3344

GEOLOGICAL REPORT

ON THE

UP GROUP OF CLAIMS

Located 32 miles north-northwest
of Stewart, B. C. (56°17'N, 130°21'W)

Skeena Mining Division, B. C.

by

Victor Ryback-Hardy

November 1, 1971

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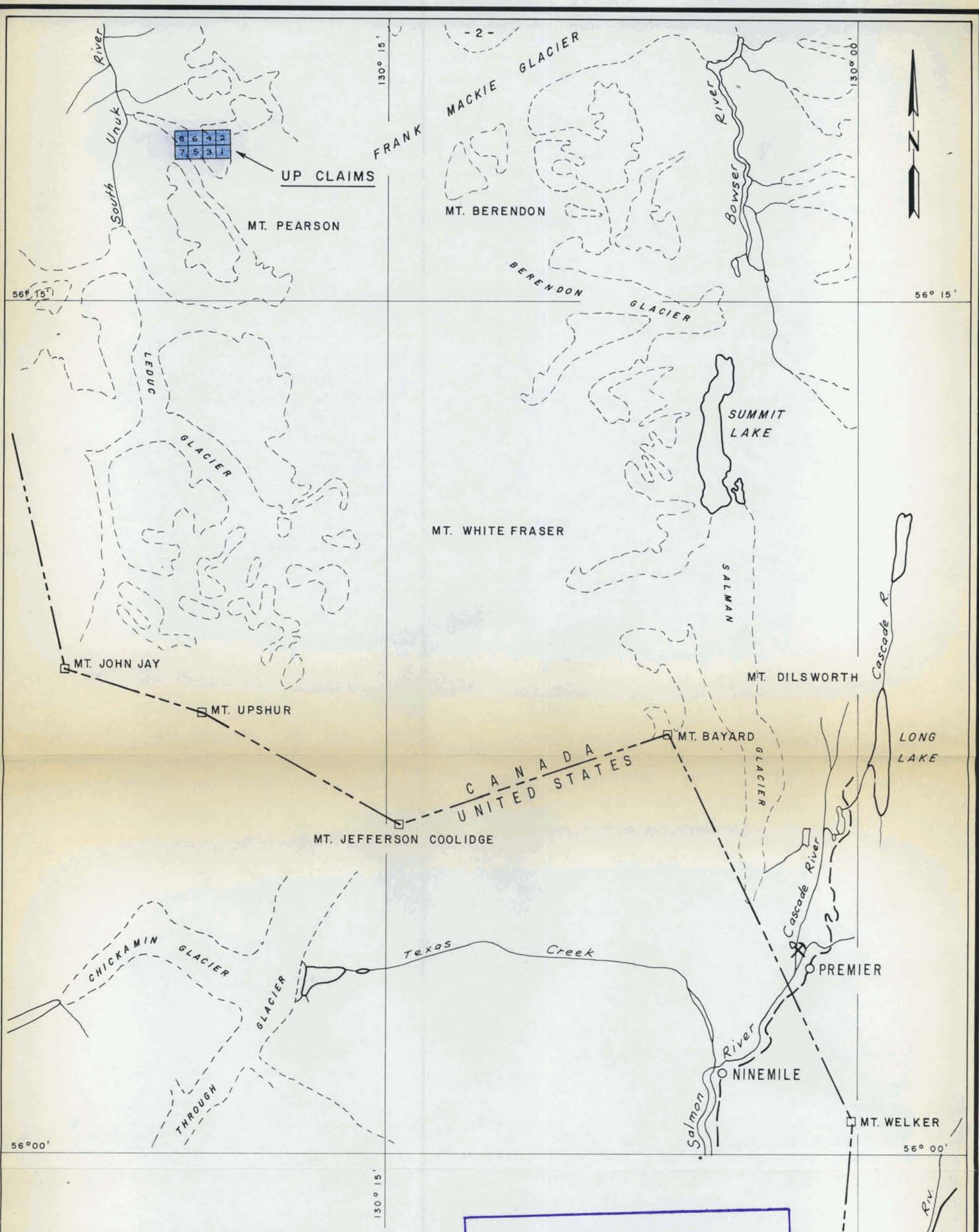
INTRODUCTION

The "Up" group of claims consists of eight continuous claims located two miles east of the South Unuk River and three miles northwest of Mt. Pearson. Between September 17 and September 23, 1971, a crew comprised of one geologist and three field assistants carried out a program of channel sampling and geological mapping. Due to the lack of time caused by the lateness in the season, only the main mineralized zone on Up No. 3 was examined.

SUMMARY

A southwest trending limonite stained zone of silicified dacite tuff containing pyrite and chalcopyrite was traced over an area approximately five hundred feet in length and two hundred and fifty feet in width. Forty-one channel samples were taken on east-west lines spaced at one hundred foot intervals. Each sample, representing a ten foot channel, was assayed for copper and gold by Warnock Hersey International Ltd.

The assay results returned lower values in copper than that estimated from a visual examination of the samples. The best section was encountered along line 100S from 50E to 150E, which represents one hundred feet of continuous channel sampling and averaged 0.40% Cu and 0.01 oz/ton Au. In this section, 20 feet assayed 0.82% Cu.



EL PASO MINING AND MILLING COMPANY

DEL NORTE MINING GROUP

FIGURE I

LOCATION MAP

UP CLAIMS

SOUTH UNUK RIVER AREA, B.C.

DRAWN BY :	K.L.J.	DATE : NOV. 1971		SCALE : 1 INCH = 2 MILES
TRACED BY :		DATE :		
REVISED	DATE	REVISED	DATE	DRAWING No : 104 B 1 - B2

One hundred feet to the south, the channel samples averaged 0.27% Cu over a width of 120 feet, with ten feet averaging 0.56% Cu.

The mineralized zone as outlined at present is too small and the grade too low to be of economic value at present, even though there is a good possibility that the copper mineralization may extend for several hundred feet to the northeast of the sampled area. Further surface exploration is limited by the lack of outcrop and the steep slopes in this area.

CONCLUSIONS AND RECOMMENDATIONS

1. Chalcopyrite mineralization occurs as disseminations and along fractures in a pyritized silicified dacite over an area roughly 450 feet long and 250 feet wide trending northwest.

2. Grades averaging 0.35% Cu and 0.01 oz/ton Au were found over a smaller area 200 feet long and 150 feet wide within the main zone as outlined by the channel sample lines. Higher grade zones up to 0.87% Cu occur within this zone.

3. Similarly mineralized limonite stained rock extends several hundred feet to the northeast of the sampled area and probably contains similar values of copper and gold.

4. The property has been examined by Granduc Mines and Jodee Explorations Ltd. of Calgary did some diamond drilling on the property in 1964. The claims were subsequently allowed to lapse, as the drilling was never recorded for assessment purposes.

5. The work program for 1971 was undertaken too late in the season to allow sufficient time to cover all the claims. The geological mapping should be extended to cover the rest of the claims area.

The following program is recommended:

1. Geological mapping of the area and a compass survey to tie in geology with the claim boundaries.

2. Soil sampling areas of stable overburden on the higher slopes. The soil samples should be taken at one hundred foot intervals at a line spacing of two hundred feet.

OWNERSHIP

The "Up" property comprises eight contiguous claims, Up Nos. 1 to 8, staked by Mr. Robert Wolfe for El Paso Mining and Milling Company on September 11, 1970.

LOCATION AND ACCESS

The property is located thirty miles north-northwest of Stewart, B. C., on an un-named tributary of the South Unuk River. The area is locally known as "Happy Valley". The claims are two miles east of the South Unuk River and five miles north of the Granduc mine site at Leduc.

Access is by helicopter from Stewart, although an abandoned tractor trail follows the Unuk valley from Leduc northward to Divelbliss Creek and passes two miles to the west of the claims.

HISTORY

The area has been prospected as early as 1933 by the McKay Unuk Syndicate, who gained access through Burroughs Bay in Alaska and then travelled along the Unuk valley to the South Unuk. The property was staked in 1954 by Paul S. Pieper Jr., and then restaked by Bob Zielinsky some years later. The property was examined by Granduc Mines and Jodee Exploration Ltd. of Calgary. The latter company undertook a diamond drilling program in 1964, but the work was never recorded for assessment purposes. The claims were allowed to lapse.

In the summer of 1970, Einar Kvaale, a prospector for El Paso Mining and Milling Company, inspected the area and reported copper mineralization in a gossan zone in the area and the claims were subsequently staked by Robert Wolfe for El Paso.

FIELDWORK

The field crew consisted of one geologist, one assistant and two samplers. The accommodations consisted of two 9'x12' canvas "cabin" tents with aluminum frames and one 9'x9' aluminum framed "umbrella" tent. One of the 9'x12 tents was used as the cook tent and cooking was done on a three burner Coleman. Heat was supplied by two Wait infra-red camp heaters mounted on two small propane tanks.

The camp was established on a gravel bench above the glacier.

All personnel and supplies were transported to camp from Stewart by Vancouver Island Helicopters, using a Bell 47G3-B2. Travel time was roughly 40 to 50 minutes each way and four trips were required to move in all personnel, camp equipment and food. Only three trips were required for demobilization.

The fieldwork carried out during September 1971 consisted of 410 feet of channel sampling with each sample representing ten feet. The sampled area was also geologically mapped at a scale of 1" = 50'. Due to the limited time, only a small portion of the claim group was covered. The steep slopes and ice falls also hampered the surface program. Traversing the steep slopes and glaciers was difficult and hazardous and was accomplished with the aid of climbing ropes and crampons.

The main mineralized zone was thoroughly sampled along an east-west grid run with a Brunton compass and a nylon chain. Wherever sufficient rock was exposed, a line of channel samples was cut into the outcrop with a hammer and moil. Each sample represented a ten foot channel length cut continuously across the face of the outcrop along east-west lines, spaced at one hundred foot intervals. The samples were tagged, sent to Warnock Hersey International Ltd., and assayed for copper and gold.

GEOLOGY

The claims are underlain by fragmental volcanic rocks of the

Jurassic Hazelton group. The rocks underlying the mineralized area consist mainly of a massive silicified dacite tuff which grades into a felsitic porphyry to the southeast. Further to the west, highly contorted gneisses and schists outcrop on the steep-sided valley. The contact, however, is covered by the main northwest-flowing valley glacier.

The mineralized zone is visible as a limonite-stained band trending southwest for a length of about 450 feet and 250 feet in width immediately to the northeast of the valley glacier. The zone becomes obscured by overlying glacial debris to the north and west and by steep-sided alpine meadows to the east. The rocks in this zone have been extensively fractured, pyritized and silicified. The main fractures strike southeast and dip 60° to 70° to the southwest. Extensive cross fracturing has resulted in the introduction of calcite and quartz. Alteration consists mainly of calcite and sericite. Very little deformation can be observed as most of the structural textures have been obliterated by intense silicification. Weak foliations strike east-west and dip 65° to the south.

Mineralization consists chiefly of pyrite occurring as disseminations and occasionally as massive 1" to 2" seams along large fractures. Chalcopyrite occurs finely disseminated and along fractures in the silicified dacite host rock. Malachite occurs sparsely. In places, minor galena is associated with calcite in thin stringers along healed fractures. The channel sampling outlined an area roughly

200 feet long and 100 feet wide, in which the average grade was 0.35% Cu and 0.01 oz/ton Au. The highest assay returned 0.87% Cu and 0.02 oz/ton Au over ten feet.

To the south, the silicified dacites grade into a brecciated porphyrytic felsite. The rock is grey brown and contains 1/4 inch to 1/2 inch diameter lath-like phenocrysts of orthoclase in a fine grain silicified feldspar matrix. The content of pyrite and chalcopyrite decreases markedly.

Hand specimens of the porphyritic breccia and the limonite stained silicified dacite were submitted for petrographic analysis and a copy of the petrographic description is appended to this report.

COMMENTS

The zone appears too small to be of economic value. Malachite stained float was found west of the glacier and the source appears to be a metamorphosed greenstone complex higher along the walls of the valley to the southwest across the valley glacier. Coarse galena in quartz veins was found to the northeast along the south side of the southwesterly trending glacier. However, the fact that the ground has been at least partly tested by drilling, after which the claims were allowed to lapse, may be a deterring factor.

Victor Ryback-Hardy

Victor Ryback-Hardy

References:

NMI 104 B/8 Cu4
GSC Map 9-1957
MacDonald's Consultants Mineral Inventory Map 104 B/8W Deposit No. 90

SPECIMENS SUBMITTED SEPTEMBER 1971 TO DR. SIDNEY WILLIAMS DOUGLAS, ARIZONA FOR PETROGRAPHIC STUDY

MEGASCOPIC DESCRIPTION (G. Noel)

UP - 1

Purple syenite porphyry with considerable disseminated pyrite.

UP - 2

Silicified dacite tuff with fair chalcopyrite and pyrite both disseminated and along fractures.

UP - 3

Limonite stained silicified dacite porphyry with disseminated pyrite and chalcopyrite.

PETROGRAPHIC DESCRIPTION (Dr. Sidney Williams)

UP - 1

The specimen originally was a porphyritic felsite; its texture has been slightly modified by epizonal K-metasomatism.

Lath-like orthoclase microlites in the matrix show carlsbad twinning and are randomly oriented. Former matrix plagioclase has been replaced by calcite and sericite which occupy interstitial positions among the orthoclase crystals. Hornblende originally present has also been replaced by calcite. Large orthoclase crystalloblasts are scattered throughout the rock; these show replacement textures against the adjoining matrix. Some checkerboard-twinned albite relics are enclosed in the orthoclase. Euhedral pyrite crystals are clustered in the interstitial calcite and sericite.

Cognate xenoliths have been replaced by coarse, granular orthoclase. Euhedral pyrite crystals are clustered in the interstitial calcite and sericite.

Cognate xenoliths have been replaced by coarse, granular orthoclase.

Mineral percentages are estimated as: albite 4%, orthoclase 71%, calcite 12%, pyrite 6%, sericite 6%, apatite 0.5%, quartz tr., hisingerite tr..

UP - 2

The specimen is a breccia of widely varied rock types, but most are andesites, felsite, etc. Intense epizonal alteration associated with sulfides has particularly affected the matrix.

Plagioclase in the fragments has been replaced by albite, and the calcite and sericite derived from this change vein and replace the matrix. Orthoclase, where it occurs as cataclysts or phenocrysts, shows a small degree of crystalloblastic growth.

Pyrite and chalcopyrite occur in calcite and sericite in the matrix. Pyrite crystals may be rimmed with fibrous quartz normal to its crystal faces.

UP - 3

The specimen was originally a breccia of felsitic and andesitic fragments which later was crushed and healed by minor recrystallization of the feldspars (albite and orthoclase) and minor amounts of interstitial quartz. Some calcite veins were earlier present and were brecciated with the rock. A later episode of weak calcite veining is associated with quartz and pyrite. Pyrite crystals are also strung out as discontinuous stringers in the matrix of the breccia.

TO:

El Paso Mining and Milling Company

500 - 885 Dunsmuir Street

Vancouver 1, B.C.

ATTENTION: Mr. G. A. Noel

Certificate of Assay

WARNOCK HERSEY INTERNATIONAL LIMITED

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

PHONE: (604) 876-4111
TELEX: 04-50353
CABLE ADDRESS: ELDRICO

FILE NO. 461 - 15003

DATE October 5, 1971

We Hereby Certify that the following are the results of assays made by us upon submitted ORE samples

MARKED	GOLD		SILVER	Copper (Cu)					
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
EP - 0858	0.01	$ 0.35		0.06					
EP - 0859	0.01	0.35		0.06					
EP - 0860	0.01	0.35		0.08					
EP - 0861	0.02	0.70		0.20					
EP - 0862	0.02	0.70		0.15					
EP - 0863	0.01	0.35		0.05					
EP - 0864	0.01	0.35		0.19					
EP - 0865	0.01	0.35		0.27					
EP - 0866	0.01	0.35		0.33					
EP - 0867	0.01	0.35		0.51					
EP - 0868	0.01	0.35		0.24					
EP - 0869	0.01	0.35		0.28					
EP - 0870	0.01	0.35		0.23					
EP - 0871	0.01	0.35		0.11					
EP - 0872	0.02	0.70		0.77					

- 10 -

Note. Rejects retained one week.
Pulps retained one month.
Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

186-CW12
UP Property
Rock - Samples

Gold calculated at $ ..... per ounce

..... Provincial Assayer

TO:

El Paso Mining and Milling Company (2)

Certificate of Assay

WARNOCK HERSEY INTERNATIONAL LIMITED
COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION
125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

PHONE: (604) 876-4111
TELEX: 04-50353
CABLE ADDRESS: ELDRICO

FILE NO. 461 - 15003

DATE October 5, 1971

We Hereby Certify *that the following are the results of assays made by us upon submitted* ORE *samples*

MARKED	GOLD		SILVER	Copper (Cu)					
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
		$							
EP - 0873	0.02	0.70		0.87					
EP - 0874	0.01	0.35		0.24					
EP - 0875	Trace	-		0.05					
L 3004 - 100 + 7	Trace	-		0.04					
EP - 1351	Trace	-		0.35					
EP - 1352	Trace	-		0.20					
EP - 1353	Trace	-		0.38					
EP - 1354	0.01	0.35		0.26					
EP - 1355	0.01	0.35		0.51					
EP - 1356	Trace	-		0.26					
EP - 1357	Trace	-		0.22					
EP - 1358	0.01	0.35		0.19					
EP - 1359	Trace	-		0.12					
EP - 1360	Trace	-		0.08					
EP - 1361	Trace	-		0.06					

- 11 -

Note. Rejects retained one week.
Pulps retained one month.
Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at $ ..... *per ounce*

P. Le

..... *Provincial Assayer*

Rock -

TO:

El Paso Mining and Milling Co. (3)

.....

.....

.....

.....

Certificate of Assay

WARNOCK HERSEY INTERNATIONAL LIMITED

COAST ELDRIDGE PROFESSIONAL SERVICES DIVISION

125 EAST 4TH AVE. VANCOUVER 10, B.C., CANADA

PHONE: (604) 876-4111
TELEX: 04-50353
CABLE ADDRESS: ELDRICO

FILE NO. 461 - 15003

DATE October 5, 1971

We Hereby Certify *that the following are the results of assays made by us upon submitted* ORE *samples*

MARKED	GOLD		SILVER	Copper (Cu)					
	OUNCES PER TON	VALUE PER TON	OUNCES PER TON	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.	PER CENT.
		$							
EP - 1362	Trace	-		0.05					
EP - 1363	Trace	-		0.04					
EP - 1364	Trace	-		0.04					
EP - 1365	Trace	-		0.04					
EP - 1366	Trace	-		0.04					
EP - 1367	Trace	-		0.04					
EP - 1368	Trace	-		0.04					
EP - 1369	Trace	-		0.05					
EP - 1370	0.01	0.35		0.56					
EP - 1371	Trace	-		0.06					
EP - 1372	Trace	-		0.09					
EP - 1373	0.01	0.35		0.18					

Note. Rejects retained one week.
Pulps retained one month.
Pulps and rejects may be stored for a maximum of one year by special arrangement.

Unless it is specifically stated otherwise, gold and silver values reported on these sheets have not been adjusted to compensate for losses and gain inherent in the fire assay process.

Gold calculated at $ ..... *per ounce*

P. Lee

..... *Provincial Assayer*

Rock -

Canada

Province of British Columbia

To Wit:

In the Matter of

Wages and cost incurred in a detailed geological survey, UP Claims, Unuk River Area, Skeena, M.D., B.C

SUB-MINING RECORDER
RECEIVED
SEP 23 1971
M.R.# $
VANCOUVER, B.C.

I, H. G. Hester, of Vancouver in the Province of British Columbia.

Do Solemnly Declare that the following wages and costs were directly expended on a geological survey on the UP Claims between September 17th, 1971 and September 23rd, 1971.

WAGES

V. Ryback-Hardy	1 week	September 17 - 23, 1971	@	$800/month =	$ 200.00
M. Moret	1 week	September 17 - 23, 1971	@	525/month =	131.00
J. Noel	1 week	September 17 - 23, 1971	@	500/month =	125.00
J. Ruza	1 week	September 17 - 23, 1971	@	575/month =	144.00
					$ 600.00

TOTAL WAGES	$ 600.00
REPORT PREPARATION	100.00
CAMP COST $6.00/man/day	192.00
HELICOPTER SERVICING	1,000.00
TOTAL	$1,892.00

And I make this solemn Declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath, and by virtue of the Canada Evidence Act.

Declared before me
at Vancouver
in the Province of British Columbia.
this 23rd day of
September A.D. 19 71

H. G. Hester

J. Noel

A Notary Public in and for the Province of British Columbia
A Commissioner for taking affidavits for British Columbia

STATEMENT OF QUALIFICATIONS

The fieldwork on the Up claims was done under the supervision of Victor Ryback-Hardy, whose qualifications are listed below:

Victor Ryback-Hardy, B.A. Sc. - Junior Geologist, El Paso Mining and Milling Company, 500 - 885 Dunsmuir Street, Vancouver, B. C.

(a) Employed by Utah Mining & Construction (1966 - 1968) Summer work as field assistant for geochemical surveys, magnetometer surveys and geological mapping, under the supervision of A. Humphrey, M.J. Young and C.A. Aird.

(b) Employed by Wesfrob Mines Ltd., Tasu, B. C. (Summer, 1969) Engineering assistant for open pit copper-iron mine under the supervision of N.A. Smith, Chief Engineer.

(c) Completed B.A. Sc. (Geological Engineering) at the University of British Columbia (1970).

(d) Employed by El Paso Mining and Milling Company (May, 1970) as Junior Geologist under the supervision of G.A. Noel.

UP No. 6

UP No. 4

UP No. 5

UP No. 3

0

100 E

200 E

300 E

STEEP GRAVEL BANK

OLD 1964 D.D.H.

FINE GRAIN HIGHLY SIL. ALT. TUFF.

0.06%

0.06%

3

0.08%

0.20%
0.15%
0.05%
0.19%
0.27%

65

L 00 S

MINOR Pb S

HIGHLY MINERALIZED FRACTURE

0.06%

HIGHLY PYRITIZED

0.56%

0.18%

0.09%

70

SMALL FINE GRAIN AND. DYKE WITH 1/8" STRINGERS OF Cpy IN FRACTURE

L 100 S

0.24% 0.23% 0.28% 0.51% 0.33% 0.72%

0.11% 0.87% 0.24%

60

0.35%

No OUTCROP

ALPINE MEADOW

ALT. TUFF MASSIVE FINE GRAIN FRAG VOLCANICS HIGHLY SIL. 1/2" - 1" LATHS OF FELDSPAR DISSEMINATED Py. Cpy.

STEEP GRAVEL BANK

0.05% 0.20% 0.38% 0.26% 0.51%

0.26% 0.22% 0.19% 0.12%

SPARSE MALACHITE

L 200 S

SLOPE 40°-50°

3

FINE GRAIN HIGHLY SIL ALT. TUFF

GLACIER

0.08% 0.06%

0.05% 0.04% 0.04% 0.04% 0.04% 0.04% 0.05%

L 300 S

BASE LINE

2

GREY PORPHYRITIC ROCK WITH RECTANGULAR LATHS OF FELDS. BRX

DARK GREY BASIC DYKE 6'-7' WIDE WITH 3' INCLUSION OF FELD. PORPH.

85

1

PbS IN 1/2" - 1/4" STRGR. OF QTZ.

ICE FALLS

LEGEND

- 3 — SILICIFIED DACITE TUFF
- 2 — PORPHYRITIC TUFF
- 1 — BASIC DYKE
- COPPER MINERALIZATION
- 70 — FOLIATION, STRIKE & DIP
- 60 — FRACTURE, STRIKE & DIP
- OUTCROP
- CONTACT
- GRADATIONAL CONTACT
- EDGE OF GRAVEL BANK
- [0.24% — 10' CHANNEL SAMPLE, % Cu

M-2

3344

TO ACCOMPANY GEOLOGICAL REPORT BY V. RYBACK-HARDY ON THE UP CLAIMS, SOUTH UNUK RIVER, SKEENA MINING DIVISION, DATED NOVEMBER 1st, 1971

Victor Ryback-Hardy

FIELD WORK BY V. RYBACK-HARDY, SEPTEMBER 1971

EL PASO MINING AND MILLING COMPANY
DEL NORTE MINING GROUP

MAP No. 1

GEOLOGY

UP CLAIMS

SOUTH UNUK RIVER AREA, B.C.

DRAWN BY : V. R.-H.	DATE : OCT. 1971		SCALE :	1" = 50'
TRACED BY : K.L.J.	DATE : NOV. 1971			
REVISED	DATE	REVISED	DATE	DRAWING No. : 104 B 1 - B1