HL CLAIM GROUP

1980 EXPLORATION PROGRAM

Watson Lake Mining District, Y.T.
60°17'N - 131°20'W
NTS 105-B/6

by

A. W. RANDALL, P.Eng.
Project Geologist

WESTERN MINES LIMITED
VANCOUVER, B. C.

DECEMBER 1980

090836

REGISTERED DOCUMENT NO: _____

to

ASSIGNMENT OF PROSPECTING LEASE

Certified that this document was entered and registered in the office of the Supervising Mining Recorder at Whitehorse, Yukon Territory
this _____ day of _____ 19

_____

B. R. Baxter
Supervising Mining Recorder

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of
$ 12,600.00

R. Debicki A. Roy Geol.
Resident Geologist or
Resident Mining Engineer July 2/81

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

_____
Commissioner of Yukon Territory

INDIAN and NORTHERN AFFAIRS

TRANSMITTAL FORM

M.R. File No. _____

S.M.R. File No. _____

Date Fwd 24 June 81

FROM: Mining Recorder at WATSON LAKE

Supervising Mining Recorder at Whitehorse, Y.T.

Office of the Supervising Mining Recorder
JUN 29 1981
WHITEHORSE
Yukon Territory

FOR ACTION ARE:

☐ NEW APPL'N for PLACER LEASE to PROSPECT: Name:

☐ RENEWAL APPL'N PLACER LEASE to PROSPECT: Name: Lease No. .....

☐ AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name. Lease No. .....

☐ ASSIGNMENT of PLACER LEASE No. .....
From: To:

☐ GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.
Owner:

☐ DIAMOND DRILL LOGS:
Claims: Claim sheet no.:

☑ QUARTZ ASSESSMENT REPORT
Claims: HL 1-126 Claim sheet no. 105-B-6

Type of report: Geology, Geochemistry & Trenching

Submitted by: Western Mines Ltd

Cls. work performed on: HL 19, 21, 23, 25, 31, 36, 40, 42

$ Req. for ren. application $12,600.00

*(Copies of receipts on file in Watson Lake Office)

Signature

REPLY ACTION

Date Ret.

090836

Signature

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

RECEIVED
1981 MAY 27
MINING RECORDER
WATSON LAKE, Y.T.
I.A. & N.D.

(This form required in duplicate with sketch showing location of work.)

I (Name) A. W. Randall Occupation Geologist

(Postal Address) 1103-595 Burrard St, Vancouver, B C. V7X 1C4

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

Grant #: YA33518 Claim: HL 36

situated at Swift River Area Claim Sheet No. 105 B-6

in the Watson Lake Mining District, to the value of at least #5,623.00

dollars, since the 15th day of July 19 80,

to represent the following mineral claims under the authority of Grouping Certificate No. 2963

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

See Attached List
(Group #: 36)

HL 9	YA33491	HL 80	YA36474
11	493	82	476
13	495	102	496
15	497	103	497
34	516	104	498
36	~~YA33~~ 518		
73	YA36 467		
75	469		
77	471		
78	472		
79	473		

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

400 feet of trenching between July 15, 1980 and August 20, 1980 = 2083 yd³ @ $2.70/

- Includes assays and geochemical work as

set out in the accompanying report.

Sworn before me at Vancouver, B C

this 27th day of April 19 81.

Notary Public

Applicant

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

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I.A. & N.D.

(This form required in duplicate with sketch showing location of work.)

I (Name) A. W. Randall — Occupation Geologist

(Postal Address) 1103-593 Burrard St, Vancouver B.C. V7X 1C4

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

Grant #: YA 33513 Claim: HL 31

situated at Swift River Area Claim Sheet No. 105 B-6

in the Watson Lake Mining District, to the value of at least $15,945.00

dollars, since the 15th day of July 19 80,

to represent the following mineral claims under the authority of Grouping Certificate No. 2962

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

See Attached List

(Group #: 31)

HL 31	YA 33513		HL 123	YA 36517	
32	514		124		518
51	YA 35 487		125		519
52	488		126		520
53	YA 36 447				
54	448				
55	449				
56	450				
57	451				
58	452				
59	453				
60	454				

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

1140 feet of trenching between July 15, 1980 and August 20, 1980 = 5906 yd³ @ $2.70/yd³

— includes assays and geochemical work as set out in the accompanying report.

Sworn before me at Vancouver, B. C.

this 29th day of May 19 81

Notary Public

Applicant

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

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I.A. & N.D.

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I (Name) A. W. Randall Occupation Geologist

(Postal Address) 1103-595 Burrard St, Vancouver, BC, V7X 1C4

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

Grant #: YA33524 Claim: HL 42

situated at Swift River Area Claim Sheet No. 105 B-6

in the Watson Lake Mining District, to the value of at least $7,546.00

dollars, since the 15th day of July 19 80,

to represent the following mineral claims under the authority of Grouping Certificate No. 2961

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

See Attached List

(Group #: 42)

HL 42	YA33524	4yrs	HL 111	YA36505	4yrs
43	YA33525	"	113	YA36507	"
44	YA33526	"	115	YA36509	"
86	YA36480	"	116	YA36510	"
88	YA36482	"	117	YA36511	"
90	YA36484	"	118	YA36512	"
92	YA36486	"			
94	YA36488	"			
107	YA36501	"			
109	YA36503	"			

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

540 feet of trenching between July 15, 1980 and August 20, 1980 = 2795 yd³ @ $2.70/yd³

plus assays and geochemical work as set out in the accompanying report.

Sworn before me at Vancouver, B. C.

this 25th day of April 1981.

Notary Public

Applicant

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

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I.A. & N.D.

OFFICE DATE STAMP

(This form required in duplicate with sketch showing location of work.)

I (Name) A. W. Randall Occupation Geologist

(Postal Address) 1103-595 Burrard St, Vancouver, B.C. V7X 1C4

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

Grant #: YA 33507 Claim: HL 25

situated at Swift River Area Claim Sheet No. 105 B-6

in the Watson Lake Mining District, to the value of at least $6,478.00

dollars, since the 15th day of July 19 80,

to represent the following mineral claims under the authority of Grouping Certificate No. 2960

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

See Attached List (Group #: 25)

HL 25	YA 33507	HL	119	YA 36513
26	508		120	514
27	509		121	515
28	510		122	516
29	511			
30	512			
45	527			
46	528			
47	529			
48	530			
49	YA 35 485			
50	486			

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

460 feet of trenching between July 15, 1980 and August 20, 1980 = 2400 yd³ @ $2.70/yd³
- includes assays and geochemical work as set out in the accompanying report.

Sworn before me at Vancouver, B. C.

this 26th day of April 19 81

Notary Public

Applicant

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

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1981 MAY 27
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I.A. & N.D.

OFFICE DATE STAMP

(This form required in duplicate with sketch showing location of work.)

I (Name) A. W. Randall Occupation Geologist

(Postal Address) 1103-595 Burrard St, Vancouver, B C, V7X 1C4

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

Grant #: YA 33505 Claim: HL 23

situated at Swift River Area Claim Sheet No. 105 B-6

in the Watson Lake Mining District, to the value of at least $ 8,399.00

dollars, since the 15th day of July 19 80,

to represent the following mineral claims under the authority of Grouping Certificate No. 2959

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

(See Attached List
(Group #: 23)

HL 1	YA33 483	HL 65	YA36 459
3	485	67	461
5	487	69	463
7	489	71	465
18	YA33 500	72	466
20	502		
22	504		
23	505		
24	506		
61	YA36 455		
63	457		

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

600 feet of trenching between July 15, 1980 and August 20, 1980 = 3110 yd^3 @ $2.70/yd^3
- includes assays and geochemical work as set out in the accompanying report.

Sworn before me at Vancouver, B C

this 27th day of May 19 81.

Notary Public

Applicant

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

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1981 MAY 27
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WATSON LAKE, Y.T.
I.A. & N.D.

OFFICE DATE STAMP

(This form required in duplicate with sketch showing location of work.)

I (Name) A. W. Randall Occupation Geologist

(Postal Address) 1103-595 Burrard St, Vancouver, B.C, V7X 1C4

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

Grant #: YA 33503 Claim: HL 21

situated at Swift River Area Claim Sheet No. 105 B-6

in the Watson Lake Mining District, to the value of at least $3,132.00

dollars, since the 15th day of July 19 80,

to represent the following mineral claims under the authority of Grouping Certificate No. 2958

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

See Attached List
(Group #: 21)

HL 10	YA 33492	HL 97	YA 36491
12	494	99	493
14	496	101	495
16	498		
21	503		
33	515		
35	517		
37	519		
38	520		
74	YA 36468		
76	470		

3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

222 feet of trenching between July 15, 1980 and August 20, 1980 = 1160 yd^3 @ $2.70/yd^3
- includes assays and geochemical work as set out in the accompanying report.

Sworn before me at Vancouver, B. C.

this 29th day of August 19 81.

Notary Public

Applicant

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

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1981 MAY 27
MINING RECORDER
WATSON LAKE, Y.T.
I.A. & N.D.

OFFICE DATE STAMP

(This form required in duplicate with sketch showing location of work.)

I (Name) A. W. Randall Occupation Geologist

(Postal Address) 1103-595 Burrard St, Vancouver, B.C. V7X 1C4

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

Grant #: YA 33501 (~~484~~) Claim: HL 19

situated at Swift River Area Claim Sheet No. 105 B-6

in the Watson Lake Mining District, to the value of at least $11,745.00

dollars, since the 15th day of July 19 80.

to represent the following mineral claims under the authority of Grouping Certificate No. 2957

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

See Attached List
(Group #: 19)

HL 2	YA33484		HL 81	YA36475	
4	486		83	477	
6	488		84	478	
8	490		105	499	
17	499		106	500	
19	501				
62	YA36	456			
64		458			
66		460			
68		462			
70		464			

The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

840 feet of trenching between July 15, 1980 and August 20, 1980 = 4350 yd^3 @ $2.70/yd^3
- includes assays and geochemistry work as set out in the accompanying report.

Sworn before me at Vancouver, B. C.

this 27th day of May 19 81.

Notary Public

Applicant

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

YUKON QUARTZ MINING ACT

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1981 MAY 27
MINING RECORDER
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I.A. & N.D.

OFFICE DATE STAMP

(This form required in duplicate with sketch showing location of work.)

I (Name) A. W. Randall Occupation Geologist

(Postal Address) 1103-595 Burrard St, Vancouver, B.C., V7X 1C4

MAKE OATH AND SAY, THAT:

1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):

(Here list claims on which work was actually done by number and name)

Grant #: YA 33522 Claim: HL 40

situated at Swift River Area Claim Sheet No. 105 B-6

in the Watson Lake Mining District, to the value of at least $12,314.00

dollars, since the 15th day of July 19 80.

to represent the following mineral claims under the authority of Grouping Certificate No. 2964

(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

See Attached List

(Group #: 40)

HL 39	YA33521	HL 108	YA36502
40	522	110	504
41	523	112	506
85	YA36479	114	508
87	481		
89	483		
91	485		
93	487		
95	489		
96	490		
98	492		
100	494		

The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

880 feet of trenching between July 15, 1980 and August 20, 1980 = 456 yd^3 @ $2.70/yd^3$ including assays and geochemical work as set out in the accompanying report.

Sworn before me at Vancouver, B. C.

this 27th day of April 19 81

Notary Public

Applicant

DISTRIBUTION OF TRENCHING WITH RESPECT TO CLAIMS

CLAIM	TRENCH	LENGTH OF TRENCH (ft.)	% OF TOTAL TRENCHING	ASSESSMENT $
HL 19	D-1	500	16.5	11,745.00
	D-2	340		
HL 21	J-1	222	4.4	3,132.00
HL 23	C-1	200	11.8	8,399.00
	C-2	400		
HL 25	A-1	200	9.1	6,478.00
	A-2	260		
HL 31	F-1	280	22.4	15,945.00
	F-2	320		
	F-3	200		
	F-4	340		
HL 36	H-1	250	7.9	5,623.00
	H-2	150		
HL 40	I-1	240	17.3	12,314.00
	I-2	180		
	I-3	190		
	B-1	270		
HL 42	A-3	190	10.6	7,546.00
	E-1	350		
			TOTAL	$ 71,182.00

090836

WESTMIN RESOURCES LIMITED
FORMERLY WESTERN MINES LIMITED

MINING DIVISION:
P.O. BOX 49066
THE BENTALL CENTRE
VANCOUVER, B.C. V7X 1C4
PHONE: (604) 681-2253 TELEX: 04-51573

April 29, 1981

Mining Recorder,
Dept. of Indian and Northern Affairs,
WHITEHORSE, Yukon

Dear Sir :

Please find attached assessment work reports for the HL claims.

Please note that this work must be recorded for Westmin Resources as this is the new name of Western Mines. You will be fowarded shortly a copy of the "Continuance Document" with respect to the Company name change.

Yours truly,

WESTMIN RESOURCES LIMITED

A. W. Randall
Project Geologist

AWR:dt.
Attachment

WESTMIN RESOURCES LIMITED
FORMERLY WESTERN MINES LIMITED

MINING DIVISION:
P.O. BOX 49066
THE BENTALL CENTRE
VANCOUVER, B.C. V7X 1C4
PHONE: (604) 681-2253 TELEX: 04-51573

May 21, 1981

Patti L. McLeod,
Mining Recorder,
Watson Lake Mining District,
Indian & Northern Affairs,
Box 269,
WATSON LAKE, Yukon Territories
Y0A 1C0

Dear Ms. McLeod:

RE: ASSESSMENT WORK HL CLAIMS 1-126

Please find attached HL group assessment work applications and accompanying report, signed and corrected as indicated in your letter of May 15, 1981.

Please note that the average trench size is 14 feet wide by 10 feet deep, however, the trench cross section is very irregular due to the uneven terrain, hence that is why only the trench length is shown on the assessment report. The cost of trenching shown includes assay and geochemical costs. Using the average trench cross section, calculation of volumes removed from each trench at a cost of $2.70 per cubic yard are shown.

I trust this information is satisfactory.

Also attached is a cheque for $775.00 for additional fees.

Yours truly,

WESTMIN RESOURCES LIMITED

A. W. Randall
Project Geologist

AWR:dt.
Attachments

CONTENTS

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INTRODUCTION	1
GEOLOGY - Regional	3
- Property	4
MINERALIZATION	7
DISCUSSION OF MINERALIZED ZONES	7
TRENCHING	9
SAMPLING	9
GEOCHEMISTRY	10
CONCLUSION AND RECOMMENDATION	10

APPENDIX

A. FIELD CREW

B. GEOCHEM AND ASSAYS

B-1 SAMPLE RECORDS

B-2 GEOCHEM ANALYSES

B-3 ASSAYS

C. SUMMARY OF EXPENDITURES

REFERENCES

MAPS AND FIGURES

FIG. 1	LOCATION MAP	1" = 50 mi.
FIG. 2	CLAIM MAP	1" = ½ mi.
FIG. 3	GEOLOGY	1:5000
FIG. 4	STRUCTURE	1:5000
FIG. 5	TRENCH LOCATION MAP	1:5000
FIG. 6	SOIL GEOCHEMISTRY MAPS	
FIG. 7	TRENCH GEOLOGY MAPS	1:100

SUMMARY

The purpose of this report is to describe the results of the exploration program carried out by Western Mines on the HL Claims during July and August 1980. The property was optioned from Swift River Resources in May 1980.

The 1980 program consisted of geological mapping, prospecting and cat trenching. The geology of the property consists of a folded sequence of grits, phyllites and schists which include thin discontinuous beds of cherts and calc-silicates. Tungsten mineralization (scheelite) of apparently stratabound character is associated with the cherts and calc-silicates.

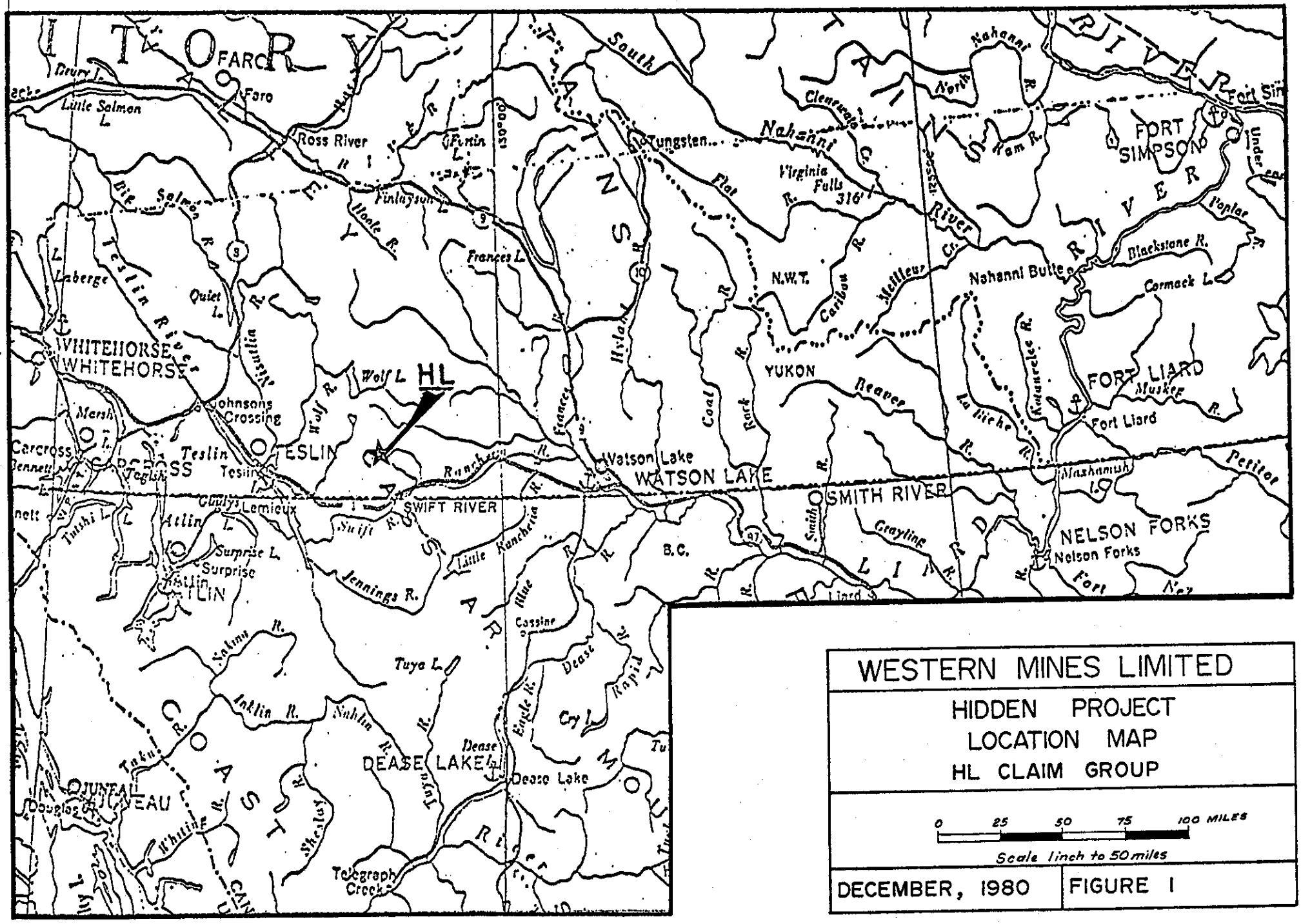
This exploration effort was directed toward defining the horizons which host the scheelite mineralization, with particular emphasis on trying to determine thickness continuity and grade of the mineralized zones and whether they have been repeated by the folding. Only limited amounts of mineralization were discovered in the trenches. The best sample was 0.58% WO_3 over 0.8 meters in trench H-2.

INTRODUCTION

The HL Group of 126 mineral claims was optioned in May 1980, from Swift River Resources. These claims cover an area of what appears to be stratabound tungsten mineralization, thought to be similar to that found in the Falbertal deposit in Austria.

Western Mines explored this property during the period July 14 to August 20, 1980. The program consisted of:

1. Preparation of a base map at 1:5000 with 10 meter contours.
2. Mapping the area encompassing the principal mineralized zones at 1:5000.
3. Cat trenching of all significant mineralized zones.
4. Prospecting with UV lamps of geochemically anomalous areas and trenches.
5. Sampling and detailed mapping of trenches.



WESTERN MINES LIMITED

HIDDEN PROJECT
LOCATION MAP
HL CLAIM GROUP

0 25 50 75 100 MILES

Scale 1 inch to 50 miles

DECEMBER, 1980 | FIGURE 1

The history and a description of previous work done on these claims is well documented in a report by J. D. Rowe and C. Verley of Cordilleran Engineering ("Preliminary Evaluation of the HL Claim Group, February 1980").

The property is located in the Watson Lake mining district approximately 25 kilometers north of the village of Swift River on the Alaska Highway. An excellent air strip is located near Pine Lake approximately 20 kms southeast of the property. Rough road access from the Alaska Highway near Pine Lake to Crescent Lake (about half way to the HL Group) is available.

Poor weather including rain, wind, fog and occasionally snow was experienced throughout the work period with the exception of about 6 days.

During the program a Hughes 500D helicopter leased at Swift River from Du Pont Exploration and a Bell 47/B-2 based at Daughney Lake for Cordilleran Engineering were used, as necessary, for access to the property. Twilite Service in Watson Lake and Du Pont Exploration in Swift River acted as expeditors for the project.

The claims lie along a northwesterly trending ridge between 1400 and 1750 meters elevation. The terrain is mostly rolling alpine meadows with a few rocky bluffs on northerly facing slopes.

GEOLOGY

Regional - The claims are bounded to the north and east by the Cassiar Batholith and to the west and south by a major regional fault system which juxtaposes slivers of Mississippian thru Cambrian sediments. The geology to the west of the property is presently being re-interpreted by Grant Abbott from the geology department of DINA in Whitehorse. The Seagull Batholith is a few miles west of the property.

Property - The HL Claims cover an area of meta-sediments which were originally thought to be of Lower Cambrian age but are now thought to be an upthrust window of part of the Upper Precambrain grit unit (Windermere Super Group) which covers much of the northern Yukon Territory. (G. Abbott, Pers. Comm., August 1980).

The rocks consist of a package of grits and schists which vary quite extensively both laterally as well as across the section. These rocks grade from coarse-grained quartz-pebble conglomerates through schists to phyllite. These changes may occur over one depositional cycle which is often less than one meter thick.

Structurally the package seems to have been subject to tight overturned to isoclinal folding. There is evidence in some areas of the property that these folds plunge 50° to 60° to the northwest. The best evidence of folding was located between lines 30 and 37, just north of the base line, where anticlinal fold noses and/or drag-folds were observed. The limited evidence of folding may be due to the abundance of phyllitic material which may have resulted in slippage between layers rather than the development of drag-folds. Most of the fold structures observed were in the more competent beds. No evidence of synclinal structures was noted however, one set of drag-folds seemed to indicate that the synclinal portions of these folds had been sheared out. Hence, on the larger scale these structures would look like faults. This feature was noted in trenches B-1 and D-2, where a change of dip of the beds was noted without any visible synclinal axis.

The geological picture is further complicated by numerous small faults and several major cross-cutting faults. Due to the lack of suitable marker beds,displacements on these faults could not be established.

Joints at various orientations were noted throughout the property however, there appears to be one major set approximately perpendicular to the apparent fold axes.

N

Grant No.

HL 1 - 48	YA33483-33530
HL49- 52	YA35485-35488
HL53-104	YA36447-36498
HL105-106	YA36499-36500
HL107-126	YA36501 -36520

WESTERN MINES LIMITED

HIDDEN PROJECT

CLAIM MAP

0 ½ 1 miles

Scale 1 inch = ½ mile

Date: Dec. 1980	Revised:	Drawn by: L.G.C.	FIGURE-2

In mapping it was first attempted to divide the package of rocks into several distinct units. However, it became apparent in short order that there were no distinct continuous marker horizons. Also the lack of outcrop made it impossible to trace any of the thinner units very far. Hence, the rocks were divided into 1. grits and 2. schists.

The grits include everything from coarse quartz-pebble varieties through the finer grits and also include the quartz-feldspar biotite or muscovite schists. The Grit Unit may be subdivided into two groups. Group 1a is the coarse quartz-feldspar porphyritic rock with quartz and feldspar pebbles to one cm across. They generally have a fine granular to occasionally cherty matrix with very little or no mica present. It is interesting to note that the quartz and feldspar pebbles are usually equi-dimensional and the feldspars are often nearly euhedral with only slightly rounded corners.

Group 1b may be described as the foliated grits. They are finer grained than the porphyritic grits with quartz pebbles to 3 mm across which are usually elongated parallel to the foliation. Biotite and/or muscovite are common.

Smokey quartz eyes are common in both varieties of grit. On the weathered surface of these grits, quartz usually stands in relief.

The term phyllites, in this report, is used more as a descriptive term, than in its usual geological sense. It refers to rocks whose major constituent is mica, usually greater than 30% biotite plus muscovite, and having a distinctly micaceous character as compared to the muscovite and biotite schists. The phyllites vary from fine-grained muscovite or biotite schists with abundant mica and occasional quartz and feldspar grains to essentially phyllitic rocks in which little or no quartz or feldspar may be observed. Garnets to 0.5 cm across have been noted in several locations within the phyllites and andalusite is present in at least one horizon. These phyllites generally are composed of abundant muscovite with flecks of biotite scattered throughout. Occasionally thin

biotite phyllite layers may be observed. The biotite rich phyllites usually exhibit a gossanous nature and may have abundant limonite on cleavage surfaces, whereas the muscovite rich varities are usually greyish-green in colour.

In mapping, the grit and phyllite units appear discontinuous. This is partly due to the fact that much of the mapping was done from float. However, it also appears that some of the competent units have been sheared out during folding (something like the development of boudinage structures) and phyllitic materal has flowed in to fill the space. A further complication is that we are probably looking at a northwesterly plunging fold system.

Several thin units which occur within the grits and phyllites have been separated out because of their individual significance.

Unit 3 is what has been called the Calc-Silicate and Cherty unit. The calc-silicates are most common. They have a cherty to fine granular texture and usually have scattered to abundant small pink garnets. Actinolite flecks are also present. These calc-silicates may have some carbonate present as they occasionally exhibit a porous or punky texture around the rims of larger blocks indicating the carbonate has been weathered out. These calc-silicate bands may be as much as 1 meter thick but are usually one to 10 cm thick. They seem to form irregular, discontinuous beds and are most abundant in the grits. They are the most common host of the scheelite mineralization.

The cherts are a finer grained and less abundant variation of the calc-silicates. Pyrrhotite may be found in the calc-silicates but is most abundant (up to 5%) in the cherts. Extensive limonite coatings on fractures in the cherts is common.

Unit 4 is massive actinolite bands which have been described as amphibolites. They are 60-80 percent actinolite with the remainder being plagioclase. These bands are usually 10 cm thick but range up to 50 cm thick. They have been observed at several locations on the property but could not be traced very far. They most commonly occur within the phyllites. It has been suggested that they are meta-basalts.

Pods of coarse white bull quartz along with scattered sections of tourmaline bearing quartz seems to occur roughly along the main axis of the fold system.

MINERALIZATION

The tungsten mineralization appears to be exclusively scheelite. It occurs in two modes, stratabound and fracture controlled, primarily within the calc-silicate and cherty units. The stratabound mineralization occurs roughly along bedding planes. In places however, it seems to occur on cleavage surfaces which are at a small angle to bedding. This may simply be due to remobilization. The fracture controlled mineralization occurs on dry fractures cutting the calc-silicates and cherts, and rarely extends far from the stratabound mineralization.

The origin of this mineralization is debatable and several theories are put forth to explain its occurrence.

It could be of metasomatic origin. Evidence of this is the proximity to the Cassiar Batholith which is known to have a high Clarke in tungsten. Also the best mineralized zones seem to occur adjacent to major faults, in particular the D-zone, and the A-B-C and I-zones. This mineralization could be considered to be skarns as is indicated by their most common occurrence within the calc-silicates.

The mineralization on this property also has marked similarities to the scheelite deposits of the Alps. The European deposits are apparently genetically related to basic meta-volcanic layers within a massive volcanic-sedimentary section. Certainly there is evidence to support this theory with the amphibolite layers and cherty bands occurring in the HL stratigraphic section.

DISCUSSION OF MINERALIZED ZONES

Float occurrences of scheelite mineralization have been found at several locations on the HL property. Grades of up to 2.5% WO_3 were obtained from selected grab samples (Rowe, Verley: 1980).

The best grade mineralization in outcrop was found in trenches of the H and I showings (Fig. 7-H, 7-I). In both these zones, mineralization was observed along bedding-planes as well as on fractures, and occurred in bands up to one meter wide although more commonly in thin bands widely separated by barren phyllite and grit. The mineralization could not be traced any distance along strike from the trenches. There is some evidence that these two mineralized zones occur in the same stratigraphic horizon as minor float occurrences of mineralization have been found in the area between. The best intersection was 0.58% WO_3 over 0.8 meters in trench H-2.

Trenching in the A-Zone cut coarse grit boulders which are thought to be close to bedrock. These trenches should have cut the area which would be the source of float mineralization found nearby. Lamping in these trenches located only a few scattered weakly mineralized pieces of float.

Trenching in the B-Zone cut an extensive area of phyllitic material with one calc-silicate band containing scheelite which is thought to be the source of B-Zone float mineralization.

Only minor fracture controlled mineralization was found in trench D-1 of the D-Zone. It occurred in coarse grit similar to mineralization noted in a float boulder nearby. Several calc-silicate and chert bands were noted in these trenches however, no associated scheelite was located. Minor mainly fracture controlled mineralization was found in coarse grit outcropping immediately below trench D-1.

The E-Zone trench appears to cut across the nose of a fold structure. The trench was generally poor due to caving as the perma-frsot melted. Two bands of calc-silicate with very minor scheelite mineralization were located near the eastern end of this trench. The mineralized float train from this zone seems to form a fan originating near the centre of the trench. However, good outcrop could not be obtained because of the perma-frost. Three samples near the centre of this trench indicated up to 75 ppm W however, the best assay indicated only 0.03% WO_3.

No mineralization was found in the trenches of C and F Zones although float mineralization was present nearby. Minor mineralization noted in outcrop in the J-Zone was not found in the J trench.

TRENCHING

A D-7 cat with rock blade and ripper was hired from Cam Deeks and Sons in Whitehorse to do the trenching. It was walked into the property, a cross country distance of about 30 miles. This operation took approximately 30 hours due to some extremely rough terrain. Trenching commenced on August 3 and was completed by August 11. Eighteen trenches were dug on the various mineralized zones.

The trenching was not as satisfactory as had been hoped. Several problems were encountered which resulted in poor trenches. Perma-frost was encountered on north-facing slopes. The perma-frost could not be ripped. Wherever it was exposed, caving of the trench walls occurred as the frost melted. The combination of hard and soft layers (grits vs phyllites) made it almost impossible to clean the trenches out without going to hand trenching. It is recommended that in future a trenching crew be available to properly clean out trenches if the cat work is not satisfactory.

A base station was established in each trench and surveyed in relation to the geochem grid. Measurements were made along the centre of the trench floor.

SAMPLING

All trenches were cleaned out as well as possible and continuous chip samples were obtained from most. Sample intervals were divided up according to geological units. Wherever possible individual mineralized units were sampled separately if these units were greater than 0.5 meters wide. Otherwise one meter minimum sample intervals were used. In several locations duplicate samples were taken of mineralized zones because of the discontinuous nature of the mineralization and also because of the difficulty of obtaining good samples. Muck samples were taken from the trench floor in 2-4 meter intervals where it was obvious the material was close to or actual broken bedrock, in particular the E and F Zones.

All samples were sent to Chemex Labs in Vancouver. Initially all samples were geochemically analysed for W. Then selected samples having greater than 5 ppm W were assayed for WO_3.

GEOCHEMISTRY

The soil geochemistry carried out by Cordilleran Engineering indicates an anomalous zone between the East and West faults. Outside this zone W geochem is generally weak. The best soil geochem anomaly is located between lines 36 SE and 39 SE from stations 21 NE to 23 NE. This anomaly lies on outcroppings in which scheelite mineralization has been found. Hence it appears that significant soil geochem anomalies are not displaced far from mineralized bedrock. A number of single sample anomalous values were present down-slope from the A-B-C showings. No outcrop was present near any of these samples. All appear to be explained by down-slope movement of mineralized boulders. A single high W soil value (25 ppm) was located at 14 SE - 30.5 NE. Resampling at this site indicated well below anomalous values indicating that there is some problem of duplicating high values. It should be noted that the intensity of geochemical response from tungsten on this property is generally low, as may be seen by the "strongly anomalous" threshold being only 13 ppm W.

Western Mines tested trace element geochemistry on selected areas where anomalous tungsten soil samples had been found. Analysis for Sb, Ag, Cu, Zn and Mo were made using pulps from the original soil geochemical survey. The result of this study indicates that none of these elements is anomalous in the areas tested and there is no correlation with the tungsten anomalies.

CONCLUSION AND RECOMMENDATION

Mineralization is in thin discontinuous bands. The width of these zones is rarely more than one meter. The best mineralization found in outcrop was in trenches H-2 and I-1.

It appears that there is geochemically anomalous amounts of tungsten mineralization scattered around this property but the potential for ore grade and tonnage is limited. Hence it is recommended that Western Mines option be dropped.

A. W. Randall, P.Eng.
December 1980

APPENDIX A

FIELD CREW

A. RANDALL, PROJECT SUPERVISOR, WESTERN MINES LTD., VANCOUVER

R. ARNOLD, PROJECT GEOLOGIST, WESTERN MINES LTD., VANCOUVER

R. ARTHUR, ASSISTANT PROJECT GEOLOGIST, QUEEN'S UNIVERSITY STUDENT, KINGSTON, ONTARIO

R. SLADEN, GEOLOGICAL ASSISTANT, VANCOUVER

R. BULGER, GEOLOGICAL ASSISTANT, VANCOUVER

H. MEADE - SENIOR SUPERVISOR, VANCOUVER

APPENDIX B

GEOCHEM AND ASSAYS

B-1 SAMPLE RECORD

B-2 GEOCHEM ANALYSIS

B-3 ASSAYS

B-1

Property HIDDEN

NTS 105/B-6

Included in Sample Shipment _____

Samples Shipped 244

Assay Received _____

SAMPLE LOCATION & DESCRIPTION									
Hole No. Trench	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.	W	WO_3			
H-1	2.8	9.0	5.2	72901					
	9.0	12.6	3.6	72902					
	12.6	16.4	3.8	72903					
	16.4	26.5	10.1	72904					
	26.5	33.5	7.0	72905					
	33.5	41	7.5	72906					
	41	43	2	72907					
	43	49	6	72908					
	49	50	1	72909					
D-2	19.2	22.2	3	72910					
	22.2	25.5	3.3	72911					
	25.5	27.5	2	72912					
	27.5	30	2.5	72913					
	30	32.5	2.5	72914					
	32.5	35	2.5	72915					
	35	36.4	1.4	72916					
	36.4	41	4.6	72917					
	59.5	61.4	1.9	72918					
	61.4	63.5	2.1	72919					
	63.5	67	3.5	72920					

B-1

Property _____ Included in Sample Shipment _____

NTS _____ Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION					
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.	
23.5 SE - 23.5 NE	tourmaline	quartz		72921	Grab sample of tourmaline quartz
B-2	1	2.5	1.5	72922	
	2.5	5	2.5	72923	
	5	8	3	72924	
	8	9.9	1.9	72925	
	9.9	11.6	1.7	72926	
	11.6	14.5	2.9	72927	
	14.5	15.3	0.7	72928	
	15.3	17	1.7	72929	
	17	18.8	1.8	72930	
	18.8	21.3	2.5	72931	
	21.3	24.4	3.1	72932	
	24.4	25.5	1.1	72933	
	25.5	27.5	2	72934	
	27.5	29.2	1.7	72935	
	29.2	30.3	1.1	72936	
	30.3	31.8	1.5	72937	
	31.8	33.2	1.4	72938	
	33.2	34.9	1.7	72939	
	34.9	35.4	0.5	72510	
	40.1	41.8	1.7	72511	

B-1

Property _____ Included in Sample Shipment _____

NTS _____ Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION									
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.					
H-2	41.8	42	.2	72512					
	42	43	1	72513					
	@ 33			72514	Grab	sample	of WO	float	
D-1	25.3	27	1.7	72940					
	27	29	2	72941					
	29	31	2	72942					
	31	33.3	2.3	72943					
	33.3	34.7	1.4	72944					
	34.7	37	2.3	72945					
	37	39	2	72946					
	39	41	2	72947					
	41	44	3	72948					
	44	48	4	72949					
	48	51.1	3.1	72950					
	51.1	52	0.9	72501					
	52	53.8	1.8	72502					
	53.8	56.8	3	72503					
	56.8	57.9	1.1	72504					
	57.9	59.4	1.5	72505					
	59.4	62	2.6	72506					
	62	64	2	72507					
	64	66	2	72508					
				72509					

B-1

Property _____ Included in Sample Shipment _____

NTS _____ Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION				
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.
F-1	2.8	5	2.2	72515
	5	7.4	2.4	72516
	7.4	10	2.6	72517
	1.0	12.1	2.1	72518
	12.1	14.8	2.7	72519
	14.8	16.8	2	72520
	16.8	20.1	3.3	72521
	20.1	23	2.9	72522
	23	26	3	72523
	26	29	3	72524
	29	32.5	3.5	72925
	39.5	42.6	3.1	72926
	42.6	45	2.4	72927
	47.8	50	2.2	72928
	50	52.4	2.4	72929
	52.4	55	2.6	72930
	55	58.3	3.3	72931
	58.3	61.3	3.0	72932
	61.3	64	2.7	72933
	68.5	71	2.5	72934
	71	73.3	2.3	72935
	73.3	76.5	3.2	72536

B-1

Property _____

NTS _____

Included in Sample Shipment _____

Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION					ASSAYS
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.	
F-1	80	83	3	72537	
	87	88	1	72538	
	88	89	1	72539	
	89	92	3	72540	
B-1	29.5	30	0.5	72541	
	36.1	37.1	1	72542	
	49	50	1	72543	
	50	51.5	1.5	72544	
	@ 36.5		0.1	72545	- 10 cm mineralized band
	52	54.7	2.7	72546	- same as samples 72543-44
					but in floor of trench
	54.8	56.3	1.5	72547	
		58.3	1.0	72548	
	58.3	60.7	2.4	72549	
F-3	2	4	2	72551	
	4	6	2	72552	
	6	8	2	72553	
	8	10	2	72554	
	10	12	2	72555	

Property _____ Included in Sample Shipment _____

N.S _____ Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION										
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.	Au					
F-3	12	14	2	72556						
	30	32	2	72557						
	32	34	2	72558						
	34	36	2	72559						
	36	38	2	72560						
	38	40	2	72561						
	40	42	2	72562						
	42	44	2	72563						
	44	46	2	72564						
	46	48	2	72565						
	48	50	2	72566						
	64	68	4	72567						
	68	72	4	72568						
	72	74	2	72569						
E-1	8	12	4	72570						
	12	16	4	72571						
	16	20	4	72572						
	24	28	4	72573						
	28	32	4	72574						
	32	36	4	72575						
	36	40	4	72576						
	40	44	4	72577						

B-1

Property _____

NTS _____

Included in Sample Shipment _____

Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION					ASSAYS				
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.					
E-1	44	48	4	72578					
	48	52	4	72579					
	52	56	4	72580					
	56	60	4	72581					
	74	76	2	72582					
	80	82	2	72583					
	82	84	2	72584					
	84	87	2	72585					
	87	90	3	72586					
	105.7	106.5	0.8	72587					
	114	115.2	1.2	72588					
	115.2	116.0	0.8	72589					
	116	118	2	72590					
	118	120	2	72591					
I-1	8.7	9.7	1	72592					
	9.7	12.5	2.8	72593					
	12.5	13.5	1	72594					
	13.5	15.1	1	72595					
	15.1	16.8	1.7	72596					
	16.8	19.1	2.3	72597					
	19.1	23	3.9	72598					
	23	26.6	3.6	72599					

B-1

Property _____ Included in Sample Shipment _____

NTS _____ Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION					
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.	
I-1	26.6	30	3.4	72725	
	30	32.8	2.8	72726	
	32.8	34	1.2	72727	
	34	35.7	1.7	72728	
	35.7	38	2.3	72729	
	38	40	2	72730	
	40	42	2	72731	
	42	42.9	.9	72732	
	42.9	45.2	2.3	72733	
	45.2	47	1.8	72734	
	47	49	2	72735	
	49	51	2	72736	
	51	53	2	72737	
	53	55	2	72738	
	55	57	2	72739	
	57	59	2	72740	
	59	61	2	72741	
	63	64		72742	
	29	30		72743	~0.5m, chips from broken rock
	50.6	51.2	0.6	72744	- chips across calc-silicate zone within samples 72736-37

Property _____ Included in Sample Shipment _____

NTS _____ Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION				
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.
F-2	0	0.8	0.8	72601
	.8	2.2	1.4	72602
	2.2	3.2	1	72603
	15	16.4	1.4	72604
	16.4	17.0	0.6	72605
	17	18.2	1.2	72606
	48.8	51.5	2.7	72607
	51.5	53.6	2.1	72608
	53.6	54.3	0.7	72609
	54.3	56.2	1.9	72610
	61.5	63.5	2	72611
	63.5	66.2	2.7	72612
	66.2	67.0	0.8	72613
	67	68.5	1.5	72614
	68.5	69.2	0.7	72615
	69.2	70.5	1.3	72616
	70.5	72.5	2	72617
	72.5	73.4	0.9	72618
	73.4	75.1	1.7	72619
	75.1	75.5	0.4	72620
	75.5	79	3.5	72621
	79	82.5	3.5	72622

B-1

Property _____

NTS _____

Included in Sample Shipment _____

Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION				
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.
J-1	2	4	2	72623
	4	5	1	72624
	5	6.3	1.3	72625
	6.3	7.5	1.2	72626
	7.5	8.3	0.8	72627
	8.3	9.1	0.8	72628
	9.1	11.1	2	72629
	15	17	2	72630
	17	18	1	72631
	18	19.3	1.3	72632
	19.3	20.2	0.9	72633
	22.2	22.3	0.1	72634
	22.3	24.3	2	72635
	24.3	26.3	2	72636
	26.3	28.3	2	72637
	28.3	30.1	1.8	72638
	30.1	31.7	1.6	72639
	31.7	33.7	2	72640
	36	38	2	72641
	38	39	1	72642
	39	40	1	72643
	40	42	2	72644

B-1

Property _____

NTS _____

Included in Sample Shipment _____

Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION				
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.
J-1	43.3	45.3	2	72645
	45.3	46.3	1	72646
	46.3	47	0.7	72647
	47	49	2	72648
C-1	8.2	10.2	2	72649
	10.2	11.4	1.2	72650
	11.4	12.5	1.1	72651
	12.5	14	1.5	72652
	14	15.2	1.2	72653
	15.2	15.6	0.4	72654
	15.6	17.2	1.6	72655
	17.2	17.9	0.7	72656
	17.9	20.0	2.1	72657
	20	21.5	1.5	72658
	21.5	22	0.5	72659
	22	24	2	72660
	28	30.1	2.1	72661
	30.1	30.6	0.5	72662
	30.6	32	1.4	72663
	36	38	2	72664

Property _____

N.S _____

Included in Sample Shipment _____

Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION					
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.	
A-2	5	7	2	72665	
	* 7	9	2	72666	
	9	11	2	72667	
	11	13	2	72668	
	13	15	2	72669	
	15	17	2	72670	
	17	19	2	72671	
	19	20	1	72672	
	20	21	1	72673	
	21	23	2	72674	
	23	25	2	72675	
	25	27	2	72676	
	27	29	2	72677	
	29	32	3	72678	
	* 7	9	2	72679	- Grab sample from boulders
A-1	4	6	2	72680	
	6	8	2	72681	
	10	12	2	72682	
	12	14	2	72683	
	14	16	2	72684	
	16	18	2	72685	

Property _____

L..3 _____

Included in Sample Shipment _____

Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION					
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.	
A-1	18	20	2	72685	
	20	22	2	72686	
	22	24	2	72687	
	24	26	2	72688	
	26	28	2	72689	
	28	30	2	72690	
	30	32	2	72691	
	32	34	2	72692	
	34	36	2	72693	
	34	36	2	72694	- Grab sample from boulders
A-3	17.7	19	1.3	72701	
	** 20.7	22.9	2.2	72702	
	29.4	31.5	2.1	72703	
	31.5	33.4	1.9	72704	
	33.4	34.3	0.9	72705	
	34.3	35.4	1.1	72706	
	35.4	36.6	1.2	72707	
	36.6	37.4	0.8	72708	
	37.4	39.5	2.1	72709	
	39.5	40.5	1	72710	
	40.5	42.7	2.2	72711	

B-1

Property _____ Included in Sample Shipment _____

NTS _____ Samples Shipped _____

Assay Received _____

SAMPLE LOCATION & DESCRIPTION				
Hole No.	Hole Interval, etc. meters		Width, m Interval	Sample No., Tag No.
I-2	11.7	16.7	5	72712
	16.7	17.8	1.1	72713
	17.8	19	1.2	72714
	19	20.5	1.5	72715
	20.5	23.7	3.7	72716
	23.7	25.2	1.5	72717
	25.2	26.9	1.7	72718
	26.9	29.1	2.2	72719
	29.1	31.5	2.4	72720
	31.5	33.4	1.9	72721
	33.4	35.4	2	72722
	35.4	36.6	1.2	72723
** A-3	19	20.7	1.7	72724
A-3	17.7	19	1.3	72748
C-1	11.4	12.5	1.1	72749
C-1	16.9	17.2	0.3	72750

CHEMEX LABS LTD. B-2

212 BROOKSBA
NORTH VANCOU
CANADA
TELEPHONE: (60
TELEX:

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO : Western Mines Ltd.
1103 - 595 Burrard St.
P.O. Box 49066
Vancouver, B.C.
V7X 1C4

CERT. # : A8010232
INVOICE # : 38876
DATE : 18-SEP-8

HIDDEN PROJ-A RANDAL

Sample description		Ag ppm	Au -(AA) ppb	W ppm	Sn ppm
72901	TRENCH	--	--	2	--
72902		--	--	2	--
72903		--	--	5	--
72904		--	--	1	--
72905	H-1	--	--	5	--
72906		--	--	1	--
72907		--	--	45	--
72908		--	--	12	--
72909		--	--	8	--
72910		--	--	1	--
72911		--	--	1	--
72912		--	--	1	--
72913		--	--	1	--
72914		--	--	1	--
72915	D-2	--	--	1	--
72916		--	--	1	--
72917		--	--	1	--
72918		--	--	1	--
72919		--	--	1	--
72920		--	--	>400	--
72921	grab Sample	0.2	<10	20	10
72922		--	--	1	--
72923		--	--	1	--
72924		--	--	1	--
72925		--	--	1	--
72926		--	--	1	--
72927		--	--	1	--
72928		--	--	>400	--
72929	H-2	--	--	20	--
72930		--	--	5	--
72931		--	--	15	--
72932		--	--	1	--
72933		--	--	1	--
72934		--	--	1	--
72935		--	--	1	--
72936		--	--	1	--
72937		--	--	1	--
72938		--	--	1	--
72939		--	--	1	--
72940	D-1	--	--	1	--

Certified by Hank Biehler

CTA MEMBER CANADIAN TESTING ASSOCIATION

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Vancouver, B.C.
V7X 1C4

CERT. # : A80102
INVOICE # : 38876
DATE : 18-SEP

HIDDEN PROJ-A RAND

Sample description		Ag ppm	Au -(AA) ppb	W ppm	Sn ppm
72941		--	--	8	--
72942		--	--	1	--
72943		--	--	1	--
72944		--	--	1	--
72945	D-1	--	--	1	--
72946		--	--	1	--
72947		--	--	1	--
72948		--	--	1	--
72949		--	--	1	--
72950		--	--	1	--
72501		--	--	1	--
72502		--	--	35	--
72503		--	--	1	--
72504		--	--	1	--
72505	D-1	--	--	1	--
72506		--	--	1	--
72507		--	--	1	--
72508		--	--	1	--
72509		--	--	1	--
72510		--	--	1	--
72511		--	--	1	--
72512	H-2	--	--	350	--
72513		--	--	7	--
72514		--	--	75	--
72515		--	--	1	--
72516		--	--	1	--
72517		--	--	1	--
72518		--	--	1	--
72519		--	--	1	--
72520		--	--	1	--
72521		--	--	1	--
72522		--	--	1	--
72523	F-1	--	--	1	--
72524		--	--	1	--
72525		--	--	3	--
72526		--	--	1	--
72527		--	--	1	--
72528		--	--	1	--
72529		--	--	1	--
72530		--	--	1	--

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CHEMEX LABS LTD. B-2

212 BROOKSB
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1103 - 595 Burrard St.
P.O. Box 49066
Vancouver, B.C.
V7X 1C4

CERT. # : A801023
INVOICE # : 38876
DATE : 18-SEP-

HIDDEN PROJ-A RANDA

Sample description	Ag ppm	Au -(AA) ppb	W ppm	Sn ppm
72531	--	--	1	--
72532	--	--	1	--
72533	--	--	1	--
72534	--	--	150	--
72535 F-1	--	--	1	--
72536	--	--	1	--
72537	--	--	100	--
72538	--	--	1	--
72539	--	--	1	--
72540	--	--	4	--
72541	--	--	150	--
72542	--	--	1	--
72543	--	--	1	--
72544	--	--	1	--
72545 B-1	--	--	1	--
72546	--	--	60	--
72547	--	--	1	--
72548	--	--	1	--
72549	--	--	1	--
72551	--	--	1	--
72552	--	--	1	--
72553	--	--	1	--
72554	--	--	1	--
72555	--	--	1	--
72556	--	--	1	--
72557	--	--	1	--
72558	--	--	1	--
72559 F-3	--	--	1	--
72560	--	--	1	--
72561	--	--	1	--
72562	--	--	1	--
72563	--	--	175	--
72564	--	--	1	--
72565	--	--	1	--
72566	--	--	1	--
72567	--	--	1	--
72568	--	--	1	--
72569	--	--	1	--
72570	--	--	1	--
72571 E-1	--	--	8	--

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Vancouver, B.C.
V7X 1C4

CERT. # : A80102
INVOICE # : 38876
DATE : 18-SEP-

HIDDEN PROJ-A RAND

Sample description	Ag ppm	Au -(AA) ppb	W ppm	Sn ppm
72572	--	--	3	--
72573	--	--	4	--
72574	--	--	3	--
72575	--	--	3	--
72576	--	--	4	--
72577	--	--	5	--
72578	--	--	8	--
72579	--	--	3	--
72580	--	--	5	--
72581	--	--	2	--
72582	--	--	3	--
72583	--	--	75	--
72584	--	--	10	--
72585	--	--	10	--
72586	--	--	3	--
72587	--	--	3	--
72588	--	--	1	--
72589	--	--	1	--
72590	--	--	8	--
72591	--	--	1	--
72592	--	--	1	--
72593	--	--	1	--
72594	--	--	1	--
72595	--	--	1	--
72596	--	--	1	--
72597	--	--	1	--
72598	--	--	1	--
72599	--	--	1	--
72600	--	--	1	--
72601	--	--	1	--
72602	--	--	1	--
72603	--	--	1	--
72604	--	--	1	--
72605	--	--	1	--
72606	--	--	1	--
72607	--	--	1	--
72608	--	--	1	--
72609	--	--	1	--
72610	--	--	1	--
72611	--	--	1	--

E-1

I-1

F-2

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TO : Western Mines Ltd.
1103 - 595 Burrard St.
P.O. Box 49066
Vancouver, B.C.
V7X 1C4

CERT. # : A801023
INVOICE # : 38876
DATE : 18-SEP-

HIDDEN PROJ-A RANDA

Sample description	Ag ppm	Au -(AA) ppb	W ppm	Sn ppm
72612	--	--	1	--
72613	--	--	1	--
72614	--	--	1	--
72615	--	--	1	--
72616	--	--	1	--
72617	--	--	1	--
72618	--	--	1	--
72619	--	--	1	--
72620	--	--	1	--
72621	--	--	1	--
72622	--	--	1	--
72623	--	--	1	--
72624	--	--	2	--
72625	--	--	5	--
72626	--	--	1	--
72627	--	--	2	--
72628	--	--	1	--
72629	--	--	1	--
72630	--	--	1	--
72631	--	--	2	--
72632	--	--	27	--
72633	--	--	130	--
72634	--	--	1	--
72635	--	--	12	--
72636	--	--	70	--
72637	--	--	2	--
72638	--	--	80	--
72639	--	--	38	--
72640	--	--	2	--
72641	--	--	3	--
72642	--	--	2	--
72643	--	--	1	--
72644	--	--	1	--
72645	--	--	1	--
72646	--	--	1	--
72647	--	--	1	--
72648	--	--	1	--
72649	--	--	1	--
72650	--	--	1	--
72651	--	--	1	--

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Vancouver, B.C.
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CERT. # : A801023
INVOICE # : 38876
DATE : 18-SEP-

HIDDEN PROJ-A RAND

Sample description	Ag ppm	Au -(AA) ppb	W ppm	Sn ppm
72652	--	--	4	--
72653	--	--	1	--
72654	--	--	1	--
72655	--	--	1	--
72656	--	--	140	--
72657	--	--	5	--
72658	--	--	2	--
72659	--	--	1	--
72660	--	--	1	--
72661	--	--	70	--
72662	--	--	1	--
72663	--	--	2	--
72664	--	--	2	--
72665	--	--	1	--
72666	--	--	1	--
72667	--	--	1	--
72668	--	--	1	--
72669	--	--	13	--
72670	--	--	1	--
72671	--	--	2	--
72672	--	--	3	--
72673	--	--	1	--
72674	--	--	1	--
72675	--	--	1	--
72676	--	--	1	--
72677	--	--	1	--
72678	--	--	1	--
72679	--	--	55	--
72680	--	--	1	--
72681	--	--	60	--
72682	--	--	20	--
72683	--	--	1	--
72684	--	--	20	--
72685	--	--	15	--
72686	--	--	1	--
72687	--	--	1	--
72688	--	--	2	--
72689	--	--	1	--
72690	--	--	1	--
72691	--	--	35	--

C-1

A-2

A-1

Certified by .....

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CHEMEX LABS LTD. B-2

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P.O. Box 49066
Vancouver, B.C.
V7X 1C4

CERT. # : A80102
INVOICE # : 38876
DATE : 18-SEP-

HIDDEN PROJ-A RAND

Sample description	Ag ppm	Au -(AA) ppb	W ppm	Sn ppm
72692	--	--	5	--
72693	--	--	1	--
72694	--	--	1	--
72695	--	--	25	--
72701	--	--	70	--
72702	--	--	70	--
72703	--	--	1	--
72704	--	--	1	--
72705	--	--	2	--
72706	--	--	1	--
72707	--	--	1	--
72708	--	--	1	--
72709	--	--	1	--
72710	--	--	1	--
72711	--	--	3	--
72712	--	--	75	--
72713	--	--	1	--
72714	--	--	5	--
72715	--	--	7	--
72716	--	--	1	--
72717	--	--	1	--
72718	--	--	1	--
72719	--	--	1	--
72720	--	--	1	--
72721	--	--	1	--
72722	--	--	5	--
72723	--	--	1	--
72724	--	--	1	--
72725	--	--	1	--
72726	--	--	1	--
72727	--	--	2	--
72728	--	--	1	--
72729	--	--	37	--
72730	--	--	23	--
72731	--	--	1	--
72732	--	--	2	--
72733	--	--	1	--
72734	--	--	5	--
72735	--	--	1	--
72736	--	--	90	--

A-1 A-3 I-1

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CHEMEX LABS LTD. B-2

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P.O. Box 49066
Vancouver, B.C.
V7X 1C4

CERT. # : A801023
INVOICE # : 38876
DATE : 18-SEP-

HIDDEN PROJ-A RAND

Sample description	Ag ppm	Au -(AA) ppb	W ppm	Sn ppm
72737	--	--	110	--
72739	--	--	2	--
72740	--	--	3	--
72741	--	--	1	--
72742	--	--	1	--
72743	--	--	>400	--
72744	--	--	300	--
72748	--	--	2	--
72749	--	--	150	--
72750	--	--	1	--

Certified by Hank Biddle

CTA MEMBER CANADIAN TESTING ASSOCIATION

B-3

CHEMEX LABS LTD.

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 70376
INVOICE NO. 39924
RECEIVED Oct. 8, 1980
ANALYSED Oct. 24, 1980

TO: Western Mines Ltd.,
1103 - 595 Burrard St.,
P.O. Box 49066
Vancouver, B.C.
ATTN: V7X 1C4

HIDDEN PROJECT

SAMPLE NO. :	TRENCH	% WO3
72903		<0.01
72904		0.01
72905	H-1	<0.01
72906		0.01
72907		0.01
72908		<0.01
72909		0.01
72920	D-2	0.16
72928		0.58
72929	H-2	<0.01
72930		0.01
72931		<0.01
72941	D-1	0.01
72502	"	0.01
72512		0.06
72513	H-2	0.01
72514		0.02
72543	B-1	<0.01
72537	F-1	0.01
72540	F-1	<0.01
72541		0.02
72546	B-1	0.01
72563	F-3	0.03
72571		<0.01
72572		<0.01
72573		0.01
72574		0.01
72575		0.01
72576		0.01
72577	E-1	<0.01
72578		<0.01
72579		0.01
72580		<0.01
72581		0.01
72582		0.02
72583		0.03
72584		0.01
72585		<0.01
72586		0.01
72587		0.02

14.5 - 15.3 H-2

Originally on A8010232

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

212 BROOKSBANK AVE.
NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

B-3

CHEMEX LABS LTD.

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ASSAY

CERTIFICATE NO. 70377 & 703
INVOICE NO. 39924
RECEIVED Oct. 8, 198
ANALYSED Oct. 24, 19

TO: Western Mines Ltd.,
1103 - 595 Burrard St.,
P.O. Box 49066
Vancouver, B.C.
ATTN: V7X 1C4

HIDDEN PROJECT

SAMPLE NO. :		% WO3
72590	E-1	0.01
72625	F-2	0.01
72632		0.01
72633		0.04
72634		0.01
72635		0.02
72636	J-1	0.02
72637		0.01
72638		0.03
72639		<0.01
72656	C-1	0.01
72657	C-1	0.03
72661		0.01
72669	C-1	0.02
72679	A-2	0.02
72680		<0.01
72681		0.02
72682	A-1	0.01
72683		0.01
72684		0.01
72685		0.01
72691	A-1	0.02
72695	A-1	0.01
72701	A-3	0.02
72702		0.02
72712		0.03
72713	A-3	0.01
72714		0.01
72715		0.01
72722	A-3	0.01
72729		0.01
72730	I-1	0.01
72734	I-1	<0.01
72736	I-1	0.03
72737		0.03
72743	I-1	0.20
72744		0.04
72749	C-1	0.03

Originally on A8010232

CTA MEMBER CANADIAN TESTING ASSOCIATION

REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

APPENDIX C

SUMMARY OF EXPENDITURES

APPLICABLE FOR ASSESSMENT

Cat work - Cam Deeks & Sons D7 @ $75.00/hr. including haulage	$ 13,790.00
Fuel	2,502.00
Geochem	7,336.00
Assays	631.80
Senior Supervision - Salary	1,750.00
Field Crew - Salary	14,220.00
Communications	177.00
Office Expenses - maps, reports, copying	2,018.00
Shipping and Freight	1,773.00
Board and Lodging (includes expediting service)	3,788.00
Transportation - Fixed Wing - Helicopter - Truck	14,681.00
Camp Supplies	8,188.00
Land Use, Water Use and Environmental Protection	328.00
	$71,182.00

REFERENCES

A. Maucher : "Time and Stratabound Ore Deposits and Evolution of the Earth", Munich University Publications.

J. D. Rowe, C. G. Verley : Preliminary Evolution of the H.L. Claim Group, private report for Swift River Resources, February 1980.

Unknown Authors: Mittersill Tungsten Deposit.

R. Holl, A. Maucher : "Synsedimentary - Diagenetic Ore Fabrics in the Strata-and Time-Bound Scheelite Deposits of Kleinarltal and Felbertal in the Eastern Alps", Mineral Deposits (Berl.) 7, 217-226 (1972).

K. M. Dawson, L. A. Dick : "Regional Metallogeny of the Northern Cordillera: Tungsten and Base Metal-Bearing Skarns in Southeastern Yukon and Southwestern MacKenzie", Current Research, Part A, Geol. Survey of Canada, Paper 78-1A, p.287-292, 1978.

L. A. Dick : "Tungsten and Base Metal Skarns in Northern Cordillera", Current Research, Part A, Geol. Survey of Canada, Paper 79-1A, p. 259-266, 1979.

CERTIFICATION

I, ALFRED W. RANDALL, do hereby certify that:

1. I am a practicing Professional Geological Engineer, resident at 2052 Jones Avenue, North Vancouver, B. C.

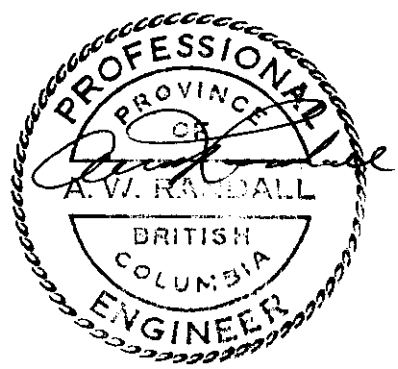
2. I am a graduate of the University of British Columbia with a degree in Geological Engineering (B.A.Sc., 1972).

3. I have practiced my profession continuously for eight years with Westmin Resources Limited (formerly Western Mines Limited).

4. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.

5. I have no interest in Swift River Resources Limited, nor do I expect to acquire any interest.

6. I spent five weeks on the property in July-August 1980, and this report is based on data gathered during that period.



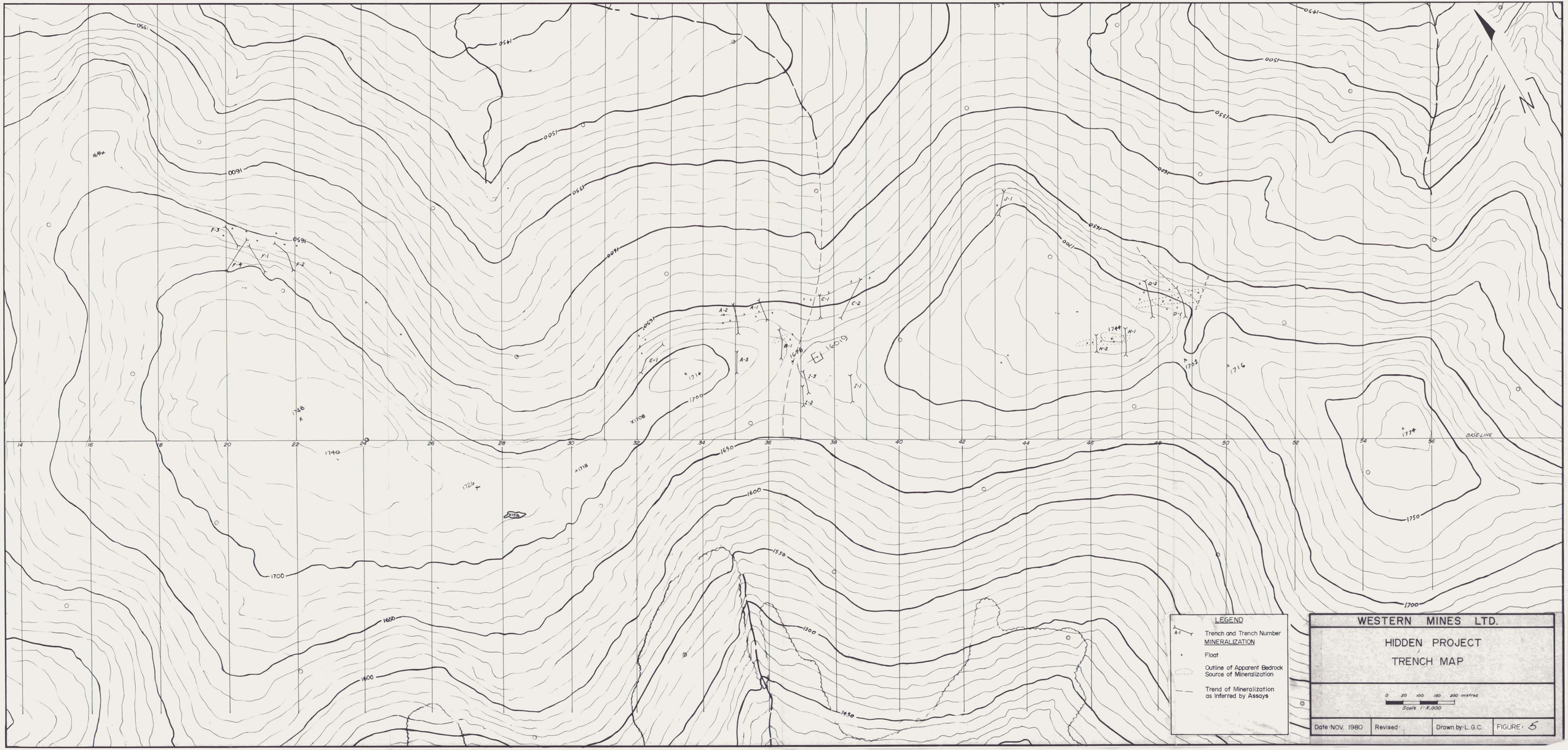
1103-595 Burrard Street,
Vancouver, B. C.

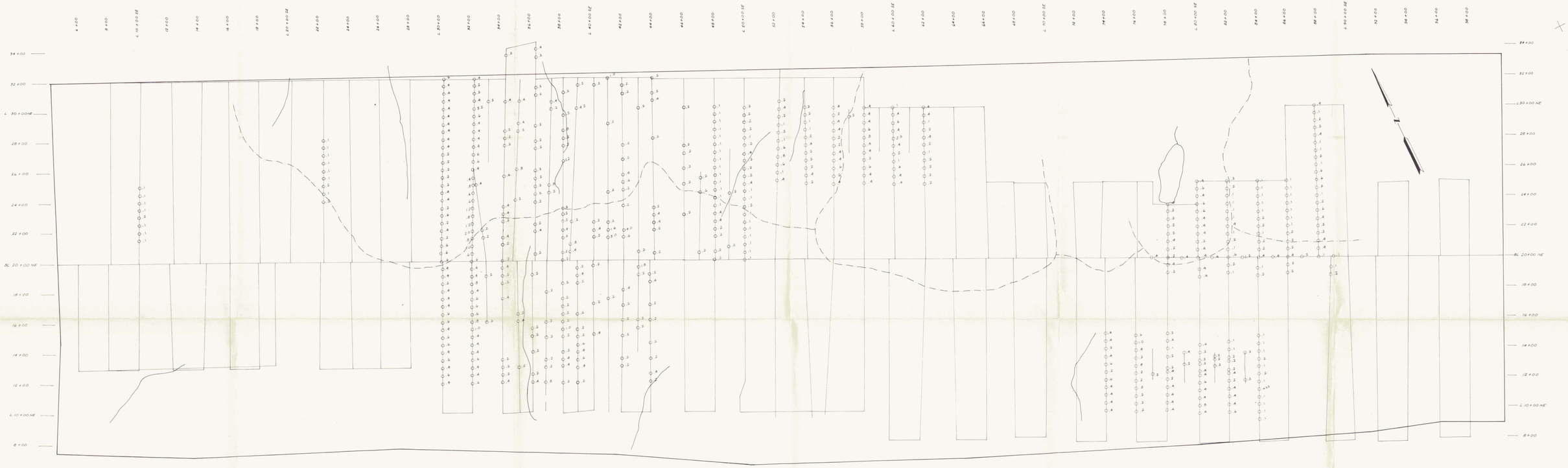
A. W. Randall, P.Eng.

April, 1981

WESTERN MINES LTD.
HIDDEN PROJECT
GEOLOGY
0 50 100 150 200 metres
Scale 1:5,000
Date: NOV. 1980
Revised:
Drawn by: L.G.C.
Map No. 3
LEGEND
1a Grit
1b Schist
2 Phyllite
3 Calc-Silicate & Chert
4 Massive Actinolite
Kgm Cassiar qtz-monzonite
Outcrop
Float close to source
Trench
Bedding
Schistosity
Lineation
Fault
Coarse vein quartz
Tourmaline quartz
ABBREVIATIONS
C-S Calc-Silicate
Act Actinolite
And Andalusite
Bi Biotite
Gar Garnet
N
CAMP
WEST FAULT
EAST FAULT
BASE LINE
banded carbonate chert
Some grit bands
bands of grit
1700
1650
1600
1550
1500
1450


WESTERN MINES LTD.
HIDDEN PROJECT
STRUCTURE MAP
0 50 100 150 200 metres
Scale 1:5,000
Date: NOV. 1980
Revised:
Drawn by: L.G.C.
FIGURE 4
LEGEND
Bedding
Schistosity
Lineation
Jointing
Fault
Syncline
Anticline
Trench
CAMP
WEST FAULT
EAST FAULT
BASE LINE
N


LEGEND
A-1 Trench and Trench Number
MINERALIZATION
Float
Outline of Apparent Bedrock Source of Mineralization
Trend of Mineralization as Inferred by Assays
WESTERN MINES LTD.
HIDDEN PROJECT
TRENCH MAP
0 50 100 150 200 metres
Scale 1:5,000
Date NOV. 1980
Revised
Drawn by: L.G.C.
FIGURE 5
BASE LINE
N
F-1
F-2
F-3
F-4
A-1
A-2
A-3
B-1
C-1
C-2
D-1
D-2
E-1
H-1
H-2
I-1
I-2
I-3
J-1
1700
1650
1600
1550
1500
1450
1750



LEGEND

STREAM

RIDGE ESCARPMENT

04 SOIL SAMPLE LOCATION AND ANTIMONY CONTENT IN P.P.M.

WESTERN MINES LIMITED

HIDDEN PROJECT

ANTIMONY GEOCHEMISTRY

0 100 200 300 400 Metres

Scale 1:10,000

Date: Jan. 1981 | Drawn by L. Connor | FIGURE 6-A

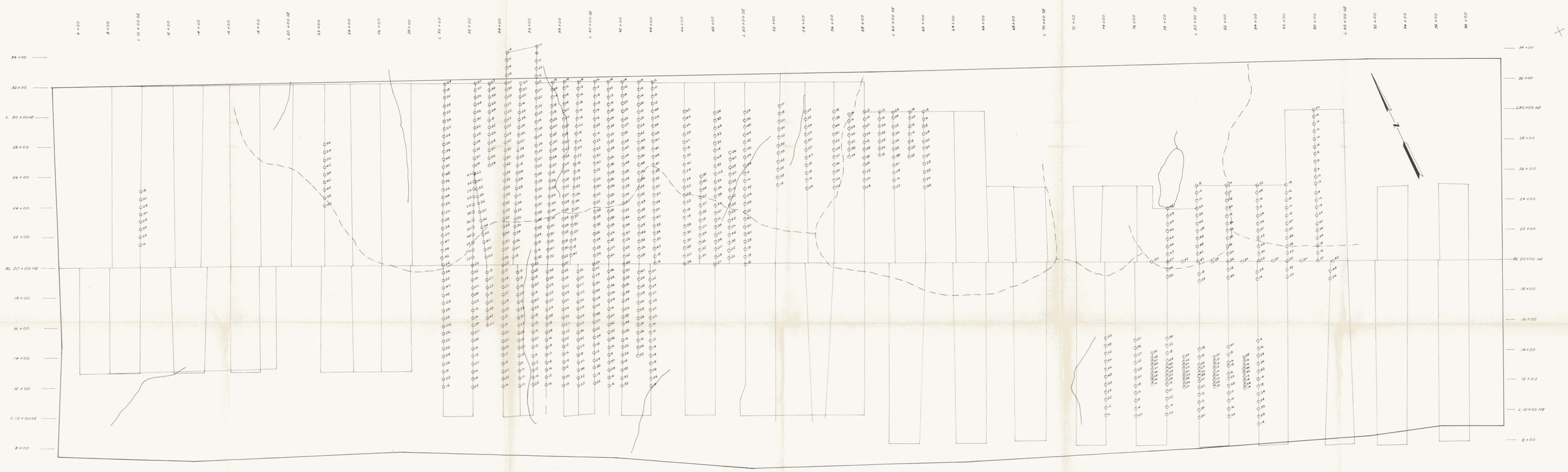
LEGEND

STREAM

RIDGE ESCARPMENT

04 SOIL SAMPLE LOCATION AND SILVER CONTENT IN PPM.

WESTERN MINES LIMITED		
HIDDEN PROJECT SILVER GEOCHEMISTRY		
0 100 200 300 400 Metres Scale 1:10,000		
Date: Jan, 1981	Drawn by: L. Connor	FIGURE: 6-B



LEGEND

STREAM

RIDGE ESCARPMENT

06 SOIL SAMPLE LOCATION AND COPPER CONTENT IN PPM.

WESTERN MINES LIMITED

HIDDEN PROJECT

COPPER GEOCHEMISTRY

0 100 200 300 400 Metres

Scale 1:10,000

Date: Jan. 1981 | Drawn by: L. Connor | FIGURE: 6-C.

LEGEND

STREAM

RIDGE ESCARPMENT

04 SOIL SAMPLE LOCATION AND ZINC CONTENT IN PPM.

WESTERN MINES LIMITED

HIDDEN PROJECT

ZINC GEOCHEMISTRY

0 100 200 300 400 Metres

Scale 1:10,000

Date Jan, 1981 | Drawn by L. Connor | FIGURE: 6-1

LEGEND

STREAM

RIDGE ESCARPMENT

OG SOIL SAMPLE LOCATION AND MOLYBDENUM CONTENT IN P.P.M.

WESTERN MINES LIMITED

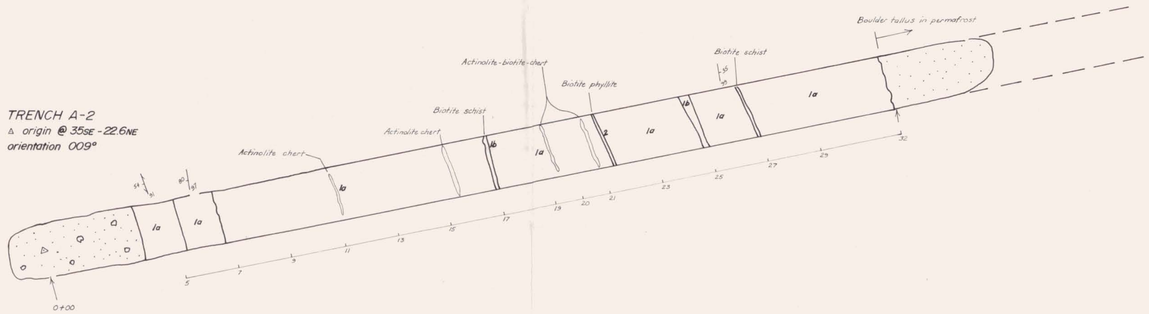
HIDDEN PROJECT

MOLYBDENUM GEOCHEMISTRY

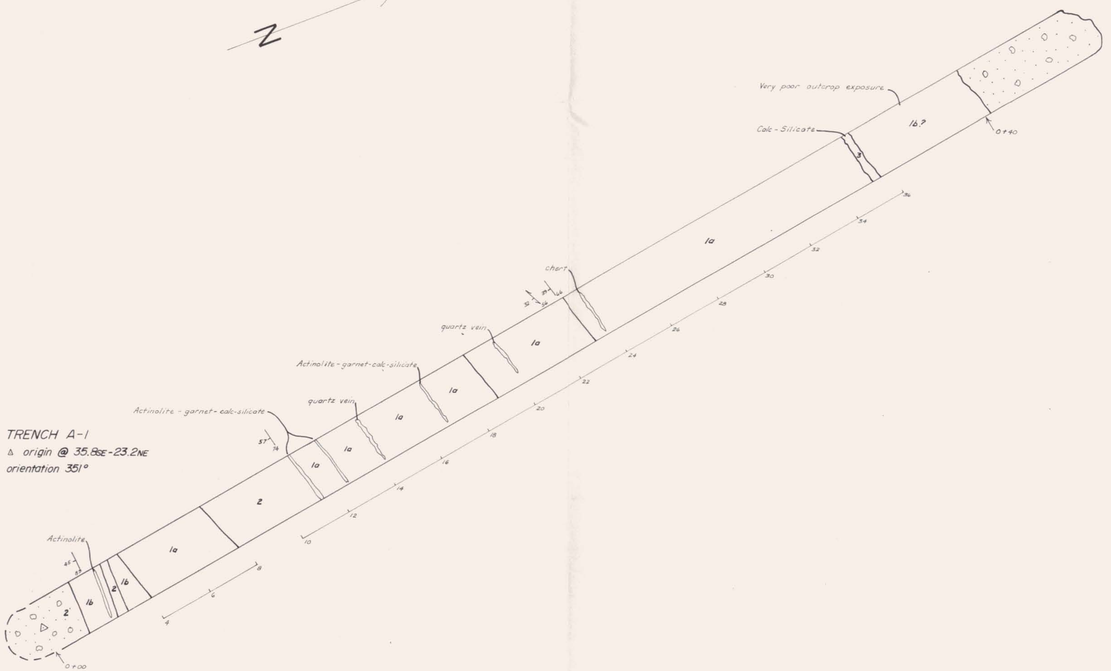
0 100 200 300 400 Metres

Scale 1:10,000

Date: Jan, 1981 | Drawn by: L. Connor | FIGURE-6-E



Trenches are 75 metres apart



LEGEND

Geology

- 1a — Grit
- 1b — Schist
- 2 — Phyllite
- 3 — Calc-Silicate & Cherty
- 4 — Massive Actinolite

Sample Data

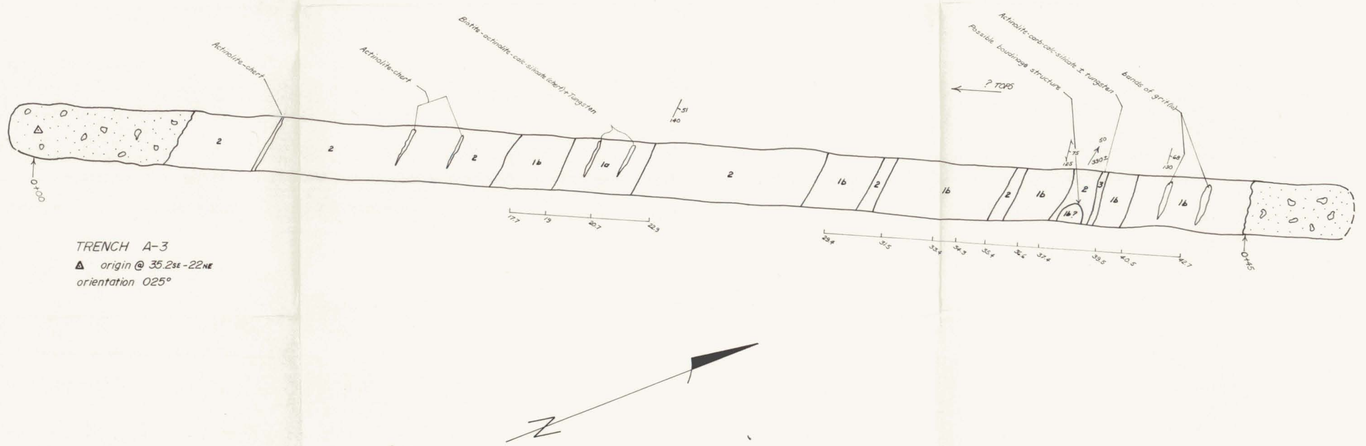
- Sample Interval
- Assay, %, WO_3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval - poor or no outcrop exposed
- Contact between Grits & Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

Trench position not to scale. See Figure 5 for trench location.

WESTERN MINES LTD.			
HIDDEN PROJECT			
A-ZONE			
0 1 2 3 4 metres SCALE 1:100			
Date: Sept. 1980	Revised:	Drawn by: L. G.C.	Map No. 7-A1



TRENCH A-3

△ origin @ 35.2SE-22NE

orientation 025°

LEGEND

Geology

- 4a Grit
- 1b Schist
- 2 Phyllite
- 3 Calc-Silicate
- 4 Massive Actinolite

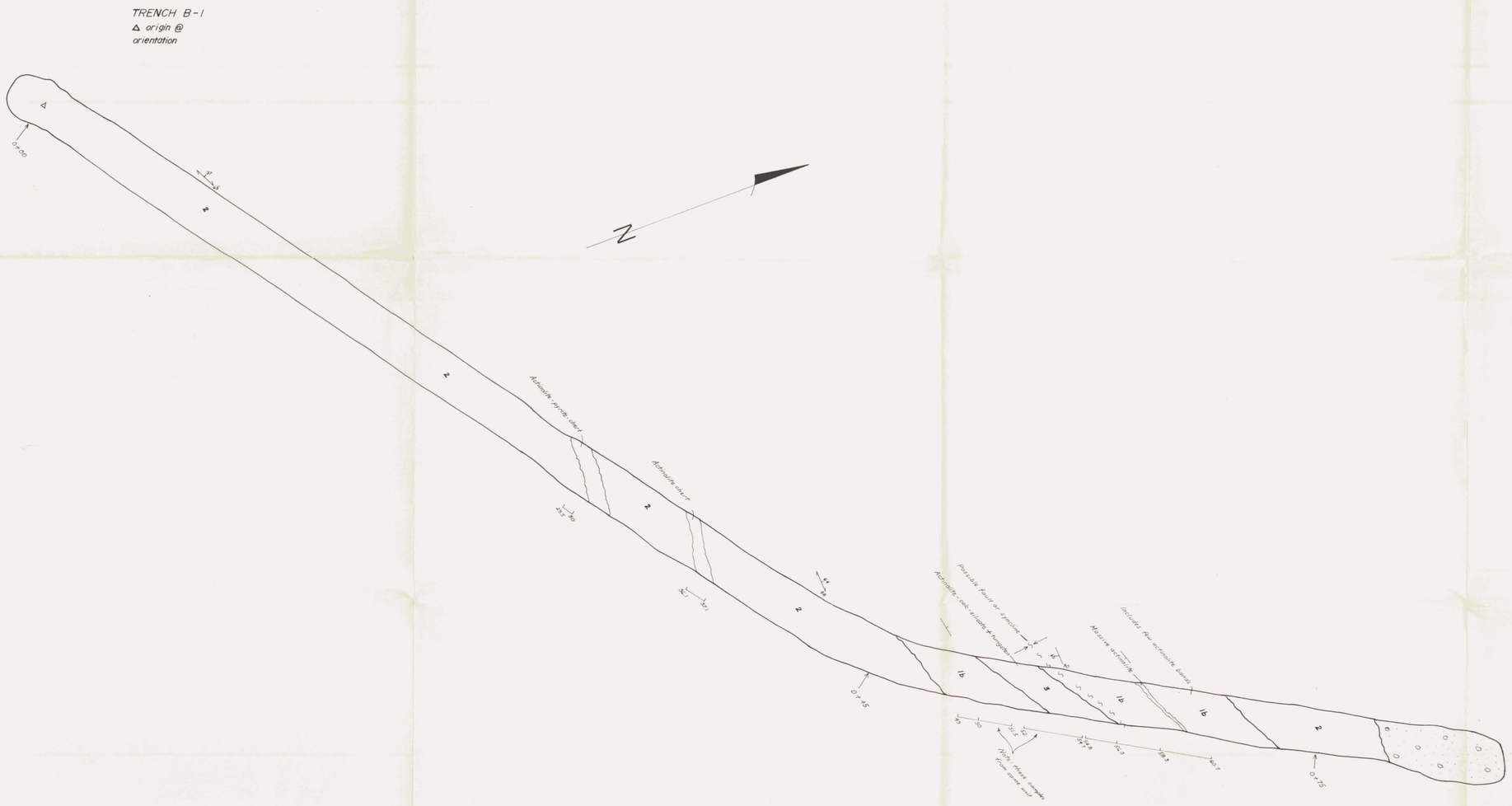
Sample Data

- Sample Interval
- Assay, %, WO_3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval - poor or no outcrop exposed.
- Contact between Grits and Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

WESTERN MINES LTD.			
HIDDEN PROJECT A-ZONE			
Scale 1:100			
Date: Sept. 1980	Revised:	Drawn by: L. Connor	Map No. 7-A2



LEGEND

Geology

- 1a Grit
- 1b Schist
- 2 Phyllite
- 3 Calc-Silicate
- 4 Massive Actinolite

Sample Data

- Sample Interval
- Assay, %, WO_3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval - poor or no outcrop exposed
- Contact between Grits & Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

WESTERN MINES LTD.

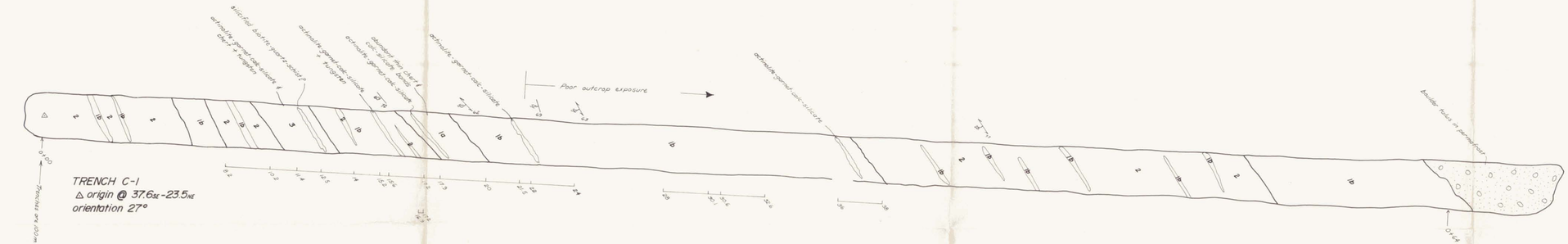
HIDDEN PROJECT

B-ZONE

0 1 2 3 4 metres

SCALE 1:100

Date: Sept. 1980	Revised:	Drawn by: L.G.C.	Map No. 7-B



LEGEND

Geology

- 1a — Grit
- 1b — Schist
- 2 — Phyllite
- 3 — Calc-Silicate & Cherty
- 4 — Massive Actinolite

Sample Data

- Sample Interval
- Assay, % WO_3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval - poor or no outcrop exposed
- Contact between Grits & Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

Trench position not to scale - See figure 5 for trench location.

WESTERN MINES LTD.

HIDDEN PROJECT

C-ZONE

0 1 2 3 4 metres

SCALE 1:100

Date: Sept. 1980	Revised:	Drawn by: L.G.C.	Map No. 7-C

LEGEND

Geology

- 1a — Grit
- 1b — Schist
- 2 — Phyllite
- 3 — Calc-Silicate
- 4 — Massive Actinolite

Sample Data

- Sample Interval
- Assay, %, WO_3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval - poor or no outcrop exposed.
- Contact between Grits & Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

Trench position not to scale. See Figure 5 for trench location

WESTERN MINES LTD.			
HIDDEN PROJECT D-ZONE			
Date: Sept. 1980	Revised:	Drawn by: L.G.C.	Map No. 7-0

LEGEND

Geology

- Grit
- Schist
- Phyllite
- Calc-Silicate
- Massive Actinolite

Sample Data

- Sample Interval
- Assay, %, WO3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval-poor or no outcrop exposed
- Contact between Grits & Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

WESTERN MINES LTD.

HIDDEN PROJECT

E-ZONE

0 1 2 3 4 Metres

SCALE 1 : 100

Date: Sept 1980 | Revised | Drawn by: L. Connor | Map No. 7-E

LEGEND

Geology

- Gr — Grit
- Sh — Schist
- 2 — Phyllite
- 3 — Calc-Silicate
- 4 — Massive Actinolite

Sample Data

- Sample Interval
- Assay %, WO_3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval - poor or no outcrop exposed
- Contact between Grits & Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

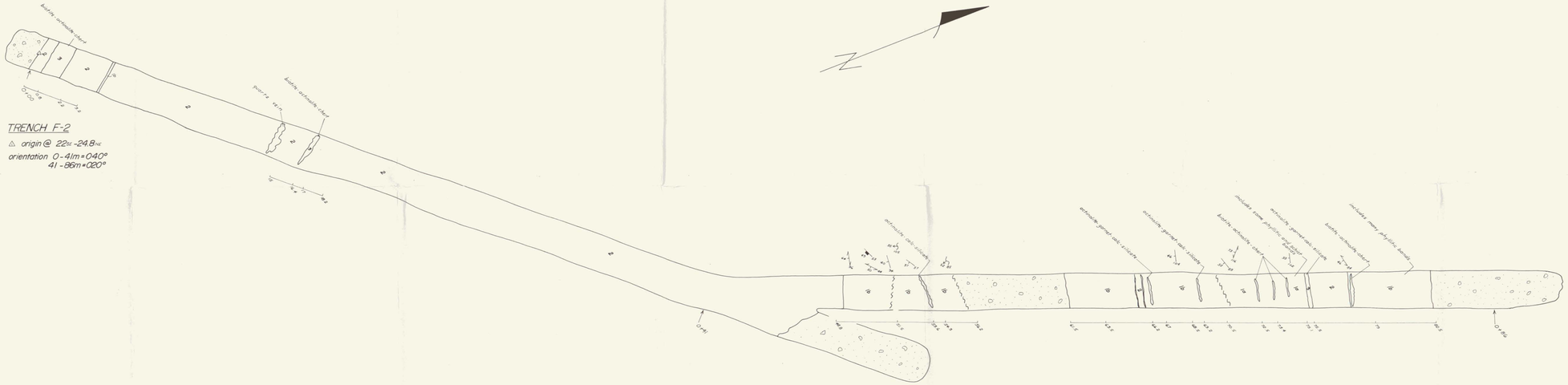
WESTERN MINES LTD.

HIDDEN PROJECT

F-ZONE

0 1 2 3 4 metres
Scale 1:100

Date October 1980	Revised	Drawn by L.G.C.	Map No. 7-F1



LEGEND

Geology

- Gt — Grit
- Sc — Schist
- P — Phyllite
- S — Calc-Silicate & Cherty
- A — Massive Actinolite

Sample Data

- Sample Interval
- Assay, %, WO3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval - poor or no outcrop exposed
- Contact between Grits & Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

WESTERN MINES LTD.

HIDDEN PROJECT

F-ZONE

0 1 2 3 4 metres
Scale 1:100

Date: Nov. 1980	Revised:	Drawn by: L.G.C.	FIGURE: 7-F2

TRENCH F-3

△ origin @ 20.9 SE -25.3 NE

orientation 010°

LEGEND

Geology

1a	Grit
1b	Schist
2	Phyllite
3	Calc-Silicate & Cherty
4	Massive Actinolite

Sample Data

Sample Interval

Assay, %, WO_3 (Geochem, ppm, W) / Sample Length, metres

Symbols

Shale Beds

Covered Interval-poor or no outcrop exposed

Contact between Grits & Phyllites

Bedding

Schistosity

Fault

Joints

Lineation

WESTERN MINES LTD.

HIDDEN PROJECT

F - ZONE

0 1 2 3 4 Metres

Scale 1:100

Date Nov. 1980	Revised	Drawn by L.G.C.	Map No 7-F3

LEGEND

Geology

- 1a — Grit
- 1b — Schist
- 2 — Phyllite
- 3 — Calc-Silicate & Cherty
- 4 — Massive Actinolite

Sample Data

- Sample Interval
- Assay, %, WO_3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval–poor or no outcrop exposed
- Contact between Grits & Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

Trench position not to scale. See figure 5 for location.

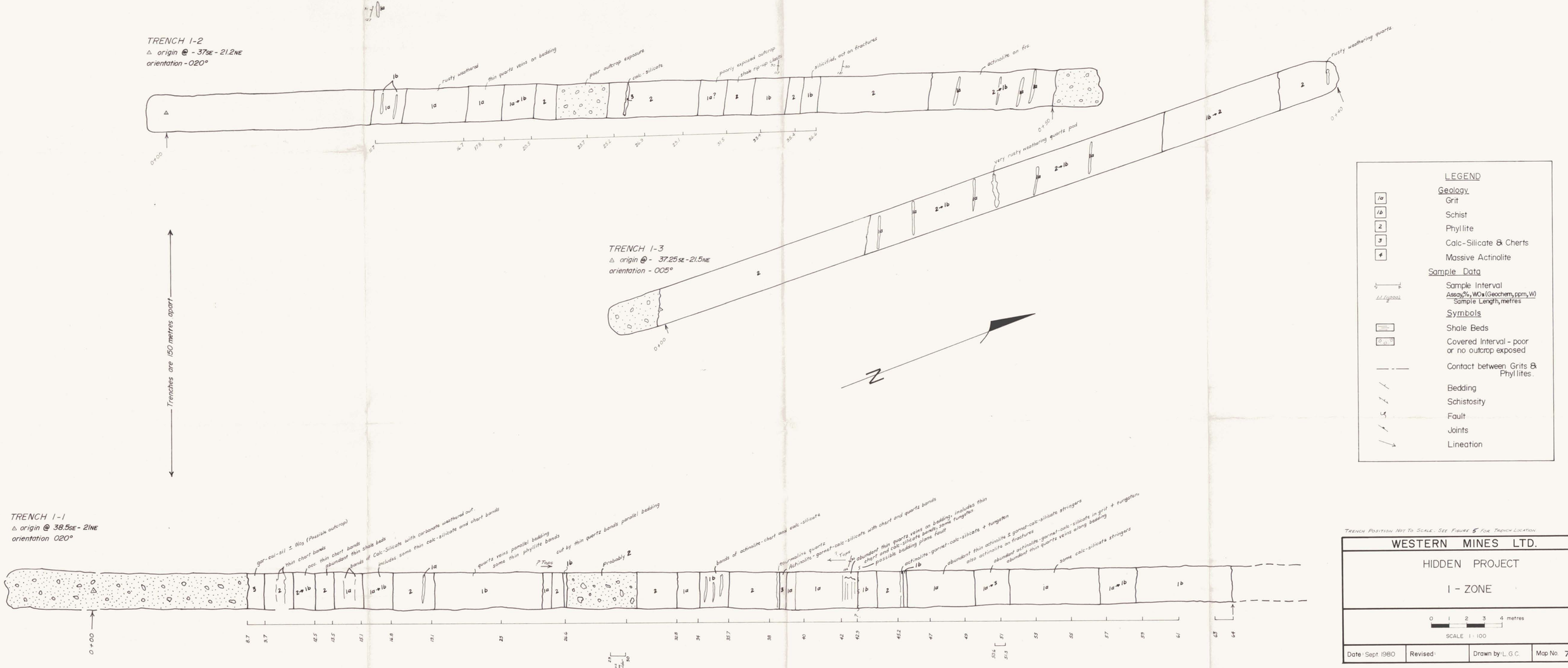
WESTERN MINES LTD.

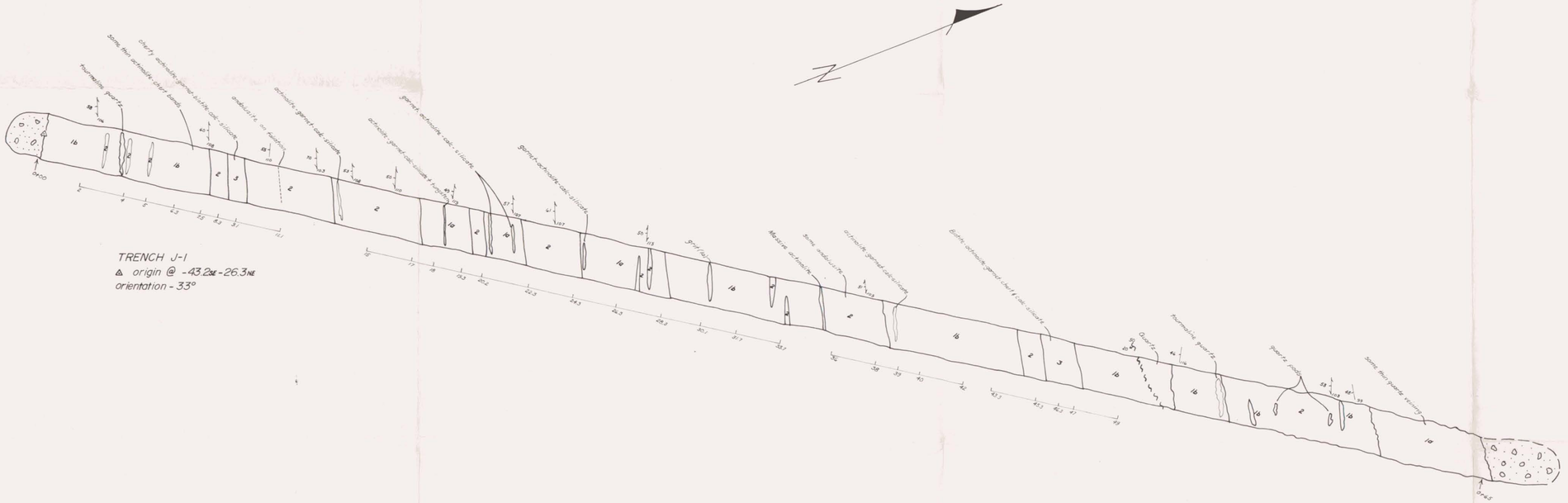
HIDDEN PROJECT

H - ZONE

0 1 2 3 4 metres
Scale 1 : 100

Date Sept. 1980	Revised	Drawn by L.G.C.	Map No. 7-H


TRENCH 1-2
△ origin @ - 37SE - 21.2NE
orientation - 020°
rusty weathered
thin quartz veins on bedding
poor outcrop exposure
calc-silicates
poorly exposed outcrop
shale rip-up clasts
silicified, act on fractures
actinolite on frs
rusty weathering quartz
0+00
TRENCH 1-3
△ origin @ - 37.25SE - 21.5NE
orientation - 005°
very rusty weathering quartz pod
0+50
0+40
Trenches are 150 metres apart
TRENCH 1-1
△ origin @ 38.5SE - 2INE
orientation 020°
gar-cal-sil ± Wo (Possible outcrop)
thin chert bands
occ. thin chert bands
abundant thin shale beds
bands of Calc-Silicate with carbonate weathered out
includes some thin calc-silicate and chert bands
quartz veins parallel bedding
some thin phyllite bands
cut by thin quartz bands parallel bedding
Probably 2
bands of actinolite-chert and calc-silicate
tourmaline quartz
Actinolite - garnet-calc-silicate with chert and quartz bands
abundant thin quartz veins on bedding, includes thin chert and calc-silicate bands, some tungsten
possible bedding plane fault
actinolite-garnet-calc-silicate + tungsten
abundant thin actinolite ± garnet-calc-silicate stringers
also actinolite on fractures
abundant actinolite-garnet-calc-silicate in grit + tungsten
abundant thin quartz veins along bedding
some calc-silicate stringers
0+00
LEGEND
Geology
1a Grit
1b Schist
2 Phyllite
3 Calc-Silicate & Cherts
4 Massive Actinolite
Sample Data
Sample Interval
Assay %, WO3 (Geochem, ppm, W)
Sample Length, metres
Symbols
Shale Beds
Covered Interval - poor or no outcrop exposed
Contact between Grits & Phyllites
Bedding
Schistosity
Fault
Joints
Lineation
TRENCH POSITION NOT TO SCALE - SEE FIGURE 5 FOR TRENCH LOCATION
WESTERN MINES LTD.
HIDDEN PROJECT
I - ZONE
0 1 2 3 4 metres
SCALE 1:100
Date: Sept. 1980
Revised:
Drawn by: L.G.C.
Map No. 7-I



LEGEND

Geology

- lo — Grit
- lb — Schist
- 2 — Phyllite
- 3 — Calc-Silicate & Cherty
- 4 — Massive Actinolite

Sample Data

- Sample Interval
- Assay, % WO_3 (Geochem, ppm, W) / Sample Length, metres

Symbols

- Shale Beds
- Covered Interval-poor or no outcrop exposed
- Contact between Grits & Phyllites
- Bedding
- Schistosity
- Fault
- Joints
- Lineation

WESTERN MINES LTD.

HIDDEN PROJECT

J-ZONE

0 1 2 3 4 metres
SCALE 1:100

Date: Sept. 1980	Revised:	Drawn by: L. Connor	Map No. 7-J