

LOG NO: 09-20	RD.
ACTION:	
FILE NO:	

1990 Assessment Report  
on the  
NIGHTOUT CREEK PROJECT  
(Gran 15 Claim)

**RECEIVED**  
SEP 18 1990  
Gold Commissioner's Office  
VANCOUVER, B.C.

Liard Mining Division

N.T.S.:104G/14

Lat:57 42'N

Long: 131 17'W

For: Equity Silver Mines Limited  
Suite 13 - 1155 Melville Street  
Vancouver, B.C.

By: Canamera Geological Ltd.  
Suite 14 - 1155 Melville Street  
Vancouver, B.C.

V6E 4C4

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**20,293**

September 10, 1990

William J. Dynes

TABLE OF CONTENTS

	Page
<i>SUMMARY</i>	4
<i>1.0 INTRODUCTION</i>	
1.1 <i>Location and Access</i>	5
1.2 <i>Claim Status</i>	5
1.3 <i>Physiography</i>	6
1.4 <i>Exploration History</i>	6
1.5 <i>Present Work</i>	7
<i>2.0 REGIONAL GEOLOGY</i>	7
<i>3.0 PROPERTY GEOLOGY</i>	8
<i>4.0 GEOCHEMISTRY</i>	9
4.1 <i>Rock Samples</i>	9
4.2 <i>Soil Samples</i>	10
4.3 <i>HMC Sample</i>	10
<i>5.0 CONCLUSIONS</i>	11
<i>6.0 REFERENCES</i>	12
<i>7.0 STATEMENT OF COSTS</i>	13
<i>APPENDIX I</i> <i>Analytical Results</i>	
<i>APPENDIX II</i> <i>Sample Summary</i>	
<i>APPENDIX III</i> <i>Statement of Qualifications</i>	

TABLE OF FIGURES

<u>Figure</u>	<u>Follows</u>
1. Location Map	5
2. Claim Map	6
3. Regional Geology Map	7
4. Property Geology and Sample Location Map	11

**SUMMARY**

The Gran 15 property is located in the Stikine region of British Columbia. The property consists of one mineral claim (Gran 15) totalling 18 units and is owned by Equity Silver Mines Limited.

This report documents work carried out on the property during the period June 11 to June 13, 1990. Exploration involved geological mapping and sampling, as well as the collection of a bulk geochemical silt sample from the main drainage of the property. A sample of the sediments from the property's main drainage is anomolous in gold and warrants followup.

## 1.0 INTRODUCTION

### 1.1 Location and Access

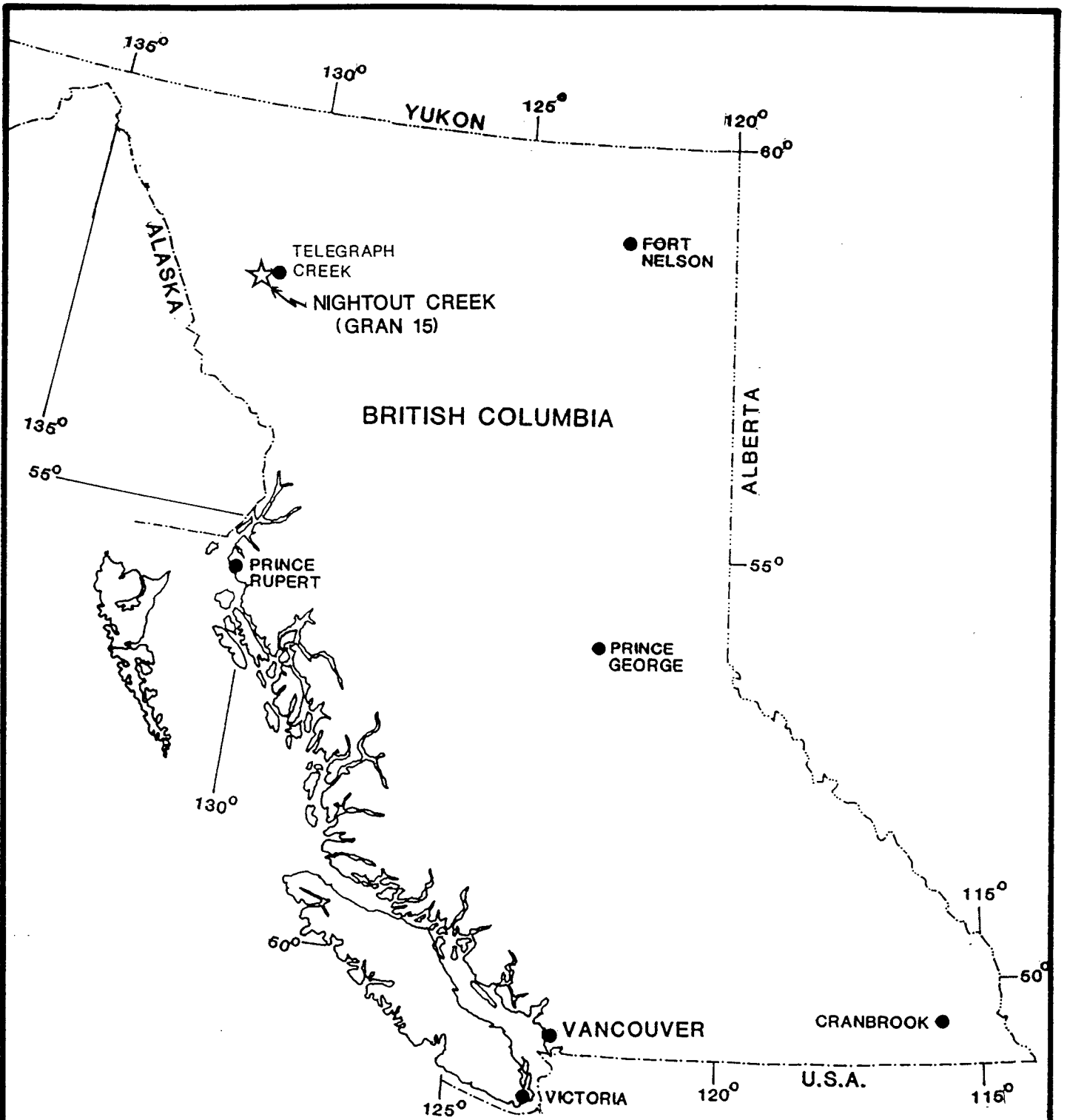
The Gran 15 property is located in the Stikine region of northwestern British Columbia approximately 73km South-southwest of the village of Telegraph Creek (Figure 1.1). The claim is centered at  $57^{\circ}42'N$  latitude and  $131^{\circ}17'W$  longitude on NTS map sheet 104G/14, just north of Nightout Mountain.

Access to the property is via helicopter from Telegraph Creek, which is connected to Dease Lake by an all-weather road and serviced by fixed-wing flights from Smithers, B.C.

### 1.2 Claim Status

The Gran 15 property consists of one mineral claim (Gran 15) totalling 20 units. The claim recorded on June 28, 1988 is owned by Equity Silver Mines Limited.

<u>CLAIM</u>	<u>UNITS</u>	<u>RECORD#</u>	<u>RECORDING DATE</u>	<u>EXPIRY DATE</u>
Gran 15	20	4672	June 28, 1988	June 28, 1991



<b>EQUITY SILVER MINES LTD.</b>			
<b>GRAND CANYON PROJECT, B.C.</b>			
NIGHTOUT CREEK (GRAN 15)			
<b>LOCATION MAP</b>			
<i>Drawn</i> KMc	<i>Date</i> Aug.'90	<i>N.T.S.</i> 104 G	<i>Figure</i> 1
<i>Canamera Geological Ltd.</i>			

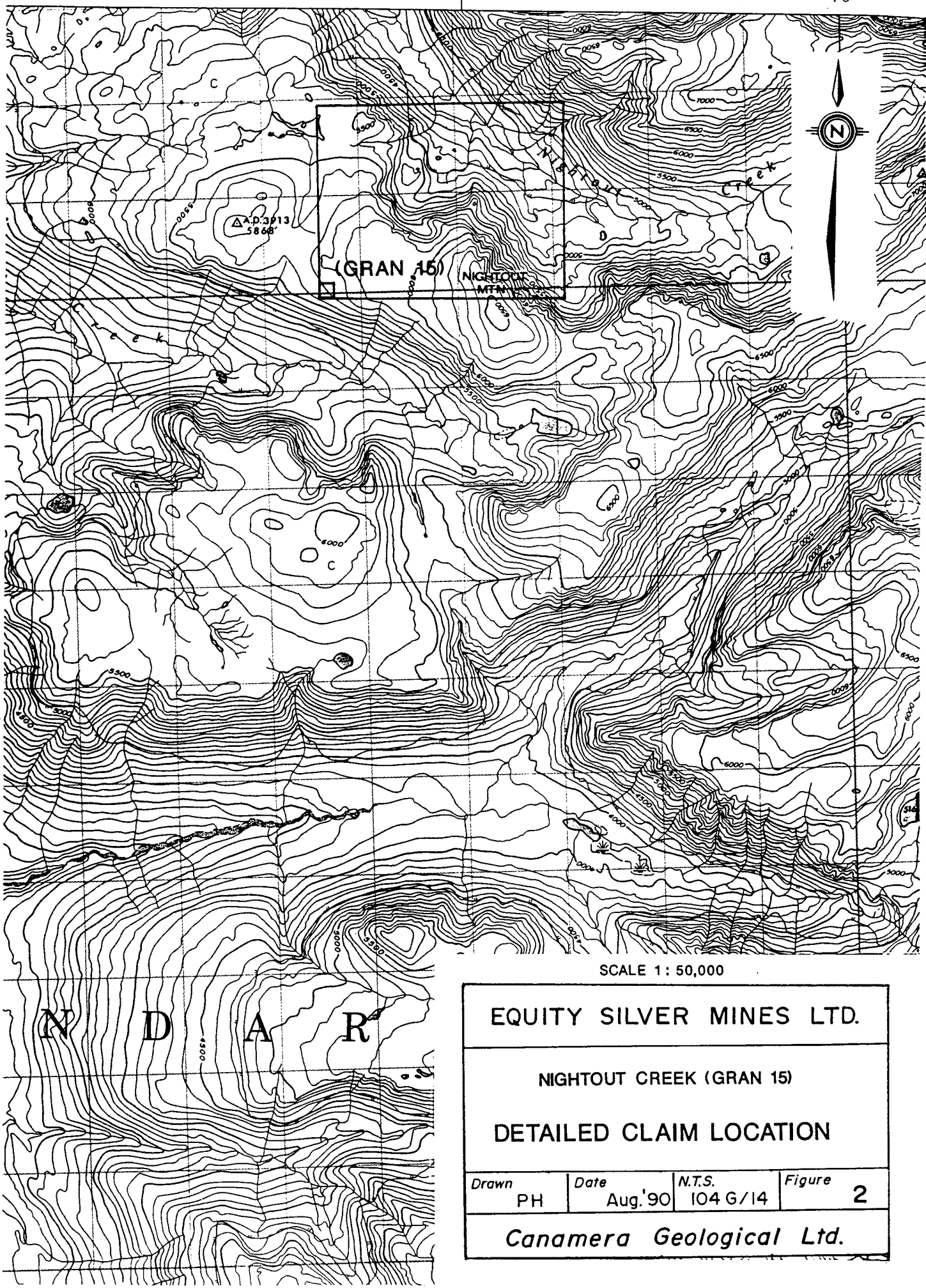
### 1.3 Physiography

The Gran 15 claim occupies moderately rugged topography north of Nightout Mountain. Elevations range from 800 meters to 1700 meters. Treeline is at approximately 1375 meters with growths of spruce and minor balsam below this.

### 1.4 Exploration History

Kerr (1948, pg. 74) describes a showing on Nightout Mountain, in the area of an orthoclase granodiorite. Exposed in a prospect pit the showing consists of a shattered zone in the granodiorite, filled with pegmatite, the latter composed largely of quartz and orthoclase, with bornite and chalcopyrite locally filling fractures in the quartz. The thickness of the zone appears to range from a few inches to 1 foot, and possibly 5% of the total is mainly bornite.

In 1973, a program of geological mapping and rock sampling was carried out on the B and BM claims owned by Bart Mines Ltd. The claims overlie part of what is now the Gran 1 claim. During their work program, several mineralized zones consisting of chalcopyrite filled fractures and a 15 centimetre wide quartz-bornite vein were discovered (B.C. Assessment Report #4717). These showings were not visited during the current work program due to heavy snow cover.



SCALE 1: 50,000

N D A R

EQUITY SILVER MINES LTD.			
NIGHTOUT CREEK (GRAN 15)			
DETAILED CLAIM LOCATION			
Drawn PH	Date Aug.'90	N.T.S. 104 G/14	Figure 2
Canamera Geological Ltd.			



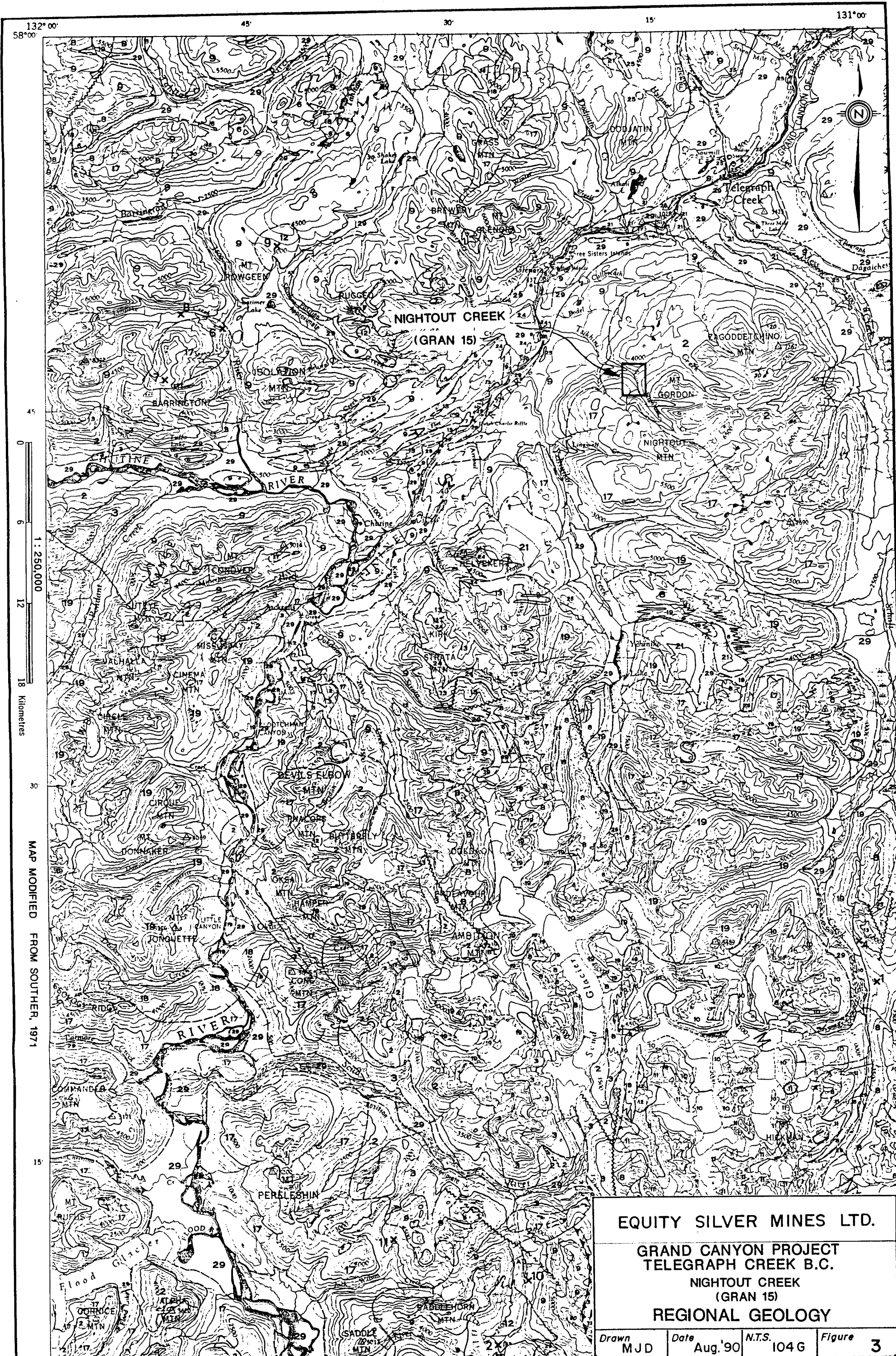
In 1989 Homestake explored the adjoining ground to the north east. Geological mapping and sampling located several mineralized quartz veins. Further work was recommended.

### **1.5 Present Work**

The present work explored for precious metal mineralization over a limited area of the claim. Geological mapping was done at a scale of 1:10,000 and 7 rock samples were taken from exposures encountered. A screened bulk heavy mineral concentrate sample was taken from the main drainage of the property, Nightout Creek. Two soil samples were taken below and flanking a pyritic chert exposure.

### **2.0 REGIONAL GEOLOGY**

The property lies on the boundary between the Coast and Intermontane tectonic belts. This area is underlain by rocks of the Stikine Terrane (Stikinia) consisting of Paleozoic schists, phyllites and greenstones of the Stikine Assemblage, Mid to Upper Triassic sedimentary and volcanic rocks of the Stuhini Group (Kerr, 1948), and Late Cretaceous to Tertiary continental volcanic arc assemblages of the Sloko Group (Logan and Koyangi, 1989).



EQUITY SILVER MINES LTD.

GRAND CANYON PROJECT  
 TELEGRAPH CREEK B.C.  
 NIGHTOUT CREEK  
 (GRAN 15)  
 REGIONAL GEOLOGY

Drawn MJD	Date Aug. '90	N.T.S. 104 G	Figure 3
--------------	------------------	-----------------	-------------

Three stages of plutonism are recognized in the area. The Hickman batholith is composed of Early to Middle Triassic quartz diorites and Middle Jurassic quartz monzonites. The third series of intrusive rocks are alkalic, generally syenitic, rocks of Early Jurassic age. These Early Jurassic rocks are associated with mineralization in the area, including the Galore Creek and Schaft Creek porphyry deposits.

These rocks have undergone multiple stages of deformation, forming a complex structural pattern which is complicated by large differences in the competence of the different units. North and northwesterly-trending normal faults are dominant with narrow west-trending extensional fault zones postdating them (Souther, 1972).

The most economically important exploration targets are porphyry copper-gold-silver deposits and peripheral mesothermal and shear zone-hosted precious metal veins (Logan et al, 1989).

### 3.0 PROPERTY GEOLOGY

The Gran 1 claim straddles the contact between Permian phyllites to the north and a Jurassic and/or Cretaceous (Souther) granodiorite to the south. The present work

investigated the northern part of the claim where Permian greenstones, chlorite schists, and siliceous sediments were encountered. Large scale open folding in the sedimentary-volcanic package is evidenced by the exposure of a north-northeast trending anticline in a cliff face just north of the property (see Fig. 4). Several large, shallow dipping bull quartz veins trend north-north west near the northeast corner of the claim.

#### **4.0 GEOCHEMISTRY**

##### **4.1 Rock Samples**

Seven rock samples were collected from the property and shipped to Loring Laboratories Ltd., of Calgary, Alberta. Thirty element ICP and gold by fire assay was done on each sample, (see Appendix I). Sample locations were marked in the field by pink flagging tape.

Analytical results indicate only background levels of trace element concentrations in the area sampled. Rock samples were taken in the field from any lithology suspected of hosting precious metal values, ie. quartz veins, exposures of sulphides, chert horizons, rusty outcrops etc. Each sample is described in the appendix. Analytical results are also included in the appendix.

#### 4.2 SOIL SAMPLES

Two soil samples were collected from the property. These were taken from a rusty soil horizon on either side and below an exposure of pyritic chert. The samples were placed in kraft bags and shipped to Loring Laboratories Ltd. of Calgary, Alberta for analysis. The samples were fire assayed for gold and analyzed for 31 elements via ICP.

#### 4.3 HMC SAMPLE

A bulk heavy mineral concentrate sample (Dy 6-12A) was taken from the main creek draining the claim, Nightout Creek. Approximately 6 kg. of minus 10 mesh material was taken from the stream bed, placed in a large labeled plastic bag and shipped to Vancouver. Here the samples heaviest fraction was obtained by first concentrating it with a fluidized bed centrifuge followed by hand panning to 2 gms or less. The concentrate was then analyzed by International Plasma Laboratories of Vancouver for its gold content using standard fire assay techniques (see Appendix I). In the appendix, results are reported in :

- i) milligrams of contained gold
- ii) parts per billion gold calculated against the weight of concentrate analyzed (see under wt column).

The bulk heavy mineral concentrate technique is used to overcome erratic sample response caused by the particulate mode of occurrence of eluvial - alluvial environments.

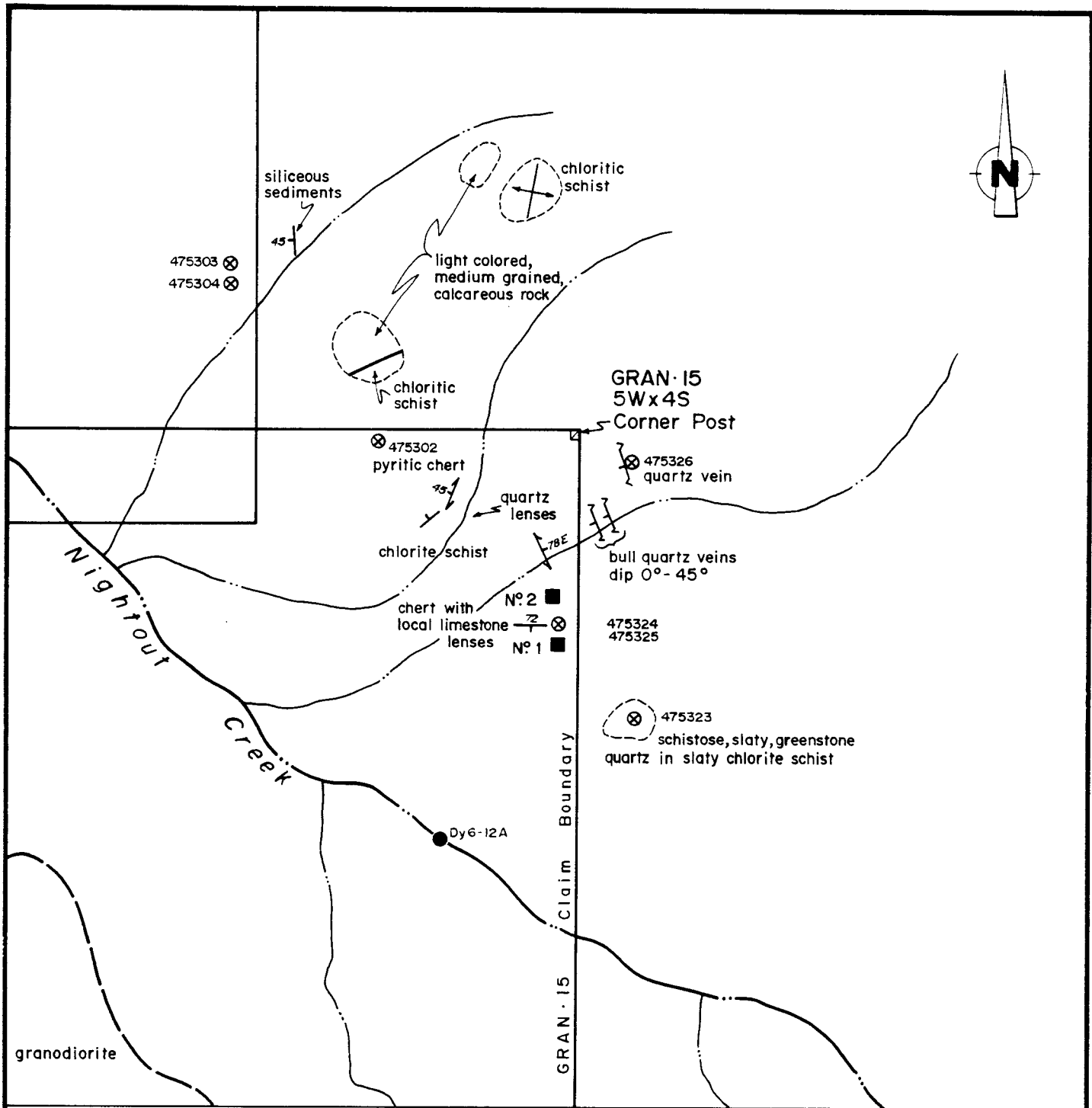
Analysis of sample Dy 6-12A indicates that the bulk sample contained at least 0.051 milligrams of gold. This result warrants followup.

#### **5.0 CONCLUSIONS AND RECOMMENDATIONS**

The northern half of the Gran 15 claim is underlain by Permian sediments and volcanics which have been folded and are too moderately foliated. Geological mapping and sampling of the north east corner of the claim failed to locate any mineralization.

A bulk heavy mineral concentrate sample taken from the main drainage of the claims detected gold in anomalous quantities. Further followup of this sample is warranted.

Geological mapping and sampling should be carried out in the area of the quartz - copper showing described by Kerr (1948 pg. 74) in the southern half of the claims during the latter part of the field season (less snow).



**SYMBOLS**

- soil sample
- ⊗ rock sample
- HMC silt sample
- ↘ vein attitude
- ↗ bedding attitude
- ⊕ anticline
- contact

0 100 200 300 400 500 Metres

**EQUITY SILVER MINES LTD.**  
**NIGHTOUT CREEK PROJECT**  
 LIARD M.D., B.C.

*Geology and  
 Sample Locations*

Scale	1:10,000	Date	N.T.S.	104 G/14
By	Canamera Geological Ltd.			Figure 4

## 6.0 REFERENCES

Brown, D.A. and Gunning, M. (1989): "Geology of the Stikine River Area, Northwestern B.C.", B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Field Work, 1988, Paper 1989-1, pp. 251-267.

Holbek, P.M. (1988): "Geology and Mineralization of the Stikine Assemblage, Mess Creek Area, Northwestern British Columbia.", University of British Columbia MSc thesis.

Kerr, F.A. (1948): "Lower Stikine and Western Iskut River Areas, B.C.", GSC Memoir 246.

Logan, J.M. and Koyanagi, V.M. (1989): "Geology and Mineral Deposits of the Galore Creek Area, Northwestern B.C.", B.C. Ministry of Energy, Mines and Petroleum Resources, Geological Field work, 1988, Paper 1989-1, pp. 269-284.

Souther, J.G. (1972): "Telegraph Creek Map Area, B.C.", GSC Paper 71-44.

McPherson, M. (1989): "1989 Prospecting Report on the Nightout Creek project, Gran 15 Claim", Homestake Mineral Development Company, June 23, 1989



**7.0 STATEMENT OF COSTS**

*Personnel:*

*Prospector @ \$275/day* \$ 275.00

*Assistant @ \$275/day* \$ 275.00

-----  
\$ 560.00

*Analytical:*

*7 rocks @ \$13/sample* \$ 91.00

*silts @ \$11/sample* \$

*2 soils @ \$11/sample* \$ 22.00

*1 HMC's @ \$125/sample* \$ 125.00

-----  
\$ 238.00

*Support:*

*Helicopter 1.3hrs @ \$635* \$ 825.50

*Fuel 130L x \$0.75* \$ 97.50

*Room & Board @ \$115/manday* \$ 230.00

*Communicaton* \$ 35.65

*Freight* \$ 19.90

*Mob-Demob* \$ 500.00

-----  
\$1,708.55

*Equipment Rental:*

<i>Computer 1 day @ \$25/day</i>	<i>\$ 25.00</i>
<i>Trucks 1 day @ \$70/day</i>	<i>\$ 70.00</i>
<i>2 Walkie - Talkies 1 day @ \$25/each</i>	<i>\$ 50.00</i>
<i>2 Field Gear \$15/manday</i>	<i>\$ 30.00</i>
	<i>-----</i>
	<i>\$ 175.00</i>

*Report Preparation:*

<i>Includes typing, drafting and binding</i>	<i>\$ 500.00</i>
----------------------------------------------	------------------

<i>Subtotal</i>	<i>\$3,171.55</i>
<i>15% Admin.Overhead</i>	<i>\$ 475.73</i>
	<i>-----</i>
<i>Grand Total</i>	<i>\$3,647.28</i>

*APPENDIX I*  
*Analytical Results*

GEOCHEMICAL ANALYSIS CERTIFICATE

Loring Laboratories Ltd. PROJECT 33464 File # 90-2107  
 829 Beaverdam Road N.E., Calgary AB T2K 4W7

SAMPLE#	No	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Mo	Sb	Bi	V	Ca	SP	La	Cr	Mg	Ba	Ti	B	Al	Na	K	U
	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm
SOIL #1	2	56	29	239	1.2	45	22	2285	5.42	18	5	ND	1	27	5	2	2	51	.52	115	18	32	.82	378	171	4	1.95	.01	.05	1
SOIL #2	3	62	23	198	1.2	44	25	1799	6.35	26	5	ND	1	28	1.2	4	2	62	.39	110	16	42	1.01	427	116	7	2.54	.01	.06	1
DAOM #5	2	83	66	162	1.5	24	21	1163	5.69	20	5	ND	2	39	1.4	3	6	56	1.29	105	17	27	1.19	197	103	5	1.51	.02	.07	1
DAOM #6	4	62	23	109	1.3	39	28	988	6.88	16	5	ND	3	49	1.7	2	4	83	.74	110	21	54	1.78	210	107	2	2.22	.03	.06	1
475302	5	10	17	6	1.0	7	1	195	.62	12	5	ND	4	11	1.2	2	2	2	.57	102	16	242	.02	159	101	7	.34	.01	.13	1
475303	1	66	27	30	1.1	21	4	157	1.71	13	5	ND	1	54	1.2	2	3	7	.23	107	14	188	.23	183	101	8	.43	.02	.21	1
475304	2	41	10	85	1.1	30	6	282	2.51	6	5	ND	1	88	1.0	2	2	18	1.34	102	4	173	1.33	44	103	16	.62	.02	.35	1
475305	10	342	669	382	18.4	9	6	112	6.21	73	5	ND	1	6	1.8	142	25	8	.03	101	2	262	.01	56	101	9	.18	.01	.07	1
475306	10	401	378	1878	16.6	13	21	1968	4.40	165	5	ND	1	29	19.2	94	6	8	2.71	118	2	159	1.15	48	101	6	.19	.01	.08	1
475307	2	11	78	78	1.6	5	6	531	2.91	12	5	ND	3	19	1.8	4	2	20	1.41	104	22	93	.64	174	101	13	.72	.04	.13	1
475308	15	2956	1976	1381	17.0	12	11	1027	3.35	110	5	ND	1	16	26.9	71	19	8	.90	106	5	216	.33	53	101	4	.20	.01	.08	1
475309	1	9	63	59	1.3	8	9	550	2.50	12	5	ND	9	108	1.6	2	2	23	3.20	104	24	79	.98	1098	101	6	.44	.02	.17	1
475310	14	322	604	123	6.5	17	31	506	9.55	18	5	ND	1	6	1.7	2	8	40	.06	105	2	262	.82	18	101	3	.92	.01	.02	1
475311	1	65	363	276	1.6	34	14	2211	4.67	110	5	ND	2	161	7.5	2	2	92	12.12	103	3	67	5.04	12	101	6	.34	.01	.01	1
475312	17	276	2234	1373	17.1	18	5	1548	1.80	151	5	ND	1	40	62.0	151	4	9	2.52	103	2	96	.43	14	101	6	.12	.01	.05	1
475313	20	341	4422	463	16.7	21	8	3078	4.12	141	5	ND	1	161	13.2	175	2	37	10.55	104	2	56	4.15	261	101	5	.11	.01	.04	1
475314	1	68	2365	861	11.5	45	23	3162	5.23	39	5	ND	1	79	15.4	21	4	131	17.38	119	4	38	1.64	158	101	4	.19	.01	.06	1
475315-16	4	1034	22722	2951	199.2	27	12	3122	4.94	129	5	ND	1	111	82.7	393	2	66	11.85	108	2	51	3.62	211	101	6	.13	.01	.04	1
475317	1	53	243	166	1.4	30	14	2057	4.87	14	5	ND	1	136	5.7	2	3	93	16.13	1025	4	46	4.29	43	101	2	.30	.01	.01	1
475318	5	75	850	237	10.5	32	12	2990	4.31	20	5	ND	1	102	4.5	26	2	73	8.53	1025	2	69	2.51	262	101	2	.22	.01	.09	1
475319	7	16	131	99	1.3	31	21	1935	5.11	18	5	ND	1	107	2.3	2	2	17	10.07	114	2	52	3.31	41	101	5	.16	.01	.05	1
475320	47	44	55	42	1.1	13	25	280	32.18	7	9	ND	3	6	1.2	3	6	87	.10	104	2	75	.04	81	101	2	.57	.01	.08	1
475321	10	17	27	3	1.2	11	10	60	12.49	7	5	ND	1	25	1.7	2	2	38	.36	103	2	141	.02	67	101	7	.39	.01	.01	1
475322	3	9	13	2	1.2	7	6	93	2.61	2	5	ND	1	121	1.9	2	2	21	1.76	106	2	182	.02	18	101	5	1.28	.01	.01	1
475323	3	2	15	87	1.3	4	1	1866	3.03	12	5	ND	1	12	1.8	2	2	3	.24	103	31	158	.03	52	103	2	.16	.06	.07	1
475324	1	17	7	27	1.1	10	3	83	2.92	12	5	ND	1	4	1.2	2	2	3	.03	104	2	222	.02	121	101	10	.03	.01	.02	1
475325	2	1	13	17	1.1	4	1	422	1.18	12	5	ND	2	8	1.2	2	3	1	.36	104	32	143	.02	20	101	3	.17	.11	.01	1
475326	5	4	6	2	1.1	7	1	148	.48	2	5	ND	1	1	1.2	2	2	2	.01	101	2	352	.01	11	101	2	.01	.01	.01	1
STANDARD C	18	57	38	131	17.2	67	28	1027	4.04	141	20	7	36	48	18.4	16	21	55	.51	101	36	55	.92	175	103	36	1.97	.05	.13	12

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-NHOS-N2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER. THIS LEACH IS PARTIAL FOR NI FE SR CA P LA CR HG BA TI B V AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM. - SAMPLE TYPE: Pulp

Sample Name	Type	Wt g	Au mg	Au ppb
C30 MP-03	Pan Conc	8.35	0.006	780
C30 MP-04	Pan Conc	10.60	0.005	455
C30 MP-05	Pan Conc	13.50	0.152	>10000
CAN MP-01	Pan Conc	12.90	0.001	60
CAN MP-02	Pan Conc	21.00	0.034	1620
CAN MP-03	Pan Conc	15.20	0.003	170
DAON -05	Pan Conc	19.05	0.059	3090
DY 6-12A	Pan Conc	13.45	0.051	3815
KIRK -000115	Pan Conc	17.50	0.007	380
NC MP-02	Pan Conc	10.20	<0.001	20
NC MP-04	Pan Conc	18.10	0.007	410
SCUD MP-01	Pan Conc	23.45	0.005	205
SCUD MP-02	Pan Conc	19.65	0.056	2850
SCUD MP-03	Pan Conc	26.70	0.007	275
SCUD MP-05	Pan Conc	18.35	0.001	65
STRAT RP-01	Pan Conc	16.00	0.014	880

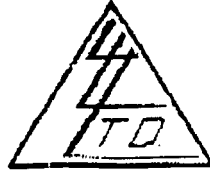
← H.M.C. concentrate

Daon property.

← Nightout Creek

To: EQUITY SILVER MINES LIMITED,  
P.O. Box 13, 1155 Melville Street,  
Vancouver, B.C. V6E 4C4

File No. 33464-SM  
Date June 28, 1990  
Samples Soil & Rock  
Project: Canyon  
Property: Nightout Creek



cc: B. Dynes - Canamera

# Certificate of Assay LORING LABORATORIES LTD.

Page # 1

SAMPLE NO.

PPB  
AU

## Chemical Analysis

475323	NIL
475324	NIL
475325	NIL
475326	NIL
475302	NIL
475303	NIL
475304	NIL
SOIL # 1	NIL
SOIL # 2	NIL

I Heroby Certify that the above results are those  
assays made by me upon the herein described samples....

Rejects retained one month.  
Pulps retained one month  
unless specific arrangements  
are made in advance.

  
Assayer

*APPENDIX II*  
*Sample Summary*

NIGHTOUT CREEK PROJECT

SAMPLE	SAMPLE DESCRIPTIONS
475323	Qtz., coarse. Green-black volcanic host. Select.
475324	Chert, locally rusty, with very minor disseminated pyrite. Chip sample across 3 metres.
475325	Quartzite in hanging wall of Dy 6-12E. Select.
N.O.#1:	Soil sample, rusty B-Horizon.
N.O.#2:	Soil sample, rusty B-Horizon.
475326	Qtz. V., bull. Attitude 160/45W. across .3m.
475302	Chert with 5mm seam of pyrite. Select.
475303	Chert, pyritic.
475304	Chert, pyritic.



*APPENDIX III*

*Statement of Qualifications*

STATEMENT OF QUALIFICATIONS

NAME: Dynes, W.J.

PROFESSION: Geochemist.

TRAINING: Present - Third year Geology  
University of Athabasca.

1988 - Exploration Geochemistry  
University of Washington.

1986 - Hydrothermal Alteration  
University of Idaho.

1985 - Exploration Geochemistry  
University of British Columbia.

1983 - B.C.D.M. Mineral  
Exploration Course, Cowichan  
Lake.

PROFESSIONAL ASSOCIATIONS: Member of Association of  
Geochemists.

Member of the Geological  
Association of Canada -  
Cordilleran Division.

EXPERIENCE: 1987 - Present: Stetson  
Resource Management Corp. Field  
Supervisor for exploration  
programs involving geology,  
geochemistry, and geophysics in  
B.C. and Yukon.

1984 - 1987: Manager of Geo  
P.C. Services Inc. Involving  
geological, geochemical and  
geophysical surveys in B.C.

1975 - 1978: Analytical Chemist  
with Noranda Mines Ltd. Boss  
Mountain Division.