

GEOCHEMICAL REPORT

on

VICTORY TUNGSTEN PROPERTY

SALMO AREA

NELSON MINING DIVISION

49°07'N 117°10'W 82F3

by

J.W. MacLeod, P. Eng.

Vancouver, B.C.

October 26, 1978

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ILLUSTRATIONS

	<u>SCALE</u>
LOCATION MAP	1" = 30 mi.
PLAN OF VICTORY GROUP	1: 50000
SAMPLE NUMBERS	1" = 200'
W IN SOILS	1" = 200'
ZINC IN SOILS	1" = 200'
LEAD IN SOILS	1" = 200'
MO IN SOILS	1" = 200'

REFERENCES

- Bull. No. 41 - B.C. Dept. of Mines
- Stratigraphy & Structure
Salmo Lead-Zinc Area
- By J.T. Fyles and C.G. Hewlett
- Assessment Report #14
- Victory Group
- By J.A. Mackenzie
- Assessment Report #63
- Deer Group
- By W.T. Irvine
- Assessment Report #82
- Amco Group
- By W.W. Moorhouse
- Assessment Report #83
- Amco Claims
- By W.W. Moorhouse
- Assessment Report - 1977
- Victory Group
- By J.W. MacLeod

INTRODUCTION

The following report has been prepared to fulfill the requirements of the regulations governing the filing of geochemical surveys for assessment credit.

The report is based on a program of soil sampling carried out to expand the grid covered by last years work, in directions where positive indications were indicated by that program.

SUMMARY & CONCLUSIONS

Between July 1 and September 30 N. Wychopen and an assistant collected a total of 1032 soil samples on grids covering the Udiville lead-zinc occurrence and over an area covering the sediment-granite contact to the south of the Victory tungsten showing.

The grid in the Udiville area outlines anomalous lead zinc values associated with a limestone horizon, some of which are not explained by old workings and therefore require further investigation.

Some very high tungsten values were obtained about 1500 feet south of previously known mineralization and although the tenor of values is suspect a few check samples returned high values requiring more detailed work. At about 800 N on the grid small outcrops of skarn and limestone were found with a few high tungstens suggesting a prospect may exist similar to the original Victory showing.

On line ON high moly readings were obtained.

A program involving bulldozer road access to the more southerly indications and use of the bulldozer to prospect the anomalous conditions where possible, followed by diamond drilling is justified. Cost of this program is estimated to be \$75,000.00.

PROPERTY

The North Grid Group consists of the following units:

<u>CLAIM NAME</u>	<u>RECORD NO.</u>	<u>LOT NO.</u>	<u>ANN. DATE</u>
Victory	354	15842	Nov. 22
Victory Fr.)		15843	"
Univille No. 1)	355	15853	"
Last Chance	356	15844	"
Lucky Jim Fr.	357	15845	"
Lucky Jim	358	15846	"
Ed. No. 1 Fr.	359	15847	"
Ed No. 2	360	15848	"
RMM No. 4	361	15849	"
Ed No. 2 Fr.	362	15850	"
Udiville	320	15851	Oct. 1
Udiville No. 2	363	15852	Nov. 22
RMM No. 2	364	15854	"
RMM No. 3	365	15855	"
Big Duluth	425	5626	March 1
Alice	426	5627	"
Hattie B.	427	5628	"
Amco No. 8	428	15402	"
Amco No. 10	429	15404	"
Amco No. 13	430	15640	"
Amco No. 16 Fr.	431	15644	"
Amco No. 23 Fr.	432	15646	"
Amco 1	524	15395	Sept. 1
Amco 2 Fr.	525	15396	"
Amco 3 Fr.	526	15397	"
Amco 4	527	15398	"
Amco 5	528	15399	"
Amco 6	530	15400	"
WOW	536	10 units	Oct. 18

LOCATION & ACCESS

The Victory property is located about 7 miles southeast of Salmo between Sheep and Lost Creeks. Placer's former Jersey lead-zinc and Emerald-Dodger tungsten mines are located 2 miles to the west and Cominco's recently shut down H.B. lead-zinc mine is located 2 miles to the northwest.

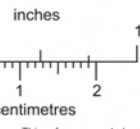
The north end of the property is accessible by 4 miles of gravel road east from highway 3. The diamond drill access roads on the property can be used at low water, about August 1, when Sheep Creek can be forded with four wheel drive.

HISTORY

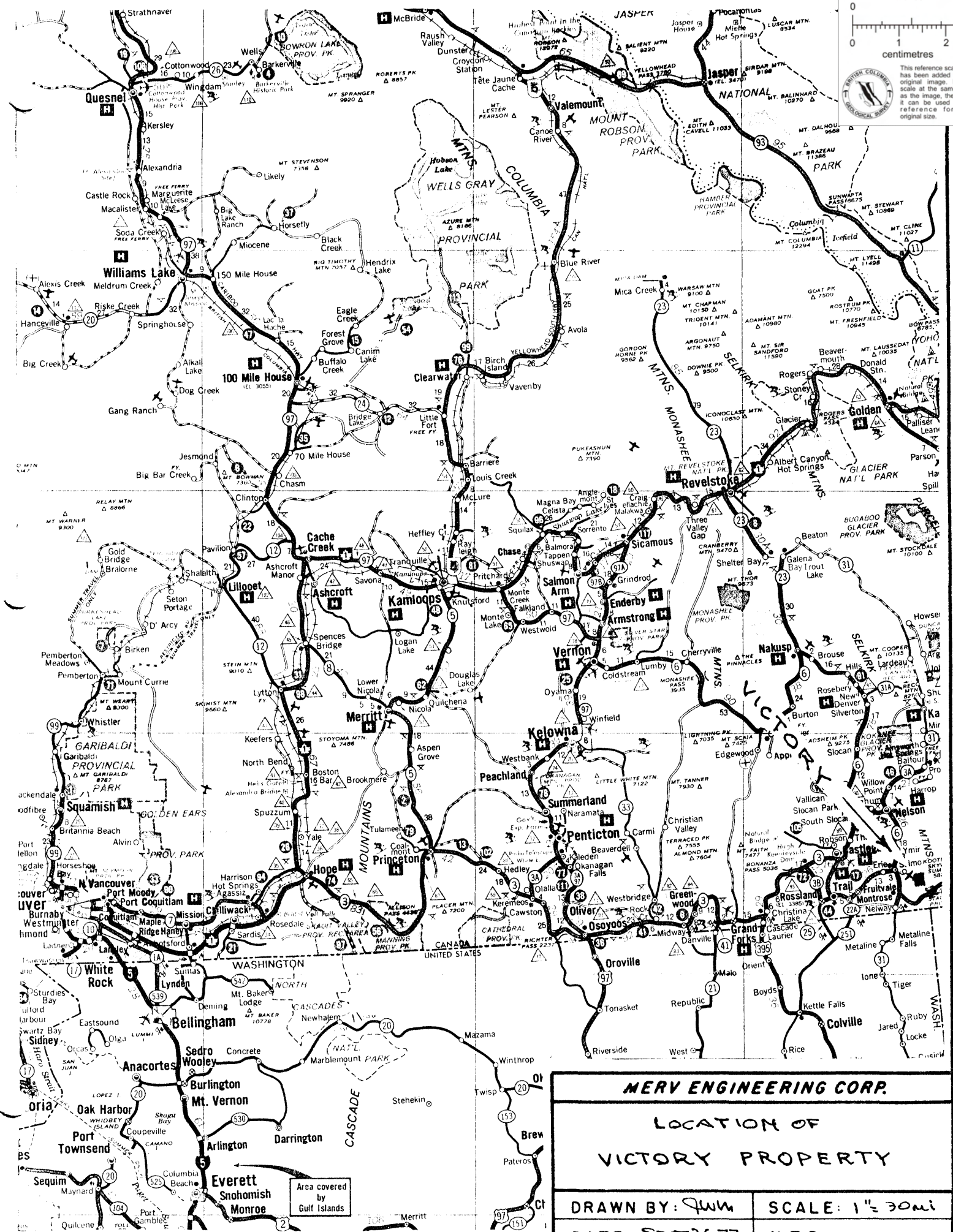
The earliest recorded references to the present Victory property is in the 1928 Minister of Mines where the lead-zinc on the Udiville claim is described. The Crown Grants covering this lead-zinc occurrence, as well as the Sapples molybdenite-tungsten showings were staked in 1946. In 1947 Placer optioned the ground and drilled 5 holes on the molybdenite showing.

Victory Tungsten Mines Ltd. acquired the ground and in 1952-1953 drilled 73 holes totalling about 17,000 feet. This work outlined about 90,000 tons of 0.5% WO_3 .

The present property was accumulated in 1976 and 77 by application for reverted Crown Grants and by staking. Mentor Exploration Ltd. financed an exploration program in 1977 and this report is a result of the followup of that program.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.



MERY ENGINEERING CORP.	
LOCATION OF VICTORY PROPERTY	
DRAWN BY: JWM	SCALE: 1" = 30mi
DATE: SEP. 26, 77	N.T.S. : 82F3

GENERAL

The property covers an area of steep slopes with elevations ranging from 2500 to tree level at 6000 feet. Slopes to Bennet Creek are fairly uniform at 15 to 20 degrees.

Tamarack is the principal timber with huckleberry underbrush.

Outcrop is sparse but overburden is generally light talus with poor soil development.

GEOLOGY

The regional geology of this area is provided by B.C. Dept. of Mines Bulletin No. 41.

The geologic section for the area is as follows:

Ordovician	Active Formation	-	Argillite & narrow limestone
Cambrian	Upper Laib	-	Phyllite
"	Emerald	-	Argillite
"	Reeves	-	Limestone
"	Truman	-	Phyllite, argillite

These units are all intruded by stocks of the Nelson Botholith of granitic composition.

The Reeves Limestone and the limey horizons in the Active Formation are in places altered to garnet-epidote skarns which carry the tungsten and molybdenite minerals. The Reeves member also hosts the lead-zinc deposits of the Kootenay Arc.

The Victory property is underlain by the Active Formation and Nelson granite. The sediments are much folded and foliated.

MINERAL OCCURRENCES

TUNGSTEN - The principal mineral occurrence on the property is referred to as the Victory tungsten deposit which has been outlined by 58 drill holes, with an estimated 90,000 tons of material carrying approximately 0.5% WO_3 .

MOLYBDENUM - Just north of the tungsten occurrence, molybdenite occurs in the skarn at the limestone-granite contact and in the granite. This showing has been tested by 10 holes, giving erratic results.

LEAD-ZINC - The original mineral discovery on the property was the lead-zinc on the Udiville claim. Here an adit has been driven on sparse lead-zinc mineralization in dolomitized limestone. Two holes were drilled in 1957 down dip on the limestone bed here, apparently with negative results.

GEOCHEMICAL SURVEY

To follow up the indications obtained by the 1977 field work the grid was extended to the east up the hill in the vicinity of the Udiville lead-zinc showing and to the south to cover the sedimentary-granite contact in this direction.

Samples were taken from the B horizon at 50 foot intervals on lines 100 feet apart. 392 samples were collected in the northeastern section where lead and zinc are of principal interest. 640 samples were collected in the south area. In addition those samples collected last year over the apparent eastern granite-sediment contact were analysed for moly and tungsten.

To present the complete picture analyses from both last years program and the 1978 sampling are plotted on the accompanying maps.

MOLYBDENUM (Fig. 7)

Although the results of soils for Moly over known mineralization were not considered diagnostic from the 1977 work those in the vicinity of intrusive collected in 1978 were still run for moly with some interesting results on line 0. The readings at 10400E on ON of 33 and 18 p.p.m. require further investigation.

ZINC (Fig. 5)

The argillite in this area has a very high zinc content (500 to 800p.p.m.) which can mask significant values over limestone where economic mineral may be anticipated. In the vicinity of the Udiville occurrences the anomalous zinc values (allowing for down hill dispersion) correlate well with the favourable limestone horizon. The upper band of highs from 12600 to 12800 E suggest the presence of a covered mineralized horizon which should be prospected in detail.

The highs on 400N and 600N could be associated with zinc mineralization in limestone or with tungsten in skarn.

LEAD - (Fig. 6)

Lead analyses were only run in the vicinity of the Udiville lead-zinc occurrence and the results are similar to those for zinc with a well defined anomaly along the inferred position of the limestone horizon.

TUNGSTEN

The results of tungsten analyses are confused and at this point the soil survey for this metal must be considered unreliable. Last years results showed spot highs in the vicinity of known tungsten mineralization but no distinctive anomaly. The results from the 1978 samples vary greatly from batch to batch analysed, making the analytical technique suspect, notably samples 1 to 95, which are considerably higher than following batches, although check analyses still show high values. The resampling on line 3000N gave a reading at 10400E of 300 p.p.m. compared to 400 for the original sample. There is skarn float in the vicinity of these highs but little tungsten was noted where as

TUNGSTEN CONT'D.

at 10800E on line 800N there are no significant tungsten values in the soil but float here assayed 0.40%WO₃.

The mineralized float, limestone and skarn in the vicinity of granite make the area between 400N and 1000N a prime target. The questionable highs between 2400N and 3800N have some confirmation in the high silts from the creek draining this area, therefore detailed investigation is required here also.

RECOMMENDATIONS

The lead-zinc values in the soil samples show an anomalous high metal content for the limestone horizon on the Udiville and Alice claims, requiring this horizon to be further investigated for economic mineralization. This could occur along a fold axis as at the Reeves and H.B. Mines, therefore the structure in this area should be studied in detail.

The tungsten highs in the soils and the favourable geological indications located between 0N and 1000N require this area to be opened up with a cat and followed up by diamond drilling. Approximately 1.5 miles of road will be needed to make this area accessible which would also serve to test the area around 3000N.

The magnetic anomaly located by the 1977 survey should be drilled.

COST ESTIMATE

Road Access	-	\$10,000
Trenching	-	5,000
Diamond Drill	- 3000' @ \$20	- 60,000
		<hr/>
		\$75,000

Respectfully submitted,

J.W. MacLeod, P. Eng.

Vancouver, B.C.

Oct. 26, 1978

APPENDIX I
ANALYTICAL PROCEDURES

APPENDIX II
ANALYSES

APPENDIX III
EXPENDITURE

DISTRIBUTION OF INVOICES

INVOICE #353

	<u>MOTEL</u>	<u>EXPENSE</u>	<u>ANALYSES</u>	<u>TRANS.</u>	<u>SALARIES</u>	<u>CAT</u>	<u>DRAFTING & TELEPHONE</u>
Victory	458.15	298.52	2172.86	623.09	2665.55	635.00	13.97
Black Rock	166.63	108.57	405.30	204.82	969.45	-	-

INVOICE #360

Victory	291.05	181.38	2143.10	500.84	1759.92	-	148.13
Black Rock	105.85	65.96	302.40	182.16	640.08	-	-

INVOICE #351

Victory	170.10	204.73	48.95	99.35	1185.00	-	-
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INVOICE #365

Victory	-	-	184.95	53.43	600.00	-	451.43
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TOTALS

Victory	919.30 [✓]	684.63 [✓]	4549.86 [✓]	1276.71 [✓]	6210.47 [✓]	635.00 ^x	583.53 [✓] 1485.50
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	<u>LIVING EX.</u>	<u>TRANSPORT</u>	<u>SALARIES</u>	<u>CAT</u>	<u>ANALYSES</u>	<u>DRAFTING</u>	<u>TOTAL</u>
Road	80.00	60.00	230.00	635.00 [✓]	-	-	1005.00
Lines	507.98	405.57	1993.49	-	-	-	2907.04
Samples	1015.95	811.14	3986.98	-	4549.86 [✓]	583.53 [✓]	10947.43

\$14859.47

Cost of lines - 15.24 km @ \$190 per km.

Cost of samples - 1032 samples - collection - 5.63 per sample
 - analysis - 4.40 per sample
 - total -13.42 per sample

Tracy - - 22 days
 Black Rock - 9 " 26667

MERV ENGINEERING CORP.
 333 - 885 DUNSMUIR ST.,
 VANCOUVER, B.C. V6C 1N5

PHONE: (604) 689-8325

Sept. 8, 1978.

Invoice # 353

Mentor Exploration and Development Ltd.,
 c/o W. A. Hubacheck,
 Ste. 1411,
 44 King St. West,
 Toronto, Ontario.

Expenses to Sept. 8th, 1978.

Selkirk Motel - July 30 - Aug. 12th	\$ 283.50
Selkirk Motel - Aug. 13 - Aug. 30th	341.28 ✓
Deakin Equipment	+ 37.08
J. Klevance Cat Rental	+ 635.00
Vangeochem Invoice # 2116	+ 405.30 - BLK Rock
Vangeochem Invoice # 2087	+ 159.60
Vangeochem Invoice # 2132	+ 460.75
Vangeochem Invoice # 2165	+ 960.30
Vangeochem Invoice # 2080	+ 592.21
Budget Rent A Truck Invoice # 47259 1/2 \$ 587.14	+ 293.57
Budget Rent A Truck Invoice # 46263 1/2 \$ 650.00	+ 325.00
H. Stavast - Truck Rental	60.00 ✓
Gas - Shell and Esse	+ 149.34
Telephone	13.97
N. Wychopen Exp. Acct. 29/31 X 247.86	+ 231.86
J. W. MacLeod Exp. Acct.	+ 138.15

Salary Disbursement:

J. W. MacLeod ... 2 days @ \$ 150.00 per day		300.00
Robert Stavast 29 days @ 32.00 per day	\$ 928.00	
plus 25% overhead	<u>232.00</u>	1,160.00
N. Wychopen ... 29 days @ \$ 60.00 per day	1,740.00	
plus 25% overhead	<u>435.00</u>	2,175.00

TOTAL \$ 8,721.91

Respectfully submitted,

J. W. MacLeod, P. Eng.

*Page 38
 Posted
 AJ*

*Yes + Salaries -
 Rec Eng.
 3635.00
 5086.91
 8721.91*

VICTORY 22 days
Black Rock 3

MERV ENGINEERING CORP.
333 - 885 DUNSMUIR ST.,
VANCOUVER, B.C. V6C 1N5

PHONE: (604) 689-8325

Oct. 8, 1978.

Invoice # 360

Mentor Exploration and Development Ltd.,
c/o W. A. Hubacheck,
Ste. 1411,
44 King St. West.,
Toronto, Ont.

Expenses to Oct. 7, 1978.

Selkirk Motel	In. # 051928	.....	\$	264.60	
Selkirk Motel	In. # 051929	.....		132.30	
Deakin Equipment	In. # 28170	.....		36.98	
Vangeochem Lab.	In. # 2180	.....		228.90	BLACK ROCK
Vangeochem Lab.	In. # 2206	.....		1,647.10	
Vangeochem Lab.	In. # 22132	.....		73.50	BLACK ROCK
Vangeochem Lab.	In. # 2032	.....		496.00	
Altair Drafting	In. # 028130	.....		118.13	
Truck Rental.....	\$ 635.00 plus \$ 48.00 milage	.....		683.00	
Nick Wychopen Expense Account		.....		210.36	

Salary Disbursement:

Mr. Nick Wychopen	1 to 15th Sept.	\$900.00			
	16th to 30th Sept.	900.00	.....	\$	1,800.00
	Plus 25% overhead		.....		450.00
Mr. J. W. MacLeod	one day		.....		150.00
					<u>150.00</u>
				Total	\$ <u>6,290.87</u>

Respectfully submitted,

J. W. MacLeod, P. Eng.

*Noted
Sudger*

Page 29

*2400.00 Fees
Rec Exp 3890.87*

MERV ENGINEERING CORP.
 335 - 885 DUNSMUIR ST.
 VANCOUVER, B.C. V6C 1N5

PHONE: 604 689-8325

August 17, 1978

Invoice # 351

Mentor Exploration & Development Ltd.,
 c/o W.A. Hubacheck,
 Ste. 1411,
 44 King Street West,
 Toronto, Ontario.

Expenses to July 31, 1978

Selkirk Motel	.....	\$ 170.10
J.W. MacLeod Expense Acct.	..... <i>Not UIC on B.R. Account</i>	607.51
N. Wychoopen Expense Acct.	.....	114.07
Deakin Eqpt. Inv. # 27525	.....	60.45
Vangeochem Lab Inv. # 2051	.....	48.95
Deakin Eqpt. Inv. # 27271	.....	30.21
Maple Leaf Travel In. # 6447	.....	99.35

Salary Disbursement:

J.W. MacLeod 1 day @ \$150.00	150.00	150.00
N. Wychoopen 9 days @ \$ 60.00/day	540.00	
Plus 25% overhead(UIC, CPP, WCB, HOL.P)	<u>135.00</u>	675.00
Grant Smith 9 days @ \$ 32.00/day	288.00	
Plus 25% overhead(UIC, CPP, WCB, HOL.P)	<u>72.99</u>	<u>360.00</u>
		<u><u>\$2,315.64</u></u>

Respectfully submitted,

J.W. MacLeod, P.Eng.

Page 38
Post
BD

Yes + Salaries -
Per Eng.
 1185.00
 1130.64

 2315.64

MERV ENGINEERING CORP.
333 - 885 DUNSMUIR ST.,
VANCOUVER, B.C. V6C 1N5

PHONE: (604) 689-8325

Nov. 1, 1978.

Invoice # 365

Mentor Exploration and Development Ltd.,
c/o W. A. Hubacheck,
Ste. 1411,
44 King St. West.,
Toronto, Ontario.

Expenses:

Altair Drafting	47.25
Altair Drafting	14.18
Altair Drafting	390.00
Vangeochem Lab.	184.95
Gas	53.43
J. W. MacLeod 4 days @ \$150.00 per day	600.00
	<hr/>
Total	\$ 1,289.81
	<hr/> <hr/>

Respectfully submitted,

J. W. MacLeod, P. Eng.

APPENDIX IV
CERTIFICATE

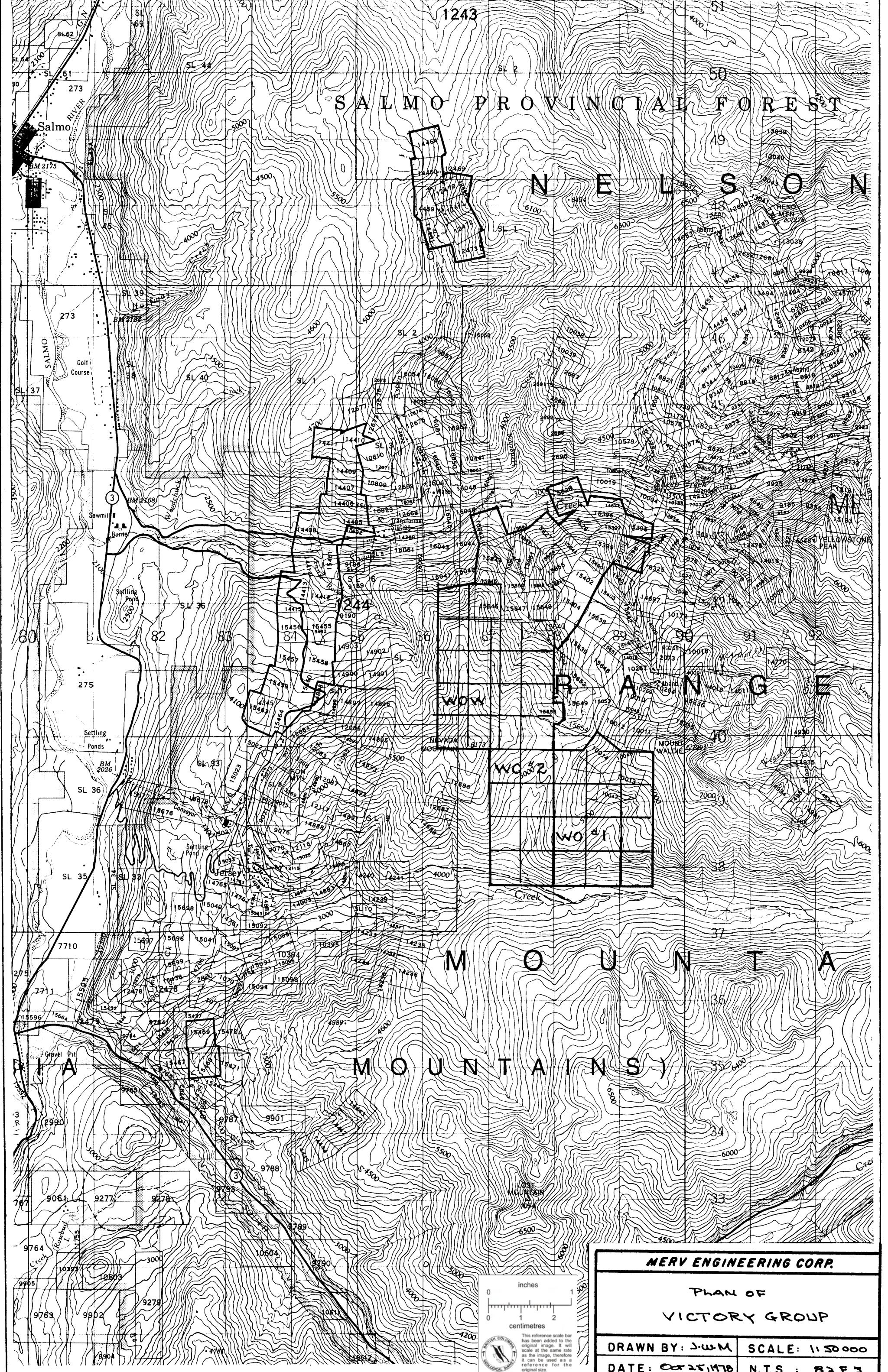
CERTIFICATE

I, James W. MacLeod, of 1220 Arbutus Street, in the city of Vancouver, in the Province of British Columbia,
DO HEREBY CERTIFY:

1. That I am a Consulting Engineer, with a business address at #333-885 Dunsmuir Street, in the City of Vancouver, in the Province of British Columbia.
2. That I am a graduate of the University of Alberta with the degree of B.Sc. in Mining Engineering.
3. That I have actively practiced my profession in mineral exploration since graduation in 1946.
4. That I am a registered Professional Engineer in the Province of British Columbia.
5. That this report is based on a review of all data listed in References, various engineers reports, Victory Tungsten Mines maps and drill hole sections, as well as supervising the field program.

J.W. MacLeod, B.Sc., P. Eng.

Dated at the City of Vancouver,
Province of British Columbia
this 27th day of October 1978.



SALMO PROVINCIAL FOREST

N E L S O N

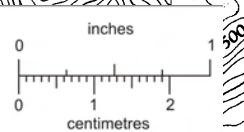
W O W

W O W

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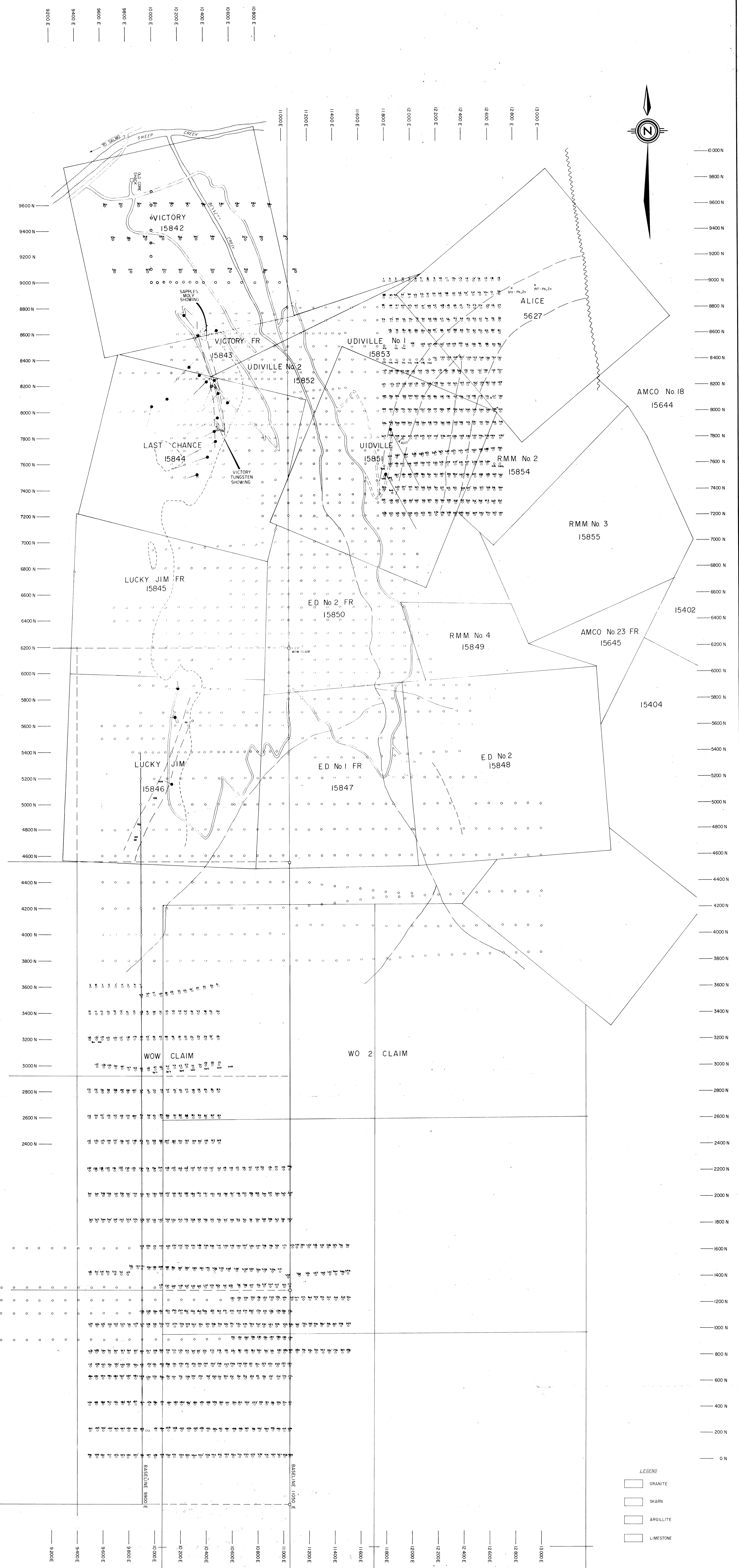
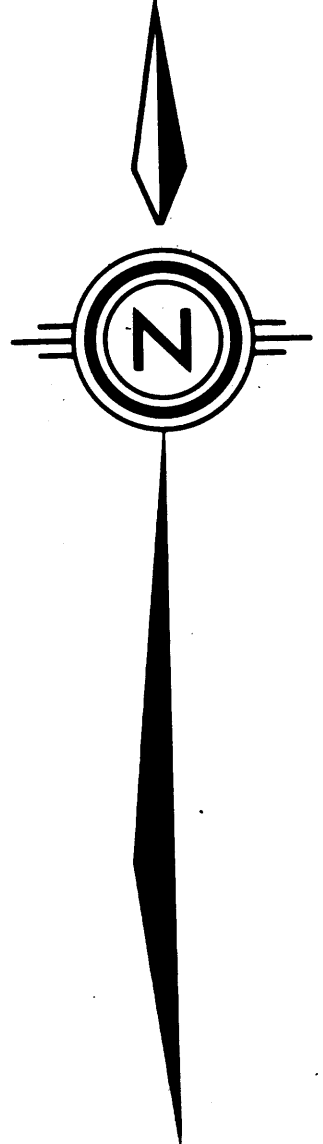
M O U N T A I N S

M O U N T A I N S

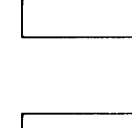
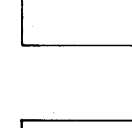

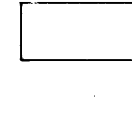


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MERY ENGINEERING CORP.	
PLAN OF VICTORY GROUP	
DRAWN BY: J.W.M.	SCALE: 1:50000
DATE: Oct 25, 1978	N.T.S.: B2F3

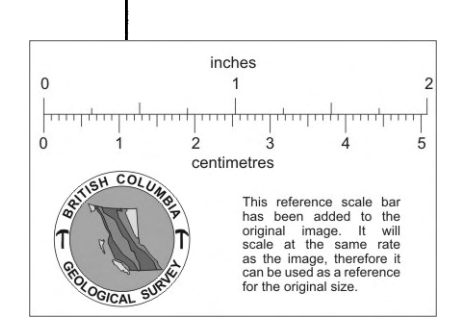


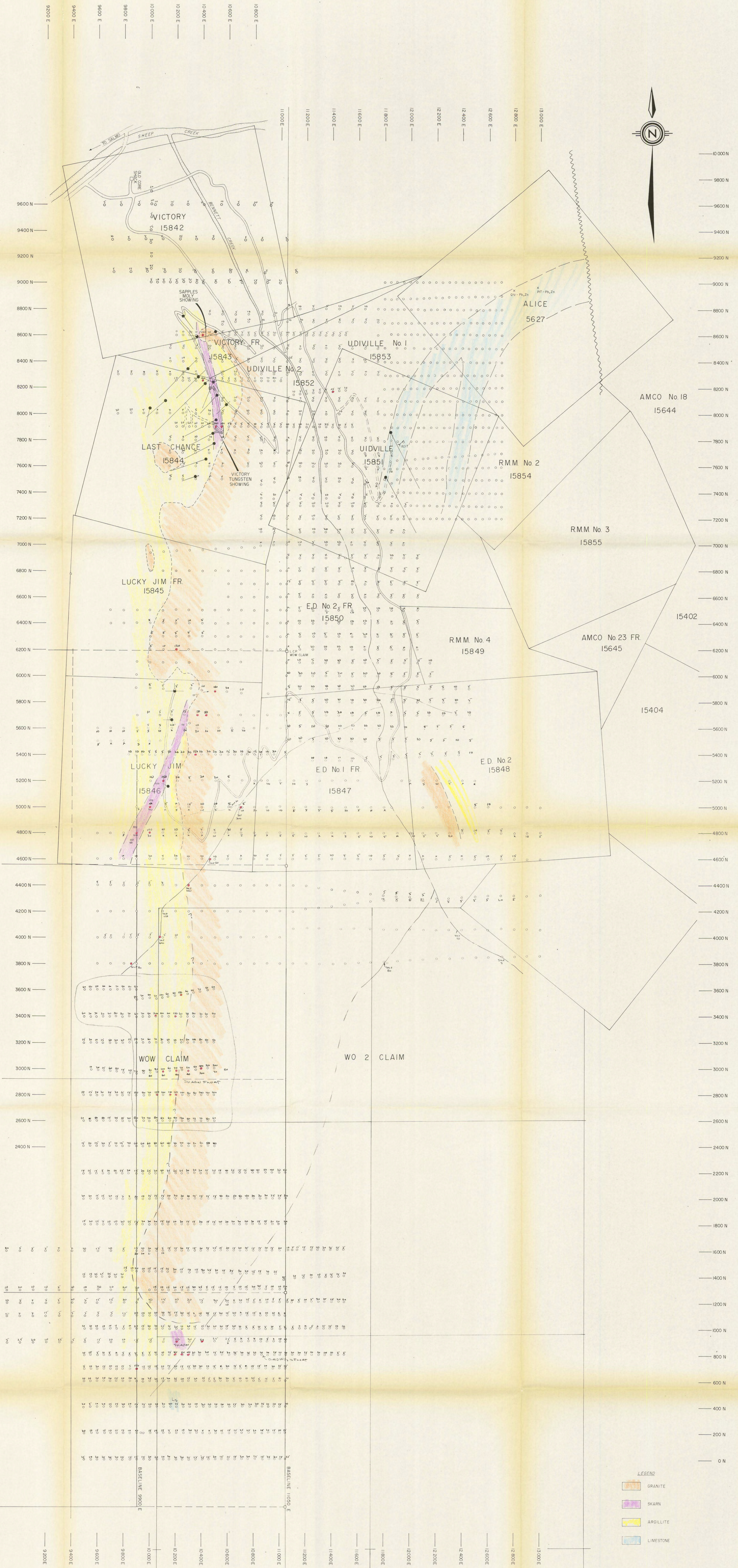
LEGEND

-  GRANITE
-  SKARN
-  ARGILLITE
-  LIMESTONE

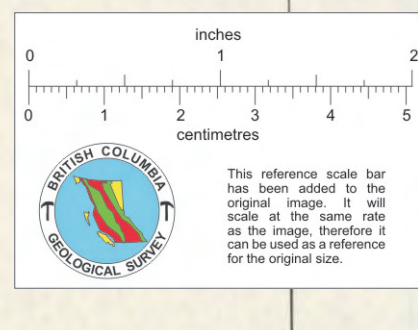
MERV ENGINEERING CORP
VICTORY GROUP
SAMPLE NUMBERS

DRAWN BY:	SCALE: 1" = 200'
DATE: SEPT. 1978	FIG.

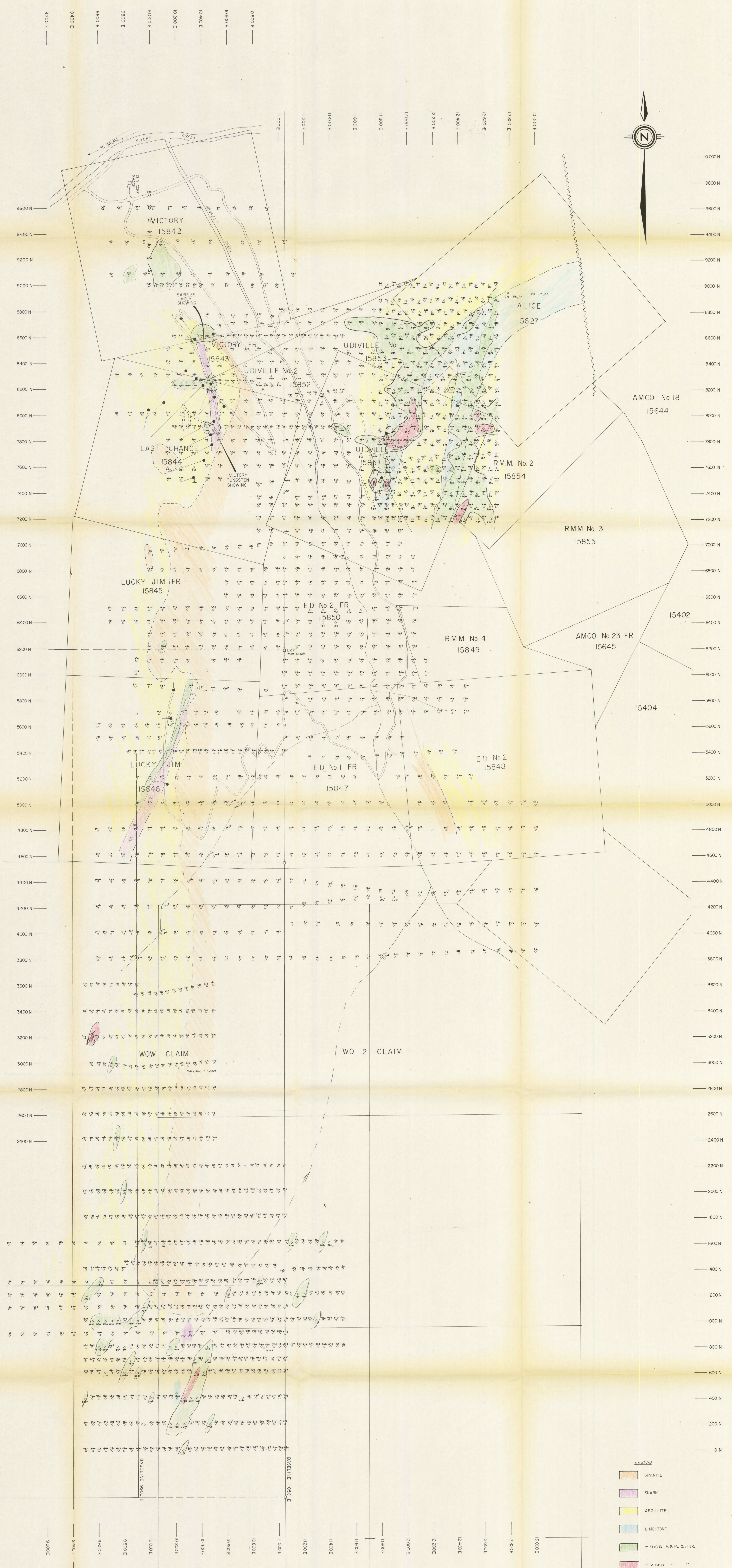




- LEGEND
- GRANITE
 - SKARN
 - ARGILLITE
 - LIMESTONE

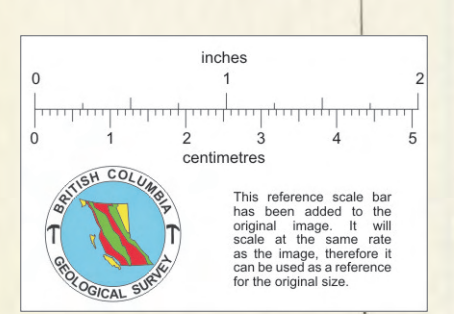


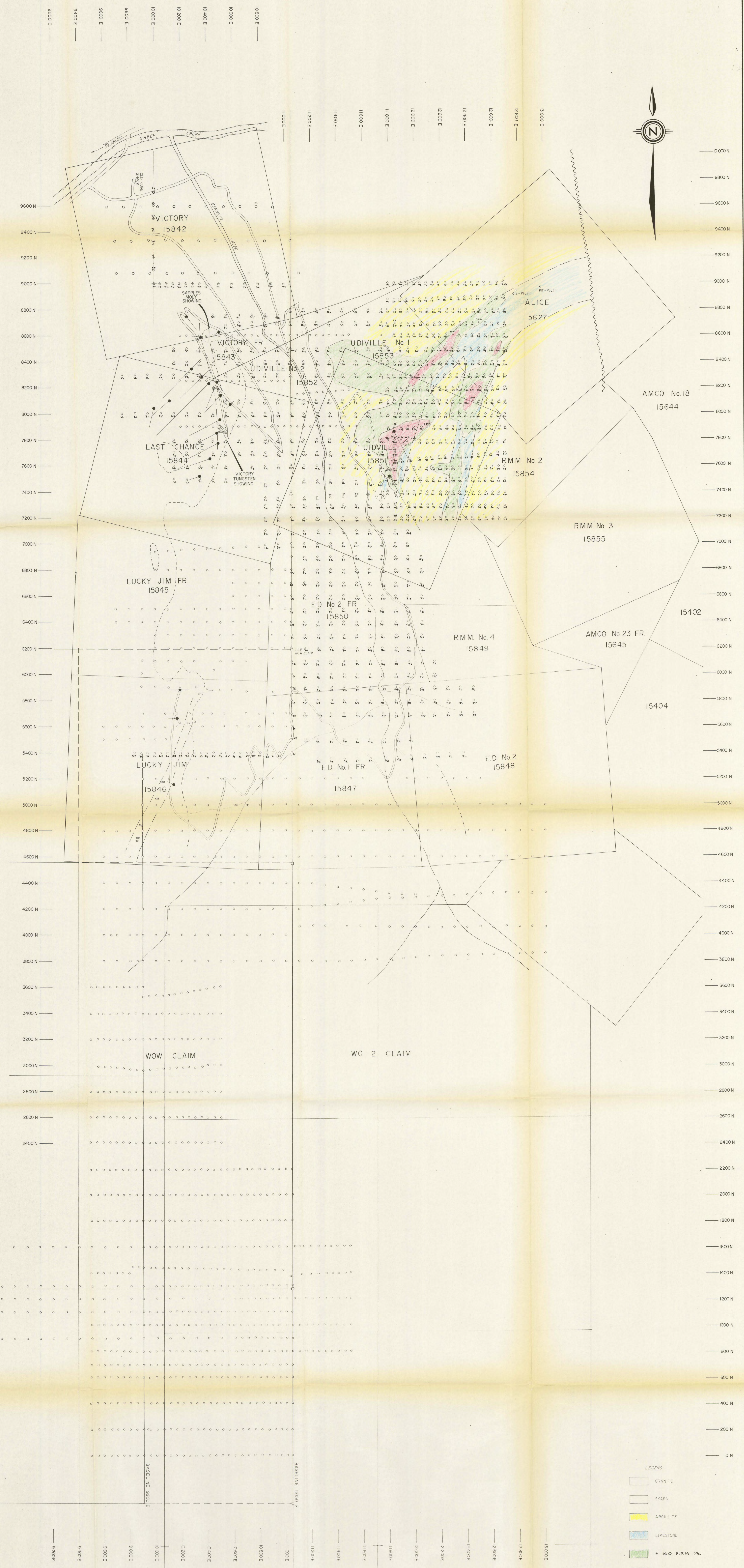
MERV ENGINEERING CORP
VICTORY GROUP
W IN SOILS
DRAWN BY: JWM SCALE: 1" = 200'
DATE: SEPT. 1978 FIG. 4



- LEGEND**
- GRANITE
 - SKARN
 - ARGILLITE
 - LIMESTONE
 - +1000 PPM ZINC
 - +2000 PPM ZINC

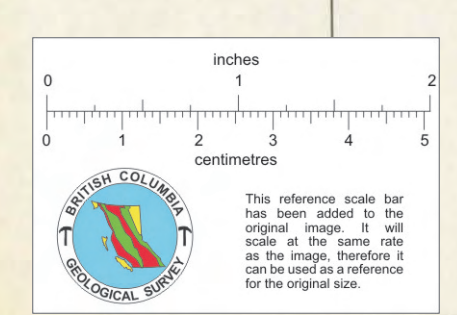
MERV ENGINEERING CORP
VICTORY GROUP
ZINC IN SOILS
DRAWN BY: JWM SCALE: 1" = 200'
DATE: SEPT. 1978 FIG. 5

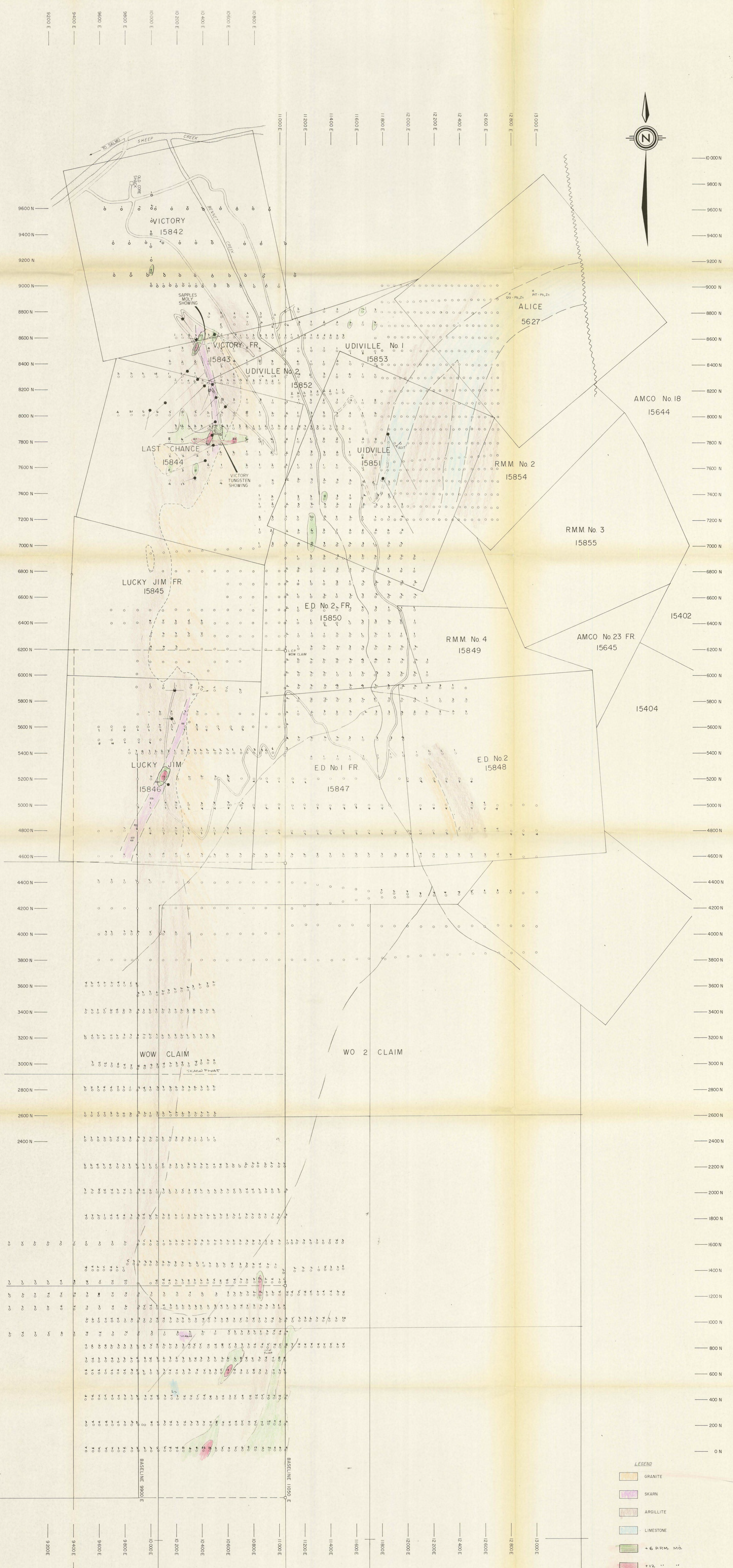




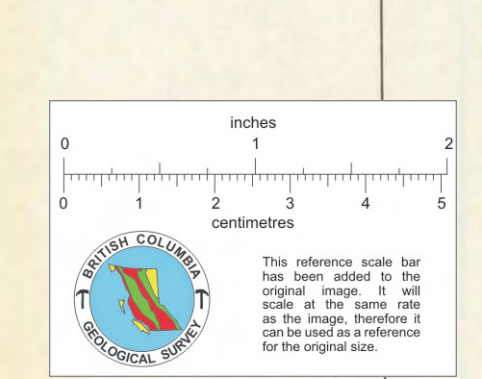
- LEGEND
- GRANITE
 - SKARN
 - ARGILLITE
 - LIMESTONE
 - + 100 P.P.M. Pb
 - + 400 " "

MERV ENGINEERING CORP
VICTORY GROUP
LEAD IN SOILS
DRAWN BY: J.W.M. SCALE: 1" = 200'
DATE: SEPT. 1978. FIG. 6





- LEGEND**
- GRANITE
 - SKARN
 - ARGILLITE
 - LIMESTONE
 - + 6 R.M. MO.
 - + 12 " "



MERV ENGINEERING CORP
VICTORY GROUP
Mo IN SOILS
DRAWN BY: JMM SCALE: 1" = 200'
DATE: SEPT. 1978 FIG. 7