Ymir and Goodenough Gold Mines which were in production during the early 1900's. A good gravel road extends from Ymir to the lower elevations of the property in the Ymir Creek valley. Secondary gravel roads extend from the valley, which is at an elevation of 900 metres, to the upper portions of the claims which are at some 1,800 metres elevation. Slopes are moderate to steep and covered in dense slide Alder and mixed deciduous and evergreen trees. Traverses are difficult in this terrain. Ymir is located on Highway 6 midway between Trail and Nelson. Both of these cities can provide any services a mining operation may require.

HISTORY AND GEOLOGY

The history and geology of the property have been discussed in detail in a report written for the company by E. Percy Sheppard, P. Eng. and these portions of his report are as follows.

History

The Crown Grant claims on the property date back to 1895. Because of their importance as producers, the claims are mentioned in the B.C. Dept. of Mines Annual Reports from



LEGEND

- 11 Lower Cretaceous (?) – Nelson Plutonic Rocks
- 9 Lower Jurassic – Elise Fm. (= Rossland Formation)
- 8 Lower Jurassic (?) and older – Ymir Group
- 7 Lower Cambrian and (?) Later
- Adit
- Drift-covered area

After G.S.C. Map 1144A

FIGURE 4

NU-DAWN RESOURCES INC.

YMIR-PROTECTION PROPERTY

GENERAL GEOLOGY

NTS 82F/6E

JULY 1981

1897 to 1944 and occasionally in other bulletins, memoirs and summary reports.

The history is summarized as follows:

1896 - Ymir zone acquired by London & British Goldfields Ltd.

1897 - Protection (Goodenough) zone acquired by Ymir Gold Mining Company.

1900-
1901 - 80-stamp mill and cyaniding plant at Ymir.

1902 - No. 10 level crosscut driven 2154 ft. to intersect Ymir zone at 1000 ft. level below outcrop.

1903 - Steady production at 50,000 tons per year.

1904-
1908 - Decrease in production. Shut down.

1932-
1933 - Ymir zone and Protection (Goodenough) optioned to Ymir Gold Mines Ltd.

1934 - Sampling of Ymir zone by Ymir Consolidated Gold Mines Ltd. indicates large blocks of low-grade ore. Sampling on Protection (Goodenough) zone shows small blocks of high-grade ore.

1935 - 125-ton per day flotation mill built and operated for 4 months, mainly on Protection ore.

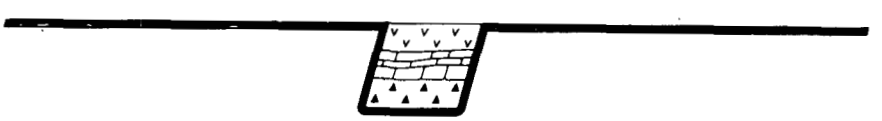
1937 - Mill operated at 30-tons per day.
Development of Protection (Goodenough) hampered by a 20% royalty.
Ymir zone too low grade to be economical at 100 tons per day.

1932-
1940 - 5,411 tons giving:

14,704 oz.	Au (0.28 oz./ton)
100,609 oz.	Ag (1.92 oz./ton)
1,624,973 lb.	Pb (1.55%)
668,475 lb.	Zn (.6%)

1940-
1979 - Limited work by leasors and junior mining companies

1981 - Both zones owned by Nu-Dawn Resources Inc.



Total Production:

Ymir Zone - 1895-1950

366,983 tons containing:	109,606	oz. Au (0.299 oz./ton)
	458,909	oz. Ag (1.250 oz./ton)
	10,531,644	lbs. Pb (1.43%)
	1,777,780	lbs. Zn (0.24%)

Protection (Goodenough) Zone - 1898-1973

16,745 tons containing:	10,685	oz. Au (0.638 oz./ton)
	83,089	oz. Ag (4.96 oz./ton)
	1,520,137	lbs. Pb (4.5%)
	1,134	lbs. Cadmium

Regional Geology

The shear and fault-fissure quartz-vein ore deposits of the Ymir gold camp occur in sedimentary, volcanic and granitic rocks. The economic deposits mined to date have occurred only in the sediments.

The Ymir Group consists of argillites, slates, minor impure limestones and impure quartzites. These rocks have been correlated with the Triassic Slocan Group on the basis of similar lithology. Both groups are also overlain by the volanic rocks and minor shales of the Lower Jurassic Rossland Formation. The base of the Ymir Group is not seen, but the Slocan Group is underlain discomformably by the Kaslo Group which, in turn, is underlain by the Permo-Carboniferous to Triassic Milford Group.

The rocks in the Ymir Group occur in a belt extending from a ridge south of Porcupine Creek northward to east of Nelson. The belt is one to three miles wide with an estimated thickness in the thousands of feet. The internal structure is complex and not known, though it is believed that it was subjected to folding before the emplacement of the Nelson Batholith.

The Rossland Formation of basic volcanic and minor sedimentary rocks has been assigned to Lower Jurassic on the basis of ammonite fossils. The belt of outcrop ranges in width from approximately on to two miles with calculated thickness of approximately 9000 feet.

The greater part of the Nelson area is underlain by Nelson and Valhalla plutonic rocks of the Nelson Batholith and its satellite stocks. The age of these plutonic rocks, based on correlation with other intrusive rocks and its relationship with the sedimentary rocks, is usually assigned to Lower Cretaceous. The possible age could range from Middle Jurassic to Lower Cretaceous. A K-AR radio-metric date from a grano-

diorite near Nelson is reported to have given 86 million years - Upper Cretaceous.

Dykes of various compositions occur through the area, apparently related to the Nelson Plutonism. The dykes intrude both the Nelson plutonic rocks and the older sedimentary sequences. Lamprohyre dykes in particular are seen in the mining camps.

Numerous faults occur throughout the area. They are particularly found in places which are underlain by the Slocan and Ymir Group rocks. No systematic study exists of these faults, but they appear to be mostly strike-slip faults of unknown but apparently small magnitude.

Property Geology

The Ymir-Protection (Goodenough) property is underlain by argillites, slates, minor impure quartzite and minor impure limestone of the Ymir Group. The rocks are commonly intruded by lamprohyre, felsite and granite dykes of various size and attitude. The foliation strikes roughly northeast and dips northwest. The structure appears complex on mesocopic scale and in the underground workings the argillites are observed to be complexly folded.

The Ymir zone is a quartz-filled shear or fissure striking N 60°E and dipping 60°-70°NW. The vein ranges in thickness from 1 metre to 24 metres, with most exposures being 4 metres thick. Sulphide minerals occur in the vein in lenses, streaks and veinlets; higher grade areas constitute the ore shoots. The Bonanza ore shoot in the Ymir vein had a length of 150 metres, depth of approximately 150 metres, a width of 3 to 24 metres, and ran approximately 0.3 oz./ton gold with approximately 1 oz./ton silver. To date the workings show only low-grade below #7 level.

The Protection (Goodenough) veins have the same strike and dip as the Ymir zone. Though narrower, the Protection veins are of much higher overall grade. Granite dykes appear in various workings cutting the veins and richer shoots are often found at these intersections. Much faulting is present in these zones, both parallel to and cross-cutting. The ore zones range in thickness from a few centimetres to over 2 metres. Surface exposures indicate there are at least two mineralized shear zones.

The veins at the Ymir-Protection (Goodenough) property follow a regional trend; the veins at the Yankee Girl, Dundee, Wesko Mines (to the south) and Ymir-Good Hope, Carthage Mines (to the north) all have similar strikes and dips.

SURVEY PARAMETRES

The geochemical soil survey was undertaken on lines at 100 metre spacing and samples collected at 30 metre intervals. Lines were run with compass and topofil hip chain and flagged. The B soil horizon was collected using a soil auger and occurred at a depth of 15 to 25 cm. Samples were assayed for gold, silver, lead and zinc by Min En Laboratories of North Vancouver, British Columbia. Analytical techniques are described in the Appendix.

DISCUSSION OF RESULTS

Survey results for the Protection 2 and 3 mineral claims are shown on Figure 1. In this area, which occurs immediately north of the Ymir Creek valley, outcrop is scarse and overburden is believed to be relatively thick. Values for gold, silver, lead and zinc are all considered of background strength with the exception of a weak zinc anomaly on lines 0 North and 1 North. No further work is indicated in this area on the basis of the geochemical survey.

Results on the Protection 1 and 2 claims are shown in Figure 2. Background values are as follows: gold 20 ppb, silver 2 ppm, lead 50 ppm and zinc 500 ppm. Based on this criteria the following areas should be noted.

(1) Line G6W and G5W - Anomalous gold values occur on the south portion of these lines with a peak value of 415 ppb

gold. The zone is open to the west.

(2) Line G5W - Ninety metres north of the above anomaly two adjacent samples are weakly anomalous in gold.

(3) Line G4W, G3W, G2W - Anomalous zinc values occur on the southern portion of these lines in an area where a short adit has been driven. The anomalous gold values of (1) above lie immediately to the west and further mapping, soil sampling and possibly trenching should be considered here.

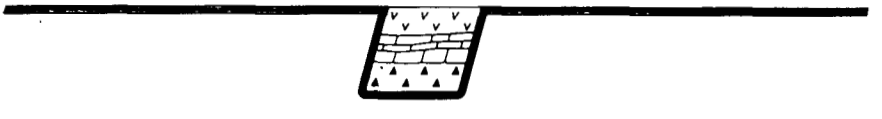
(4) Line G1, G2 - Anomalous gold values on the northern portion of these lines are in the vicinity of the Goodenough Mine workings and downslope from the vein outcrop. No further work is required here.

(5) Lines G, G1, G2 - Anomalous zinc values occur in the central and southern portions of these lines and several isolated high gold values occur near the anomalous zinc areas. Further fill-in sampling is recommended in this area.

The areas noted above are relatively weak geochemical anomalies, however, in total they define a belt some 600 metres by 100 metres where further work is definitely warranted.

B. E. Spencer, P. Eng.

BES:lm
September 30, 1984



COST STATEMENT

Assaying

Min En Laboratories - 340 samples for Au, Ag, Pb, Zin @ $9.40/sample	$ 3,196.00

Transportation

4 x 4 Rental @ $35.00/day plus mileage - 25 days	1,537.00

Room and Board

P.T. Mason - May 15 - June 9 S. Spencer - May 15 - June 9	1,345.55

Labour Costs

P.T. Mason - May 15 - June 8 - 25 days @ $200.00/day	5,000.00
S. Spencer - May 15 - June 8 - 25 days @ $125.00/day	3,125.00

Report Preparation/Drafting

B.E. Spencer - 1.00 day @ $400.00 per diem	400.00
P.T. Mason - 2.00 day @ $200.00 per diem	400.00

TOTAL COST	$ 14,903.55

STATEMENT OF QUALIFICATIONS

I, Bruce Everton Spencer, of the City of Vancouver, in the Province of British Columbia hereby certify as follows:

1) I am a Geological Engineer residing at 7 - 2485 Cornwall Avenue, Vancouver, B.C. and with office at 960 - 625 Howe Street, Vancouver, B.C.

2) I am a registered Professional Engineer of the Province of British Columbia.

3) I am a graduate of the University of British Columbia with a degree of B.A. Sc. (1958).

4) I have practised my profession as a Geologist for more than twenty years.

5) The survey was conducted by P.T. Mason, a B.C.I.T. graduate and S. Spencer, both have extensive experience in geochemical soil sample surveys.

Oct 2, 1984
Date

B.E. Spencer
Bruce Everton Spencer, P. Eng.

APPENDIX I

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY B E SPENCER
PROJECT YMIR
ATTENTION B E SPENCER

FILE 4-282
DATE MAY 25/84

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB	
00N-30W	26	143	0.6	5	
00N-60W	25	395	1.2	<5	
00N-90W	38	610	2.0	5	
00N-120W	38	325	2.0	5	
00N-150W	30	196	1.2	5	
00N-180W	29	246	1.2	5	
00N-210W	28	212	1.4	<5	
1N-00W	26	218	1.8	5	
1N-30W	26	293	1.2	5	
1N-60W	32	385	1.4	5	20MESH
1N-90W	33	410	1.4	5	
1N-120W	32	705	1.4	5	
1N-150W	34	595	1.2	<5	
1N-180W	36	259	1.5	5	
1N-210W	52	300	1.2	<5	
1N-240W	34	384	0.9	5	
1N-270W	47	250	1.6	5	
2N-30W	26	313	1.3	5	
2N-60W	31	360	1.4	<5	
2N-90W	30	262	1.5	5	
2N-120W	34	295	1.8	5	
2N-150W	40	404	1.0	<5	
2N-180W	40	340	1.0	5	
2N-240W	29	295	0.8	10	
2N-270W	45	400	1.6	5	
2N-300W	37	270	1.5	<5	
2N-330W	36	385	1.8	5	
2N-360W	29	170	1.6	5	
2N-390W	34	200	3.6	5	
3N-60W	32	322	1.2	5	

Certified by

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE (604)980-5814 OR (604)988-4524 TELEX: 04-352828

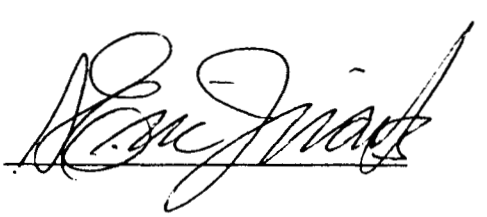
GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY B E SPENCER
PROJECT YMIR
ATTENTION B E SPENCER

FILE 4-282
DATE MAY 25/84

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB
3N-90W	28	350	1.6	5
3N-120W	24	388	1.1	10
3N-150W	26	295	1.4	5
3N-180W	24	495	1.6	10
3N-270W	27	265	1.0	5
3N-300W	28	243	1.4	5
3N-330W	25	300	1.4	5
3N-360W	27	347	1.2	5
3N-390W	32	442	1.1	5
4N-00W	40	242	0.9	5
4N-30W	34	275	1.0	5
4N-60W	24	200	1.0	5
4N-90W	27	216	0.8	5
4N-120W	22	200	1.2	<5
4N-150W	28	217	1.2	10
4N-210W	28	235	1.0	5
4N-240W	30	232	1.2	5
4N-270W	28	216	1.1	5
4N-300W	36	215	1.2	<5
4N-330W	30	230	1.2	5
4N-360W	26	245	1.1	5
4N-390W	27	176	1.2	5
4N-420W	22	201	0.8	10
4N-450W	36	178	1.1	5
4N-480W	56	332	1.4	5
5N-45W	27	205	1.1	5
5N-90W	29	144	0.8	5
5N-120W	28	165	1.1	<5
5N-150W	30	166	1.0	5
5N-180W	32	228	1.0	5

Certified by 

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY B E SPENCER
PROJECT YMIR
ATTENTION B E SPENCER

FILE 4-282
DATE MAY 25/84

We hereby certify that the following are the results of the geochemical analysis made on 20 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB
5N-210W	28	170	1.6	10
5N-240W	32	345	1.5	5
5N-270W	28	218	1.2	5
5N-300W	28	232	1.5	5
5N-330W	30	223	1.6	<5
5N-360W	31	244	1.6	5
5N-390W	38	310	1.4	5
5N-420W	43	342	1.1	5
5N-450W	38	257	1.4	5
5N-480W	45	398 $	1.5	5
6N-00W	34	233	1.2	5
6N-30W	28	162	1.1	5
6N-60W	30	314	1.2	<5
6N-120W	32	250	1.2	5
6N-150W	38	224	1.6	5
6N-180W	41	250	1.8	5
6N-210W	46	390	1.0	10
6N-240W	47	370	1.4	5
6N-270W	42	257	1.9	5
6N-300W	42	364	2.3	10

Certified by

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PH (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER
PROJECT: YMIR PROTECTION
ATTENTION: B.E. SPENCER

FILE 4-314
DATE: JUNE 7/84

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMER	PB PPM	ZN PPM	AG PPM	AU PPB
7N00W	29	228	1.2	5
7N30W	29	395	1.1	10
7N60W	28	246	1.1	5
7N90W	26	223	1.0	5
7N120W	30	323	0.9	15
7N150W	28	210	1.3	5
7N180W	31	295	1.1	5
7N210W	27	294	0.9	<5
7N240W	30	343	1.2	5
7N270W	33	455	1.5	5
7N300W	44	540	1.6	5
7N30E	44	280	0.9	10
7N60E	25	227	1.1	5
7N90E	22	232	1.0	5
7N120E	23	258	1.3	5
8N00W	26	345	1.2	<5
8N30W	29	278	1.0	<5
8N60W	21	138	0.8	5
8N90W	29	268	1.0	5
8N120W	34	285	1.1	5
8N150W	23	185	0.9	5
8N180W	28	285	1.1	5
8N210W	28	275	1.3	10
8N240W	22	137	1.0	35
8N270W	20	250	0.8	5
8N300W	21	260	0.8	5
8N30E	26	173	1.0	5
8N60E	26	213	1.1	10
8N90E	29	175	1.0	5
8N120E	27	201	0.8	15

Certified by

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PH (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY B.E. SPENCER
PROJECT YMIR PROTECTION
ATTENTION B.E. SPENCER

FILE 4-314
DATE JUNE 5/84

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB
9N30W	25	185	0.9	15
9N60W	25	174	1.2	95
9N90W	21	140	0.9	5
9N120W	18	123	1.0	5
9N150W	20	124	0.9	<5
9N180W	18	135	0.8	10
9N210W	20	163	0.7	10
9N240W	19	158	0.8	5
9N270W	22	123	0.8	5
9N300W	23	265	1.0	20
9N30E	19	225	0.7	5
9N60E	27	155	0.8	10
9N90E	21	167	0.8	5
74-0N	26	300	1.4	5
74-17N	40	332	2.7	45
74-34N	44	315	1.2	35
74-51N	32	177	2.3	10
74-68N	18	128	1.0	10
74-85N	16	140	1.1	5
74-17S	47	353	1.8	5
74-34S	56	345	1.5	5
74-51S	39	265	0.9	<5
74-68S	26	198	0.8	5
74-85S	30	210	1.4	5
75-0N	31	485	1.8	25
75-17N	30	332	1.4	15
75-34N	25	294	0.9	50
75-51N	28	242	1.3	10
75-68N	26	168	0.7	10
75-85N	22	177	1.1	5

Certified by 

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY B.E. SPENCER
PROJECT YMIR PROTECTION
ATTENTION B.E. SPENCER

FILE 4-314
DATE JUNE 5/84

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB
9N30W	25	185	0.9	15
9N60W	25	174	1.2	95
9N90W	21	140	0.9	5
9N120W	18	123	1.0	5
9N150W	20	124	0.9	<5
9N180W	18	135	0.8	10
9N210W	20	163	0.7	10
9N240W	19	158	0.8	5
9N270W	22	123	0.8	5
9N300W	23	265	1.0	20
9N30E	19	225	0.7	5
9N60E	27	155	0.8	10
9N90E	21	167	0.8	5
74-0N	26	300	1.4	5
74-17N	40	332	2.7	45
74-34N	44	315	1.2	35
74-51N	32	177	2.3	10
74-68N	18	128	1.0	10
74-85N	16	140	1.1	5
74-17S	47	353	1.8	5
74-34S	56	345	1.5	5
74-51S	39	265	0.9	<5
74-68S	26	198	0.8	5
74-85S	30	210	1.4	5
75-0N	31	485	1.8	25
75-17N	30	332	1.4	15
75-34N	25	294	0.9	50
75-51N	28	242	1.3	10
75-68N	26	168	0.7	10
75-85N	22	177	1.1	5

Certified by 

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PH[redacted] (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER
PROJECT:
ATTENTION: B.E. SPENCER

FILE: 4-510/P1
DATE: JULY 11/84
TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB
62-30S	33	264	1.2	<5
60S	28	303	1.4	5
90S	44	497	1.6	15
120S	52	488	1.5	25
150S	49	218	1.4	30
180S	88	397	1.6	10
210S	98	323	1.9	5
240S	66	287	1.7	5
270S	58	342	2.2	200
300S	52	290	1.6	5
330S	47	274	1.8	5
360S	46	377	1.5	5
390S	46	510	2.4	5
420S	42	516	1.7	5
450S	36	295	1.6	10
480S	36	243	1.6	5
510S	38	262	1.5	5
540S	37	605	1.6	5
570S	36	215	2.3	10
600S	34	250	1.2	5
630S	35	266	1.8	25
660S	40	340	1.9	25
690S	35	295	1.6	10
720S	32	780	1.6	5
750S	34	740	1.8	5
62-780S	32	605	2.0	10
90-00S	265	710	2.9	40
120S	39	293	1.4	45
150S	30	170	1.2	5
60-180S	46	232	1.0	15

Certified by _____

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PH (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER
PROJECT:
ATTENTION: B.E. SPENCER

FILE:4-510/P2
DATE: JULY 10/84
TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB
60210S	79	368	1.5	5
240S	39	243	1.3	5
270S	42	310	1.8	<5
300S	57	389	1.6	10
330S	49	494	1.7	5
360S	38	303	1.7	5
390S	38	336	1.4	5
420S	38	270	2.1	<5
450S	42	570	2.0	5
[illegible]80S	38	695	1.6	5
510S	38	750	2.2	5
540S	43	445	2.2	10
570S	32	272	1.7	5
600S	30	232	1.6	5
630S	31	309	1.3	<5
660S	33	416	1.8	5
60690S	34	389	1.4	5
GW210S	398	670	3.1	200
240S	47	337	1.4	5
270S	71	306	1.5	5
300S	70	290	1.4	10
330S	32	255	1.9	5
360S	40	252	1.6	5
390S	42	348	1.4	5
420S	36	322	2.0	5
450S	32	390	2.2	10
480S	36	398	1.6	5
[illegible]10S	27	347	1.7	80
540S	36	488	1.8	240
GW570S	29	420	1.6	5

Certified by [signature]

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE (604)980-5814 OR (604)988-4524 TELEX: 04-352028

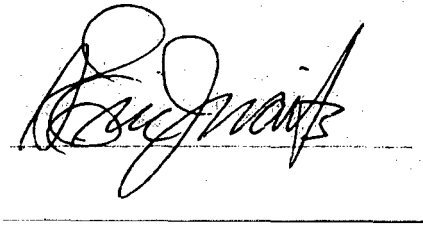
GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E.SPENCER
PROJECT:
ATTENTION: B.E. SPENCER

FILE: 4-510/P3
DATE: JULY 10/84
TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PB
GW600S	52	960	2.6	20
630S	27	362	1.9	400
660S	30	271	2.3	10
690S	27	330	1.5	10
720S	26	322	1.5	5
750S	29	560	2.4	5
GW780S	28	371	1.7	10
62W150S	35	208	1.1	20
180S	32	545	1.1	10
210S	38	225	1.9	30
240S	43	338	1.7	5
270S	54	460	1.7	40
300S	72	342	1.6	60
320S	33	249	1.6	30
360S	29	206	1.2	30
390S	28	219	1.5	10
420S	40	226	1.5	5
450S	42	238	2.2	15
480S	29	166	1.2	5
510S	31	483	1.3	5
540S	38	467	1.3	5
570S	35	374	1.9	30
600S	26	180	1.5	10
630S	35	446	3.1	5
660S	33	920	2.8	5
690S	26	625	1.2	10
720S	24	370	1.2	5
750S	22	154	1.0	5
780S	23	311	1.1	5
62W810S	28	294	1.2	5

Certified by 

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PH[illegible] (604)980-5814 OR (604)988-4524 TELEX: 04-352928

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER
PROJECT:
ATTENTION: B.E. SPENCER

FILE: 4-510/P4
DATE: JULY 9/84
TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 20 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PB	
G2W840S	25	431	1.9	30	
870S	27	600	2.1	30	
G2W900S	29	1235	2.0	20	
A2-00N	48	305	2.7	30	
17N	48	245	1.9	70	
34N	50	238	1.5	20	
51N	37	323	1.9	30	
68N	32	183	1.4	30	
85N	27	216	1.5	40	
[illegible]02N	33	210	1.7	25	
[illegible]119N	32	218	2.0	20	
[illegible]136N	34	202	2.1	25	
[illegible]153N	40	232	1.8	20	
A2-170N	242	399	3.7	100	
TR-1-0-2	930	1660	1.4	570	(TR=TRENCH)
TR-1-2-6	2250	2200	5.1	2000	
TR-2-0-4	342	660	2.0	1000	
TR-2-4-8	74	267	1.9	70	
TR-3-0-4	240	550	1.7	990	
TR-3-4-8	426	655	2.0	1650	

Certified by [signature]

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PH (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER
PROJECT: YMIR
ATTENTION: B.E. SPENCER

FILE: 4-594/P1
DATE: JULY 23/84
TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB	
64W270S	37	164	1.3	10	
300S	31	169	1.4	15	
330S	34	92	1.2	[illegible]	
360S	35	86	1.0	5	40MESH
390S	36	130	1.1	5	
420S	34	173	0.9	5	
450S	30	141	1.0	<5	
480S	24	167	1.2	5	
510S	39	130	1.2	5	
540S	34	185	1.0	5	
570S	36	203	1.4	<5	
600S	41	292	1.3	5	
630S	33	381	1.5	5	
660S	34	475	1.3	5	
690S	29	198	1.1	<5	
720S	39	580	1.6	10	
750S	36	374	1.4	5	
780S	28	238	1.2	5	
810S	28	170	1.1	5	
64W840S	34	571	1.3	<5	
60A75N	39	229	1.6	10	
90N	38	283	1.4	5	
105N	36	197	1.4	5	
120N	52	205	1.8	<5	
135N	50	348	1.4	5	
60A150N	42	384	1.3	5	
61-105N	40	218	1.4	10	
135N	35	295	1.6	5	
315N	32	122	1.0	5	
61 345N	22	111	0.8	5	

Certified by [signature]

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PH (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER
PROJECT: YMIR
ATTENTION: B.E. SPENCER

FILE:4-594/P2
DATE: JULY 21/84
TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 30 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB	
G1A75N	50	198	1.6	10	
90N	36	245	1.7	5	
105N	34	224	2.0	15	
120N	32	284	1.4	[illegible]	
135N	30	245	1.2	5	
150N	36	290	1.2	5	
300N	24	125	1.0	10	40MESH
315N	35	149	1.2	5	
330N	28	122	0.7	5	40MESH
345N	27	163	1.2	5	
G1A360N	26	153	1.6	5	
G0A300N	30	114	1.2	<5	40MESH
315N	29	125	1.3	5	
330N	30	94	1.0	5	
345N	30	88	1.2	[illegible]	
G0A360N	28	112	0.7	5	
G5W270S	30	266	1.2	10	
300S	78	342	1.2	5	40MESH
330S	52	312	1.2	5	40MESH
360S	32	179	0.8	5	40MESH
390S	24	130	0.6	10	40MESH
420S	24	186	1.6	20	40MESH
450S	36	135	0.7	5	
480S	26	126	0.9	15	
510S	26	130	0.8	5	
540S	22	106	0.8	5	
570S	21	86	0.8	[illegible]	40MESH
600S	20	88	0.8		
630S	16	87	0.9	5	40MESH
G5W660S	22	113	0.8	5	

Certified by [signature]

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PH (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B. E. SPENCER
PROJECT: YMIR
ATTENTION: B. E. SPENCER

FILE: 4-594/P3
DATE: JULY 19/84
TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 7 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB	
65W690S	18	130	1.0	20	
720S	22	229	1.0		
750S	18	186	1.2		
780S	20	156	1.3		
810S	19	146	1.2		40MESH
840S	18	138	1.7		
65W870S	18	195	1.1	10	

Certified by

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
705 WEST 15th STREET NORTH VANCOUVER, B.C. CANADA V7M 1T2

PHONE (604)980-5814 OR (604)988-4524 TELEX: 04-352828

GEOCHEMICAL ANALYSIS CERTIFICATE

COMPANY: B.E. SPENCER
PROJECT: YMIR
ATTENTION: B.E. SPENCER

FILE:4-655
DATE: AUGUST 1/84
TYPE: SOIL GEOCHEM

We hereby certify that the following are the results of the geochemical analysis made on 22 samples submitted.

SAMPLE NUMBER	PB PPM	ZN PPM	AG PPM	AU PPB	
TRENCH 4A-0-2	32	256	2.0	5	
4B-0-15	34	497	2.2	10	
5RD-0-3	30	304	1.2	5	
A2170N-0-4	54	232	1.7	5	
G6W270	29	205	1.1	5	
300S	37	266	1.4	<5	
330S	34	168	1.0	25	
360S	22	124	0.8	5	
390S	32	125	0.6	[illegible]	
420S	28	137	0.8	5	
450S	38	236	1.2	5	
480S	38	308	0.8	10	
510S	24	144	0.6	5	
540S	30	148	0.9	5	
600S	32	180	0.8	5	
630S	20	104	0.8	5	
660S	22	126	0.9	10	
690S	29	153	1.0	5	40MESH
720S	32	117	0.6	5	
750S	32	133	0.6	5	
780S	22	123	0.7	10	
G6W820S	26	135	0.9	[illegible]	

Certified by [signature]

APPENDIX II

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURE FOR GOLD GEOCHEMICAL ANALYSIS.

Geochemical samples for Gold processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed and pulverized by ceramic plated pulverizer.

A suitable sample weight 5.0 or 10.0 grams are pre-treated with HNO_3 and $HClO_4$ mixture.

After pretreatments the samples are digested with Aqua Regia solution, and after digestion the samples are taken up with 25% HCl to suitable volume.

At this stage of the procedure copper, silver and zinc can be analysed from suitable aliquote by Atomic Absorption Spectrophotometric procedure.

Further oxidation and treatment of at least 75% of the original sample solutions are made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold is analysed by Atomic Absorption instruments. The obtained detection limit is 5 ppb.

APPENDIX III

MIN-EN Laboratories Ltd.
Specialists in Mineral Environments
Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR ASSESSMENT WORK

PROCEDURES FOR Mo, Cu, Cd, Pb, Mn, Ni, Ag, Zn, As, F

Samples are processed by Min-En Laboratories Ltd., at 705 W. 15th St., North Vancouver Laboratory employing the following procedures.

After drying the samples at 95°C soil and stream sediment samples are screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis. The rock samples are crushed by a jaw crusher and pulverized by ceramic plated pulverizer.

1.0 gram of the samples are digested for 6 hours with HNO_3 and $HClO_4$ mixture.

After cooling samples are diluted to standard volume. The solutions are analyzed by Atomic Absorption Spectrophotometers.

Copper, Lead, Zinc, Silver, Cadmium, Cobalt, Nickel and Manganese are analysed using the CH_2H_2-Air flame combination but the Molybdenum determination is carried out by C_2H_2-N_2O gas mixture directly or indirectly (depending on the sensitivity and detection limit required) on these sample solutions.

For Arsenic analysis a suitable aliquote is taken from the above 1 gram sample solution and the test is carried out by Gutzit method using Ag $CS_2N(C_2H_5)_2$ as a reagent. The detection limit obtained is 1. ppm.

Fluorine analysis is carried out on a 200 milligram sample. After fusion and suitable dilutions the fluoride ion concentration in rocks or soil samples are measured quantitatively by using fluorine specific ion electrode. Detection limit of this test is

N

Slope of Land-25°-30°

240m. West

120m. West

GW Soil Grid

90m East

Base Line 0+00 West

Line 9N.

Line 8N.

Line 7N.

Line 6N.

Line 5N.

Line 4N.

Line 3N.

Line 2N.

Line 1N.

Line 0N.

Protection 1

Protection 2

Protection 3

Legal Corner Post

Sta 116 Sta 115 Sta 114 Sta 113 Sta 112 Sta 111 Sta 110 Sta 109 Sta 108 Sta 107 Sta 106 Sta 105 Sta 104 Sta 103 Sta 102 Sta 101

Survey Sta 100

No Sample

Ymir

Main Road

Legend

- Survey Station
- ⊙ Soil Sample Site
- 66 ppm Pb / 250 ppm Zn / .6 ppm Ag / 5 ppb Au
- == Road
- Compass and Topofil Survey
- Line Separation = 100 meters
- Soil Sample Separation = 15 meters on Lines

Bar Scale

0 feet 200 400 600 800 feet

0 meters 100

GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,562

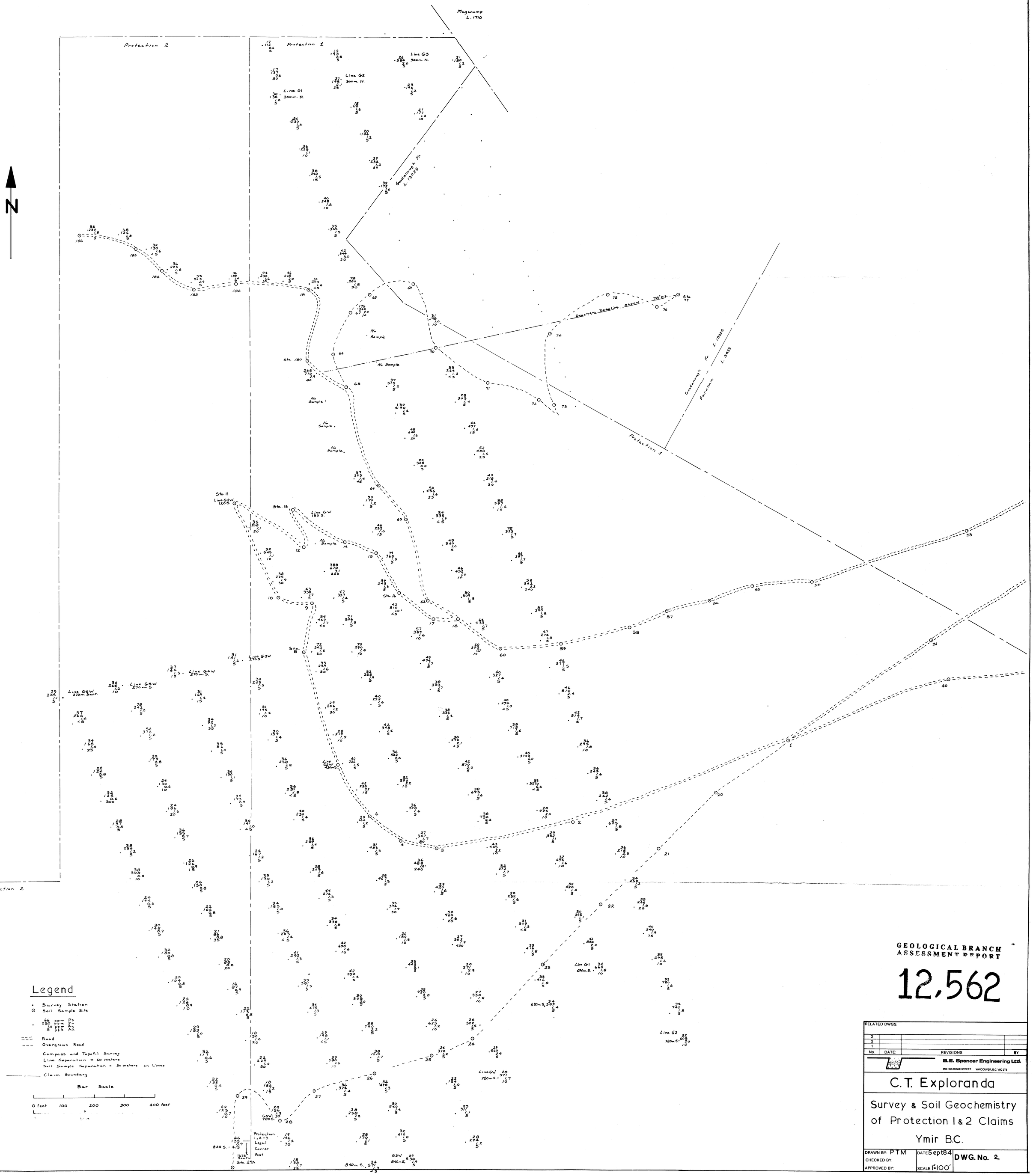
RELATED DWGS.			
3			
2			
1			
No.	DATE:	REVISIONS	BY

B.E. Spencer Engineering Ltd.
960-625 HOWE STREET VANCOUVER, B.C. V6C 2T6

C. T. Exploranda

Survey & Soil Geochemistry of Protection 2&3 Claims Ymir B.C.

DRAWN BY: PTM	DATE: Sept84	DWG. No. 1
CHECKED BY:		
APPROVED BY:	SCALE: 1"=200'	



GEOLOGICAL BRANCH
ASSESSMENT REPORT

12,562

RELATED DWGS.			
3			
2			
1			
No.	DATE:	REVISIONS	BY

B.E. Spencer Engineering Ltd.
860-625 HOWE STREET VANCOUVER, B.C. V6C 2T6

C.T. Exploranda

Survey & Soil Geochemistry of Protection 1 & 2 Claims Ymir B.C.

DRAWN BY: PTM	DATE Sept 84	DWG. No. 2
CHECKED BY:	SCALE 1"=100'	
APPROVED BY:		