

REPORT ON THE  
UNITED VERDE MINE  
NELSON MINING DIVISION

for

BENSON MINES LTD.

by

John R. Poloni, B. Sc., P. Eng.

June 21, 1978

John R. Poloni and Associates Ltd.,  
5502-8B Avenue,  
Delta, B.C.

7300

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JOHN R. POLONI P. Eng.  
Consulting Geologist

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## 1.0 SUMMARY AND CONCLUSIONS

The United Verde Mine consisting of four crown granted claims is owned by Mr. E.S. Peters. The property is located on Wilson Creek approximately 7.5 miles south of Salmo, B.C. in the Nelson Mining Division.

The main zone of interest is associated with quartz veins and stringers in dolomite, argillite and limy argillite in crushed zones related to a regional thrust fault called the Black Bluff fault. Silver, lead and zinc mineralization has been mined, sorted and shipped in small volumes in the 1920's.

A program of exploration is recommended to run concurrent with surveys on the M.U.T. claims of Benson Mines to the North with costs to be incorporated in that program.

2.0 INTRODUCTION

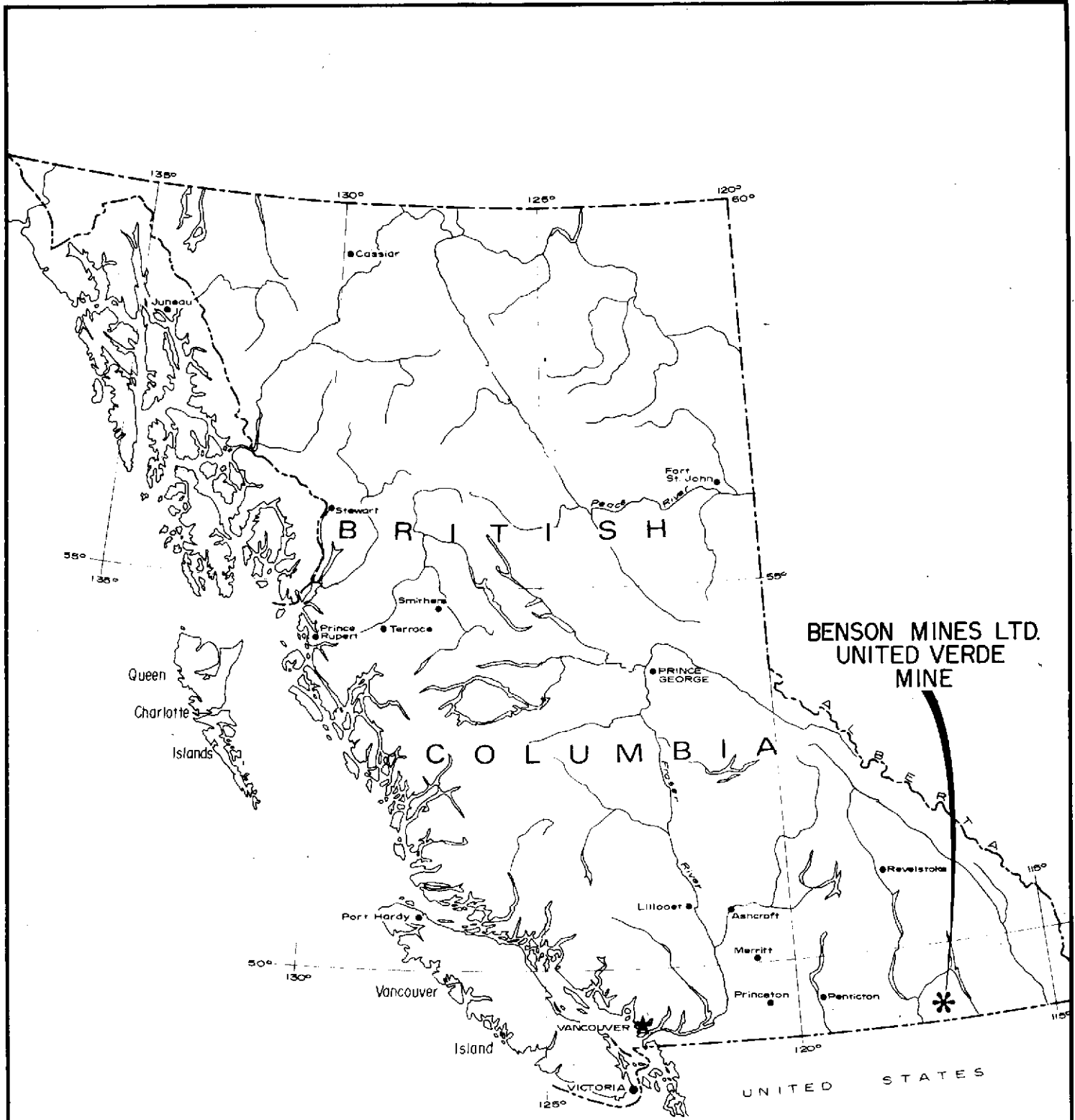
The United Verde mine consisting of four crown granted mineral claims, located in the Nelson Mining Division, is presently owned by Mr. E.S. Peters of 904-885 Dunsmuir St., Vancouver, B.C. Silver, lead and zinc mineralization found in quartz veins, has been mined, sorted and shipped during a development period in 1918.

This report is based on a personal examination of the showings, both surface and underground, on June 17, 1978, and a study of previous reports and government publications.

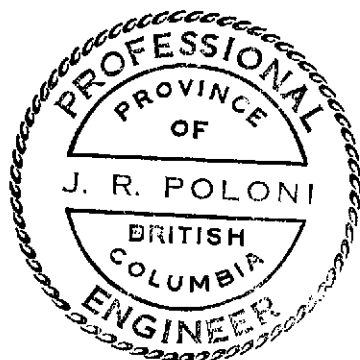
Recommendations are made for preliminary exploration of the claims consisting of geological mapping, trenching, and geochemical soil surveys. This work should be undertaken concurrent with surveys on the M.U.T. claims of Benson Mines immediately to the north and in part enveloping the United Verde mineral claims.

LOCATION MAP

Fig. #1



**BENSON MINES LTD.  
UNITED VERDE  
MINE**



<b>BENSON MINES LTD. (N.P.L.)</b>		
<b>UNITED VERDE PROPERTY LOCATION MAP</b>		
NELSON MINING DIVISION		
JOHN R. POLONI & ASSOCIATES LTD.		
DRAWN: J.R.P.	CHECKED BY: J.R.P.	PLAN No.
SCALE: 1" = 136 Miles	DATE: June 28, 1978	1.

### 3.0 LOCATION AND ACCESSIBILITY

The claims are located on the south arm of Wilson Creek about 7.5 miles (12 kilometers) south of Salmo, B.C. Fig. 2. Elevations range from 3,000 to 4,000 feet above sea level, with the workings being located on the westerly slope of Lost Mountain.

The property is accessible by road, south from Salmo along Highway #3 to the south Salmo River for 9 miles, then easterly along the river for 2 miles to Lost Creek. A 4-wheel drive road leads northerly towards the M.U.T. claims where a branch road to the south branch of Wilson Creek leads to the United Verde claims. At present, the final mile to the workings is via a blazed trail, which could be easily upgraded for passage by 4-wheel drive vehicles.

The N.T.S. Map reference is 82 F/3,<sup>E</sup> Latitude 49°04'N, Longitude 117°13'W.

4.0 CLAIM INFORMATION

The United Verde mine property consists of four crown granted mineral claims in the Nelson Mining Division of British Columbia. Fig. #2. The claims are owned by E. S. Peters of 904-885 Dunsmuir Street, Vancouver. Claims data is as follows:

<u>Claim Name</u>	<u>Lot No.</u>	<u>Acreage</u>	<u>Date of Purchase</u>
Gold Bar	14445	42.55	June 15, 1978
Silver Crown	14444	28.71	June 15, 1978
Silver Bar	14443	43.78	June 15, 1978
Mispickel	14442	42.82	June 15, 1978



## 5.0 HISTORY

### 5.1 PAST HISTORY

The property called the "Southern Belle" was initially staked in 1895 by C. E. Wilson and later acquired by the Trail Mining Co. operated by Joe Rozeck, Calvin Hicks and others. Two working levels were established, the lower level consisting of a cross cut for 137 feet and the upper level a cross cut for 136 feet. Drifting on the lower level was undertaken on two quartz veins for a total of 72 feet. A sample across 12 inches of vein material ran: Au-0.02 oz./ton; Ag-4.0 oz./ton; Pb-3.5%; and Zn-1.0%. Work on the upper level amounted to 50 feet of drifting, 20 feet of raise and 31 feet of winze. In the raise 17 inches of vein material assayed: Au-Tr; Ag-2.4 oz.; Pb-6.5% and Zn-1.2%. A few tons of sorted ore were shipped which ran, Ag-27.3 oz.; Pb-30% and Zn-0.8%. (Ref. - British Columbia Minister of Mines Report 1918).

According to the British Columbia Minister of Mines report for 1921 the name of the property was changed to the United Verde Mine.

Two veins having strikes of N50°E and dips from 70-76° to the southeast were cut. The report states, "The principal lead is 15 feet wide between clear well defined walls from which the ore breaks freely. Galena is irregularly disseminated in bunches and stringers throughout the entire width of the lead which is drifted on for 30 feet. The drift, widened to the full width of the vein, showed mineralization throughout, with ore in both faces. A sample across 15 feet gave:

Gold 0.08 oz.; silver 12.9 oz.; lead 21.6 percent; and zinc 1.3 percent."

The other vein cut as only a stringer in the cross-cut widened to 30 inches when drifted on for a short distance.

## 5.2 RECENT HISTORY

During 1977, Mr. V. M. Ramalingaswamy, a geologist working on the M.U.T. claims contiguous to the United Verde property, examined the workings, sampled old dumps and veins and mapped the lower adit level. Copies of sample descriptions and assay results are appended. Appendix D. Three samples of vein material picked from the dumps assayed between 1.51-5.83% Pb; 0.17-6.30% Zn and 1.24-4.66 oz. Ag/ton. Two further samples, of vein material taken from the "big" vein and the first vein assayed 5.78% Pb, 2.17% Zn, 3.12 oz. Ag and 0.28% Pb, 5.54% Zn, 0.66 oz. Ag, respectively.

The author visited the property on June 17, 1978, accompanied by Mr. John Mirko, prospector, examined surface showings and dump material and the main lower level adit.

## 6.0 GEOLOGY

### 6.1 REGIONAL GEOLOGY

James T. Fyles and C. G. Hewlett, British Columbia Department of Mines Bulletin No. 41, mapped the stratigraphy and structure of the Salmo Lead-Zinc area. As described by them in 1959, the Salmo area is underlain by late Precambrian and early Palaeozoic sedimentary and metamorphic rocks, Mesozoic volcanic rocks, and late Mesozoic and Tertiary granitic rocks. Generally, the map area is divided into four belts, the Mesozoic volcanic area the most westerly, the Mine Belt, the Black Argillite Belt, and the Eastern Belt. These areas are separated by three eastward and southward dipping regional thrust faults. Granitic masses are later intrusions. Volcanic rocks are found northwest of the Salmo and north of the Pend d'Oreille Rivers. All known major lead-zinc deposits from the Jack Pot to the Reeves MacDonald mines are found in Mine Belt. Lying east of the Mine Belt, the Black Argillite Belt covers an area up to 2 miles wide. The Eastern Belt is separated from the Black Argillite Belt by the Black Bluff thrust fault. Figure 3 shows a simplified picture of the regional geology.

The United Verde mine is underlain by units of the Black Argillite and Eastern Belts consisting of argillite, phyllite, quartzite and minor limestone.

Mineral deposits of interest in the general area include the Molly Mine, the Tungsten King and Dodger, the Jack Pot, the Reeves MacDonald and the H. B. Mine.

## 6.2 LOCAL GEOLOGY

The main area of interest in the United Verde claims is in close proximity to the Black Bluff fault zone where Cambrian rocks have overridden Ordovician rocks.

At the Lone Silver mine about 2 miles south westerly from the United Verde the fault brings dolomite into contact with black argillite. Sulfides containing Au, Ag, Cu, Pb and Zn occur in dolomite, either in quartz lenses or along fractures in dolomite breccia.

From work undertaken by Ramalingaswamy V.M. in 1977 and observations by the author, sulfides appear to occur on the United Verde mine in quartz veins in zones of crushed argillite and argillaceous limestone. These zones of sulfides while appearing to be discontinuous in previous work warrant further exploration.

In view of the favourable geology and the presence of interesting values of silver, lead and zinc on the property a program of exploration is warranted.

## 7.0 RECOMMENDATIONS

The proposed program of exploration consists of a geochemical soil survey, geological mapping and bulldozer trenching.

### 1. Geochemical Soil Survey

A survey grid using a line spacing of 200 feet and station interval of 200 feet is to be established. Soil samples taken will be analysed for lead, zinc and silver.

### 2. Geological Mapping


Geological mapping of all surface outcrops and underground workings is to be undertaken.

### 3. Trenching

Anomalous areas detected by previous work are to be trenched and sampled. The access road from the turn off on the M.U.T. claims to the present workings is to be improved.

8.0 COST ESTIMATE

No cost estimate is to be presented at this time as it is recommended that this work on the United Verde claims be undertaken concurrent with surveys on the M.U.T. claims of Benson Mines Ltd. Program costs can be incorporated with those of the M.U.T. project.

Respectfully submitted,  
  
John P. L. [Signature]  
ENGINEER  
B. Sc., P. Eng.

The seal is circular with a double-line border. The outer ring contains the text 'PROFESSIONAL ENGINEER' at the top and 'BRITISH COLUMBIA' at the bottom. The inner circle contains 'PROVINCE OF' at the top, 'OF' in the center, and 'BRITISH COLUMBIA' at the bottom. The name 'John P. L.' is written across the center in cursive, and the word 'ENGINEER' is printed below the signature.

APPENDIX A

References

REFERENCES

1. James T. Fyles and C. G. Hewlett 1959,  
"Stratigraphy and Structure of the Salmo Lead-Zinc Area", British Columbia Department of Mines Bulletin No. 41.
2. J. H. Montgomery Ph. D., P. Eng., September 3, 1977,  
Report on the M.U.T. Group of Mineral Claims, Nelson Mining Division, B.C.
3. V. M. Ramalingaswamy, March 10, 1978, Report on  
Geological, Physical and Drilling Work, M.U.T. Claims Group, Salmo, B. C.
4. Gerhard von Rosen, P. Eng., January 12, 1978, Progress  
Report on the M.U.T. Mineral Claims, Salmo, B. C.
5. A. E. Weissenborn, Editor, U.S.G.S., Lead-Zinc Deposits  
in the Kootney Arc., Bulletin No. 61, 1970.
6. Minister of Mines Reports for British Columbia 1918,  
1919, 1920 and 1921.
7. H. W. Little, 1959, Tungsten Deposits of Canada.  
Geological Survey of Canada Economic Geology Series  
No. 17.



APPENDIX B

Certificate

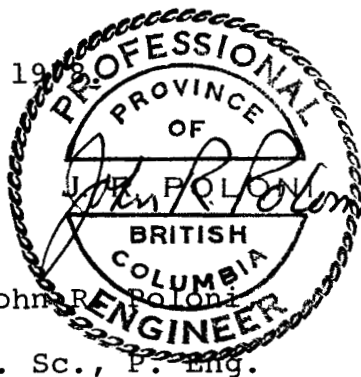
CERTIFICATE

I, John R. Poloni, of 5502 - 8B Avenue, in Delta, in  
the Province of British Columbia,

DO HEREBY CERTIFY THAT:

1. I am a Consulting Geologist.
2. I am a graduate of McGill University of Montreal,  
Quebec, where I obtained a B. Sc. degree in  
Geology in 1964.
3. I am a registered Professional Engineer in the  
Geological Section of the Association of Professional  
Engineers of the Province of British Columbia.
4. I have practiced my profession since 1964.
5. I am a Fellow of the Geological Association of  
Canada and a member of the Canadian Institute of  
Mining and Metallurgy.
6. I have personally visited the United Verde property.
7. I have no interest in the properties or securities  
of Benson Mines Ltd. nor do I expect to receive or  
acquire any.

Dated this 21st day of June 1968



John R. Poloni  
B. Sc., P. Eng.

APPENDIX C

Maps

Fig. #2 CLAIM MAP United Verde

Fig. #3 GEOLOGY MAP United Verde

APPENDIX D

1. Sample Location and Description      Page 19
2. Assay Data                                      Page 20

UNITED VERDE 1977

INITIAL ADIT SAMPLES

<u>Assay No.</u>	<u>Sample No.</u>	<u>Location and Description</u>
61901	U.V. 77-1	5', Easterly open cut on South Wilson Cr.
61902	U.V. 77-2	6', CU. stain crushed zone, minor qtz. ca. veins
	U.V. 77-3	15', Same as above - sample omitted.
61904	U.V. 77-4	3', Vein with CU. Stain.
61905	U.V. 77-5	5', Vein, qtz. & crushed gouge.
61906	U.V. 77-6	4', Vein, same as above.
61907	U.V. 77-7	5', Veinlets of qtz. in crushed argillite.
61908	U.V. 77-8	5', Heavy oxidized fault zone, veinlets qtz.
61909	U.V. 77-9	Banded dolomite at end of 3rd adit.
61910	U.V. 77-10	Samples on dump from big vein.
61911	U.V. 77-11	Dump rock #2 adit portal.
61912	U.V. 77-12	Dump rock #1 adit portal.
61913	U.V. 77-13	4', Big vein, north side.
61914	U.V. 77-14	First X-cut drift on first vein.



UNITED VERDE

# CHEMEX LABS LTD.

2

212 BROOKSBANK AVE.  
NORTH VANCOUVER, B.C.  
CANADA V7J 2C1  
TELEPHONE: 985-0648  
AREA CODE: 604  
TELEX: 043-52597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

## CERTIFICATE OF ASSAY

TO: Capcan Investments  
904 - 845 Dunsmuir  
Vancouver, B.C.

ATTN: Mr. E. Peters

CERTIFICATE NO. 32453

INVOICE NO. 20046

RECEIVED May 18, 1977

ANALYSED May 20, 1977

SAMPLE NO. :	%	%	%	oz/ton	
	Cu	Pb	Zn	Ag	
61901	0.02	0.04	0.09	0.02	
2	0.01	<0.01	0.38	0.08	
4	0.01	0.41	0.82	0.17	
5	0.01	0.14	0.40	0.03	
6	0.03	1.33	0.22	1.03	
7	0.02	0.04	0.36	0.08	
8	<0.01	0.20	0.35	0.13	
9	<0.01	0.01	<0.01	<0.01	
10	0.29	1.51	6.30	1.44	DUMP? JEN MATERIAL
11	0.12	5.83	0.17	4.66	DUMP? " "
12	0.03	1.84	3.53	1.24	DUMP " "
13	0.29	5.78	2.17	3.12	JEN Q12 4/6
61914	0.33	0.28	5.54	0.66	" " "



MEMBER  
CANADIAN TESTING  
ASSOCIATION

*Sen Amadori*  
REGISTERED ASSAYER, PROVINCE OF BRITISH COLUMBIA

APPENDIX E

STATEMENT OF COSTS

UNITED VERDE MINE PROPERTY

Crown Granted Mineral Claims  
(Mispickel-L.14442, Silver Bar-L.14443  
Silver Crown-L.14444, Gold Bar-L.14445)

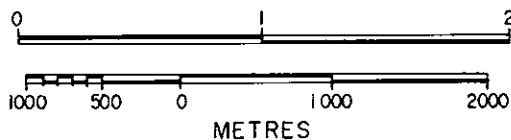
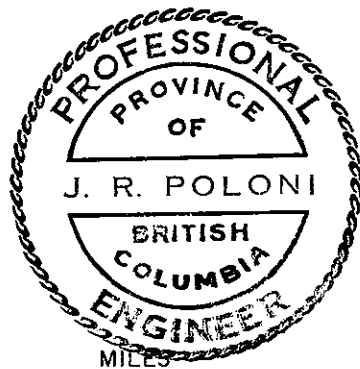
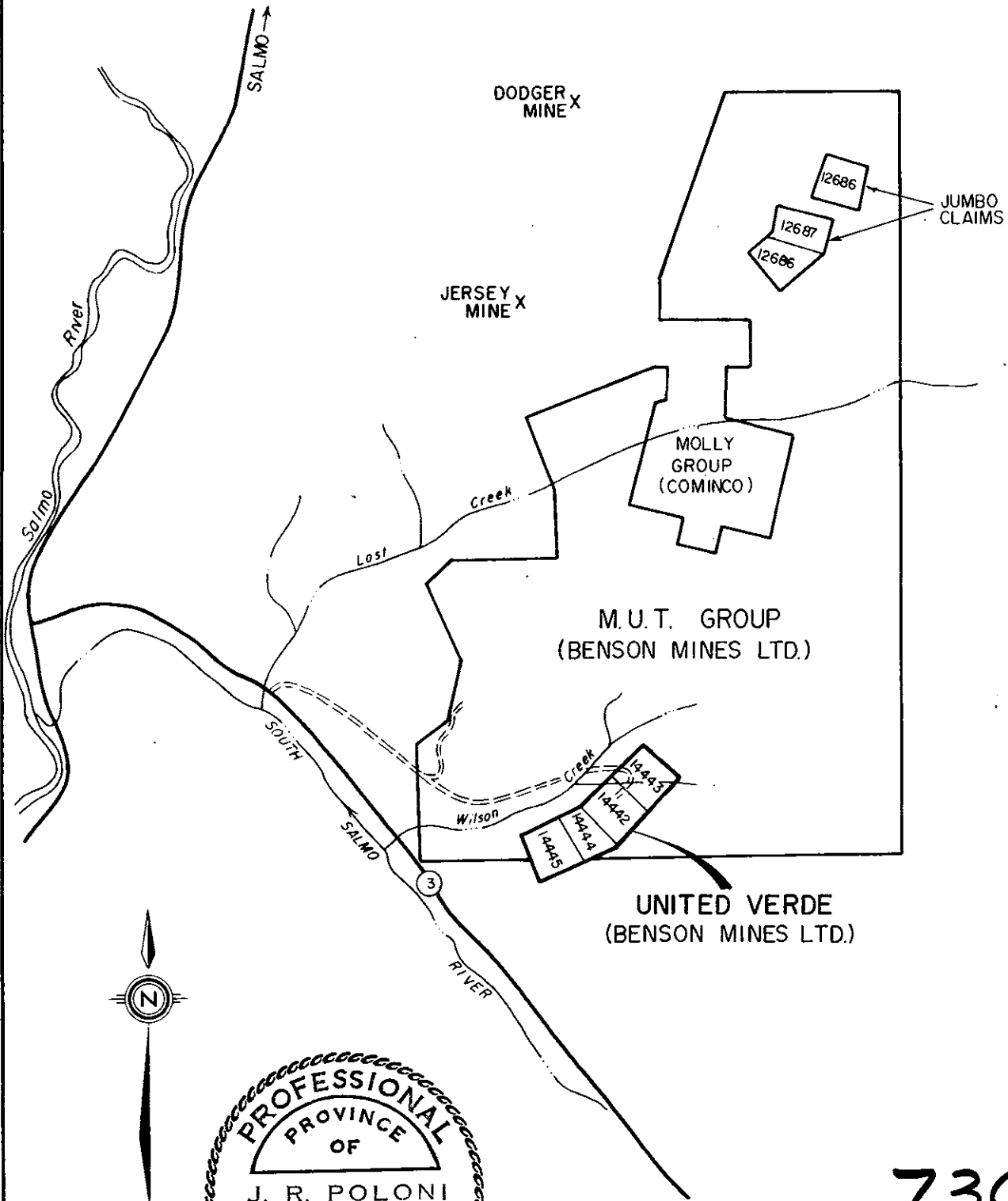
1. Geological Survey  
Consulting geologist (J.R. Poloni)  
17 June 1978 - property visit  
21 June 1978 - report  
2 days @ \$200/day \$400

Assessment Work Apportionment

Value of work \$400

Amount claimed \$400

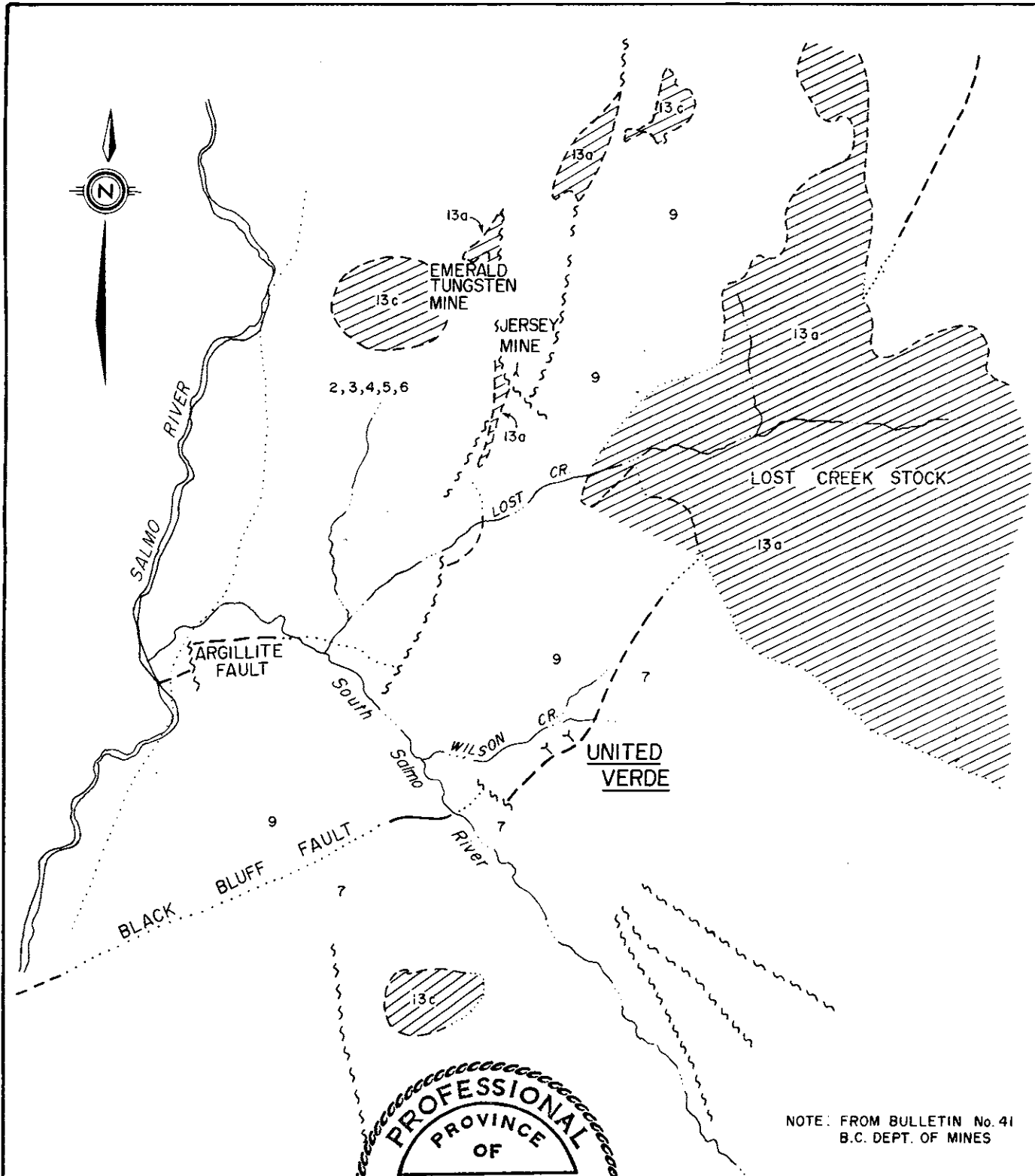
Apply 1 year of work (\$100) to L.14442, L.14443,  
L.14444 and L.14445



7300

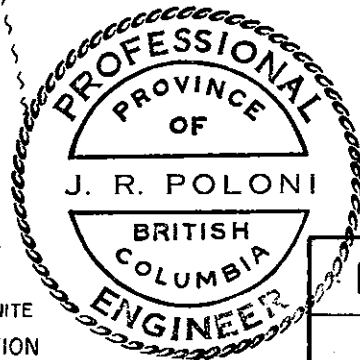
BENSON MINES LTD. (N.P.L.)		
UNITED VERDE CLAIM MAP		
NELSON MINING DIVISION		
JOHN R. POLONI & ASSOCIATES LTD.		
DRAWN: J.R.P.	CHECKED BY: J.R.P.	PLAN No.
SCALE: 1" = 2000'	DATE: June 23, 1978	2





LEGEND

- 13 MESOZOIC INTRUSIVE ROCKS
  - 13a GRANITE
  - 13c AUGITE - BIOTITE MONZONITE
- 9 ORDOVICIAN ACTIVE FORMATION  
BLACK ARGILLITE AND ARGILLACEOUS QUARTZITE.
- 7 CAMBRIAN UPPER LAIB UNDIVIDED  
PHYLLITE, SCHIST, MINOR LIMESTONE
- 6,5,4,3,2 MINE BELT (EASTERN BELT)  
PHYLLITE, ARGILLITE, LIMESTONE  
DOLOMITE, QUARTZITE



NOTE: FROM BULLETIN No. 41  
B.C. DEPT. OF MINES

7300

<b>BENSON MINES LTD. (N.P.L.)</b>		
<b>UNITED VERDE GEOLOGY</b>		
NELSON MINING DIVISION		
JOHN R. POLONI & ASSOCIATES LTD.		
DRAWN: J.R.P.	CHECKED BY: J.R.P.	PLAN No
SCALE: 1" = 2000'	DATE: June 23, 1978	3